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**METROHARTFORD MILLENNIUM PROJECT:
AN ECONOMIC DEVELOPMENT ACTION AGENDA**

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FINAL REPORT

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THE METROHARTFORD MILLENNIUM PROJECT

EXECUTIVE SUMMARY

The MetroHartford Millennium Project is One of Firsts

- *It is the first time that inclusiveness -- of MetroHartford's cities and suburbs, its businesses, educational, governmental, and cultural diversity -- has been a guiding principle.*
- *It is the first comprehensive economic development plan to ever develop core strategies for the entire MetroHartford region.*
- *It is the first economic development plan for MetroHartford that includes specific Action Steps to implement the core strategies.*
- *It is the first economic development plan for MetroHartford that taps existing public, private, and nonprofit organizations to sign Memoranda of Understanding to implement the specific Action Steps.*
- *It is the first economic development plan that will be acted upon rather than gather dust on the region's shelves. Funding for the Action Steps is included in Strategic Agenda.*

The project is spearheaded by Karl Krapek, president of Pratt & Whitney. He and 28 corporate, business, and civic leaders form the MetroHartford Millennium Steering Committee. Robert Santy of the Connecticut Capitol Region Growth Council, Inc., serves as project manager. The consultant on the project is Mt. Auburn Associates, Inc., an economic development firm with extensive experience. MetroHartford Millennium has been funded by a grant from the U.S. Department of Commerce, Economic Development Administration, and by matching grants from the Hartford Foundation for Public Giving, the Hartford Downtown Council, the Greater Hartford Chamber of Commerce, and the Growth Council.

The Steering Committee identified several key clusters on which to focus: financial services, information technology, health services and management, distribution, precision manufacturing, and arts and tourism. Five Millennium task forces and two cluster working groups, again, comprised of people from public, private, and nonprofit arenas, have addressed a broad spectrum of issues that are critical to the region's future: workforce development; fiscal issues and public policy; land use, transportation, and infrastructure; small business and entrepreneurship; urban neighborhoods; arts and tourism; and precision machining.

Overview

The cities and towns in MetroHartford are not entities unto themselves. Each relies on others for certain basics -- employment sources and employee bases -- in short, for a degree of economic strength. The infrastructure in place allows people and goods to flow from one town to another to support those economies. At the same time, each city and town in the region is unique. Each has its own form of government, political parties, and tax structure.

The first goal of the MetroHartford Millennium Project is to develop an inclusive economic plan that affects not simply specific cities and towns, but each and every municipality in the region, and all the neighborhoods and the people in them. The plan must be creative enough and inclusive enough to cause the municipalities to start to feel ownership in regional outcomes and in the regional economic synergy those outcomes will create. The second goal of the Millennium Project is to develop a Strategic Action Agenda complete with specific Action Steps to achieve those goals while at the same time protecting the uniqueness of the cities and towns it aims to include.

Extensive research and outreach determined four elements that form the basis of the MetroHartford Millennium plan:

- *Vision* -- where the region wants to go;
- *Imperative* -- why we have to act now;
- *Principles* -- the thinking that underlies the strategic directions; and

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- *Barriers and opportunities* -- the competitive strengths and weaknesses that formed the basis for the strategic initiatives.

From these four elements came the five strategic directions of MetroHartford Millennium:

1. Support and strengthen a renewed civic infrastructure to create and sustain economic development at the neighborhood, city, and regional levels.
2. Forge a globally competitive regional economic base that generates quality jobs for all residents.
3. Challenge the region to build a world-class workforce and educational system -- one that prepares all of its residents with the skills needed to succeed in the global economy.
4. Create a vibrant and culturally rich city -- with a vital downtown that serves as a regional arts and entertainment center and strong neighborhoods that provide residents with an improved quality of life.
5. Support regional land use and infrastructure policies and efficient uses of regional resources by promoting cooperative service delivery and reduced reliance on the property tax.

A Commitment to Action

The major shortfall of all the economic development plans that preceded the MetroHartford Millennium Project was that they made no provision for their implementation. One of the main tenets of the Millennium Project is that implementation needed to begin immediately, even before the strategic planning process was completed. To achieve this end, several steps were taken.

- *The entire Millennium Project was organized around implementation from the start.*
- *Detailed actions plans with clear responsibilities and accountability in the form of Memoranda of Understanding are being developed.*

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- *Some implementation activities were started during the planning process.*

By reaching early consensus on certain key initiatives, implementation has already begun on these activities:

- *assisting in the design of the Downtown Higher Education Center;*
- *designing and organizing entry-level training programs to meet the needs of the region's precision-manufacturing firms;*
- *reorganizing the economic development capacity within the City of Hartford;*
- *organizing an oversight group and developing a request for proposals (RFP) for a downtown urban design plan;*
- *helping to improve the state's efforts to market economic development resources to the small-business community; and*
- *developing principles and guidelines for improving the operation of the region's welfare-reform efforts.*

Underlying Principles

The following principles will define our own image of MetroHartford in the future, and guide the development of the Strategic Action Agenda and the work of the Steering Committee:

- *An individual municipality cannot compete successfully for economic activity in a global environment built upon economic regions.*
- *The economic well-being of residents of any community is ultimately linked to the ability of the private sector in that region to thrive and compete successfully in a global arena.*
- *Any regional economic development effort in Connecticut must conform to and adapt to an environment in which each individual municipality retains its unique character and its powers to shape its own development future.*

- *A successful regional economy cannot be sustained with a core city that is not succeeding.*
- *If the city fails, so will the suburbs. As the mayor of Louisville noted: "You can't be a suburb of nowhere."*
- *The City of Hartford and its neighborhoods cannot be revitalized without increased attention to their linkages with the regional economy.*
- *A Strategic Action Agenda must be comprehensive; economic issues are increasingly interrelated, and it is no longer possible to separate economic development, workforce development, and community development activities.*
- *Most of the employment growth and business development will be generated by businesses and entrepreneurs already located in the region. It is more likely for the region to see the addition of 1,000 new jobs from having 100 companies adding 10 workers than from attracting one new company with 1,000 employees.*
- *Build on real competitive advantages -- do not try to be something you are not. The strategic agenda must build on Hartford's strong areas of competitive advantage rather than focus on factors in which the region will never truly achieve competitive advantage in the global economy.*
- *The availability of appropriately skilled labor will be the most important competitive factor in the next five years.*
- *Building new collaborative relationships, trust, and a sense of shared responsibility throughout the region is fundamental to the success of any strategic plan. Cooperative partnerships between business and labor, contiguous town governments, neighborhood and regional organizations, and the public and private sectors, will increase the effectiveness of any economic development strategy.*

Key Competitive Advantages

One challenge in any undertaking as comprehensive as MetroHartford Millennium is to identify the region's strengths and to build upon them. Identifying strengths also requires rigorous testing of assumptions and comparisons to other regions. Each regional asset needs to be evaluated in terms of market realities and compared to similar assets in other locations. Surveys, interviews, and research undertaken as part of the Millennium Project, including comparison of MetroHartford with 29 comparable cities, revealed that the Hartford region has a set of strategic assets that could provide a basis for building a more vibrant economic base. These include:

- *highly educated and skilled workforce;*
- *rich cultural and artistic amenities;*
- *institutions of higher education;*
- *attractive quality of life for young families; and*
- *racial, ethnic, and cultural diversity.*

Barriers to Global Competitiveness

To be truly competitive globally, it is critical that the region address the many barriers that have constrained economic development, including:

- *fiscal and political structures that inhibit cooperative activity;*
- *a decline in corporate engagement and commitment;*
- *limited capacity for economic development;*
- *a growing mismatch between the skills of the residents and the workforce needs of businesses;*
- *the difficulty in recruiting young professionals to the region;*
- *poor perceptions about the overall cost environment and business climate; and*
- *an education and training system that is not meeting the expectations of employers.*

THE STRATEGIC ACTION AGENDA

The MetroHartford Millennium Strategic Action Agenda was developed around a set of guidelines, among which are:

- *balance long-term vision with short-term, achievable steps;*
- *understand that economic development is a long-term process;*
- *engagement and sustained commitment from a broad set of leaders will be the key to successful implementation;*
- *an inclusive process that reflects the diversity of the region is critical to successful implementation;*
- *all players involved must be more accountable for their ability to implement changes and achieve desired outcomes.*

STRATEGIC DIRECTION #1 SUPPORT AND STRENGTHEN A RENEWED CIVIC INFRASTRUCTURE TO CREATE AND SUSTAIN ECONOMIC DEVELOPMENT AT THE NEIGHBORHOOD, CITY, AND REGIONAL LEVELS

The days of the Bishops are long gone. The void left in corporate and business civic leadership must be filled. Moreover, racial and ethnic divisions within the region have further constrained the effectiveness of the "civic infrastructure." It is critical that action be taken to create new, committed leadership in the region that is inclusive of the various constituencies in the region and accountable for their actions. To that end, the MetroHartford Millennium has formulated several Action Steps to create a new era in effective governance.

- ☑ *Create a Millennium Management Group, structured as a standing committee of the Growth Council, to oversee the implementation of the Millennium Action Agenda and establish an informal Advisory Committee to this*

group to ensure representation and accountability among a variety of interest groups within MetroHartford.

The Millennium Management Group will be a facilitator of action. Its role will be to encourage existing organizations that have the capacity to take on new responsibilities and to expand the scale of existing, successful efforts in the region. The Millennium Management Group will enter into Memoranda of Understanding with a wide variety of intermediary organizations within MetroHartford that will be responsible for implementing various components of the Action Agenda.

Other Action Steps under this direction include:

- ☑ *Reorganize city economic development management – include broad-based governance, strong neighborhood representation, and mechanisms to ensure objective, fair, consistent, and timely review of development proposals.*
- ☑ *Begin the process of eradicating racial and ethnic prejudice within the region by sponsoring internal, regional and local "Conversations on Race, Ethnicity, and Culture" in partnership with the national work being undertaken and sponsored by Aetna.*
- ☑ *Enhance regional economic development capacity through the establishment of a Growth Council subsidiary designed to undertake public purpose real estate development projects that are regional or multi-jurisdictional in scope.*
- ☑ *Increase resources and capacity for neighborhood economic development in Hartford by establishing and strengthening collaborative organizations.*
- ☑ *Rebuild the region's image, both internally and externally, through an aggressive education, media, and public-relations campaign.*

STRATEGIC DIRECTION #2

FORGE A GLOBALLY COMPETITIVE ECONOMIC BASE THAT GENERATES QUALITY JOBS FOR ALL RESIDENTS OF THE REGION

Ultimately, the success of the Millennium Project lies in its ability to strengthen the region's employment base and to create a more vibrant, stable, and sustainable economy. To accomplish these goals, the Millennium Project has focused on two approaches. First, support and promote key industry clusters, and, second, create a more positive business environment that is conducive to small business growth, entrepreneurial development, and business investment. A major Action Step to be taken is to

- ☑ *Create the Connecticut River Valley Precision Machining Network (Network), designed to strengthen the region's machining and aerospace industry.*

Research found that precision machining remains one of the most significant economic engines in the regional economy, accounting for close to 10 percent of the jobs in the region. This sector's strength will be a key determinant of the region's economic activity. Several initiatives form the backbone of the Network:

- *entry-level training programs to attract new workers to the industry;*
- *a multi-year apprenticeship program to develop skilled machinists for jobs in manufacturing;*
- *a comprehensive campaign to enhance the image of the industry in the region;*
- *retraining and upgrading for incumbent workers;*
- *a program to encourage and support interfirm collaboration;*
- *technology and management assistance for small- and medium-sized companies; and*
- *a modernization program that will help get companies on a track of continuous improvement.*

Progress has already been made on this Action Step. The Network will start as an informal association under the leadership of industry and the Capitol Region Growth Council. Area business leaders, community-technical college presidents, members of regional boards and associations, government officials, representatives from the state Department of Labor and Department of Community and Economic Development, and the president and staff of the Growth Council have already planned two to three entry-level programs to be offered in early 1998. Several sites have been identified for training, a curriculum is being prepared, a marketing and outreach campaign is being planned and several funding sources have been identified. Low-income residents from Hartford will be recruited to participate in training programs.

Other Action Steps include:

- Establish an Information Technology Research and Development Center in downtown Hartford.*
- Strategically attract distribution-oriented companies to appropriate sites in the region and strengthen existing distribution companies through an industry-led, targeted assistance program.*
- Increase the number of tourists coming to MetroHartford -- through more targeted and coordinated marketing that focuses on the arts and entertainment, strategic investments, and a more tourist-friendly environment.*
- Strengthen the existing entrepreneurial and small business base in the region through increasing access to existing services and filling gaps where services are needed.*
- Support the governor's financial services, technology and healthcare cluster groups and efforts to improve the state's business climate.*

STRATEGIC DIRECTION #3

CHALLENGE THE REGION TO BUILD A WORLD-CLASS WORKFORCE AND EDUCATIONAL SYSTEM -- ONE THAT PREPARES ALL OF ITS RESIDENTS WITH THE SKILLS NEEDED TO SUCCEED IN THE GLOBAL ECONOMY

Fierce domestic and global competition in the last 10 years has forced companies to adopt a number of changes in the way they do business. The result is a dramatically different work environment, one that requires high performance from employees: team work, problem solving, critical thinking, understanding systems, and effective written and oral communication. Employers feel, however, that many employees lack the skills and training needed to perform at higher levels. The three most important systems that prepare individuals for work and careers -- the K-12 public education system, the higher education system, and the employment and training system -- need to do a more effective job at equipping people with higher level skills and tools and with the specific skills needed by MetroHartford employers. To this end, MetroHartford Millennium has formulated the following Action Steps:

- Initiate a process aimed at building an integrated education and training system.*

Building a truly integrated education and training system is a very formidable and long-term undertaking. The current system has been evolving and defining itself for decades. It has its own operating strategies and principles, its own incentives, power bases, and sources of funding. An integrated system does not require a new bureaucratic organization that will complicate an already crowded education and training landscape. The new system can build upon the initiatives and structures in place, but it needs to do that in a more coordinated and deliberate fashion. The first step in the process is to convene a working group under the direction of the Millennium Steering Committee that would prepare a report on system integration that provides a framework for discussion throughout the region.

Other Action Steps to build the region's workforce include:

- ☑ *Support the efforts of the new trustees of the Hartford public school system through new and more coordinated linkages between the business community and the schools.*
- ☑ *Develop workforce skills of youth through effective work-experience programs between small businesses and students.*
- ☑ *Attract young professionals to the region through cooperative recruitment and marketing, as well as by creating an urban environment more attractive to the target market.*
- ☑ *Make the proposed Downtown Higher Education Center a centerpiece of urban learning and corporate training.*
- ☑ *Develop a targeted welfare-to-work system to secure employment for the "hardest to serve" welfare population and enhance the current system for the general welfare population through focusing on job-retention issues.*

STRATEGIC DIRECTION #4

CREATE A VIBRANT AND CULTURALLY RICH CITY -- WITH A VITAL DOWNTOWN THAT SERVES AS A REGIONAL ARTS AND ENTERTAINMENT CENTER AND STRONG NEIGHBORHOODS THAT PROVIDE RESIDENTS WITH AN IMPROVED QUALITY OF LIFE

The City of Hartford effectively defines the MetroHartford region. The communities in the region are largely identified with their central city -- Hartford. The image of the city affects how the entire MetroHartford region is perceived. While Hartford is a city rich in arts and cultural and recreational assets, with strong community organizations working hard to improve conditions, the city has not yet turned around.

In seeking to strengthen the region's core city, the Millennium Project has been guided by three fundamental principles:

1. Creating a healthier city is critical to the success of any regional economic development effort.
2. Turning the downtown around is not sufficient. Attention also needs to be paid to the neighborhoods.
3. On the other hand, the neighborhoods cannot be revitalized without strengthening the city as a whole -- attracting middle-income residents back to live in the city and to spend their money in the city.

The Millennium Project has developed two specific Action Steps to address these needs.

- ☑ *Implement a strategic and comprehensive approach to strengthening downtown Hartford.*

Research has found that certain efforts to promote downtown activity -- Connect the Dots, for example -- have been effective. However, they have not achieved the scale necessary to make the city a vibrant place on week nights and weekends. The number of proposed projects that could be instrumental in turning the downtown around have no system for setting priorities for which capital projects have the greatest potential for implementation and for economic impacts. The efforts of various organizations that have proposed plans for downtown lack coordination among the groups, and no single, focused plan has been developed.

To address these issues, the Millennium Project proposes to sponsor a Downtown Urban Design and Action Plan that develops new and specific urban-design elements and identifies appropriate zoning and land uses. This plan would create a more cohesive downtown in terms of pedestrian experience and image, emphasizing arts and entertainment and promoting downtown housing.

- ☑ *Develop initiatives to stimulate greater housing investment and home ownership in Hartford's neighborhoods.*

Organizations involved in housing development should form a public-private Hartford Housing Partnership to

comprehensively address housing redevelopment needs in the city's neighborhoods. The Growth Council's proposed development subsidiary should form a development venture to finance, develop, and provide incentives for downtown middle-income housing development, targeted particularly to young professionals. The City of Hartford should streamline the management of its housing programs.

STRATEGIC DIRECTION #5
SUPPORT REGIONAL LAND USE AND INFRASTRUCTURE POLICIES AND EFFICIENT USE OF REGIONAL RESOURCES BY PROMOTING COOPERATIVE SERVICE DELIVERY AND REDUCED RELIANCE ON THE PROPERTY TAX

Land-use policy and infrastructure investments within the MetroHartford region need to conform to the overall thrust of the initiatives developed as part of the Millennium Project, among them the need to reestablish the city of Hartford as the region's economic, cultural, entertainment, and sports center. However, making any change in the current system is not possible unless the overall fiscal structure that drives the existing system is addressed. Thus, to move forward, the region needs to address both the cost and revenues that are driving development within the region, as well as the large policy issues. The recommended Action Steps to meet these goals include the following:

- Promote increased collaboration amongst municipalities at the regional level while preserving the unique character of Metro Hartford communities.*

Enhance regional economic development capacity through more cooperative actions among communities. Convene a group of public- and private-sector leaders to review current issues that create barriers to regional economic development and prepare more in-depth recommendations for change to help align municipal, state, and regional initiatives, identify areas of service delivery in which municipalities can attain cost advantages from operating cooperatively, and promote actions to decrease reliance on property tax at the municipal level.

Other Action Steps include:

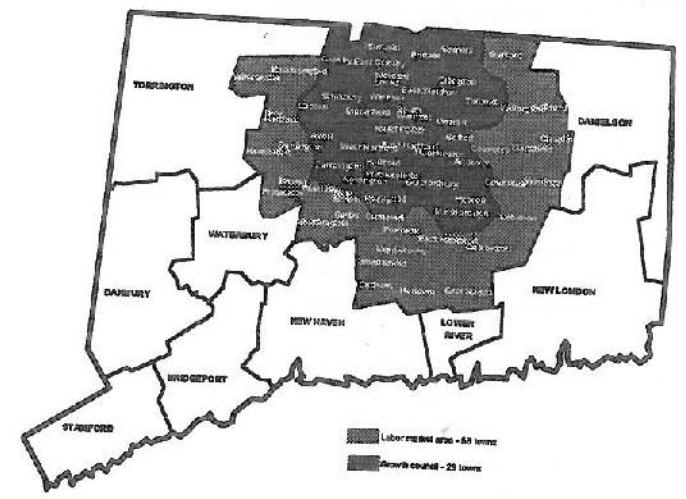
- Develop a Regional Asset District to provide financial support of priority projects in MetroHartford and to provide property-tax relief and equalization in the entire region.*
- Encourage high-density development in the core areas of the region, particularly Hartford, along developing corridors and along corridors that lend themselves to growth to maximize energy conservation, provide public services most cost effectively, minimize sprawl, and balance the region's environmental and economic needs.*
- Encourage the development of a regional transportation system that provides for the efficient movement of goods and people and conforms to the land-use patterns being promoted.*
- Aggressively support and facilitate more extensive and comprehensive public transportation systems in MetroHartford.*
- Support major investments in the region's infrastructure.*

PREFACE

The MetroHartford region is at a critical juncture in its economic history. While the region has gone through many ups and downs in its past, few periods have presented the region with the challenges and opportunities it now faces. The industries that have shaped the regional economy for decades have undergone fundamental changes. And the region has yet to "restructure" -- to build a new economic base to take the place of those industries and companies that have defined the region.

Building A New Collaborative: The MetroHartford Millennium

The MetroHartford Millennium Project was initiated to respond strategically and decisively to these economic conditions. The Connecticut Capitol Region Growth Council, an organization incorporated in 1991 to create and retain jobs within the region, recognized that no community has successfully turned itself around without knowing where it wanted to go and how it was going to get there. *This meant a strategic action plan.* To support such a plan, the Growth Council applied for and received a planning grant from the U.S. Economic Development Administration, matched by funds from the Greater Hartford Foundation for Public Giving, the Greater Hartford Chamber of Commerce, The Downtown Council, and the Growth Council. A project manager and consultant were chosen to manage the development of what was now to be called *MetroHartford Millennium: An Economic Development Action Agenda.*



The Foundation Of The Strategic Process

While the geographic scope of the Connecticut Capitol Region Growth Council included 29 cities and towns, the Millennium Project, recognizing that the regional economy extended beyond those borders, encompasses the 58 towns of the Hartford Labor Market Area.

A good strategic plan cannot be built upon perceptions, hopes, and assumptions. It must involve rigorous testing of long-held myths about the regional economy. The consulting team undertook the following research to support the planning process (the findings of which are included in the Appendices to this report):

- analysis of the economy;
- survey of major employers;
- identification, research, and analysis of key economic clusters;
- analysis of key economic resources;
- analysis of data on 30 comparable regions;
- rigorous assessment of proposed capital projects; and
- analysis of models and experience in other communities.

The culmination of the research and outreach was the development of the following key elements that defined the MetroHartford Millennium Project process and laid the foundation for the development of the Economic Development Action Agenda:

- *the vision* -- where we want to go;
- *the imperative* -- how this effort differed from those of the past;
- *the principles* -- what thinking underlies the strategic directions; and
- *the barriers and opportunities* -- what competitive strengths and weaknesses formed the basis for strategic initiatives.

The Five Strategic Directions

The following five strategic directions emerged from this foundation:

1. SUPPORT AND STRENGTHEN A RENEWED CIVIC INFRASTRUCTURE TO CREATE AND SUSTAIN ECONOMIC DEVELOPMENT AT THE NEIGHBORHOOD, CITY, AND REGIONAL LEVELS.
2. FORGE A GLOBALLY COMPETITIVE ECONOMIC BASE THAT GENERATES QUALITY JOBS FOR ALL RESIDENTS OF THE REGION.
3. CHALLENGE THE REGION TO BUILD A WORLD-CLASS WORKFORCE AND EDUCATIONAL SYSTEM -- ONE THAT PREPARES ALL OF ITS RESIDENTS WITH THE SKILLS NEEDED TO SUCCEED IN THE GLOBAL ECONOMY.
4. CREATE A VIBRANT AND CULTURALLY RICH CITY -- WITH A VITAL DOWNTOWN THAT SERVES AS A REGIONAL ARTS AND ENTERTAINMENT CENTER AND STRONG NEIGHBORHOODS THAT PROVIDE RESIDENTS WITH AN IMPROVED QUALITY OF LIFE.
5. SUPPORT REGIONAL LAND USE AND INFRASTRUCTURE POLICIES AND EFFICIENT USE OF REGIONAL RESOURCES BY PROMOTING COOPERATIVE SERVICE DELIVERY AND REDUCED RELIANCE ON THE PROPERTY TAX.

The report that follows describes the key elements of the plan's foundation -- the vision, imperative, principles, and barriers and opportunities. The strategic directions are then described in detail. The background research can be found in the numerous appendices to the report.

THE VISION

Rather than focusing on the past, residents of the towns in the MetroHartford region have begun to articulate a vision for the future. This vision focuses on creating a more vibrant economy, while preserving the unique quality of life that the communities now enjoy. Looking ten years from now, most residents would like to see:

- a region that is identified as having a great quality of life;
- a region that is able to act cooperatively as necessary to meet the growing global challenges, while

maintaining the right of each individual community to shape its own future;

- a region known for its entrepreneurial energy and inventiveness;
- a region, which while still the home to large corporations, now has a more diverse base of growing small- and mid-sized businesses;
- a region with businesses that are committed to a high performance workplace and a labor force prepared to compete in the high performance workplace;
- a region with a vibrant city that is viewed as a cultural center for the entire region;
- a region that is a destination location for tourists and conventions and has the facilities to meet this demand;
- a region known as one of the national centers of the financial service, managed care, and information industries;
- a region that celebrates its diversity and provides economic opportunities to residents of all races and ethnic backgrounds;
- a region where youth have the option of remaining after completing their education, and young professionals from outside of the region see it as an attractive place to live;
- a region with first-rate educational institutions at all levels -- primary, secondary, and higher education; and
- and a region with strong community institutions that collaborate effectively.

While the vision has been relatively clear, the path to get there has never been clearly laid out. Many myths have governed how residents and businesses in the Hartford region perceive themselves and their potential to achieve this shared vision of the region. These myths or perceptions begin to take on a life of their own -- shaping and determining the reality.

MYTHS AND REALITIES

MYTHS

REALITIES

<p>MetroHartford will find it very difficult to recover from the loss of the Whalers since the team was a key driver of the regional economy.</p>	<p>⇒ Many comparably sized cities do just fine without any major league sports teams. And, many regions have lost major teams without experiencing many significant impacts.</p>
<p>There are few good jobs available in the region.</p>	<p>⇒ Many companies are hiring and are struggling to find workers with appropriate skills.</p>
<p>There is nothing to do in the City of Hartford.</p>	<p>⇒ When compared to 30 comparable cities, Hartford is one of the richest in terms of arts and cultural amenities. The Place Rated Almanac ranked Hartford as number 21 out of 400 in terms of metro areas.</p>
<p>The suburbs are doing just fine. What happens in the City of Hartford is irrelevant.</p>	<p>⇒ The economic downturn has affected everyone and study after study has shown that you cannot have a strong economy in the suburbs when its core city is mired in urban problems.</p>
<p>Neighborhood revitalization can be achieved through focused work on housing and commercial revitalization. What happens in the region is irrelevant to community-based organizations in the city.</p>	<p>⇒ A neighborhood cannot be revitalized unless residents have increased income. And, that means jobs. Many of the good jobs are located not only outside of the neighborhood, but outside of the city. Strengthening job growth in the region can open up employment opportunities for neighborhood residents and provide them with the money they need to buy a home and buy more goods and services locally.</p>
<p>Manufacturing is dead in the region.</p>	<p>⇒ Manufacturing remains one of the most vital sectors of the region's economy providing over 60,000 well paying jobs to area residents.</p>
<p>High business costs are the major cause of the economic problems in the region. If we only provided deep incentives to compensate for these high costs, or lowered taxes, we could attract new companies to the region.</p>	<p>⇒ Connecticut will never be a low-cost location for business and, thus, cannot compete solely on that basis. One has simply to look at Boston to see that companies can compete in a high-cost environment if there are other strategic advantages. Moreover, most of the job growth in the economy will come not from recruiting new businesses, but through the growth of the companies already located in MetroHartford.</p>
<p>Crime has gotten so bad that you can no longer go to downtown Hartford at night without risking being a victim of crime.</p>	<p>⇒ Crime in the City of Hartford is at a 10-year low and crime in the downtown is very limited.</p>
<p>Now that the Bishops are gone there is no corporate leadership to take their place.</p>	<p>⇒ Within the region, a group of leaders from neighborhood-based organizations to the top corporations is emerging who are committed to making a difference and working collaboratively on efforts to rebuild the Hartford region.</p>

The time has come for those concerned about the region's future to separate the myths from the realities and lay out the path towards achieving its vision. Rather than the myths, this "Economic Development Action Agenda" seeks to focus on the realities. It seeks to step out of the box and assume change is possible. MetroHartford, a region once noted for invention, can again become a region known for its ingenuity, adaptability, and initiative of its people.

THE IMPERATIVE TO ACT

Many similar visioning and planning processes have failed in the Hartford region. Clearly, reaching consensus on a vision and separating myths and realities was not sufficient. Both skepticism and cynicism in the community about such a plan were very high. Bookshelves in offices throughout the region are lined with the products of past efforts; regret runs deep for the many hours of lost time spent in meetings that resulted in so little action; and patience was very short. The most common question that the Millennium Project has had to deal with from its first day is: *"We have been through this all before and nothing ever happens. Why is this project any different?"*

The answer to this question is that:

- *the times are different -- the economic imperative is clearer;*
- *the process is different -- broadbased leadership is engaged;*
- *the commitment is to action -- organizing took place to ensure implementation; and*
- *many organizations have been assigned responsibilities and will be held accountable.*

While the cities and towns of the MetroHartford region each have their own distinct characteristics, their economic futures will be shaped by the same forces. All

The Economic Imperative

**Employment Growth
Percent of Employment Change
1990-1997 (MSA)**

1	Raleigh/Durham, NC	24.8
2	Salt Lake City, UT	23.8
3	Sioux Falls, SD	23.2
4	Baton Rouge, LA	18.1
5	Fort Lauderdale, FL	18.1
6	Tampa, FL	16.0
7	Fort Worth, TX	15.2
8	Fort Wayne, IN	14.2
9	Louisville, KY	13.8
10	Charlotte, NC	13.7
11	Chattanooga, TN	13.6
12	Jacksonville, FL	13.2
13	Columbus, OH	13.0
14	Indianapolis, IN	11.5
15	Des Moines, IA	11.4
16	Omaha, NE	9.8
17	Cincinnati, OH	9.8
18	Richmond, VA	9.5
19	Milwaukee, WI	9.0
20	Wichita, KS	7.6
21	St. Louis, MO	7.4
22	Harrisburg, PA	6.9
23	Sacramento, CA	6.0
24	Rochester, NY	5.8
25	Wilmington, DE	5.5
26	Albany, NY	5.2
27	Trenton, NJ	4.5
28	Pittsburgh, PA	4.2
29	Providence, RI	(1.0)

Source: Places Rated Almanac, 1997
Economic Forecast from Woods & Poole Economics, Inc.

**Projected Employment Growth
Percent of Projected Employment
Growth, 1997-2000 (MSA)**

1	Raleigh/Durham, NC	6.7
2	Sacramento, CA	6.3
3	Tampa, FL	5.8
4	Salt Lake City, UT	5.7
5	Fort Worth, TX	5.6
6	Ft. Lauderdale, FL	4.8
7	Des Moines, IA	4.0
8	Columbus, OH	3.9
9	Charlotte, NC	3.8
10	Baton Rouge, LA	3.4
11	Sioux Falls, SD	3.4
12	Harrisburg, PA	3.2
13	Fort Wayne, IN	3.2
14	Richmond, VA	3.2
15	Indianapolis, IN	3.1
16	Wichita, KS	3.1
17	Cincinnati, OH	3.1
18	Louisville, KY	3.0
19	Albany, NY	2.8
20	Rochester, NY	2.8
21	Chattanooga, TN	2.7
22	Milwaukee, WI	2.2
23	Wilmington, DE	2.2
24	Jacksonville, FL	2.1
25	St. Louis, MO	2.0
26	Omaha, NE	2.0
27	Providence, RI	1.7
28	Trenton, NJ	1.7
29	Pittsburgh, PA	1.5

Source: Places Rated Almanac, 1997
Economic Forecast from Woods & Poole Economics, Inc.

of its residents face increasing economic uncertainty. The emergence of the global economy, shifting federal priorities such as defense cutbacks, and rapid technological changes have resulted in dramatic economic and social transformations. For many residents there is a growing perception of economic insecurity and a need to reaffirm the importance of a sense of community in uncertain times.

While communities throughout the U.S. are being affected by these forces, the communities in the Hartford region have been buffeted by a series of forces -- some cyclical and some structural -- that create more urgency to addressing their economic future. *The region experienced the last recession earlier and deeper.* The real estate "bust" earlier in the decade, along with the downsizing of its two core industries -- insurance and aerospace -- hit the region hard and its urban center -- the City of Hartford -- even harder. *More importantly, while the rest of the country, as well as most of New England, is experiencing a period of unprecedented growth, the recovery in the Hartford region is just beginning -- having seriously lagged the nation and the state.* Between 1994 and 1996, 1,000 jobs have been added in MetroHartford. During this same period, Boston added 84,000 jobs; Providence 9,600 jobs; Springfield 6,300 jobs; Waterbury 3,200 jobs; and Portland, Maine 6,500 jobs. Between 1990 and 1997, the Hartford region experienced the lowest level of employment growth of any of the 30 comparable regions.

Of greater concern, the Hartford region is fast becoming a national symbol of urban problems and economic disparities. The economic disparities between the city and suburbs of MetroHartford are extreme when compared to 30 comparable cities. While the percentage of persons living below the poverty level in the Hartford region was the lowest of any comparable region, the poverty rate in the city was the highest. Similarly, while average household income was the second to highest in the Hartford region, the average household income in the city was in the bottom percentile. Rarely is Hartford mentioned by the national press without a comment noting its status as one of the nation's poorest cities. These articles do not note that the City of Hartford is a

very small component of the region -- both in terms of geography and population. If East Hartford, Bloomfield, and West Hartford were within the municipal boundaries of the City of Hartford (as comparable communities are in most other cities) the oft quoted statistics that rank Hartford low on most measures of urban distress would look very different. While in reality, this unique structure affects its ranking, it is the perceptions, based on article after article that focuses on the city's poverty, with which people are left.

In this environment, complacency about the region's economic future was no longer possible. It was clearly the time to bring the entire community together around a plan that would not only jump start the economy, but lay the groundwork for a greatly improved quality of life for all residents of the region.

A Different Process

Experience in other regions has shown conclusively that good ideas do not lead to successful strategic plans. *In many ways, the process is as important as the substance.* And, it was in the process that the Millennium Project differentiated itself from the past. To ensure that this effort was different, the project team undertook a nine-month process that incorporated the following elements:

➤ *Re-engagement of civic leadership -- building a post-bishops civic infrastructure.*

After many years of downsizing, restructuring, and societal and economic changes, the Bishops were gone; the corporate leadership that remained was focusing upon survival; and a new generation of leadership had not yet emerged. The void was felt throughout the region -- from arts institutions, political leadership, educational institutions, and other service providers. The first step of the Growth Council was to build a Steering Committee composed of the new civic leaders to guide the development of the strategic plan. Chaired by Karl Krapek, the President of Pratt and Whitney, individuals from the public, private, and nonprofit sectors were brought together to oversee the effort.

➤ *An inclusive process with broadbased outreach and involvement.*

The MetroHartford Millennium Project was deeply committed to developing an action agenda that represented

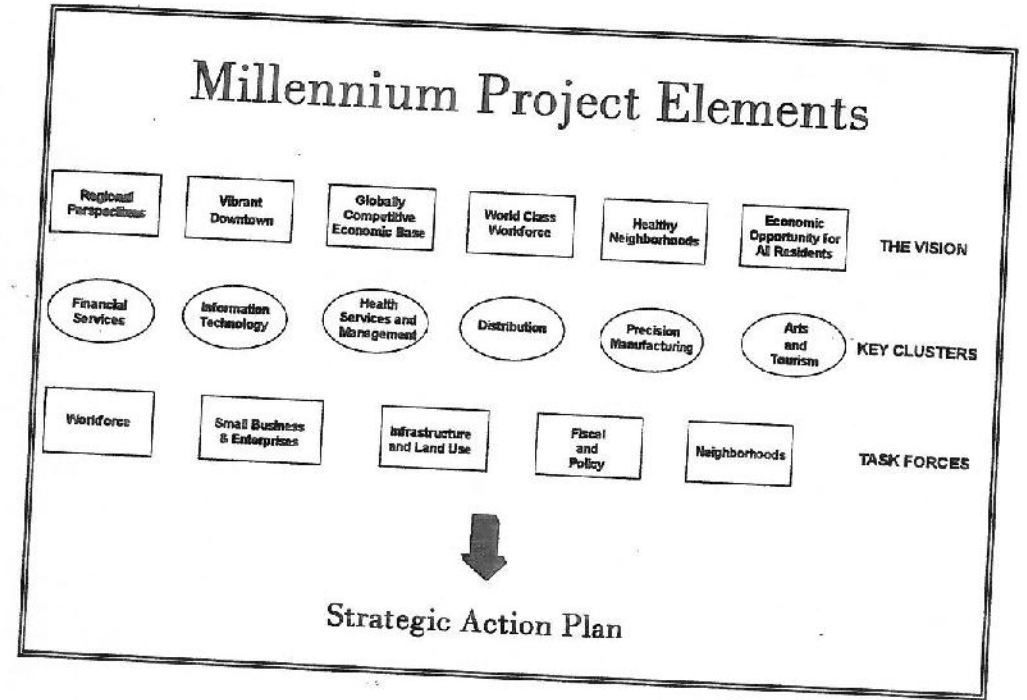
Steering Committee Members

- | | |
|---|--|
| Karl J. Krapek, Chairman
President
Pratt & Whitney | Tony March
President
Tony March Buick/GMC |
| Marilda Alfonso
Vice President
Aetna Foundation | Richard Meduski
President
Savings Bank of Manchester |
| Ramani Ayer
President
The Hartford | John Meehan
President & CEO
Hartford Hospital |
| Michael Bangser
Executive Director
Hartford Foundation for Public Giving | Daniel I. Papetianster, Esq.
Partner
Bingham, Dana & Gould LLP |
| James Boucher
Executive Director
H.A.R.T. | Michael P. Peters
Mayor
City of Hartford |
| Arthur Byrne
President
The Wiremold Company | Richard Porth
Executive Director
CT Capitol Region Council of Governments |
| Steve Cassano
Mayor
Town of Manchester | Sister Maureen Reardon
Executive Vice President
Saint Joseph College |
| William J. Gibes, Jr.
Chancellor
CT State University System | Chris Rohrs
Vice President & General Manager
WFSB-TV-3 |
| David D'Erano
President & CEO
St. Francis Hospital & Medical Center | Richard Rosenthal
President
Max Restaurant Group |
| Robert Fiordella
President & CEO
Phoenix | Michael E. Waller
Publisher & CEO
The Hartford Courant |
| Roger Gelfenbien
Managing Partner
Andersen Consulting, LLP | Richard Weaver-Bey
President
Greater Hartford Realty Management Corporation |
| P. Anthony Giorgio, Ph.D.
President & CEO
CT Capitol Region Growth Council, Inc. | Phillip A. Wheeler
Director, Region 9A
United Auto Workers |
| Mary Glassman
First Selectman
Town of Simsbury | Regional Representatives: |
| R. Nelson Griebel
President
Bank of Boston Connecticut | Hugh Carley
Vice President
Middlesex Chamber of Commerce |
| Richard Higginbotham
President & CEO
Fleet Bank Connecticut | Melvin Schneidmeyer
Executive Director
Central CT Regional Planning Agency |
| Hugh C. MacKenzie
President, Retail Business Group
Northeast Utilities | |

the diversity within the community. This has meant extensive outreach efforts. Early in the process, 11 community meetings were held throughout the Greater Hartford region where hundreds of citizens were in attendance. More recently, 1,400 individuals were invited to four community meetings to get feedback from residents on preliminary directions. In addition, numerous meetings have been held with community-based organizations, civic associations, business organizations, and political leadership from throughout the region.

Five task forces were also convened. Task Force members met to identify and discuss key issues and have developed specific recommendations that have been incorporated into this Action Agenda. (See Appendix for complete Task Force Reports.) Most of these Task Forces have found that these meetings have already led to direct results -- promoting new networks and helping to build relationships within the region.

Finally, two "cluster" groups have been meeting. The first group includes business leaders in the *precision manufacturing industry*. This group has convened to develop strategies for that industry, starting with solutions for the critical and growing shortage of trained employees. Second, a group of organizations involved in the tourism, arts, and entertainment "cluster" has met four times to develop a series of recommendations aimed at bringing more visitors to the region. The recommendations of these groups are incorporated into the Action Agenda.



The Commitment To Action

The greatest challenge facing communities that have committed to undertaking a rigorous strategic planning effort is not in the development of good ideas, but in building the capacity and momentum necessary to ensure that the good ideas get implemented. Often, all resources are spent on the planning phase without sufficient consideration to the resources needed to begin implementation. The result is often a long gap in time between when a strategic plan is completed and when resources are found to begin implementation. Those involved in the process get impatient for results. As a result, one of the fundamental foundations of the MetroHartford Millennium Project was an acknowledgment that *implementation needed to start immediately, it could not wait until the strategic planning process was completed*. Three approaches were used to ensure that momentum would be achieved:

Early Millennium Implementation Projects

- assisting in the design of the Downtown Higher Education Center;
- designing and organizing of entry-level training programs to meet the needs of the region's precision manufacturing firms;
- reorganizing economic development capacity within the City of Hartford;
- organizing an oversight group and developing a RFP for a downtown urban design plan;
- helping to improve the state's efforts to market economic development resources to the small business community; and
- developing principles and guidelines for improving the operation of the region's welfare reform efforts.

1. *Organizing around implementation from the start of the project.* Thinking about how a plan will be implemented cannot wait until it is completed. Part of the process has involved building the capacity of local entities to undertake implementation activities; building new relationships amongst various stakeholders; and getting commitments around implementation from key actors early in the process.
2. *Developing detailed action plans with clear responsibilities and accountability.* To ensure implementation, it is critical that the Action Agenda is clear about which organizations are responsible for implementing an identified initiative. In addition to assigning responsibility, a Memoranda of Understanding will be signed with each organization agreeing to take responsibility for a specific initiative. Finally, benchmarks and outcome measures will be developed to ensure that the responsible parties are held accountable for their activities.
3. *Starting some implementation activities during the planning process.* The Millennium Project reached early consensus on a few key initiatives and undertook action on these projects during the course of the planning.

THE UNDERLYING PRINCIPLES

The following principles have guided the development of the Economic Development Action Agenda and the work of the Steering Committee:

- *Building new collaborative relationships, trust, and a sense of shared responsibility throughout the region is fundamental to the success of any strategic plan.*

All actors in the region's economy should benefit from a good strategic economic plan. However, unless the

various businesses, organizations, and institutions are willing to work together, many of these benefits will not be realized. Whether between business and labor, contiguous town governments, neighborhood and regional organizations, or the public and private sectors, cooperative partnerships will increase the effectiveness of any economic development strategy. An important element of the strategic planning process is to build these relationships.

- *An individual municipality cannot compete successfully for economic activity in a global environment built upon economic regions.*

A previous Hartford planning effort in the early 1990s concluded:

Our economic and social reality calls us to state as clearly as we can that Hartford and its suburbs are inextricably linked. One ignores the other at its peril. We must think and act as a cohesive metropolitan area -- MetroHartford.

This conclusion is more true today than it was even four years ago. The economic well-being of residents of any community is ultimately linked to the ability of the private sector in that region to thrive and compete successfully in a global arena. The reality today is that the governance system -- based on the federal, state, and municipal levels -- does not match the economic system, which moves from global, to national, to regional markets. (Barnes and Ledebur 1991.) Business interests are not limited by municipal boundaries. The labor they seek lives throughout the region; the infrastructure they need is regional in nature; and their markets are increasingly global. Any single municipality in the Hartford region can do little to change the conditions affecting the competitiveness of private employers and they clearly cannot compete efficiently with other locations that have achieved a level of scale and efficiency through regional, multi-jurisdictional action. The town of Avon is not competing with Simsbury for economic development; it is the greater Hartford region that is competing with such areas as the "Research Triangle" in North Carolina, the Silicon Valley in California, or the Hudson Valley in New York.

- *Any regional economic development effort in Connecticut must conform to and adapt to an environment in which each individual municipality retains its unique character and its powers to shape its own development future.*

In 1886, Governor Harrison told the people of Hamden that their town was "a little indestructible republic, having great powers of local government which can never be taken away from you." (Allison, 1996.) This firm belief in the importance of local control has dominated the Connecticut political environment for hundreds of years. We must be clear that while regional action in certain areas is imperative, the political culture of Connecticut requires sensitivity to the needs and desires of each individual municipality.

- *A successful regional economy cannot be sustained with a core city that has become mired in urban problems and large-scale disparities based upon race and income.*

Racial divisions and the economic disparities between the urban core and the suburbs are *economic* issues that affect the economic well-being and quality of life of all residents living in the region. Study after study has provided strong evidence that real estate values and income of suburban residents are directly tied to the economic performance of their core city. It is not possible to sustain a strong regional economy with a large concentration of poverty and fiscal distress in the City of Hartford. If the city fails, so will the suburbs. As the Mayor of Louisville noted: "You cannot be a suburb of nowhere." Moreover, racial divisions within the region have become a barrier to economic development -- constraining downtown development, educational progress, and workforce capacity. And, poverty and economic distress are found not only in the City of Hartford, but in communities throughout MetroHartford. These divisions have created a "lose-lose" phenomenon for all residents of MetroHartford.

- *The City of Hartford and its neighborhoods cannot be revitalized without increased attention to their linkages with the regional economy.*

The best means of addressing the problems of Hartford's neighborhoods -- abandoned housing, poor schools, and blighted commercial districts -- is to increase the income of their residents by providing them with quality employment opportunities. New jobs mean more money to spend on housing and retail activities, as well as an increased tax base for the city. These new employment opportunities are available both inside the city, as well as throughout the MetroHartford region. Linking city residents to these jobs is critical to the revitalization of the city and its neighborhoods.

- *A strategic action plan must be comprehensive; economic issues are increasingly interrelated and it is no longer possible to separate economic development, workforce development, and community development activities.*

Throughout the country, three distinct paradigms have traditionally defined efforts to improve the economic conditions in a community. Economic development has been concerned primarily with the attraction, expansion, retention, and startup of businesses; community development focuses on efforts to revitalize a defined geographic area -- often emphasizing real estate development projects; and education and training focuses on providing residents with the skills needed to access jobs in the community. The Millennium Project has assumed that these three areas are interrelated and can no longer be pursued along parallel tracks. While the primary mission involves economic development -- creating good quality jobs for all residents of the region -- there is an assumption that this cannot be achieved without considerable attention to workforce development issues, as well as community development/neighborhood revitalization.

- *A strategic action plan must focus on shared and sustainable economic growth.*

Addressing the economic needs of the region's low-income residents should be a key "lens" by which the Action Agenda's success is judged.

It is not sufficient to develop strategies that simply promote job creation and investment. The Millennium Project's focus is on improving the economic well-being of all residents of the region. This requires attention to the *quality of jobs* being created and concern with *who is getting those jobs*. Further, the nature of development activity should not be such that future well-being is threatened -- all elements of the plan should be undertaken in a manner that retains or enhances the region's environmental quality.

- *Most of the employment growth and business development will be generated by businesses and entrepreneurs already located in the region.*

The region is in a turnaround mode. Companies are adding workers (if they can find them) and expanding their facilities. A number of small companies are being started and entrepreneurial energy is growing. Nurturing this growth and development is critical. And most research confirms that much of the employment growth in any regional economy comes from companies that are already located in the region. The survey of businesses in MetroHartford confirmed this finding. In the next three years, 49.5 percent of the companies in the survey expect to expand. Of these companies, most anticipate that the expansion will occur at their current site, or at another site in MetroHartford. It is more likely for the region to see the addition of 1,000 new jobs from having 100 companies adding 10 workers than from attracting one new company with 1,000 employees.

- *It is important to focus on real competitive advantages and not try to be something you are not.*

The Hartford region has some very strong areas of competitive advantage that could be further

strengthened. The plan must build upon these advantages rather than focus on factors in which the region will never truly achieve competitive advantage in the global economy. While we should continue the trend of reducing the costs to business, we need at the same time to recognize that the Hartford region will never be able to compete nationally or globally solely on a cost basis. It must focus on where it can compete.

- *The availability of appropriately skilled labor will be the most important competitive factor in the next five years.*

Interviews and surveys of businesses in the Hartford region confirm that jobs are available in the region. The problem is the mismatch between the needs of employers and the skills of the residents. This issue is compounded by overall demographic trends and the barriers to attracting new labor to the region. Unlike other parts of the country, the labor force in the Hartford region is not experiencing significant growth. Moreover, efforts to recruit highly-skilled labor to the region have been negatively impacted by the perception that the region is not an attractive location for young professionals without families. This shortage of skilled labor is a major constraint to employment growth and development in the region.

THE BARRIERS AND OPPORTUNITIES

The economic and political environment that the region faces is very different from what it has been in the past. The region must be poised to respond effectively to challenges posed by external factors that it cannot control. These factors are now well-known -- the globalization of the economy, rapid changes in telecommunication and information technologies, and changed federal priorities and policies that have shifted spending away from defense and turned responsibilities for more and more programs over to the states. A key word affecting the period we are in is *convergence*. Markets are converging; technologies are converging; and institutions are converging. Within the communications and media industry the term refers to the blurring of

MetroHartford Has Many Key Competitive Advantages

College Graduates
Percent of College Graduates,
25 and Older
1990 (MSA)

1	Raleigh/Durham, NC	31.7
2	Trenton, NJ	29.5
3	Hartford, CT	26.3
4	Richmond, VA	23.8
5	Albany, NY	23.6
6	Wilmington, DE	23.4
7	Columbus, OH	23.3
8	Rochester, NY	22.9
9	Salt Lake City, UT	22.9
10	Sacramento, CA	22.7
11	Des Moines, IA	22.6
12	Omaha, NE	22.5
13	Fort Worth, TX	22.4
14	Baton Rouge, LA	22.4
15	Wichita, KS	21.5
16	Milwaukee, WI	21.3
17	Sioux Falls, SD	20.7
18	St. Louis, MO	20.5
19	Providence, RI	20.4
20	Indianapolis, IN	20.2
21	Cincinnati, OH	19.9
22	Charlotte, NC	19.6
23	Fort Lauderdale, FL	18.8
24	Pittsburgh, PA	18.7
25	Jacksonville, FL	18.6
26	Harrisburg, PA	18.0
27	Tampa, FL	17.3
28	Louisville, KY	17.2
29	Fort Wayne, IN	16.2
30	Chattanooga, TN	15.9

Source: 1990 U.S. Census

distinctions amongst various technologies. Within the financial services industry -- of direct relevance to the Hartford region -- convergence means the blurring of distinctions among various types of financial institutions. *In an environment of convergence, every region, just as every company, needs to realign itself and position itself for a future that is less and less predictable.* This means understanding its strategic strengths and building upon them. It also requires being realistic about the barriers that the region faces, and designing strategies to overcome them.

Every region is unique, having evolved its own set of strategic strengths that provide it with the capacity to compete successfully in the global economy. The challenge is to identify and build upon these strengths -- and not be diverted towards activities that are based more upon dreams and perceptions than upon reality. Identifying strengths also requires rigorous testing of assumptions and comparisons with other regions. For example, not every community with a large, high quality medical center is poised to become a center of the biotechnology industry. And, having an airport does not necessarily mean that a region can become a major intermodal transportation center. Each asset needs to be evaluated in terms of market realities and compared to similar assets in other locations.

Survey, interviews, and research undertaken as part of the Millennium Project revealed that the Hartford region does have a set of strategic assets that could provide a basis for building a more vibrant economic base. These include:

➤ *A highly educated and skilled workforce.*

The Hartford region is the home of many highly-educated residents with a diverse set of scientific, managerial, and technical skills.

- The region surpasses the national average on almost all levels of educational attainment. For example, as of 1990, 26 percent of the residents over the age of 25 had graduated from college, as compared to the national average of 20

percent. The region also has a higher percentage of residents attaining associates degrees. More importantly, as compared to 30 comparable regions, the Hartford region ranked third in the percentage of residents who were college graduates.

- In 1990, only two regions had a higher percentage of workers in professional, managerial, and technical jobs.
- As a result of the dominance of the insurance industry in the city, the region has a large pool of skilled information technology workers.
- Fifty-eight percent of the employers surveyed noted that the availability of skilled labor was a very important reason for their location in the greater Hartford region.

➤ *A strategic location in the Northeast Megalopolis.*

MetroHartford is in many ways the crossroads of the Northeastern United States. Strategically located in the middle of the North-South Interstate 91 and the East-West Interstate 84, the region provides ready access to the New England states, the Mid Atlantic states, and Eastern Canada. As a midway point between two major metropolitan areas -- Boston and New York -- the region could service an incredibly large market within a two-hour radius. Existing employers recognize the advantages of the region's location and transportation infrastructure. Employers in the survey ranked highway access as the most favorable factor affecting business and access to air transportation ranked third.

➤ *Rich cultural and artistic amenities.*

MetroHartford, most notably the City of Hartford, has a very rich and diverse set of cultural and artistic activities and facilities. This is one of the region's greatest resources, and yet is not fully recognized by most residents of MetroHartford. The city's amenities compare very favorably with other urban centers. *In fact, in 1997 the Place Rated Almanac, an often used resource for business locational specialists, ranked the*

Hartford region 21st out of nearly 400 metropolitan areas in the U.S. in terms of the Arts. In terms of the 30 comparable regions identified as part of the Millennium Project, the Hartford region ranked seventh in the number of museums and art galleries per capita; first in touring artist bookings per capita; fifth in resident ensembles per capita; and second in resident ensemble play dates per capita. A more qualitative assessment of the region's offerings found a unique mix of cultural activities and special events and festivals that compares very favorably with cities considerably larger than Hartford. The city and region also have a number of community-based arts and cultural centers and arts events representing the diversity of cultures within the region.

Why is this an important economic development asset one might ask? When most people think of the arts and cultural activities, they think of spiritual, intellectual, and aesthetic values. However, there is growing evidence that a prominent arts and cultural community brings substantial economic value to a community -- attracting residents who want to live in a city and attracting businesses seeking a high quality of life. Arts and cultural activities also provide a very real and substantial source of economic impact through their employment base, their local purchases, and the money spent by those engaged in their activities. While Hartford has spent much energy bemoaning the loss of the Whalers, it has spent relatively little effort promoting and building the many arts and cultural events that have the potential to bring considerably more money and jobs into the region.

Average Household Income
1990 (MSA)

1	Trenton, NJ	\$90,500
2	Hartford, CT	\$73,000
3	Wilmington, DE	\$70,100
4	Milwaukee, WI	\$69,300
5	St. Louis, MO	\$67,100
6	Richmond, VA	\$66,900
7	Fort Lauderdale, FL	\$65,500
8	Sioux Falls, SD	\$64,600
9	Rochester, NY	\$64,100
10	Omaha, NE	\$64,000
11	Des Moines, IA	\$63,800
12	Fort Wayne, IN	\$63,000
13	Salt Lake City, UT	\$62,900
14	Fort Worth, TX	\$62,800
15	Sacramento, CA	\$62,700
16	Indianapolis, IN	\$62,600
17	Raleigh/Durham, NC	\$62,300
18	Louisville, KY	\$61,900
19	Charlotte, NC	\$61,500
20	Albany, NY	\$61,500
21	Harrisburg, PA	\$61,100
22	Pittsburgh, PA	\$61,000
23	Providence, RI	\$60,300
24	Jacksonville, FL	\$59,200
25	Columbus, OH	\$59,000
26	Baton Rouge, LA	\$56,900
27	Wichita, KS	\$55,800
28	Tampa, FL	\$55,500
29	Chattanooga, TN	\$55,200
30	Cincinnati, OH	\$46,500

Source: Places Rated Almanac, 1997

➤ Relatively high income base.

Even after sustaining one of the longest and deepest recessions in its history, MetroHartford remains one of the wealthiest metropolitan areas in the U.S. As of 1994, the per capita income in the metropolitan area of Hartford was \$26,842. Only one comparable region had higher per capita income. Average household income also ranked second of comparable metropolitan areas and considerably above the U.S. average.

➤ Available and affordable industrial and office space.

The poor economic conditions in the region and the city have resulted in extremely high industrial and commercial vacancy rates and, consequently, relatively low costs for the Northeast. In terms of industrial space outside of the central business district, about 13.6 percent of the industrial space in MetroHartford was reported to be vacant in a 1997 study by the Society of Industrial and Office Realtors and only a handful of comparable regions had lower average lease prices. While businesses always look to North Carolina, it is interesting to note that the average industrial lease price in Raleigh/Durham was \$4.00 per square foot as compared to \$3.25 in the Hartford region. The situation in terms of office space is even more dramatic. The Central Business District in Hartford had, by far, the highest inventory of Class A office space and the second highest inventory of Class B space of any of the 30 comparable cities. Rental rates were relatively competitive in terms of comparable cities (for example, Class A space in Charlotte, North Carolina averaged \$25.00 a square foot as compared to \$20.00 in Hartford) and is very competitive in terms of other locations in the Northeast -- most notably, New York and Boston. In short, Hartford is currently a "bargain" and has readily available commercial and industrial space in a market that is increasingly tight in other locations.

➤ Quality higher education institutions.

While MetroHartford does not have an MIT or Harvard, as compared to comparable regions, MetroHartford has a large number of colleges and universities. In fact, the

region ranked fourth in terms of the number of institutions when compared to comparable regions. In addition to the institutions located within the region, there are also a large number of high quality colleges and universities within one hour of Hartford. From the highly regarded medical and law schools at UConn, to the engineering expertise at Rensselaer Polytechnic Institute (RPI) Hartford, Trinity College, Central Connecticut State University, and the business school at the University of Hartford -- MetroHartford has considerable academic resources upon which to draw and a pool of highly-skilled students.

➤ *Status as the State's Capital.*

As the capital of Connecticut, Hartford retains a special status within the state. The city remains the focal point of state political and legislative activities. As a state capital, Hartford benefits from many relatively stable jobs in government and in organizations located in the city and region due to the need for proximity to state government. Moreover, as the capital, the city is the state's most visible urban center.

➤ *Intermodal transportation potential.*

Bradley Airport remains one of the region's most underutilized resources. With ready access to air transportation an increasingly important asset for both cargo and business travelers, Bradley provides good linkages with major interstate highways and has the potential for better linkages with seaports and trains.

In addition, Bradley has the potential to become an important transportation "gateway" into New England -- thus providing the region with a focal point for tourists visiting the region.

➤ *Attractive quality of life for young families.*

MetroHartford is increasingly attractive to young professionals with families. While the high cost of housing was a serious deterrent in the region in the past, the economic conditions have made housing relatively more affordable -- particularly when compared to such competing areas as Fairfield County, Westchester, and the Boston suburbs. Moreover, the suburban communities offer very highly regarded public schools and significant recreational and cultural amenities.

➤ *Racial, ethnic, and cultural diversity.*

MetroHartford has become a surprisingly diverse region through various waves of immigration. As compared to 30 comparable metropolitan areas, the Hartford region has a relatively large percentage of Asian residents, African-American residents, and Hispanic residents (with close to one in three residents, the City of Hartford has the highest concentration of Hispanic residents of any of the 30 comparable cities). According to the 1990 Census, close to 9 percent of the region's population are foreign -- only three comparable regions are more diverse. Certain groups -- most notably the West Indian community -- is particularly concentrated in Hartford.

This diversity is a major and increasingly important asset for a number of reasons. First, in an increasingly global environment, a diverse workforce is a potential benefit. Second, the waves of immigration provide the region's businesses with a source of entry-level workers. Finally, and most importantly, the rich cultural and artistic attributes associated with this diversity add to the quality of life in the city and region. From the growing ethnic restaurants in the city's neighborhoods to the unique art and cultural events, this diversity adds to the strength of the region.

The Region Also Has Many Barriers To Global Competitiveness

In order to take full advantage of the region's assets, it is critical that the region address the many barriers that have constrained economic development.

➤ *A fiscal and political structure that inhibits cooperative activity.*

As noted, in a global economy, it is MetroHartford, not the individual municipalities that comprise it, that is the primary unit of economic competition. Yet, MetroHartford is very different from most of its competitors. Unlike other cities, Hartford has been unable to grow and add to its tax base through annexation. Unlike other regions, MetroHartford does not have any form of county government that is able to take on some of the municipal services. And unlike many other regions, each municipality in MetroHartford is highly dependent upon the property tax -- leading to significant intraregional competition for economic investment and the development of costly new infrastructure in outlying communities at the expense of investments in existing infrastructure. This structure leaves MetroHartford in a non-competitive position vis a vis most other economic regions in the U.S. and, increasingly, in the world.

➤ *A decline in corporate engagement and commitment.*

Civic leadership and commitment is very difficult to measure. Yet, it is clear that what leadership and commitment there was in the Hartford region for many, many years had eroded significantly in the past decade. There are a large number of corporate leaders involved in civic organizations throughout the metropolitan area. However, a core of leaders that have been willing to take on the difficult tasks and make a long-term commitment -- both professionally and financially -- had not stepped up to the plate.

➤ *Limited capacity for economic development.*

While each of the communities has some economic development capacity, as compared to many other communities across the nation, the region's capacity to undertake economic development activities is relatively limited. As a result, while there are considerable state and regional resources available for economic

development (for example, in the areas of finance, technical assistance, and labor force training), many of the residents and businesses of the Greater Hartford region are unaware of these resources and are, thus, unable to access them.

➤ *A growing mismatch between the skills of the residents and the workforce needs of businesses.*

Even though unemployment remains relatively high, employers throughout MetroHartford are struggling to locate employees who have the skills that they require. The survey of employers in the region found a large level of businesses are reporting increasing difficulty in recruiting qualified employees. Sixty-two percent of the respondents to the business survey reported difficulty in recruiting skilled production workers. Over one-third of the respondents also noted difficulties in attracting technical and semi-skilled production workers. Many companies are reporting extreme difficulties in recruiting skilled information technology employees. The existing base of these employees, while relatively large in the region, has been tapped, primarily as a result of demand related to the Millennium problem. Entry-level workers with appropriate skills are also difficult to recruit. Many residents lack the basic requirements wanted by business. Forty-two percent of the employers in the survey reported that work attitudes were a significant barrier in the recruitment process and another 26 percent reported that the lack of basic education was a problem.

➤ *Difficulty in recruiting young professionals to the region.*

Every community exports some proportion of its young people. They go to college and move away or find good jobs in other locations. What separates a truly vibrant economic region from one in decline is the ability to attract young people from other communities to the region. During a period of growing skill shortages, particularly at the higher end, the ease with which a company can fill professional slots is important to its competitiveness in a particular location as well as to its interest in expanding or investing in a particular location. Unfortunately, interview after interview

provided evidence that companies are having a hard time, and spending a lot of money, trying to interest young professionals in moving to the Hartford region. Hartford, as indeed the whole state of Connecticut, has become a net exporter of students. And, many of those students that do graduate from colleges and universities in the region are not staying on here. MetroHartford will face many hurdles in turning its economy around, unless it is able to reverse this situation.

➤ *Poor perceptions about the overall cost environment and business climate.*

Businesses in the MetroHartford region have a very negative attitude about the overall business climate both in the state and in the region. Part of this attitude is driven by a history of relatively poor relationships between state government and local government and the business community. A large number of the companies responding to the business survey have the perception that the state had a very high cost environment for doing business and did not pay sufficient attention to the needs of the business community. Comparison of the business tax environment in Connecticut and the surrounding states found that while Connecticut had high business taxes in several areas, the state has already taken action to address several uncompetitive areas. For example, after the phased reduction in the corporate income tax, Connecticut's corporate tax rate will be the lowest of three major competing states -- Massachusetts, New York, and New Jersey. Within the region, however, certain communities, most notably the City of Hartford, suffer from competitive disadvantages related to their tax levels. Whatever the reality about costs, it is the perceptions of a public sector that is not "friendly" to businesses that continue to drive corporate location and expansion decisions.

➤ *An education and training system that is not meeting the expectations of employers.*

George David, the CEO of UTC, talking about the implication of the global economy on Connecticut recently noted, "There is only one way to go to prepare ourselves and that is more education at higher and higher levels for our existing workforce." Currently, the

institutions in the Hartford region have not successfully met this challenge. A large percentage of businesses responding to the Mt. Auburn survey reported that the public high schools did a poor job of preparing students. Forty percent noted that the vocational curriculum did a poor job, and 47 percent noted that the general curriculum was poor. It is important to remember that most of these employers were not located in the City of Hartford and, thus, their comments go beyond the city's public school system. Interviews with individual businesses also found that the existing training system -- from vocational education to higher education -- was not responsive to the needs of employers. Relationships between the private sector and the education and training institutions were not as strong as they should be in a competitive environment that will increasingly be defined by the skills of the workforce.

TAKING ACTION

The Economic Development Action Agenda that follows is but the first step in the strategic planning process initiated by the Growth Council, not the culmination of that process. *The plan should be viewed as a flexible document, one that will evolve as conditions warrant.* Its aim is to lead MetroHartford on the path to becoming a successful competitor in the global area. As noted journalist Neal Pierce has said:

Great metropolises and their allied communities, not cities, not states, and increasingly not even nation states, have become the central competitors in the world marketplace.

THE ECONOMIC DEVELOPMENT ACTION AGENDA

Guidelines

A set of guidelines formed the basis for the development of the Economic Development Action Agenda. The guidelines are as follows:

1. *Balance long-term vision with short-term, achievable steps.* The strategic action agenda has to set a long-term agenda that includes a far reaching and bold vision of where the Hartford region will be in 20 years. Although it is critical to keep our eyes on that vision, we must also identify the incremental actions that can lead us in the appropriate direction.
2. *There is no quick fix -- economic development is a long-term process.* A region's economic strength is linked to a complex set of factors. The economic downturn in Hartford cannot be tied to one factor, and its rebirth will not come from any one or two major capital investments. The Steering Committee did not focus on or expect one major solution.
3. *The engagement and sustained commitment from a broad set of leaders will be the key to successful implementation.* The transition from planning to implementation requires leadership, commitment, coordinated action, and risk-taking. The current "system" is not adequately prepared to meet this challenge. While it has a large number of existing organizations working on relevant economic issues, there is no clarity about roles and a lot of duplicative activity. The process was as important as the substance in the design of the plan.
4. *An inclusive process that reflects the diversity of the region will be important to successful implementation.* Strong leadership does not reside solely at the corporate level. Much innovation emerges from the bottom-up and from the synergies created through building trust and dialogue amongst groups that often do not sit at the same

table. A real commitment to bringing to the table a broad set of actors representing the various interests and diversity in the region is important.

5. *The drive to reduce costs in Connecticut should not be done at the expense of investing in our future.* While there is clear room for efficiencies in the provision of public services, there is also an enormous need for investment in the state's human and physical capital. Investments in transportation, education, the arts, and the physical environment will be critical to the region's long-term vitality.
6. *All actors must be more accountable for their ability to implement changes and achieve desired outcomes.* To overcome some of the key barriers of the past, it is important to identify clear outcomes and expectations, and to hold public and private sector institutions accountable for achieving these outcomes. Resources in the region can no longer be squandered on efforts that do not achieve results.
7. *While financial resources are always an issue, money follows good ideas and a performance-based strategic plan.* The Hartford region is not "capital" poor. There is a significant amount of private capital managed by institutions in the city; there is significant wealth amongst its residents; and there is a significant amount of state and local funds already being expended on services related to economic development. Moreover, there is a great deal of interest at the federal level and amongst local and national foundations to channel additional resources to address the economic problems of Hartford. The challenge of the Millennium Project is to direct these resources effectively and efficiently.

The following five strategic directions emerged from this foundation:

1. SUPPORT AND STRENGTHEN A RENEWED CIVIC INFRASTRUCTURE TO CREATE AND SUSTAIN ECONOMIC DEVELOPMENT AT THE NEIGHBORHOOD, CITY, AND REGIONAL LEVELS.
2. FORGE A GLOBALLY COMPETITIVE ECONOMIC BASE THAT GENERATES QUALITY JOBS FOR ALL RESIDENTS OF THE REGION.

Strategic Directions

3. CHALLENGE THE REGION TO BUILD A WORLD-CLASS WORKFORCE AND EDUCATIONAL SYSTEM -- ONE THAT PREPARES ALL OF ITS RESIDENTS WITH THE SKILLS NEEDED TO SUCCEED IN THE GLOBAL ECONOMY.
4. CREATE A VIBRANT AND CULTURALLY RICH CITY -- WITH A VITAL DOWNTOWN THAT SERVES AS A REGIONAL ARTS AND ENTERTAINMENT CENTER AND STRONG NEIGHBORHOODS THAT PROVIDE RESIDENTS WITH AN IMPROVED QUALITY OF LIFE.
5. SUPPORT REGIONAL LAND USE AND INFRASTRUCTURE POLICIES AND EFFICIENT USE OF REGIONAL RESOURCES BY PROMOTING COOPERATIVE SERVICE DELIVERY AND REDUCED RELIANCE ON THE PROPERTY TAX.

STRATEGIC DIRECTION #1

SUPPORT AND STRENGTHEN A RENEWED CIVIC INFRASTRUCTURE TO CREATE AND SUSTAIN ECONOMIC DEVELOPMENT AT THE NEIGHBORHOOD, CITY, AND REGIONAL LEVELS

While every region is unique, there are some commonalities that differentiate those regions that have a resilient economy or those that have successfully turned themselves around. The one factor that turns up over and over again is effective governance. Governance in this context goes beyond traditional political structures to include the formal and informal intermediaries developed between both private and public sector actors throughout a region to deliver services, and design and implement strategies focused on public improvements. William Dodge, the Director of the National Association of Regional Councils, and the second speaker at a Millennium Steering Committee meetings, said: *"By regional governance, I mean how we bring community leaders and citizens together to address challenges that cut across municipalities."*

Studies of communities such as Indianapolis, Cleveland, Pittsburgh, and Chattanooga point to the importance of involved corporate leadership, positive relationships between the public and private sectors, and, according to a recent study of Cleveland, *"A broad and deep civic infrastructure located outside of formal government that can see projects through to completion."* (Hill, 1997.) This strategic initiative focuses on creating such a "civic infrastructure" in MetroHartford to work collaboratively with the public sector to see projects through to completion.

It is very difficult to build the "civic infrastructure" necessary to sustain economic development where there are deep divisions based upon race and ethnicity. Discussions amongst members of the Steering Committee have concluded that eradicating these racial and ethnic divisions in MetroHartford is an economic imperative and a critical component to strengthening the region's "civic infrastructure."

Action Step

Create a Millennium Management Group, structured as a standing committee of the Growth Council, to oversee the implementation of the Millennium Project Action Agenda and establish an informal "Advisory Committee" to this group to ensure representation and accountability amongst a variety of interest groups within MetroHartford.

Relevant Findings

- *The Hartford region has a strong history of visioning and strategic thinking, but has been weak in the area of implementation. A leadership group with clear responsibility for monitoring implementation is required to ensure that progress is made on the initiatives outlined in this plan.*
- *Since the focus of the action agenda is economic development, the Millennium Management Group should be housed within the Growth Council, the institution set up as the lead economic development organization in MetroHartford.*
- *The region has a plethora of intermediaries involved in various efforts to improve the region's economy and quality of life, with limited coordination and collaboration and no accountability.*

Role of the Millennium Management Group and Millennium Advisory Committee

The Millennium Management Group will be a facilitator of action -- not a service provider. Its role will be to encourage existing organizations that have the capacity to take on new responsibilities, and to expand the scale of existing, successful efforts in the region. Specifically, the Group will be responsible for:

1. *monitoring the implementation of the Action Agenda;*
2. *managing a "Regional Implementation Fund" created to support the implementation of the Millennium Project Action Agenda;*
3. *setting regional priorities for economic development resource allocation;*
4. *serving as a forum for discussions on new regional economic development initiatives;*
5. *facilitating and coordinating communications with the Governor and state legislature on regional economic development issues; and*

6. *executing the following two types of benchmarking activities:*

- *Tracking community progress:* Using the data on the regional economy and on comparable cities prepared for this project, the Millennium Management Group will release on an annual basis a report of its progress.
- *Developing performance measures for Millennium Project Initiatives:* The group will set annual measurable objectives for the Millennium Project and for affiliates. Memoranda of Understanding will explicitly set out measurable objectives for implementation. The focus will be on tangible outcomes not "process outcomes."

The Growth Council has been the lead organization on the Millennium Project and is the lead economic development organization in the region. As a result, the Millennium Management Group should be housed as a standing committee of the Growth Council Board, with a shared Chairman.

The Millennium Management Group will enter into "Memoranda of Understanding" with a wide variety of intermediary organizations within MetroHartford that will be responsible for implementing various components of the Action Agenda. Its purpose is not to diminish the importance of these organizations, but to enhance their capacity and ensure accountability. These intermediaries will include, but not be limited to:

- the Capitol Region Partnership and its member organizations;
- the Greater Hartford Chamber of Commerce;
- the Capitol Region Council of Governments;
- the Downtown Council;
- Business for Downtown;
- the Capital Region Workforce Development Board;
- the Greater Hartford Consortium for Higher Education;
- neighborhood groups;
- the United Way;

- the Greater Hartford Arts Council;
- the Convention and Visitors Bureau;
- the Tourism Districts;
- community technical colleges;
- Leadership Greater Hartford; and
- Connecticut Economic Resource Center.

The Millennium Advisory Committee will be designed to provide continued involvement in the implementation process amongst the many individuals who have taken part in the Millennium Project. The Committee will be an informal group including, but not limited to, individuals who have participated in the Millennium Project Steering Committee, Task Forces, Cluster Groups, and Outreach Groups. In addition, political leaders from the state and the region's municipalities will be invited to participate. The Committee will meet twice a year to hear about progress on implementation and to provide feedback on barriers and opportunities requiring further attention.

Principles in Design of the Leadership Group

1. *The Millennium Management Group will be action oriented.* While there might be a need within the region for additional planning and policy analysis work, the focus of this group will be on implementation.
2. *The Millennium Management Group must involve corporate leadership in the region.* A recent study of civic leadership cited one corporate leader in Cleveland who noted: "You have to involve me, because involvement leads to understanding. Understanding leads to commitment. Unless I'm involved, I can't be committed, and if I'm not committed, I'm never going to give you any money."
3. *The Millennium Management Group must be broadbased and represent the diversity within the region.* In the past, Hartford has been negatively impacted by a sense that decisions about the region's future were being made without sufficient attention to representation from the various interest groups within the region. While the Group cannot include every single interest, it is important that it include individuals of color, individuals that represent the needs and aspirations

of the region's low-income residents, and representatives of small business and organized labor.

4. *The Millennium Management Group must be large enough to ensure adequate representation, yet small enough to ensure the ability to take quick and decisive actions.* While there needs to be some flexibility in its composition, the Group should not exceed 20 members.
5. *Those agreeing to be part of the Millennium Management Group must make a three-year commitment to the effort and guarantee participation in 75 percent of the meetings held during the year.*
6. *The Millennium Management Group cannot become a staff driven organization nor a new "bureaucracy."* While staff of the Growth Council can support the activities of the Group, all decisions will be made at the Board level.
7. *A sunset policy should be established to ensure accountability.* After five years, if significant progress on implementation is not made, the Group should be eliminated.

The President and CEO of the Growth Council, along with the Chair of the Millennium Project Steering Committee, will be responsible for inviting members to the Millennium Management Group and convening meetings. Initial staff work for the Group will be provided by the existing Growth Council staff and relevant consultants.

Implementation steps include:

1. *The Millennium Management Group will be appointed and hold its first meeting by November 30, 1997.*
2. *The Millennium Management Group should sponsor a major regional event in November to unveil the Millennium Project Action Agenda and garner widespread support for its implementation.*
3. *The Millennium Management Group should establish a Regional Implementation Fund to provide financial resources for implementation activities.* This fund should be initially capitalized with support from local foundations, national foundations (for specific initiatives), and state and local governments. In addition, each

Implementation Responsibilities and Steps

corporate member of the Millennium Management Group should provide some base support for the Fund. Over time, additional sources of funding should be pursued.

4. *The Millennium Management Group will negotiate an initial set of Memoranda of Understanding by January 1, 1998.*
5. *The Millennium Management Group members will individually, and as a group, solicit support for their efforts among the political leaders in the municipalities in the region. Each community will be asked to officially endorse the effort.*
6. *The Millennium Management Group will release six-month progress reports on each "Strategic Initiative" it is supporting.*
7. *The Millennium Management Group will host semi-annual meetings of an "Advisory Group," composed of all of the individuals invited to be involved in the Millennium Project.*

Benchmarks

The primary performance measure for this initiative involves the successful implementation of the other initiatives in this Action Plan. Other more general outcomes that this initiative seeks to achieve are:

- *increased corporate commitment: Attendance of members at meetings, sustained commitment over a three-year period, and financial commitments of key corporations to implementation; and*
- *increased effectiveness of collaboration between all regional intermediaries.*

Action Step

Reorganize city economic development management -- include broadbased governance, strong neighborhood representation, and mechanisms to ensure objective, fair, consistent, and timely review of development proposals.

Relevant Findings

- *The City of Hartford's Economic Development Office has been operating without leadership in the Director's Office since March of this year. Because previous efforts to reorganize and energize this office have been less than successful, it is important to evaluate its structure, functions, and interrelationships with other public and private organizations before moving forward.*
- *Through the Neighborhood Task Force, we have learned that the city's process of reviewing, approving, and supporting neighborhood development projects can be administratively burdensome, time-consuming, and inconsistent. This has often hindered potentially beneficial development projects proposed by both community-based and private developers. There is also a lack of communication and coordination among city, regional, and state economic development organizations.*
- *This spring's efforts to secure Urban Act funding from the State of Connecticut provides a good example of how these disconnects in communications thwart action in the neighborhoods.*
- *A nationally known, outside consultant brought in by the city to review its operations recommended that the economic development function be reorganized.*

Program/Project Elements

1. *A public/private board should be appointed to oversee implementation of economic development activity within the city. Board representation should include elected representatives, city management, neighborhood organizations, business representatives, and one representative each from the regional partnership and from the state. Among the Board's functions should be establishing strategic objectives, shaping programmatic initiatives, recommending management reforms, and*

prioritizing neighborhood capital projects for state, local, and private funding.

2. *The position of Director of Economic Development should be immediately filled with a seasoned, experienced professional. The Director should be given adequate authority over related economic development functions to carry out his job effectively.*
3. *To ensure more timely review of project plans, as well as more effective management of development projects, the city should establish an independent Planning and Zoning Board and provide funds for additional planning staff.*
4. *Coordination between the city and state economic development activities should be strengthened to make the city a more attractive option for developers and businesses.*
5. *In addition to funding individual neighborhood projects, the city should support multi-neighborhood organizations as a means to increase resources and capacity for neighborhood-based efforts.*

Implementation Responsibilities and Steps

Implementation requires the following steps:

1. *The City of Hartford will engage an experienced economic development organization to manage economic development activities and the transformation to a new city partnership for economic development.*
2. *Working with the Mayor, the Council, and the City Manager, the engaged organization will establish goals and objectives for the City's economic development and redevelopment functions and establish a structure and proposed bylaws for the Hartford Development Partnership.*
3. *The Mayor and the City Manager should establish and convene the Hartford Development Partnership by January 1, 1998.*
4. *The Partnership will establish and implement a new organizational structure for economic development that will provide for neighborhood input through the*

Neighborhood Development Council. (See later recommendation.)

5. *At the end of the contract period, the city should recruit a competent economic development professional to serve as director of the new organization responsible for economic development and redevelopment for the City of Hartford.*

Benchmarks

The new Economic Development Board should establish performance benchmarks for the Economic Development Department. These should be tied to the strategic objectives established by the Board and should also include measures of efficiency. A system should be put in place for collecting and analyzing relevant performance data.

Action Step

Begin the process of aggressively eradicating the racial and ethnic divisions in MetroHartford through sponsoring internal, regional, and local "Conversations on Race, Ethnicity, and Culture."

Relevant Findings

- *Racial and ethnic divisions within the MetroHartford region were found to be an economic issue as well as a social issue. Such issues were having a serious impact on suburban/urban relationships, on education, and on employment.*
- *Building trust and promoting increased exposure is a critical component of bridging racial and ethnic divisions.*
- *Businesses within MetroHartford can benefit from capitalizing on the vast potential of diverse residents who live in the communities where their business is conducted. Given the changing demographics, attracting, developing, and retaining a diverse, skilled employee pool is requisite to sustained economic growth in the short- and long-term.*
- *The Millennium Management Group can build upon the national event, "Aetna's National Conversation on Race, Ethnicity, and Culture,"*

that will take place on Dr. Martin Luther King's birthday in Hartford.

Program/Project Elements

1. A Diversity Task Force of the Millennium Management Group would be established; its members would help organize and facilitate regional discussions. Members of this Task Force do not have to be sitting members of the Millennium Management Group.
2. The Diversity Task Force will sponsor a regional event that is linked to Aetna's national event.
3. Millennium Management Group members would also commit to host/sponsor similar "conversations" in their various cities and towns with the objective of creating a regional consensus around issues of diversity and a strategy to utilize MetroHartford's diversity as an asset for growth.
4. MetroHartford companies interested in co-sponsoring the Conversation would contribute funds at pre-set amounts that would be used to support the programmatic and related work of the Diversity Task Force.

Implementation Responsibilities and Steps

A subcommittee of the Millennium Project Steering Committee will be invited to take leadership of this initiative and form the core of the Diversity Task Force. In partnership with the Growth Council, they would be responsible for organizing the initial retreat of the Millennium Management Group as well as follow-up events in the region.

Implementation requires the following steps:

1. Seek funding from the Millennium Regional Implementation Fund.
2. Hire a facilitator and organize the retreats and other regional conversations.
3. Organize a regional event to coincide with the national event on January 15, 1998.

Benchmarks

Progress measures on this initiative would include the completion of the internal, regional, and local conversations by June 30th, 1998.

Performance measures to evaluate the results of the programs would be developed. They might include sponsoring an annual public opinion survey that focuses on race and reducing the unemployment rate amongst minorities in the region.

Action Step

Enhance regional economic development capacity through the establishment of a Growth Council subsidiary designed to undertake public purpose real estate development projects that are regional or multi-jurisdictional in scope.

Relevant Findings

- While there are local and regional organizations involved in such economic development activities as recruitment, retention, and small business development, there is no regional nonprofit organization that has the capacity to actually undertake a major development project.
- Many public purpose real estate development projects are too complex, or do not provide the profits required by private developers. A good example of such projects is the numerous, large "brownfield" sites throughout MetroHartford. Environmental remediation on these sites makes private development very risky. Public funding is often critical to moving these projects forward. Models in other communities have shown that nonprofit developers often play an important role in taking on critical economic development projects that are not immediately attractive to the private sector. Often, they work in partnership with private sector actors, or as a conduit for public sector funding.
- Development projects that cross municipal lines are particularly difficult to develop. Moreover, developing a model for a development project that involves two municipalities could move the region towards more cooperative development activity.
- Many small, neighborhood-based organizations are interested in pursuing development projects, but have very limited capacity to undertake such activity. And, it is inefficient to develop this

capacity within every small organization interested in economic development in the MetroHartford region.

- *Nonprofit development corporations in other communities have, over time, developed an asset base and revenue stream that is able to support other economic development activities within the community.*

Program/Project Elements

1. *The development corporation should have staff or consultants with private sector real estate experience and an Advisory Committee of real estate professionals. To be successful, the staff of the development corporation must have expertise that at least matches that found in the private sector. With limited resources, it may be difficult to fully staff the corporation initially. To augment staff resources, the Growth Council should appoint an Advisory Committee made up of the many skilled real estate professionals found within the region's financial services industry.*
2. *The development corporation, in conjunction with the Hartford Neighborhood Development Support Collaborative, should provide technical assistance to neighborhood-based and local groups involved in real estate development projects. Both the staff and advisory committee of the development corporation could become a regional resource for public purpose commercial and industrial real estate projects within the city and the region. They could help assist in early feasibility analysis and provide the development expertise needed in partnership projects.*
3. *The development corporation should develop an inventory of all major brownfield sites within the region and identify priority sites for development. The development corporation should work with the Council of Governments to identify priority brownfield sites within the region.*

The Growth Council is fully responsible for creating the subsidiary corporation.

Implementation Responsibilities and Steps

Benchmarks

Measures of progress on this initiative would include:

- *the incorporation of a new development company;*
- *the identification of priority brownfield sites; and*
- *the successful completion of a development project that spans two municipalities and involves some level of cost and revenue sharing.*

The key performance measures would include overall cost savings on economic development at the municipal level and the creation of new jobs associated with commercial and development projects.

Action Step

Rebuild the region's image, both internally and externally, through an aggressive education, media, and public relations campaign.

Relevant Findings

- *MetroHartford is suffering from an increasingly negative national image. It is consistently rated at the very bottom of national rankings -- most recently ranked at the bottom of the "Money Magazine's Best Places to Live." It is also often used as an example of racial and income disparities. And, it received a lot of bad press related to the state takeover of the public schools. The positive aspects of the region, such as its rich arts and culture, rarely get the national exposure they deserve. This negative publicity has critical economic development implications. First, it is difficult to recruit companies to a region that has such a poor image. Second, it is difficult to recruit employees to live in a region that has a poor image.*
- *The region suffers just as much from a poor self-image. Residents of the region often focus on the negative. Local media also tend to focus attention on the problems of the region. This negative internal image also affects economic development. "Boosterism" goes a long way in efforts to recruit investment.*
- *Efforts to develop a more cooperative regional approach to economic development also depend upon a positive "regional consciousness" amongst*

local municipal leaders, residents, and businesses, and a deeper understanding of the linkages amongst the many municipalities that comprise the region.

Program/Project Elements

1. *The Millennium Management Group should work closely with the Metro Hartford News Bureau to develop positive stories about the Hartford region.*
2. *Increased attention by local newspapers and other media on regional issues and events should be promoted. For example, the Hartford Courant could have a weekly column on issues of regional importance.*
3. *The Capitol Region Partnership, in conjunction with the Statewide Institute on Regional Economic Growth, should launch a Regional Prominence Campaign modeled after a similar effort in Philadelphia. This effort included editorials and radio shows on regional issues; public forums co-sponsored by the League of Women Voters and chambers of commerce that began the dialogue between suburbs and the city; a municipal conference; and a legislators conference. According to Ted Hershberg, a designer of the strategy and speaker at a Millennium Project Steering Committee meeting, such an effort must include broadbased and sustained levels of coverage from local media as well as active involvement of a large number of individuals and organizations. This effort would include the development of a common theme to represent pride in the region. The event kicking off the implementation of this Action Agenda could be the starting point of the campaign.*

Implementation Responsibilities and Steps

The Capitol Region Partnership will be invited to lead this initiative and to develop a more detailed implementation process.

Benchmarks

In Philadelphia, a public opinion survey has been designed to gauge the success of the effort at building regional consciousness and a positive regional image. The primary performance measure involved increasing the percentage of residents within the region who think positively about the region and are more open to increased regional cooperation.

Action Step

Increase resources and capacity for neighborhood economic development in Hartford by establishing and strengthening collaborative organizations.

Relevant Findings

- *Neighborhood-based development organizations have been hindered in their efforts by limited resources, technical capacity, and clout with local and state governments.*
- *These organizations have already recognized the importance of forming alliances, as evidenced by the establishment of HART, the South Hartford Initiative, the North Hartford Initiative, the Triangle Coalition in Asylum Hill/West End, and Hartford 2000, which submitted a joint proposal by 14 Neighborhood Revitalization Zones for state Urban Act funding.*
- *Members of the Neighborhood Task Force have expressed strong interest in establishing a formal organization that will bring all neighborhoods in the city together to advance the agenda developed by the Task Force (including the reorganization of city economic development) and to more effectively pursue other common interests.*

Program/Project Elements

1. *Neighborhood-based organizations should form a citywide Neighborhood Development Council to undertake advocacy, capacity-building, and networking activities. Among the council's function could be:*
 - *advocating for state approval of Hartford's Urban Act proposal and other state urban initiatives;*
 - *advocating for reform of city economic development management and other local government reforms to increase the city's responsiveness to neighborhood concerns;*
 - *representing the interests of the city's neighborhoods to MetroHartford Millennium and other regional organizations;*
 - *developing citywide programs and initiatives;*
 - *information dissemination; and*

- creating venues for information sharing and collaboration among organizations.

2. *In addition to funding the activities of individual neighborhood-based developers, public and private development funders should recognize the important role played by neighborhood collaboratives by involving them in development decision-making and supporting their operations.*

Implementation Responsibilities and Steps

Neighborhood-based organizations must work together to implement this initiative. We recommend that the MetroHartford Millennium Neighborhood Task Force invite representatives of each of the multi-neighborhood collaboratives to form an organizing committee. The committee should develop an organizational structure and initial agenda for the Council, determine staffing needs, and develop a fundraising plan.

Benchmarks

Measures of progress on this initiative include:

1. *Getting the council organized.* As MetroHartford Millennium moves forward, it is important that a strong voice for the neighborhoods is established to be at the table.
2. *Gaining widespread support and participation among neighborhood organizations.*
3. *Obtaining sufficient financial support to carry out its agenda.*

In the long run, the council must be judged on its ability to add value to the activities of its member organizations. This includes improving the development environment, bringing resources to the neighborhoods, and increasing the technical capacity of its member organizations. While this is difficult to measure, the council should conduct an assessment of its activities annually, including obtaining systematic feedback from its membership. If it does not maintain strong support from its membership, the council should either reorganize or reorient itself, or disband.

STRATEGIC DIRECTION #2
FORGE A GLOBALLY COMPETITIVE ECONOMIC BASE
THAT GENERATES QUALITY JOBS FOR ALL RESIDENTS
OF THE REGION

Ultimately, the success of the Millennium Project lies in its ability to strengthen the region's employment base and create a more vibrant, stable, and sustainable economy. To accomplish this goal, the Millennium Project has focused on two approaches. First, support and promote key industry clusters -- "concentrations of competing, complementary, and interdependent firms and industries that create wealth in regions through export" (Henton, Melville, Walesh, 1997); and, second, create a more positive business environment that is conducive to small business growth, entrepreneurial development, and business investment.

Based upon an analysis of the competitive strengths of the region, the Millennium Project has developed recommendations related to the precision manufacturing cluster, the arts and tourism cluster, the distribution cluster, and information technology. It is important to note that this does not imply that these are the "winners" and other industries are "losers." Some important clusters were not specifically addressed since there is active and effective work already ongoing at both the state and regional levels to address and promote their development (i.e., health services and financial services). In addition, there is considerable state and regional attention on such technology-based industries such as medical/biotechnology, environmental technology, and photonics that also offer potential for growth in MetroHartford. The Millennium Project will generate support for these ongoing efforts.

Action Step

Create the Connecticut River Valley Precision Machining Network (Network) designed to strengthen the region's machining and aerospace industry.

Relevant Findings

- *Precision machining -- a cluster of activities that involves metalworking and aerospace companies in the region -- remains one of the most significant economic engines in the regional economy, accounting for close to 10 percent of the jobs in the region. With over 800 companies providing about 56,000 relatively well paid jobs, this sector's strength will be a key determinant of the region's economic vitality.*
 - *Business surveys and focus groups with companies indicated that companies are in desperate need of entry-level and skilled workers. Companies are not able to add second and third shifts, nor are some able to introduce new product lines.*
 - *The business survey found that many of these companies are expanding and expect to add jobs in the next three years. However, they need assistance in a number of areas from training, to export sales development, to assistance in the production process. Many companies reported interest in increasing interfirm collaboration.*
 - *The region has a number of programs that are designed to meet the training and technology needs of regional metalworking companies. However, many of these efforts have not been coordinated and have not reached the scale required to really make a difference in the industry.*
1. *The Network will start as an informal association under the leadership of industry and the Capitol Region Growth Council. It will eventually be a private, nonprofit organization overseen by a board of industry executives, with an advisory board representing the region's community colleges, the Capital Region Workforce Development Board, Central Connecticut State University's Institute of Industrial Engineering Technology, CONN/STEP, local economic development officials, labor, community-based organizations, and the*

Program/Project Elements

state's Department of Labor. Staff support, presently provided by the Growth Council, will be a necessary part of the Network's operation.

2. *In the short-term, a program that will provide training for entry-level workers is planned for early 1998. The program will respond to the immediate needs of industry for machine operators and other entry-level workers. The intent is to use this initiative as a means of establishing a strong relationship with industry and as a means of laying a foundation for the programs noted above.*
3. *Low-income residents from Hartford will be recruited to participate in training programs. Although the training programs will be recruiting underemployed and unemployed people in the region, a key component of the program will be its focus on low-income residents in the city's neighborhoods. Community-based organizations, like HART for example, have a strong interest in securing good-paying jobs for neighborhood residents. HART, as well as other CBOs, are developing the capacity to provide their constituents with the basic skills and support systems needed for higher-level training and employment. And, HART is currently working with the Mott Foundation on a sector initiative that will bring greater education and training support for people in low-income neighborhoods.*
4. *Programmatically, there will be several initiatives that form the backbone of the Network:*
 - *entry-level training programs to attract new workers to the industry;*
 - *a multi-year apprenticeship program to develop skilled machinists;*
 - *a comprehensive campaign to enhance the image of the industry in the region;*
 - *retraining and upgrading for incumbent workers;*
 - *a program to encourage and support interfirm collaboration;*
 - *technology and management assistance for small- and medium-sized companies; and*
 - *a modernization program that will help get companies on a track of "continuous improvement."*

Implementation Responsibilities and Steps

A great deal of work has already taken place in the last four months. Several discussions and planning meetings have occurred. They included executives from eight to ten companies, the president and staff from the Growth Council, the presidents of the region's four community colleges, the director of the Capital Region Workforce Development Board, leaders from the Connecticut Tooling and Machining Association, a representative from the Governor's cluster initiative, staff from the Western Massachusetts Precision Machining Institute, the Town of Enfield's Economic Development Director, area vocational school directors, area chambers of commerce, the Connecticut Department of Community and Economic Development, and the Connecticut Department of Labor. Members of this informal working group have already planned two to three entry-level programs for early next year. Several potential sites have been identified for the training, a curriculum is being prepared, a marketing and outreach campaign is being planned, and several funding sources have been identified.

The Capitol Region Growth Council has taken principal responsibility for organizing this effort. The Growth Council will continue to provide organizational support and it should appoint/hire an industry organizer to oversee the ongoing development of this early-stage program. The Growth Council should also take responsibility for raising and distributing funds for this training program -- it clearly has the confidence of industry and the institutions and organizations that have been participating thus far. The Growth Council Board of Directors should formally agree to take on this responsibility. Industry leadership is critically important to this initiative and every effort should be taken to ensure that CEOs and managers from industry are in the forefront. The active involvement of the organizations noted above is also essential to making sure this program can be successfully undertaken.

In this context, the following steps should be taken over the next four to six months:

1. *Continue to build a core leadership group within the industry that will provide direction and guidance for all programmatic initiatives.* The leadership group will provide a sense of "ownership" among companies in the industry and ensure that all programs are industry-driven.

2. *Use the industry leadership group as a vehicle for establishing broader contacts with companies in the industry -- begin to create a loose network of several hundred companies within the industry.* These industry contacts will be important for graduates of the entry-level training program.
3. *Continue the planning process for commencing the entry-level training programs in 1998.* Planning to date has been very effective but an extensive amount of work is still needed to meet the goal of a 1998 program.
4. *Under the direction of the Growth Council, secure funding for the training program.* A budget of several hundred thousand dollars will be required. The Growth Council will also need to appoint or hire an industry organizer to oversee the logistics of putting the training program in place.
5. *Preliminary discussions with labor have occurred.* These discussions should become a priority over the next several weeks. Labor's involvement in this initiative is very important.
6. *Once the system has been created for delivering entry-level training programs, a similar initiative should be organized to address the skills upgrading needs of incumbent workers.* Helping to build "high performance" workplaces is the goal. The community colleges and the Institute of Industrial and Engineering Technology at Central Connecticut State University have programs that can be built upon and expanded.
7. *Initiate, in cooperation with the Governor's Cluster Initiative, an intensive and creative public education campaign to enhance the image of the industry among guidance counselors, teachers, parents, students in K-12, and other business people.* The campaign should be ongoing and make creative use of print and electronic media.
8. *Under the leadership of the Growth Council, begin the process of building the Connecticut River Valley Precision Machining Network.* The Growth Council Board should take principal responsibility for "incubating" the Network both organizationally and programmatically.

Benchmarks

The most immediate indicator of progress on this initiative will be the completion of successful entry-level training programs that successfully place graduates by the beginning of 1998. The second indicator of progress will be the formation of the Network.

Specific quantitative outcome measures will be developed in conjunction with the industry group.

Action Step

Establish an Information and Technology Research and Development Center in Downtown Hartford.

Relevant Findings

- *Information technology represents an area of considerable opportunity in the Hartford region.*
- *A focal point for the industry in the city can provide increased awareness of the level of competency in this industry cluster as well as in the state, city, and region's interest in promoting investment in the industry.*
- *Specialized services and infrastructure located within a research and development center can help support small and growing companies within the industry.*

Program/Project Elements

1. *Companies that are bidding on the state's privatization contract for information technology, should be strongly encouraged to locate a facility in downtown Hartford to serve as the "anchor" to the proposed research and development center.*
2. *The Hartford Consortium for Higher Education, in conjunction with industry, should develop a strategy for increasing the number of graduates with the skills relevant to information technology; identify the academic capabilities of the region for serving the needs of this industry; and develop and support research activities that are relevant to information technology.*
3. *Efforts by the University of Connecticut and the Hartford Consortium for Higher Education to develop a downtown presence should be coupled with the*

concept of the Information Technology Research and Development Center. Co-location should be considered.

4. *The research and development center should include facilities and equipment that would allow entrepreneurs and small businesses to test new products and services and low-cost space for business startups in the industry.*
5. *The research and development center should include the provision of services related to market development and support collaborative activity in the industry.*

Implementation Responsibilities and Steps

The Millennium Management Group and Growth Council staff will be responsible for this initiative. The following steps need to take place:

1. Growth Council staff has already met with the state official responsible for the information technology contract. The RFP includes components to measure the potential public benefits to citizens of the state. The Preliminary Millennium Strategic Directions has been shared with those vendors requesting the information. As efforts proceed, the Millennium Management Group should work with the state and the bidders to further the concept of an Information Technology Research and Development Center.
2. Meetings should continue with the Hartford Consortium for Higher Education, as well as individual members of the Consortium, about potential roles that they could play.
3. A preliminary list of sites for the Center should be identified.
4. Meetings should be held with owners and developers to solicit interest in the concept.
5. Funding for a formal feasibility and project design effort should be pursued.

Benchmarks

The major indicator of progress on this initiative will be the location of the state's information technology contractor in a regional office building preferably in downtown Hartford. The second indicator would be the developing of this site, or

another site, as a research and development focal point for the industry with relationships with area colleges and universities.

Action Step

Strategically attract distribution-oriented companies to appropriate sites in the region and strengthen existing distribution companies through an industry-led, targeted assistance program.

Relevant Findings

- *Wholesaling and distribution activity is very strong in the Hartford region.* The wholesale trade sector represents roughly 5 percent of total employment in the Hartford LMA. In addition, the region employs a significant number of people in transportation and related industries, which support the distribution industry. Several towns in the metropolitan area have a large base of export-oriented distribution activity including Windsor, South Windsor, Suffield, Tolland, Rocky Hill, Enfield, and Glastonbury.
- *There are more than 500 firms directly involved in wholesale trade and/or the transportation of manufactured goods in the Hartford region.* Many local distribution companies serve the regional consumer goods market. Other companies in the region, such as JC Penney's catalogue sales center in Manchester, serve larger regional and national markets, and thus are considered export-oriented.
- *Hartford's wholesale/distribution cluster's competitive advantage lies in a combination of location and infrastructure.* Hartford's location is the key to developing the distribution cluster in the region. The region is strategically located between two major metropolitan areas -- Boston and New York. This location is enhanced by tremendous infrastructure resources. The region's highway capacity is excellent, with two major U.S. Interstates, 91 and 84. As advances in communication and inventory management technology have led a major industry shift away from warehousing toward just-in-time delivery and "rolling warehouses," Hartford's prime location and strong transportation infrastructure are becoming even more valuable.

- *The Hartford region also has an abundance of land and buildings that are well-suited for use by the wholesale/distribution cluster.* Specifically, there are large tracts of vacant land and a number of underutilized facilities adjacent to the region's two major airport facilities -- Bradley International Airport and Brainard Airport. The recent location of the UPS regional package sorting facility at Bradley and the expansion of the LEGO distribution facility is evidence of the region's locational advantage for distribution-oriented activities.
- *Wholesaling and distribution firms provide an array of job opportunities, from entry-level jobs (about 72 percent), to semi-skilled (about 20 percent), to supervisory and professional jobs (about 3 percent).* While pay is lower than in skilled manufacturing, it is higher than comparable jobs in the service industry. As in other industries, technology is becoming a more important factor in competitiveness. As a result, there is a need to develop programs that ensure that even entry-level workers have the skill requirements of the industry.

Program/Project Elements

1. *Create a "Distribution Cluster Group" composed of leaders in the industry to articulate the needs of the industry and develop an action agenda to strengthen the industry.*
2. *Develop promotional materials that are specifically targeted to firms in the industry and use a mix of channels to reach firms in the industry.*
3. *Pursue the concept of an industrial park development in association with the Bradley Development League that would provide specialized services and infrastructure for small distribution companies.*
4. *Pursue the development of the International Perishable Center which is a centerpiece of a plan to position Bradley International Airport as a primary port of entry for perishables into the Northeast United States.*

Implementation Responsibilities and Steps

The Growth Council will lead the efforts to organize the distribution cluster and be responsible for helping to staff the distribution initiatives. In its efforts, it will work very closely

with the Bradley Development League (BDL). The BDL will be invited to develop specific distribution-oriented activities in conjunction with the Growth Council and the Millennium Leadership Council.

Benchmarks

Indicators of progress on this initiative will be the successful organizing of industry leaders. It is through this effort that a more detailed effort could be designed to respond to business needs. The key performance measure will be the expansion or location of new distribution-oriented activity in the MetroHartford region.

Action Step

Increase the number of tourists coming to the Greater Hartford Region – through more targeted and coordinated marketing that focuses on the arts and entertainment, strategic investments, and a more "friendly" environment.

Relevant Findings

- Any effort to expand tourism in the MetroHartford region -- whether defined in terms of business travelers, conventions, or day visitors -- must focus on increasing the vitality of the City of Hartford. This vitality depends upon strengthening its role as the arts and entertainment center of the region.
- Cultural assets in the region are underappreciated and undermarketed, both within the region and outside of the region. Individuals within the MetroHartford region need to be the subject of tourism marketing efforts, just like those outside of the region. A more coordinated and efficient approach to marketing the region will enhance the overall tourism market in the region.
- There is a wide variety of organizations involved in promoting tourism/arts/and cultural activities in the region. However, these organizations do not coordinate their efforts, nor meet regularly to develop cooperative approaches. Currently, individual arts venues market their own programs and the Arts Council plays a major role in promoting art-related organizations. In addition, the region has two tourism districts and the Hartford Convention and Visitors Bureau. While the region has

significant resources available for promotion, these funds are not spent as efficiently as possible.

- The ability of the region to capture a greater share of convention business and other large events is constrained by the lack of a large convention facility and downtown hotels. Currently, many local hotels report that they are filled during the week, but have difficulty filling rooms on the weekend.

Program/Project Elements

1. Elevate the importance of the economic potential of tourism/arts/culture and entertainment cluster through placing a representative of this group on the Millennium Management Group and supporting capital projects that enhance this type of economic activity.
2. Endorse and support the recommendations of Culture 2000. Culture 2000 is a regional arts and entertainment strategy recently completed by the Greater Hartford Arts Council. This strategy sets out an image for the region; recommends the establishment of a new marketing service and coordinated marketing effort; improvements in the design and infrastructure downtown; better use of existing facilities and the creation of a shared service network to link similar facilities; and increasing funding for the arts. The detailed recommendations of Culture 2000 are attached.
3. Create an ongoing Collaborative Working Group on Tourism/Arts/and Culture that brings together tourism officials, those in the arts community, the Convention and Visitors Bureau, and businesses involved in the hospitality industry. This Collaborative would develop regional actions around the following issues:
 - more efficient and coordinated approach to promoting tourism/arts/culture in the region;
 - increasing weekend overnight stays;
 - creating a more hospitable environment for visitors, particularly at gateways to the region, like Bradley;

- exploring new potential sources of revenue to support their marketing and product enhancement strategies; and
 - enhancing the "product" through investments in projects, such as a convention center or major hotel, that could create more "destination" potential in the region.
4. *Establish a committee on ethnic arts and culture within the working group.* This committee can serve as a platform for integrating cultural organizations and activities among the city's various ethnic communities into larger cultural initiatives. This might include developing marketing and funding strategies for ethnic cultural events and performances, supporting the development of appropriate performance and exhibition facilities, promoting ethnic restaurants, and linking ethnic cultural activities with the city's mainstream cultural institutions.
 5. *Make the arts industry a true force for economic revitalization by increasing the level of base operating dollars coming from individuals, foundations, corporations, and government.*

Implementation Responsibilities and Steps

The newly convened Collaborative Working Group on Tourism/Arts/and Culture will be invited to oversee the development and implementation of the tourism-related strategies. The existing Task Force that has been meeting as part of the Millennium Project will be invited to continue to work as members of the Collaborative Working Group. Additional participants, such as those representing the hospitality businesses, will be added.

The Greater Hartford Arts Council will be invited to continue leadership of this group. The Growth Council will be invited to take a role in convening and staffing the new collaborative.

Specific implementation steps include:

1. *The Growth Council will formally invite participants to be members of the new Working Group.* The Growth Council will staff the meetings -- providing agendas, minutes, follow-up, etc.

2. *The group will focus on outcomes and develop very specific performance measures to ensure that the efforts get to concrete actions.*
3. *The group will focus on both longer-term "product enhancement" type issues as well as very immediate actions such as increasing visibility in the Boston and New York Press, the development of an image library, and the development of a mutually agreed upon and enhanced events calendar.*

Indicators of progress on this initiative will be the active involvement of key arts and tourism leaders in the Working Group. This group would then be responsible for setting out clear outcome measures as part of its Memoranda of Understanding with the Millennium Management Group.

Benchmarks

Action Step

Strengthen the existing entrepreneurial and small business base in the region through increasing access to existing services and filling gaps where services are needed.

Relevant Findings

- *An analysis of risk capital sources in the Hartford region found that while there were sources of traditional venture capital available for many larger amounts and for the types of high growth industries that are attractive to major venture capitalists, there is a shortage of smaller risk capital available -- most significantly in the \$1 million to \$1.5 million range and for non-technology companies.*
- *While there are many state and local resources available for assisting small businesses, these resources are not as "user friendly" as possible. Rather than creating a new vehicle for reaching the small business community in MetroHartford, the existing efforts by the Connecticut Economic Resource Center (CERC), in particular its Web Site, could be an effective vehicle for linking small businesses to available resources and highlighting the region's strengths to a national audience.*

Program/Project Elements

1. Lobby the state to establish a risk capital fund for non-technology emerging companies, through Connecticut Innovations, Inc. and to support and expand CDA's Entrepreneurial Loan Program, or pursue the development of a regional entity to meet this need.
2. Develop an entrepreneurial mentoring program in which entrepreneurs form informal networks of mutual support tied to financing.
3. Better promote existing local loan funds and state small business support programs through formal and informal business networks.
4. Improve the CERC web site through implementing the many recommendations of the Millennium Project's Small Business and Entrepreneurship Task Force. (See enclosed Task Force Report.)

Implementation Responsibilities and Steps

The MetroHartford Millennium Small Business and Entrepreneurship Task Force has been actively involved in both the development of recommendations and the implementation of some of their strategies. This group will be invited to continue its work -- moving its agenda towards implementation. The existing Task Force group would be augmented with some additional members representing the state, risk capital community, and other professionals that provide services to small businesses and entrepreneurs in the region.

Benchmarks

The indicator of progress on this initiative will be the implementation of an enhanced web site by CERC; the development of new risk capital mechanisms in the region; and the implementation of a new mentoring program.

Quantitative performance measures will be developed in conjunction with the Task Force.

Action Step

Support the activities of the Governor's financial services, technology, and healthcare clusters groups and statewide efforts to continue the efforts to improve the state's business climate.

Program/Project Elements

- Industry leaders throughout Connecticut have been meeting to develop a policy agenda to support the development of key clusters in the

state. While most of the clusters have some relevance to Hartford, the financial services, technology, and healthcare clusters have been specifically targeted as focal points within this region.

- Efforts to improve the relationship between government and business in Connecticut are critical. While improving somewhat, the state is still not perceived as being as effective as it could be in creating a positive environment for business growth.
- Liaison with cluster efforts has been ongoing. Members of the Millennium Management Group served as members of the Cluster Group and will continue to participate as appropriate. The Millennium Project Manager serves as a member of the Connecticut Economic Conference Board (CECB), created by the State Legislature to monitor state cluster activity.
- The Millennium Management Group will seek to develop a more effective relationship with state government and identify regulatory and tax policies that inhibit economic development progress in MetroHartford. The Growth Council will work with state agencies to resolve specific tax and regulatory issues faced by companies in the region, as well as companies interested in investing in the region.

The Millennium Project should support this state activity and encourage implementation activities within the region. Through the Millennium Management Group members who serve on Cluster Groups and the CECB, the Millennium Project will be able to monitor implementation of cluster initiatives. The initiatives will be analyzed to determine their impact on cluster members within MetroHartford, and supported and enhanced as appropriate.

*Implementation Responsibility and Steps**Benchmarks*

Indicators of progress will be introduction of the Governor's Economic Competitiveness Package in the next legislative session and enactment of those initiatives; private sector commitment to continuing each of the cluster initiatives; and successful organization of the clusters.

Strategic Direction #3

**STRATEGIC DIRECTION #3
CHALLENGE THE REGION TO BUILD A WORLD
CLASS WORKFORCE AND EDUCATIONAL SYSTEM --
ONE THAT PREPARES ALL OF ITS RESIDENTS
WITH THE SKILLS NEEDED TO SUCCEED IN THE
GLOBAL ECONOMY**

Profound changes in the corporate and industrial workplace have occurred over the last ten years. Fierce domestic and global competition has forced companies to adopt a number of changes in the way they do business. The result is a dramatically different work environment, one that requires "high performance" from employees: team work, problem-solving, critical thinking, understanding systems, and effective written and oral communication. Employers feel, however, that many employees lack the skills and training needed to perform at higher levels. The results of the Millennium Project's Business Survey and interviews and focus groups with employers in the Capital Region found that poor math skills, an inability to engage in teamwork, difficulties with verbal and written communication, and inadequate technical training are what employers say they are seeing among a significant percentage of their workforce. The two most important systems that prepare individuals for work and careers -- the K-12 public education system and the employment and training system (including institutions of higher education) -- need to do a more effective job at equipping people with higher-level skills and tools and with the specific skills needed by MetroHartford employers.

Action Step

Initiate a process aimed at building an integrated education and training system.

Relevant Findings

- *In simple terms, the K-12 system is intended to provide individuals with the fundamentals of a good education and a mastery of "basic" skills, while the employment and training system is designed to give people the opportunity to strengthen and build upon the "basic" skills. The employment and training system also offers people the chance to gain new and advanced skills. The higher education system is designed to offer higher level skills, and is increasingly an important part of the overall training system. The process should be one in which individuals move progressively up the ladder from lower to higher skills and abilities. But the systems are not in sync. Currently, they act independently of each other and have little substantive or institutional interaction (the one recent exception is the school-to-work initiative -- see below). In order for the systems to produce a high-quality product (i.e., an individual with high performance skills), there needs to be more coordination and integration.*
- *While there is some coordination within the systems, there is little substantive connection. The systems operate independently from each other. They have different teaching philosophies, different timeframes, different assumptions about the workplace and the labor market, and different performance standards. And, rather than creating a clearly-defined and sequenced path in which individuals can progress from a set of basic and fundamental skills to increasingly higher levels, the two systems act in isolation. The consequence is fragmentation and often confusion among individuals and employers.*

- *Different states and regional economies are adopting the principle of integration.* They are trying to build a system that has an internal logic and a sequencing of knowledge and skills. Also, the literature on education and training is underscoring this notion. To collaborate, educators and training providers

"must view themselves as parts of a system (non-competing parts) and view their mission as preparing individuals both for employment at certain levels and for continuation in the education and training system later. The trick to creating an overall education and job training system from the two currently disjointed systems is to fashion these links systematically, in 'ladders' of education and training opportunities that can move individuals from their existing levels of accomplishment to higher levels at which they prepare for jobs of increasing skill, earnings, and stability."

Program/Project Elements

1. *The goals of an integrated education and training system.* Driving the new integrated system should be skills and behaviors that individuals need for good jobs and a viable career, and the needs that employers have for a high performance workforce. The results of the business survey, interviews with employers, and discussions with community-based organizations in the Capital Region provide a good picture of what skills individuals should have. These include:

- knowledge of systems and how systems work -- simply knowing facts or isolated bits of information is not sufficient;
- an ability to solve problems;
- the ability to think critically;
- the capacity to communicate effectively verbally and in writing;
- the ability to work in teams, functioning at different times as team players and team leaders;

- knowledge of how to set priorities among a diverse set of tasks;
 - proficiency in mathematics;
 - computer literacy; and
 - an ability to access, organize, interpret, evaluate, and communicate information.
2. *Principles of developing an integrated system.* Attempts to build an integrated system of education and training are occurring throughout the country. Some efforts are further along than others. Nonetheless, most have identified a common set of principles that should be at the core of building an integrated system. To develop this list of principles, several initiatives were reviewed: Guilford Technical Community College's Workforce Investment Council in North Carolina, Oregon's Workforce Quality Council, Tulsa's Workforce Development Compact, and Richmond's Workforce Readiness Initiative (WIRE). Additionally, some of the literature on education and training system reform was used. The principles most commonly identified are the following.

- *Develop a common, articulated, and agreed upon vision* for the new integrated system, one that focuses intensively on the skills outlined above. The vision is critical in outlining what the system is intended to do. It allows for all individuals who work within the system to understand, and presumably buy into, a bold and creative approach to higher skills and performance.
- *Market the concept to parents and educators that higher education is not the only valid path for career development and advancement.* Many parents and guidance counselors continue to advise young people that college is the only path to developing a career. In fact, not all students should necessarily go on to college. Quality vocational and technical education is a valid career path offering long-term opportunity for many youth.

- *Use existing vehicles and organizations to create the integrated system rather than create another organization.* The school-to-work program provides a good vehicle for developing the integrated system for two reasons. First, most of the key constituencies and stakeholders in education, training, and industry are involved in this program. Secondly, the school-to-work program's strong emphasis on work and careers as the essential context of programs and instruction is very consistent with the integrated system's focus. The key elements include: vocational skills training integrated with academic instruction; school-based instruction coordinated with work-based education; a hierarchy of education and training from lower to higher levels; and, applied teaching methods and team-teaching strategies.
- *The new integrated system should have a coherent, articulated, and sequenced program of education and training in which individuals climb a "ladder" of instruction and skills acquisition.* Each component of the system should be designed to move individuals from lower to higher levels of skills. Each step of the ladder is required to specify the programs that precede it and those that follow. (The relationship between the community college system and four-year higher education institutions, in effect, contains the key elements of this approach. Students are well informed of the requirements needed to enter the community college system and the requirements needed to transition to a four-year college or university. This approach can and should be used as a model for creating the new integrated system.)
- *Involve CEOs from local businesses and key nonprofit organizations, as well as CEOs from the major education and training institutions, in the conceptualization of the integrated system.* This kind of executive-level involvement is essential to

creating the vision and successfully designing the new system.

- *Develop the financial and support resources that will be needed to help public school teachers adapt to the new system.* Each model that was examined and virtually all of the literature that was reviewed on this subject underscored the importance of teacher training and development. Teachers will need help in understanding the changes that have occurred in the workplace and the marketplace. They will need support in developing new curricula and new methods of teaching that are consistent with higher level skills and thinking. Providing the resources for teacher support systems is crucial.
- *Create a mechanism that tracks individuals as they move through the system, so that they do not become lost or confused.* Many employment and training programs have a case management system that makes sure clients are progressing. Such a program could be used in the new integrated system.
- *Create incentives for vertical coordination and integration and abolish programs that are inconsistent with the system's vision or that operate independently from the system.* In effect, this approach provides a vehicle for holding programs, organizations, and individuals accountable.
- *Community colleges should be used for their strengths -- offering higher level education, advanced training, certificates, and credentialing in specific occupational areas and degree programs.*
- *Integrate support services (e.g., remedial programs, job readiness, literacy), with other elements of education and training rather than treat them in isolation.* Support services should also be experienced-based, continuous, and developmental.

- *Maintain and share employer-related and current labor market information among all educational and training institutions.* Similar to the vision outlined above, the labor market information will give all components within the system a common framework to work within. Such sharing of information will keep specific career and occupational programs on track and up-to-date. It will also provide some assurance for individuals moving through the education and training system that they are being prepared for jobs and careers that are based in reality.

Implementation Responsibilities and Steps

Building a truly integrated education and training system that follows the vision and principles outlined above is a very formidable and long-term undertaking. The current system has been evolving and defining itself for decades. It has its own operating strategies and principles, its own incentives, power bases, and sources of funding. There are other challenges. The schools in the region are not part of a school "system" as such -- they are 34 independent districts. And, many of the districts are concerned about graduating their students and getting them into four-year higher educational institutions, not work.

It is important to stress, however, that an integrated system does not require a new bureaucratic organization that will complicate an already crowded education and training landscape. The new system can build upon the initiatives and structures in place, but it needs to do that in a more coordinated and deliberate fashion.

Richmond's WIRE program offers a good case in point. Employers and business organizations in the city decided to review and analyze the existing education and training system before creating a new one. What they found was a system that had sound educational programs and moderately successful employment and training programs. What was missing was the coordination, cooperation, and integration needed to produce highly-skilled and progressively trained individuals. Richmond felt strongly it was much more appropriate to improve and strengthen what existed and make the system more integrated. Fundamentally, the Richmond program was centered on *process first* and then substance. In this context,

the following recommendations are offered for the Capital Region.

1. *Convene a working group under the direction of the Millennium Management Group.* The working group should include individual representatives from the following organizations and institutions: CREC (representing area superintendents and principals), the Hartford Public Schools, the Greater Hartford Chamber of Commerce, the Capital Region Workforce Development Board, the Hartford Foundation for Public Giving, CBIA, the region's four community colleges, and other higher educational institutions. Given that workforce development boards are supposed to play a coordinating role by statute, this organization could play a key leadership role in the design and implementation of this effort. Individuals from the Millennium Management Group should share the results of this report with the group and then raise the issue of creating an integrated education and training system. The discussion should not be viewed as a "hard sell" of the idea of an integrated system, rather it should be seen as an effort to talk about the logic and benefits of such a system. Several meetings, in fact, may need to take place before a solid airing of issues and concerns has occurred. Assuming there is consensus among the group, it then should become the major policy and support group for systems integration.
2. *Identify two to three staff from existing organizations and institutions, as well as a senior manager from the corporate sector, to assume primary responsibility for moving this initiative forward. Again, the Capital Region Workforce Development Board staff could provide leadership in this effort.* The working group will need staff assistance for moving the initiative forward. Discussions will need to take place with personnel within the two systems -- their feedback and input will be essential for gaining support for the integrated systems notion. Process is very labor-intensive and staff should assume much of the groundwork rather than CEOs.
3. *Complete the work of the System Integration Subcommittee of the Workforce Development Task Force.* This subcommittee's work laid the framework for

this analysis and recommendations. It was, however, under time and staff constraints and was not able to completely finish its work. For example, a full mapping of the current employment and training system is incomplete and models of employer-based training programs need further refinement. Also, the state and regional models that were used for the "Principles" section above could be more fully developed.

4. *Consolidate employer, skills, and labor market data.* Within this report is information on key clusters in the Capital Region, a description of the region's workforce, and the results of the employer survey and focus groups. Also, there is very useful information that CBIA has collected on skills requirements. It is also developing curriculum materials for manufacturing, and the organization has also recently completed two pilot training programs. This and other information in the region that addresses employer needs and highlights labor market trends should be consolidated into one document. This could then initiate the process of sharing labor market data among key education and training institutions within the region.
5. *Prepare a white paper on system integration that provides a framework for discussion throughout the region.* Once a series of meetings has occurred within the working group and once additional relevant information has been collected, a white paper should be developed that provides an outline of how systems integration can work and how it will benefit the region. A document of this kind is important to provide visibility and credibility to systems integration. It also gives the issue a sense of permanence.
6. *Convene a one-day conference on an integrated education and training system in the spring of 1998.* This activity would offer individuals from all constituencies an opportunity to be better informed about the issue of integration and it would give them the chance to participate in shaping the form that systems will take over time. Key issues and problems that emerge from the conference then become a major part of the workplan for the Millennium working group and its staff.

Benchmarks

The successful implementation of a more integrated education and training system will not occur overnight. This is an example of an initiative that will require substantial additional work. However, as noted, the process in this case is as important as the substance. The building of relationships will be very important. The immediate indicators of progress on this initiative will be the successful formation of the Working Group, the completion of the system mapping process initiated through the Millennium Project, the completion of a white paper, and the holding of the conference by the spring of 1998. An important component of the Working Group will be to develop system-wide metrics that would provide all participants in the system with a set of expectations about their performance.

Action Step

Support the efforts of the new Trustees of the Hartford public school system through new and more coordinated linkages between the business community and the schools.

Relevant Findings

- *The future of the Hartford public school system was found to be a fundamental concern of neighborhood residents, businesses, both in the city and outside of the city, as well as residents of surrounding communities.* The successful turnaround of the system is key to the region's future.
- *A lot of work is going into improving the system.* This work has involved a lot of corporate commitments. The role of the Millennium Project will be to support and enhance existing efforts, rather than seek to develop any totally new initiatives.

Program/Project Elements

1. *Make students, parents, businesses, teachers, and counselors aware of the academic and occupational preparation required in today's workplace through increased career awareness, internships, and the seamless transition between secondary schools and college, and secondary schools and careers.*

2. *Work with the recently appointed Trustees of the Hartford Public Schools to develop "premier" public schools in the city by coordinating and broadening the corporate involvement and resource commitment to public education in the city; establishing incentives to celebrate youth academic achievement; organizing "real" scholarship initiatives; and designing scholarship initiatives to ensure that recipients generate a return on contribution in the form of residency/employment in the City of Hartford.*
3. *Sponsor a pilot network of urban and suburban schools that focuses on educational excellence. The pilot would help break down barriers between the two systems and it would use teams of principals, teachers, parents, and business people as the principal means of learning/teaching.*
4. *Develop standards and performance measures for the system.*

Implementation Responsibilities and Steps

The Greater Hartford Chamber of Commerce has already initiated an effort to coordinate business involvement in the schools. The Millennium Management Group will invite the Chamber to continue this effort with its support. The above recommendations for specific program elements would be incorporated into the Memoranda of Understanding with the Chamber of Commerce.

Benchmarks

As part of its Memoranda of Understanding, the Chamber should develop specific benchmarks and outcomes anticipated through its involvement. These benchmarks should include measures related to corporate involvement. The outcomes should be specific in terms of dropout rates, competencies of graduates, etc.

Action Step

Develop workforce skills of youth through effective work experience programs between small businesses and students.

Relevant Findings

- *Small businesses in the region have increasingly found it difficult to find workers with the*

appropriate skills. Unlike larger companies, smaller businesses also do not have sufficient resources to support extensive training or the time to provide internships to students.

- *Work experience helps define a student's interest and provides invaluable training for future full-time work.*
- *Students should be career bound rather than only college bound.*

Program/Project Elements

1. *Look into the potential of developing a state tax credit for small businesses that accept and oversee student interns.*
2. *Small businesses should work with local schools to design a model for small business and entrepreneurship curriculum.*
3. *Schools should provide for "job shadowing" -- allowing students to spend time with small business people to see exactly what their job responsibilities are.*
4. *Organize an effort to have small business people speak in school classrooms in conjunction with school to career programs or Junior Achievement.*
5. *Organize an effort to have small businesses in the region to have "externships" -- hosting teachers at their workplace during the summer. Provide continuing education units to the teachers for this experience.*
6. *Put Junior Achievement into each school in the region and have small businesses become an active participant in the program.*
7. *Create a "training Course for Mentors" that trains employers as to their responsibilities when hiring interns.*

8. *Work with the School-to-Career Partnership of the Capital Region to develop initiatives linked to the small business community.*

**Implementation
Responsibilities and
Steps**

The Small Business and Entrepreneurship Task Force will be invited to manage the implementation of this effort.

Benchmarks

Indicators of progress on this initiative include evidence of increased small business involvement in the schools. Outcome measures include successful placement of 100 interns in small businesses in MetroHartford by the fall of 1998.

Action Step

Attract young professionals to the region through cooperative recruitment and marketing, as well as creating an urban environment more attractive to the target market.

Relevant Findings

- *Human resource managers in companies throughout MetroHartford have reported that it has become very difficult to recruit young, unmarried professionals to jobs in the region. They are spending a considerable amount of money on efforts to recruit graduating students who have the skills their companies needs. Their lack of success in these efforts affects the likelihood that these companies will decide to expand their operations in the region. Moreover, in an era where the availability of skilled labor is one of the most important location factors for business, the difficulty in recruiting young professionals becomes a serious economic development barrier.*
- *The difficulty in attracting young professionals is tied to the image of the City of Hartford and to the region as a whole. There is a general lack of awareness of the rich art and cultural environment in the city. Moreover, there is no downtown housing and no neighborhood that has immediate appeal to young professionals. In turn, the lack of this*

population in the city affects efforts to further strengthen and revitalize downtown Hartford.

**Program/Project
Elements**

1. *Organize a working group of human resource managers at companies in the region who are interested in participating in a cooperative recruitment and marketing campaign.*
2. *Develop joint promotional materials that are oriented towards young professionals and that highlight career paths in Hartford and the region's quality of life.*
3. *Run briefing sessions for corporate recruiters and human resource professionals in the region that focus on the strengths of the city.*
4. *Develop amenities packages with local arts and entertainment venues to offer recruits.*
5. *Develop new recruit "welcome wagon" program.*
6. *Develop incentives to encourage the development of the S. Main Street area and the West End for retail, art, and entertainment uses appealing to young professionals.*
7. *Design a housing initiative, involving corporate support, that provides incentives for renovating housing in these neighborhoods. (See housing recommendation related to Direction #4.)*

**Implementation
Responsibilities and
Steps**

Key members of the Millennium Project Steering Committee along with existing organizations will be invited to lead and implement this initiative and to organize a small working group that will solicit interest in a cooperative corporate effort. Specific implementation steps include:

1. *Develop a working paper that makes the case to local companies that cooperative marketing and recruitment efforts could save them money in the long run.*

2. *Meet individually with corporate leaders and human resource professionals to market the concept.*
3. *Develop a budget and seek funding from the Millennium Regional Implementation Fund.*
4. *Hire a local advertising or public relations firm to design the program. This might include additional research such as focus groups with the target audience.*
5. *Hold seminars for human resource professionals in the region about how to market the city and region to the target audience.*
6. *Undertake a joint recruitment trip.*
7. *Ensure that the current downtown design project (see Strategic Direction #4) includes a focus on creating an environment in the downtown and some of the neighborhoods that are attractive to young professionals.*

Benchmarks

The immediate indicator of progress on this initiative will be the successful organization of a core group of employers willing to participate and fund a joint marketing and recruitment effort. The group itself would develop specific outcome measures that focus on the number of young professionals living in the city; the proportion of job offers that are accepted by this target audience; and a reduction in the corporate cost of personnel recruiting.

Action Step

Make the proposed Downtown Higher Education Center a centerpiece of urban learning and corporate training.

Relevant Findings

- *The Presidents of all of the major institutions of higher education in the Hartford region, including the University of Connecticut, the University of Hartford, RPI, the Connecticut State University system, Trinity College, and St. Joseph College, have all agreed to participate in the new Center and develop a range of innovative new*

programming to meet the needs of Hartford residents and businesses. This collaboration offers significant potential in terms of the economic future of the region. Through the creation of a "focal point" for higher education in the city, the visibility of all of the institutions in the region's economic life will be enhanced. In addition, through the development of joint facilities and programming, significant economies of scale can be achieved.

- *A "demand driven" Higher Education Center will improve the responsiveness of higher education institutions in the region to the needs of the business community as it adjusts to the changing requirements of the global marketplace.* Being competitive requires that companies be able to manage change in a number of different dimensions -- technology, advanced management practices and techniques, market research and marketing, work organization, skills enhancement, and inter-firm cooperation. Through innovative programming, the Hartford Higher Education Center can assist firms as they seek to improve their competitiveness.
- *The Hartford Higher Education Consortium is proposing new, innovative collaborative programming in three areas that have direct connection to the needs in the private market.* Through the development of specific programming related to health care, the tourism/cultural industry, and the information technology and the financial services industry, the Center will be responding directly to the needs of the three most important "clusters" in the Hartford regional economy.
- *The Higher Education Center will create some efficiencies in service delivery amongst institutions.* Amongst the services being proposed at the Hartford Higher Education Center are facilities that could serve the needs of the academic partners as well as other businesses that are located downtown. The two most notable of these services

are the proposed magnet pre-school and a shared distance learning center.

- *The creation of a highly visible higher education center will improve the regional business climate and make the region more attractive to industry.* The Center will provide strong evidence of a new cooperative spirit not only amongst the higher educational institutions, but between academia and the business community, the business community and government, and academia and government. Businesses seeking to make a new investment in a community are attracted by those locations able to demonstrate such relationships.
- *The Center could also help to provide an atmosphere within the city that is more appealing to young professionals.* The development of innovative programming will not only help individual institutions, but could serve as an attraction to young professionals interested in potentially moving to Hartford.
- *Collaborative activities amongst the institutions of higher education can help to create improved linkages with the community.* The downtown center could have a very profound impact on the quality of the city's neighborhoods, its community-based organizations, and its public schools. Cross-disciplinary faculty expertise could help address neighborhood problems and quality of life issues; student projects and volunteers could add capacity to the work of community organizations; and faculty and administrative staff could provide organizational and research support to some of the activities already underway in the city.
- *Innovative programming tied to the region's cultural and arts institutions will strengthen the role of downtown as a regional cultural center.* In addition to the specific training projects being proposed to help support the arts organizations in

the city, the Center is considering other collaborative efforts with the Hartford arts community.

Program/Project Elements

A Higher Education Center Task Force has recently been convened to develop a revised proposal for the Downtown Higher Education Center. This Task Force is developing more details about the potential programs that will be established through the Center. The programming will be guided by the following principles:

1. *Support life-long learning.* The education and training system in a community must respond to the different education and training needs residents have throughout their lives. The HHEC, as a collaborative effort involving numerous institutions of higher education, can best meet the continuum of transitions that residents will face in their lifetime.
2. *Demand driven.* The role of the community college and other institutions of higher education in workforce development has been slowly evolving. Through much of the 1980s, the approach to meeting the workforce needs of businesses was often "if we build it, they will come." This led to significant investments in advanced technology training centers, some of which have not lived up to their potential. Institutions need to be more responsive to their customers' base -- both businesses and students.
3. *Outcome-oriented.* A common evaluation framework will be developed to measure the success of the collaborative programming developed at the Higher Education Center. This framework will go beyond traditional measures and consider whether the learning achieved through the courses and training offered through the Center are able to be successfully applied to the workplace.
4. *Flexible.* Labor market conditions are changing at a rapid pace due to changing economic factors as well as technological changes. It is critical that programs are designed to be flexible and respond to the changing requirements of the marketplace.

Implementation Responsibilities and Steps

The Hartford Higher Education Consortium is invited to serve as the organization responsible for the implementation of the recommendation -- moving the Higher Education Center concept to a reality. To ensure that these principles guide program development at the new Center, a team of employers (representing each of the "clusters"), public sector officials, representatives of community-based organizations, and representatives of each of the institutions should be convened to guide the programming of the Center and to ensure that the principles continue to be followed. Currently, a Higher Education Center Task Force has been organized to develop a very specific proposal for the new Center. It has divided its activities into three committees -- distance learning, delivery and distribution, and virtual environment. This group can form the base for a longer-term Advisory Group. The existing Higher Education Center Task Force could serve as the beginning of this group.

The following implementation steps are suggested:

1. *The Millennium Management Group will enter into a Memoranda of Understanding outlining its support for the effort, but including the adherence to the principles laid out above and assurances that the Center remain driven by the needs of the Hartford business community and residents, not solely the interests of the institutions.*
2. *The proposed programming for the Center will be presented at the Greater Hartford Chamber of Commerce Retreat in October.*
3. *If the final concept is accepted, the Millennium Management Group will provide continued support in efforts to implement the project and to integrate the effort with others being undertaken through the Millennium Project.*

Benchmarks

The first indicator of progress on this effort would be development of programming for the Center that meets the needs identified by the business community. The primary indicator of progress will be state support for the effort and

the development of a downtown site. Outcome measures will be developed by the Greater Hartford Consortium on Higher Education.

Action Step

Develop a targeted welfare to work system to secure employment for the "hardest to serve" welfare population and enhance the current system for the general welfare population through focusing on job retention issues.

Relevant Findings

- *The Capital Region's current welfare to work system is relatively successful in placing welfare recipients with higher levels of education (high school diplomas and more) into jobs. There has been reduction in welfare caseloads overall and an increase in the number of recipients with earnings in the region. The system is not as effective, however, in moving residents with lower levels of education out of the welfare system. In particular, those recipients with a 6th grade and under educational equivalency are not being adequately targeted with programs tailored to their specialized needs. As is everywhere across the country, the current system essentially "creams the crop" from the more educated recipients and leaves behind those hardest to serve.*
- *Attention to this issue is critical as additional federal funds are becoming available in the spring of 1998 to target the "hardest to serve" welfare population. The Capital Region stands to gain a substantial portion of the state's \$11.7 million in funds targeting welfare to work programs that address this issue.*
- *Further analysis of the system found that while there were many strengths in the current welfare to work system that serve the general welfare population, job retention is an issue neglected in past welfare reform measures across the country as well as in the Hartford region. Almost all organizations in the region are struggling with how to provide job retention support for placed trainees.*

Job retention efforts include mentoring, employee support groups, visitation programs, education of employers, crisis intervention services, continued personal support, and career enhancement opportunities.

- *The region needs to pay particular attention to retention efforts that include industry ladders and career enhancement.* Only a few providers have connections to industry that are cemented and established on an ongoing basis or have career enhancement opportunities for trainees as part of their regular programming. These strategies are effective tools in moving recipients from low paying, entry-level jobs to higher wages and better career opportunities.
 - *There is a growing labor shortage in the region that is affecting the operations of businesses throughout MetroHartford.* Entry-level workers are particularly difficult to recruit in the current environment. An effective welfare to work system can be a win-win situation for all involved -- providing job opportunities to low-income residents and needed employees for regional businesses.
1. *Establish an integrated and mixed strategy of education and training that targets the "hardest to serve" welfare population.* The basis for a successful welfare to work system with a 6th grade and under welfare target population is an integrated and mixed system. The advent of such a model has come about with the reported success of San Jose's Center for Employment and Training -- an approach that combines work and educational materials. The key to the success of this model is a tightening of all activities leading an individual to the path of sustained employment. The approach mixes job search activities with industry career possibilities, motivational curriculum with industry familiarity, skills training with basic education, and on-the-job training with workplace learning. Programs that previously offered these activities in isolation now offer them concurrently -- creating an integrated and seamless system of welfare to

*Program/Project
Elements*

work. The integrated part of the system also links partners in the region's education and training system, such as providers, employers, community-based organizations, and public agencies, to perform complementary functions.

2. *Create an employer-based and focused system.* The success of any large-scale welfare to work system is dependent on securing well-paying and stable jobs. Therefore, the practical needs of business become the linchpin from which the system should operate. The system should be created to fulfill a business need, thus creating a demand for qualified, well-trained employees exiting the welfare system. For example, the content of education and training should link to the needs of industry sector employment. There is a wide range of models within the region that already practices elements of this approach. A more in-depth integration of business needs to be developed.
3. *Focus intensely on job retention efforts across the system.* Meaningful employment moves beyond just "attachment" to the labor force. It involves securing stable employment over a sustained period of time. Job retention efforts, often neglected among past welfare to work initiatives, are critical to a successful movement from welfare to long-term work. Welfare recipients with little or no job experience rely on job retention efforts more than others. One method to change the system's orientation is to restructure the current performance based formula and give increasing financial rewards to providers that succeed with long-term placement -- not just initial attachment to the labor force.
4. *Create opportunities for career enhancement and credentialing.* Develop a system of career ladders that boosts an entry-level job to higher earnings and professional responsibility. Career ladders also provide incentive and motivation for retention. Each industry focused strategy needs to have these opportunities available to participants; even after he/she secures employment. In addition, opportunities for welfare recipients to pursue further education and credentialing while employed (on the job or at after hours training sites) need to be developed. Most trainees are expected to

upgrade their skills on their own -- not as a continuation of their programming -- and, therefore, remain in entry-level jobs with low wages. Only a few providers have career enhancement opportunities for their trainees as part of their regular programming. Credentialing of continuing education and professional work experience is a method used in models elsewhere.

5. *Create a seamless continuum of communication and support services.* For successful implementation of education and training programs, support services must be closely linked throughout the process -- with flexible on-site and at-home visits and a full continuum of care (mental health, substance abuse, domestic violence counseling, etc.). Many model programs offer ongoing support through group work or individual case management for people after they are placed in jobs. Most desirable is an integrated family self-sufficiency system that moves the client along a pathway to independence and addresses barriers to independence such as education, skill deficits, limited work experience, child care needs, and problems with physical as well as mental health.

Implementation Responsibilities and Steps

The Welfare to Work Subcommittee of the Millennium Project's Workforce Development Task Force could form the core of the group charged with implementing the recommendations. A representative from the Millennium Project Steering Committee will be invited to continue chairing this Task Force. This group could focus on "scaling up" successful programs to have a larger impact, begin with a pilot project, or take on a broader programmatic focus. The challenge is to continue the momentum already established and reach a set of achievable next steps. These steps should include:

1. *Form an Alliance of Training Providers committed to an integrated and mixed strategy of welfare to work targeting the needs of the "hardest to serve" welfare population.* The Welfare to Work Subcommittee of the Millennium Project's Workforce Development Task Force should form the core of an Alliance of Training Providers. This alliance should expand to include relevant training providers in the region to carry forth the

recommendations. The Alliance will bring leaders together to share strategies that work, to problem solve together, and to adapt to the changes in the system through cooperation. Formation of the system to conform to the requirements of public policy is critical. One of the issues of prominence in creating any welfare to work system is the components of education, skills training, internships, etc. that are allowable under new welfare reform policy. It is crucial, therefore, that participation include officials from the Department of Social Services, Capital Region Workforce Development Board, Department of Labor, and Department of Higher Education.

2. *Work collaboratively to respond to the \$3 billion welfare to work program recently enacted by Congress.* Use the membership of the Alliance of Training Providers to respond as a region to a state-based formula to appropriate the funds for use over the next three to five years. The program is well suited for the focus on the Capital Region's welfare recipients with less than a 6th grade education. The federal program is focused on the hardest to serve welfare recipients, those who have had a difficult time finding, qualifying for, or retaining employment in spite of the low unemployment rate in most communities. This criteria also allows the funds to focus on job retention and career enhancement opportunities in the region.
3. *Convene an employer-based Welfare to Work Advisory Committee to work in consultation with the Alliance of Training Providers.* To enable employers to be involved in tracking information on industry and occupational trends, as well as in curriculum formation and teaching, a Welfare to Work Advisory Committee should be established as an adjunct to the existing Employer Relations Committee of the Capital Region Workforce Development Center. In addition to the mandate of private-sector membership, the Employer Relations Committee is responsible for linking industry with the Capital Region's overall employment and training activities. The Welfare to Work Advisory Committee should serve to ensure that special attention is given on the employer front to the unique programs and needs of the "hardest to serve" welfare population.

4. *Identify key industry sectors to target for the mixed, integrated system.* One of the first tasks of both the Alliance of Training Providers and employer Welfare to Work Advisory Committee should be to research and identify the best industries to target. Included in the criteria for choosing industries should be current and future employment demand, wage rates, career opportunities, established relationships, and other industry trends and competitive issues. Mt. Auburn Associates' appendix industry studies can serve as initial research for the health care, distribution, aerospace, precision machining, financial services, and tourism and hospitality industries.
5. *Identify staff from existing organizations or hire a Curriculum and Training Consultant to develop the system.* As with any new model, there is a gap of knowledge and capacity among some providers to make appropriate curriculum changes to a mixed and integrated strategy. Not only do many providers lack the resources to spend additional time and money on curriculum development, many do not have the in-house knowledge of curriculum that is workplace focused. It is critical that curriculum be consistent and reflect workplace and industry needs. A consultant should be identified to dedicate time to developing a system to integrate world of work and vocational basics into each education and training activity in the welfare to work system. A consultant shared by all alliance providers will reduce unnecessary duplication and overhead costs for already stretched nonprofit programs. One consultant for the system will also ensure consistent methods of teaching -- enabling quality assurance across the system.
6. *Use Mt. Auburn Associates' Welfare to Work document as a framework for developing and enhancing a welfare to work system that targets the hardest to serve.* The document was undertaken as part of the Millennium Project's Welfare to Work Subcommittee to provide a common framework for those involved in welfare to work with a particular emphasis on recipients with less than a 6th grade educational equivalency. It includes specific suggestions and principles to guide a mixed and integrated welfare to work strategy. The major thrust of the research process included interviews, meetings, and

focus groups with many of the principal players in the Hartford region's welfare reform and welfare to work system. These conversations included relevant state and regional officials, employers and industry leaders, education and training providers, community-based organizations, and welfare recipients. In addition to these conversations, current welfare to work models and studies were analyzed to learn from best practices across the country and to keep up with the rapid changes occurring in the system. The document is an appendix to the Millennium Project's report.

Benchmarks

This effort could involve the implementation of some short-term pilot projects, as well as the agreement by all relevant parties to accept the principles and guidelines that have been developed as part of the Millennium Project. Specific performance measures that focus on outcomes other than job placement will be developed.

STRATEGIC DIRECTION #4

CREATE A VIBRANT AND CULTURALLY RICH CITY -- WITH A VITAL DOWNTOWN THAT SERVES AS A REGIONAL ARTS AND ENTERTAINMENT CENTER AND STRONG NEIGHBORHOODS THAT PROVIDE RESIDENTS WITH AN IMPROVED QUALITY OF LIFE.

The City of Hartford in effect defines the MetroHartford region. When traveling nationally or internationally, Bloomfield or Simsbury would elicit very limited recognition. These communities are largely identified with their central city -- Hartford. It is the image of that city that affects how the entire MetroHartford region is perceived. Both within the region, and increasingly outside of the region, Hartford is not thought of as a strong and vital city. Downtown Hartford is perceived as closing down by 6:00 p.m. when employees leave; much of the middle-class have left the city, leaving a very high concentration of poor residents; and many of the neighborhoods have been affected by abandoned buildings and vacant lots. In short, while Hartford is a city rich in arts, cultural, and recreational assets, with strong community organizations working hard at improving conditions, it has not yet turned around.

In seeking to strengthen the region's core city, the Millennium Project has been guided by three fundamental principles:

1. *Creating a healthier city is critical to the success of any regional economic development effort.* As noted many times in this report, the Millennium Project Steering Committee has found that the economic well-being of all residents and businesses of MetroHartford is inexorably linked to the image and vitality of its central city. The region cannot effectively compete in the global arena without addressing the range of issues that have left its central city weak.

2. *Turning around the downtown is not sufficient. Attention needs to be paid to the neighborhoods.* The experience in many other cities that have received substantial publicity for their "come back" provides strong evidence that while a nice downtown and the development of urban entertainment districts improve a city's image and have positive economic impacts, unless concerted effort is made, many of these benefits do not accrue to the low-income residents who live in the city's neighborhoods. For example, a recent Wall Street Journal article noted that even with the substantial turnaround in the city of Cleveland, its public schools have further deteriorated and few of the benefits have been felt at the neighborhood level.

3. *On the other hand, the neighborhoods cannot be revitalized without strengthening the city as a whole -- attracting middle income residents back to live in the city and to spend their money in the city.* Community development activities are critically important to strengthening the city. However, neighborhood-based development alone cannot solve the myriad urban problems and barriers that community-based organizations face in their efforts. The overall fiscal condition of the city needs to be improved and this means increasing investment in its downtown.

Action Step

Implement a strategic and comprehensive approach to strengthening downtown Hartford.

Relevant Findings

- *Connect the Dots and other efforts to promote activity downtown have been successful. However, they have not achieved the scale required to change the overall perception that the city offers limited entertainment opportunities after 5:00 on weekdays and on weekends.*
- *There are a number of proposed projects that could be instrumental to turning the downtown area around. However, there has been no systematic effort to set priorities around which capital projects have the greatest potential for implementation and for economic impacts.*

- While there are a number of organizations that have been involved in efforts to turn around the downtown, and a number of plans, these efforts have suffered from the lack of coordination and strategic alliances amongst the group and the failure to develop a single focused plan.
- The real estate market is rebounding -- the challenge now is to manage real estate activity so that it fits the region's vision and enhances the quality of life for all residents. Both office and industrial vacancy rates in the city and suburbs are going down. A number of major real estate deals have been struck in the past few months as outside investors seek "bargains" in one of the slowest to recover markets. It is imperative that in this changing environment the region be clear about what type of development it wants to see and where.
- A recent focus group on the key issues facing the downtown noted the following:
 - lack of cohesion and walkability;
 - disconnect between Trumbull Street and the railroad station;
 - limited retail and restaurants and too many blank walls at street level;
 - limited opportunity for housing for young professionals and empty nesters;
 - lack of connection between downtown and neighborhoods; and
 - not enough anchors.

*Program/Project
Elements*

1. Sponsor a Downtown Urban Design and Action Plan that develops new and specific urban design elements and identifies appropriate zoning and land uses. This effort should be overseen by a coalition of organizations and agencies that includes public and private sector actors as well as neighborhood representatives. The objective of the plan will be to create a more cohesive downtown in terms of pedestrian experience and image; to emphasize arts and entertainment; and to promote downtown housing.

2. Create an "amenities fund," through the use of a special downtown district that would support the urban design investments associated with new development projects.
3. Create incentives for downtown residential development.
4. Work with the Connecticut Convention Center Authority in developing site recommendations and determining the feasibility of a new, major hotel/conference center downtown.
5. Develop incentives for the enhancement of youth-oriented arts/housing/entertainment districts -- South Main Street and the West End.
6. Aggressively support priority capital projects that have ranked highly in the Capitol Project Matrix (see Appendix).

*Implementation
Responsibilities and
Steps*

Primary responsibility for this initiative lies with the Downtown Council, in conjunction with a Plan Oversight Group that includes representatives from the Growth Council, the Arts Council, the City of Hartford, the proposed Hartford Neighborhood Council and other neighborhood organizations, and Business for Downtown. The Plan Oversight Group has already met to discuss the plan, and the consultants to the Millennium Project, as part of the implementation process, have already drafted an RFP for urban design consultants. In this initiative, time is of the essence. *The entire effort should be completed by mid-1998.* Further implementation steps include:

1. Secure \$300,000 in funding for the Plan.
2. Hold a meeting of the Oversight Group to finalize the RFP and the list of consultants to whom it will be sent.
3. Review proposals, interview finalists, and select the consultant.

The Millennium Management Group will develop a Memoranda of Understanding with the Downtown Council.

The Memoranda will outline in detail the participants in the process and the timing of the effort.

Benchmarks

The Downtown Action Plan should include measurable performance benchmarks tied to the plan's overall objectives and a mechanism for measuring achievement. Measures should include both "outcome" measures, which gauge interim progress toward long-term objectives (e.g., number of priority capital projects completed, number of square footage leased), and "impact" measures, which gauge actual accomplishment of objectives (e.g., number of people living downtown, number of visitors to downtown, number visiting on evening and weekends, dollars spent in downtown businesses, etc.).

Action Step

Develop initiatives to stimulate greater housing investment and home ownership in downtown Hartford and its neighborhoods.

Relevant Findings

- *Hartford has an oversupply of housing and, as a result, a very high vacancy rate.* Vacancy rates vary from 10 percent to 26 percent based on type of structure and location in the city. More than 700 residential buildings are listed as vacant in city documents. The city's population loss has contributed to the high vacancy rate. The most serious abandonment is concentrated in a few neighborhoods such as Frog Hollow, Northwest, Barry Square, and Clay Arsenal. These areas have in common a high fraction of multi-family housing and/or renters, very poor families, a high fraction of public or assisted housing, and weak commercial areas. Plans to substantially reduce the stock of public housing will help to reduce the surplus of housing units. However, further declines in the city's population are projected.
- *Hartford's rate of home ownership is very low -- about 25 percent.* This is considerably lower than most American cities and lower than the national rate of 65 percent. The Hartford rate, however, is not out of line with major cities that have a large fraction of the stock in multifamily buildings. In Hartford, 50 percent of the units are in buildings with more than

five units (which absent a sharp increase in owner-occupied condos, assures a high incidence of rental tenure as a permanent condition). The considerable financial and other resources needed to support low-income home ownership are not presently available.

- *While the city's housing stock is generally old and poorly maintained, the housing in the most serious disrepair and subject to the most vacancy is the multifamily stock.* To the extent that these can be removed from the stock and conservation and redevelopment can occur in the low density and single family units, there are prospects for a modest rise in this low rate of home ownership in select areas.
- *There are both opportunities and considerable barriers to developing downtown residential areas.* There are several buildings in Hartford's downtown area and some open land that could be acquired for housing development, including vacant office space. However, downtown housing development is deterred by such factors of perceptions about safety and a lack of neighborhood commercial activity that appeals to a young upscale population.
- *Hartford has substantial organizational capacity and resources to address its housing problems.* This includes the city's Department of Housing and Community Development, the Hartford Housing Authority, and community-based, church-based, and other nonprofit housing developers. In addition, a great deal of planning around housing revitalization has already been done. This includes the 1996 plan for development adopted by the Hartford City Commission on the City Plan, the Hartford 2000 Urban Act proposal and the numerous NRZ plans on which it is based, and the housing components of the SINA plan.
- *Unlike some cities that have made considerable progress in stabilizing, and even revitalizing their neighborhoods, Hartford has yet to organize its resources, develop a vision, and build an active capacity to undertake necessary actions.* Key stakeholders within the city, including local housing

agencies, developers, and community organizations, are not so much lacking in ideas, resources, or expertise, as in a common vision, mutual trust, and vehicles for acting.

*Program/Project
Elements*

1. *Organizations involved in housing development should form a public-private Hartford Housing Partnership to comprehensively address housing redevelopment needs in Hartford's neighborhoods.* The Partnership would bring local government, local funders and intermediaries, corporations, and public and private developers together to raise additional funds and design strategies and initiatives to deal comprehensively with such issues as abandoned properties, conversion of the housing stock, and promotion of home ownership.

Such partnerships have been established in more than two dozen cities around the country. Their principal feature is that a number of key players come together, use their clout to attract funds for equity, debt, and operating funds that are applied to hundreds, sometimes thousands of units, to be developed or rehabilitated. This approach is particularly helpful in giving some capacity to Community Development Corporations that, with the help of intermediaries, are then able to do many times more units than otherwise possible. Among the activities of the partnership could be the following:

- *A multi-family housing initiative that would engage owners, lenders, tenants, and the city government in various roles to protect multifamily housing.* By developing a coordinated approach, such an initiative could counter the downward spiral often created when uncoordinated, often counterproductive measures are taken by individual actors in response to a problem property.
- *Home ownership programs for low-income families.* Home ownership programs such as lease/purchase programs require collaboration among local government, housing developers, neighborhood groups and lenders, and generally involve a combination of subsidies and credit enhancements, careful screening and training, and creating a housing supply and neighborhood

environment that are attractive to prospective buyers.

- *An initiative to de-densify the city's housing stock through such means as increasing the size and reducing the number of units in existing multi-family buildings, and selective demolition and lower-density redevelopment.*
 - *An initiative to address the negative-equity situation now facing many homeowners who bought in the 1980s that is contributing to foreclosures, vacancies, and declining property values.*
 - *A targeted campaign to market the city to home buyers in the region.*
2. *The Growth Council's proposed development subsidiary should form a development venture to finance, develop, and provide incentives for downtown middle-income housing development, targeted particularly to young professionals.* While there is a compelling need to attract middle-class residents back to the city and there are assets in and near downtown that could appeal to certain populations, there are considerable risks involved in such development and a need to combine housing development with other amenities and improvements. Actors with a strong interest in the future of downtown, including major corporate and institutional employers, commercial property owners, financial institutions, and state and local governments, should combine their financial resources and expertise in a development venture that would spread the financial risks of development and enable a coordinated approach to stimulating related investments. There are a number of successful examples of coordinated initiatives to promote downtown housing development, even in cities typically viewed as distressed:
 - *Cities such as Detroit, Houston, Cleveland, Baltimore, Newark, and Des Moines are seeing an increased demand for new houses in inner-city neighborhoods for the first time in decades.* In these cases, and in the literature, several features were common in broadbased housing initiatives.

There were promotional efforts to sell the city. There were incentive programs to woo buyers and engage lenders and insurance companies. In some cases, there were beautification and other public initiatives to make the area attractive. Cities initially targeted middle and upper income households, and, in some cases, took affirmative actions to make the effort work for low-income families as well. In most cases, there were complementary efforts to boost downtown development or commercial development.

- *Baltimore plans to start a cooperative program between the city, state, and employers called "Live Near Your Work Program."* This program would encourage employees of large companies to buy a house near their work place. Eligible employees will be offered \$1,000 to \$3,000 each for closing costs and downpayments. The city alone budgets \$2 million for the program.
 - *Employers such as hospitals, insurance companies, and city government have shown interest in promoting employee home ownership as a benefit or as part of a community development strategy.* A common way to stimulate home ownership among those on the edge of being able to afford it is to offer \$1,000 to \$4,000 in assistance with downpayment and closing costs. These programs usually do not require repayment if a minimum number of years of occupancy is met. Other programs include matching grants for downpayments, mortgage guarantee insurance, mortgage interest-rate buydowns, lease/purchase programs, and subsidized loans. Some employers see this as a mechanism to increase the longevity of their staff and to recruit new staff.
3. *The City of Hartford should streamline the management of its housing programs.* Efforts to increase capacity in Hartford will require establishing a focal point for housing development within city government. Presently, power and responsibility are spread over several agencies. The city will need to articulate a comprehensive housing strategy and orchestrate the resources to ensure implementation. An

executive leader is needed who is both a manager and a planner. There also needs to be the capacity to envision residential development as part of a downtown plan, as well as a plan that is responsive to and incorporates specific neighborhood interests. There are a number of ways this could be organized.

- *Baltimore created a single agency when it moved into a similar stage as Hartford in the 1970s.* All of the housing and community development activities were put in a single agency with a powerful director. The Mayor hired a development assistant ("czar") whose job it was to make sure that political work was done and the intergovernmental work with the state and federal governments complemented city efforts.
- *Another approach was used by Washington, D.C. in its efforts several years ago to revitalize the Pennsylvania Avenue corridor.* In order to get around the lack of confidence in political staff in the mayor's office and to give greater confidence to key stakeholders, a quasi-public corporation was set up and given resources, bonding authority, imminent domain and other powers in order to focus development experience and power on the corridor.

Implementation Responsibilities and Steps

1. *The primary responsibility for establishing the Housing Partnership rests with the various organizations that are currently involved or have an interest in undertaking and supporting housing development.* The Growth Council can play a role in convening these parties in a working group to consider the proposal. If sufficient interest and leadership emerge, this group can proceed to the design and implementation stage.
2. *The Millennium Management Group should entertain a proposal to enter into a memoranda of understanding with the Housing Partnership that would provide seed funding to support its initial projects.*
3. *The proposed development subsidiary of the Growth Council should solicit interest among potential partners in a real estate partnership to develop housing*

adjacent to downtown. If sufficient investment commitments can be obtained, the partnership should proceed with the planning of an initial project.

4. *The City Manager should appoint a panel of housing and management experts to recommend administrative reforms in the city's housing agencies.*

Benchmarks

Initial indicators of progress on these initiatives will be the establishment of the proposed or alternative organizational mechanisms. Once established, each of these organizations should establish production goals reflecting their organizational objectives. In the long-run, these and other organizations involved in housing activities should develop broad measures to monitor their impact, such as housing occupancy and home ownership rates, housing conditions, and the availability of housing options for various demographic and economic groups.

STRATEGIC DIRECTION # 5

SUPPORT REGIONAL LAND USE AND INFRASTRUCTURE POLICIES AND EFFICIENT USE OF REGIONAL RESOURCES BY PROMOTING COOPERATIVE SERVICE DELIVERY AND REDUCED RELIANCE ON THE PROPERTY TAX

The MetroHartford region has grown more or less ad hoc, without regard for the impact that one town's development has on the economic viability of the others. The current tax structure, transportation infrastructure, and land use regulations promote the development of suburbs and exurbs and erode the tax base of the city. The consequence of this structure is underutilized public and private assets, reduced city services, and high local property taxes. A "lose-lose" phenomenon results. Suburbs and rural communities that would prefer to limit growth are faced with managing rapid development. While residents would prefer to maintain their open space, they are pursuing commercial and industrial development solely to increase their "grand list" and keep taxes down.

While the image of the Capital Region may be of a metropolitan, urbanized area, there is a number of communities that are rural in character, where agriculture is an important part of the local economy and character of the town.

Many of the rural communities, because of their proximity to Hartford, attractive land values, and property tax rates, are vulnerable to development pressures of subdivisions and large-scale retail stores, etc. -- in short, to the dangers of urban and suburban sprawl. On average, 80 percent of farmland in the agricultural communities of the Connecticut River Valley is classified as prime and important farmland soils (i.e., the most suitable for producing food and fiber agricultural crops).

Economic growth in the cities and towns within the region that want it need not be at the expense of agricultural, forested, and open land, or wetlands. We need to create incentives to develop in areas that have infrastructure in

place, incentives to rural communities to provide infrastructure for appropriately scaled centers of economic activity away from prime agricultural areas, and incentives to avoid conversion of farmland and other rural open areas.

Other communities, often the more urban cities and towns that are the home of many of the region's low-income residents, are actively seeking investors interested in utilizing their existing infrastructure. However, their attempts to efficiently use existing infrastructure are constrained by high costs. As a result, public money is being spent on new roads, water lines, and sewers in communities that would prefer to remain more "rural," while buildings remain vacant and sites fallow in other communities that already have the transportation and physical infrastructure in place. At the core of this "lose-lose" phenomenon is the municipal overdependence on the property tax as a source of revenue.

Contributing to this phenomenon is the state's governance structure. As noted many times in this report, the right of each individual municipality in Connecticut to determine its own future and priorities is a core foundation of the state's political culture. However, there are some costs associated with this structure, the most notable being the inefficiency of delivering all services on a municipal level rather than taking advantage of the economies of scale associated with providing some services on a regional level.

It is not impossible to achieve balanced economic development on a regional level in this environment. The inefficient use of public funds results in higher costs for everyone in the state of Connecticut and puts further pressure on business costs. Moreover, it creates a more difficult regulatory environment for businesses. Companies are actively seeking sites in communities that have ambiguous feelings about their location rather than in communities that would warmly welcome any new investment. Developing new sites and creating the necessary new infrastructure requires significant environmental reviews and adds to the perception that the state is unfriendly towards business. Fundamental changes in the fiscal structure of municipalities in the state, as well as the existing land use policies is, thus, a critical component of any long-term economic development strategy for MetroHartford.

In the long run, the MetroHartford Millennium Project is committed to the following goals:

- increase the efficiency and effectiveness of government services through allocating public resources at the level where they can be expended most efficiently and providing certain public services on a more cooperative basis;
- achieve the appropriate balance of power and responsibility for land use policy that ensures that decisions made by local communities take into account the regional impacts and that regional decisions incorporate the concerns and interests of each municipality;
- develop a transportation system that conforms to efficient land use patterns and supports the needs of residents and businesses;
- reform the fiscal structure to ensure that property taxes do not drive economic and land use decisions in the region; and
- develop innovative mechanisms to support and manage assets of regional significance.

Action Step

Encourage high density development in the core areas of the region, particularly Hartford, along developing corridors and along corridors that lend themselves to growth in order to maximize energy conservation, provide public services most cost effectively, minimize sprawl, and balance the region's environmental and economic needs.

Relevant Findings

There is a considerable cost to urban sprawl. The development of infrastructure in outlying areas often comes at the expense of maintaining existing infrastructure. Such expansion into undeveloped areas also incurs additional energy costs, as well as costs associated with regional and local service delivery.

Land use policy and infrastructure investments within the MetroHartford region need to conform to the overall thrust of the initiatives developed as part of the Millennium Project.

The following framework was developed by a Task Force of the Millennium Project:

1. *Help re-establish the City of Hartford as our economic, cultural, entertainment, and sport center.*
2. *Build on previous infrastructure investments in the established industrial and commercial areas of the inner ring suburbs, around Bradley International Airport, and along the major transportation corridors that the region has previously earmarked for development.* Infrastructure includes roads, public transportation, airports, public water and sewer service, electrical service, natural gas service, and other utilities needed to support residential, commercial, and industrial development.
3. *Encourage future infrastructure investment to be focused in these same areas in order to ensure their continued vitality, support redevelopment efforts, discourage further suburban sprawl, and save tax dollars.*
4. *Encourage the protection of critical natural resources that provide many benefits to the region, including a safe drinking water supply and recreational opportunities for current and future residents.* These natural resources provide contrast to the built environment and are essential elements of the unique character of the Capital Region.

In order for these goals and policies to be supportable and equitable, changes in our tax structure will be necessary. At a minimum, there is a need for some form of revenue sharing so that every community in the region can pursue an economic growth plan consistent with its own goals and those of the region, and not driven by the need for local tax revenues.

Program/Project Elements

1. *Maximize highway, rail, public water, and sewer networks to support existing and future employment centers.*

2. *Encourage concentrated centers of mixed use development in the City of Hartford and along major transportation corridors.*
3. *Encourage land use patterns and transportation systems aimed at revitalization of the City of Hartford, central business districts and town centers, while acknowledging suburbanization that has already occurred.*
4. *Discourage high density land uses in rural areas where existing or proposed infrastructure is not adequate.* Promote planning and zoning practices that protect existing and proposed water supply sources, are consistent with existing and planned transportation infrastructure, and do not lead to unplanned extensions of sewer systems, water systems, and roadways.
5. *Encourage low density land use development patterns in rural areas that are consistent with the natural capacity of the land to provide on-site water and septic systems needed to support growth.*
6. *Encourage compatible land use along town lines.*
7. *Support regional economic development strategies and the coordination of economic development/transportation improvements within specific corridors.*
8. *Minimize adverse effects on environmentally sensitive areas and scarce natural resources.* Development in these areas should be restricted or prohibited based on significance of the resource and the ability of the land to support the development without adversely impacting the resource.

Continued efforts to develop and promote a regional land use plan that encourages high density development in the region's core areas will be the responsibility of the Capitol Region Council of Governments. This group, working in conjunction with the Land Use and Infrastructure Task Force and the Public Policy and Fiscal Issues Task Force, will develop a more detailed implementation strategy. Clearly, this is a longer-term activity that will require considerable research, analysis, and education work.

Implementation Responsibilities and Steps

Action Step

Promote increased collaboration at the regional level while preserving the unique character of MetroHartford communities.

Relevant Findings

- *Some economic development functions such as commercial redevelopment can only be carried out at the municipal level. However, there are many other functions, including industrial recruitment, that are best performed at the regional level in order to reduce the level of competition among and between towns and to combine the strengths of all towns in attracting and/or retaining businesses.*
- *Some economic development functions that are currently carried out at the state level should be performed at the regional level, coincident with economic activity. Savings could be realized if state, regional, and municipal activities were better aligned.*
- *The current fiscal structure in Connecticut creates certain inefficiencies in terms of the cost of service delivery. Municipal costs can be reduced through cooperative delivery of certain services.*
- *The heavy reliance on the property tax in Connecticut is a constraint to regional collaboration on economic development and leads at times to the inefficient use of scarce resources.*

Program/Project Elements

1. *A group of public and private sector leaders has agreed to meet and review current issues that create barriers to regional development and prepare more in-depth recommendations for change to help align municipal, state, and regional initiatives.*
2. *This group should also oversee an analysis of the current cost of providing economic development in the 29-town MetroHartford area and should identify those activities that could be more efficiently undertaken at the regional level -- saving money for the individual municipalities.*
3. *Encourage the Capitol Region Council of Governments to summarize and share with municipal leaders existing CRCOG best practices regarding such activities as*

information services and planning and zoning regulation. Consider ways in which those successful practices could be applied to such regional sectors as utilities, transportation, and telecommunications.

4. *Review progress towards decreased reliance on property tax revenue and recommend actions to continue the trend.*
5. *Identify additional areas of municipal services where cost savings could be achieved through cooperative actions.*

Implementation Responsibilities and Steps

The Growth Council will be responsible for overseeing this action step.

Benchmarks

Indicators of progress on this initiative would include the completion of a rigorous analysis of the current expenditures on economic development in the region and the identification of other areas for cost savings. The primary outcome of the effort would be creating a more stable fiscal structure to reduce the costs to individual municipalities while enhancing economic development capacity.

Action Step

Encourage the development of a regional transportation system that provides for the efficient movement of goods and people and conforms to the land use patterns being promoted.

Relevant Findings

- *The tie between transportation policy and land use policy is fundamental.* Transportation policies affect land use decisions and land use policies affect transportation decisions. It is essential as we move into the next century that we recognize this principle and establish processes and support capital investment projects that coordinate land use and transportation decisions.

Program/Project Elements

1. *Do not make major transportation improvements in areas where development is undesirable. Each major alternative should be evaluated subjectively as to its potential development impacts.*
2. *Encourage use of transit, fixed guideway, and non-auto modes in areas where higher density development is desirable and where local land use policies support higher density development.*
3. *In corridors where the region is proposing a light rail system or busway system, major highway improvements should be discouraged.*
4. *Require consideration of land use/transportation issues during the environmental review and design phases of individual projects.* The potential development impacts should be addressed in the phases of individual projects. The potential development impacts should be addressed in the environmental review phase of the project. Adequacy of existing zoning should be assessed to assure that new development does not result in future traffic and driveway problems.
5. *Establish inter-governmental decision processes that encourage local land use decisions to protect and enhance the efficiency of regional transportation investments.*

6. *Roadway investments should be dedicated to areas where we want to encourage development and roadway investments in areas in which development is unwanted should be restricted to necessary safety and structural improvements so as not to stimulate development.*
7. *Focus development along major existing transportation corridors, particularly I-84, I-91, and I-291, and new fixed guideway transit corridors. Further refine this development to concentrate on established industrial and commercial areas such as the City of Hartford, East Hartford, West Hartford, Manchester, Rockville, Thompsonville, etc., where transportation and utility infrastructures are already in place. And finally, encourage towns to work together in the preparation of plans of development to ensure that town boundaries are not the deciding factor in ultimate decision making vis-a-vis development location.*

Implementation Responsibilities and Steps

The Capitol Region Council of Governments, along with the Greater Hartford Transit District, will be invited to develop a long-term strategy to improve transportation linkages within the region. This strategy will identify specific implementation steps as well as performance measures that could be used to measure progress.

Action Step

Aggressively support and facilitate a more extensive and comprehensive public transportation system in MetroHartford.

Relevant Findings

- *Fixed guideway/rail transit investments can provide access to jobs for both urban and suburban residents, establish points of commerce, provide an infrastructure for sustainable development and rational land use patterns, spur economic development in desired locations, connect existing economic drivers along employment corridors, and reduce highway congestion.*
- *A viable and comprehensive public transportation system is absolutely essential to foster the region's economic development, to ensure access to the region's job and retail markets by city residents dependent on transit, to support livable*

communities throughout the region, and to protect the capacity of the region's existing highway network.

Program/Project Elements

1. *The region should vigorously pursue its long-standing vision to establish fixed guideway transit service.* The region's Long Range Transportation Plan identifies three transit ways to be considered: Hartford West (I-84), Hartford South (I-91), and the Griffin Line, which would connect downtown Hartford with Bradley Airport via a light rail line. In addition, a downtown light rail loop should be considered as a part of any recommendation for light rail in the region and it has been suggested that a light rail line emanating from Hartford and serving East Hartford, Manchester, and Vernon be considered.
2. *The region should identify and implement cost-effective transit investments that would facilitate access to its high density activity centers and would link and support high density activity centers as economic clusters.* We should move quickly on any transit project that has been determined to be feasible and for which capital and operating funds have been identified.
3. *The region should continue to work with ConnDOT and Connecticut Transit to revise and refine existing and future bus service to meet current and changing travel patterns, especially for reverse commuting.* This is a particular challenge in light of the dispersed patterns of land use development that have already taken place in the region. The more dispersed the job locations, the more difficult it is to rely on traditional modes of mass transit. We should respond by encouraging the development of new jobs in more concentrated locations along existing transportation corridors and, when necessary, by utilizing smaller vehicles such as mini-buses and vans to transport people to certain job locations.
4. *Welfare to work transportation access is a specific goal of both the state and federal governments.* It is essential that public funds be used to help underwrite the cost of a coordinated transportation system that provides access to suburban and second and third shift jobs for people who

are moving from welfare into work and for others who rely on public transit.

5. *The region must develop appropriate financing and operating mechanisms to realize comprehensive public transportation goals and policies.*
6. *The region should encourage its municipalities to make land use decisions that facilitate and encourage the use of transit.*

Implementation Responsibilities and Steps

The Capitol Region Council of Governments, along with the Greater Hartford Transit District, will be invited to take leadership of this initiative.

Benchmarks

The resolution of the region's overall approach to mass transit will be the first indicator of progress.

Action Step

Support major investments in the region's infrastructure.

Relevant Findings

- *The highway network of the region and country is the backbone of the transportation system.* Because major expansion of this system is not likely to occur in the near-term, maintenance of the existing system is paramount.
- *Bradley International Airport (BIA) should remain the focus of the region's air travel system with the following major enhancements.*
- *We must recognize the importance of intermodal connections, both passenger and freight, to the economic vitality of the region and the state.*

Program/Project Elements

1. *In terms of the highways, the Millennium Management Group should lobby federal and state agencies to provide sufficient funds to maintain the existing Interstate and National Highway System, ensure the safety of these systems, and provide sufficient funds to*

maintain and ensure safety on locally-owned and maintained arterial and collector systems. In addition, the region should continue to encourage and fund the development and provision of programs and services that compete with the attraction and convenience of driving alone.

2. *Services at Bradley should be enhanced by: replacing the existing Murphy Terminal with a modern up-to-date facility that accommodates existing and future passenger needs; seeking to add direct service from BIA to major European and Canadian destinations to provide increased economic opportunities to world-wide markets; developing support warehousing and distribution facilities, terminals, customs cargo facilities, etc., geared to building the volume of freight traffic through BIA; continuing to market BIA as a more convenient, less expensive alternative for both passenger and freight, compared to other Northeast airports (i.e., Logan, JFK, Newark, etc.); and providing rail freight connections on the "west side" of BIA to facilitate Intermodal connections. In addition, general aviation airports such as Brainard Airport should be maintained for corporate and private use to complement services provided at Bradley, thereby preserving capacity at Bradley.*
3. *The region should continue to develop a complete system of pedestrian and bicycle facilities as an alternative means of transportation.*
4. *Facilitate development of major communication corridors (i.e., fiber optics) within existing transportation corridors including highway, rail, pipeline, and waterways.*
5. *The following intermodal connections should be supported:*
 - Continue to develop intermodal centers, such as Union Station in Hartford, where rail, inter-city bus, local bus, taxi service, etc. all focus on a single point to provide a variety of transportation options to system users.

- Develop intermodal connections at locations such as Bradley International Airport for both passenger and freight interchanges.
- Develop the Hartford rail yards as an important intermodal transfer center between rail, truck, water, etc.

Implementation Responsibilities and Steps

The Capitol Region Council of Governments will be invited to develop a long-term strategy for transportation infrastructure priorities. In so doing, it will consult with the Greater Hartford Transit District and others. This strategy will identify specific implementation steps as well as performance measures that could be used to measure progress.

Action Step

Develop a Regional Asset District to provide financial support of priority projects in MetroHartford and provide property tax relief and equalization in the entire region.

Relevant Findings

- *During the past legislative session, legislation was proposed by the Capitol Region Council of Governments authorizing the establishment of a Regional Asset District. These Districts dedicate a small portion of a region's sales tax collections, or some other revenue source, for investment in civic, recreational, sports, and cultural facilities that enhance the quality of life for everyone in the region. This legislation did not pass.*
- *The Pittsburgh region faced many of the problems found in MetroHartford today. In 1994, the Allegheny Regional Asset District was developed and charged with disbursing a portion of the county sales tax revenues. Under the 1993 Regional Asset District Law, Allegheny County was empowered to levy a 1 percent local option sales tax, above the 6 percent state sales tax. Half of the funds in the sales tax pool are allocated to the Allegheny Regional Asset District for "the preservation and enhancement of regional assets." A quarter of the funds are distributed to Allegheny County to reduce property taxes and to eliminate the county's personal property tax. The remaining 25*

percent is distributed to municipalities in a manner that favors "distressed communities."

- *Regional Asset Districts are a successful mechanism for supporting the arts and cultural amenities in a region.* The Pittsburgh Cultural Trust, an organization devoted to artistic preservation and downtown redevelopment, is partially funded through the tax sharing program. Denver has a program that supports the arts and other facilities through an assets district. Columbus, Ohio also dedicates a portion of local taxes to fund the arts.

Program/Project Elements

1. *The Millennium Management Group should aggressively lobby for similar legislation in the next legislative session.*
2. *Some asset districts have relied on either a property tax add-on (St. Louis) or a sales tax add-on (Denver and Allegheny County) as a revenue source. Asset districts can also be funded by sharing in the current yield from existing revenue sources. A small increment could generate significant revenue. Based on state FY1996 sales tax collections of \$2.46 billion (from a 6 percent tax), a .25 percent allocation of sales taxes for a regional assets district would yield \$102 million statewide. Thus, the Capital Region could surely generate at least \$10 to \$20 million annually from this relatively small allocation.*
3. *Ensure that the funds going back to municipalities are used for property tax reductions or stabilization.*
4. *The Millennium Management Group can help establish regional priorities for investments by the Asset Fund. These priorities should coincide with the recommendations of this Strategic Action Agenda. Special emphasis should be put on arts and cultural amenities throughout the region.*

Implementation Responsibilities and Steps

The Millennium Management Group will take an active part in both lobbying for the passage of state legislation and working with the Capitol Region Partnership on the design of the fund and its management structure. The Partnership will be invited to develop a more detailed proposal for the

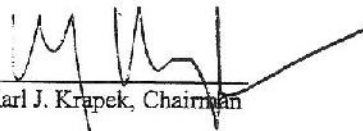
management and funding formulas of the Asset District to be used as part of the legislative effort.

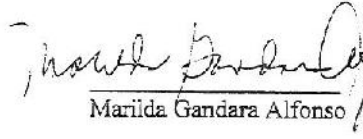
The primary benchmark of progress would be the passage of state laws supporting these changes.

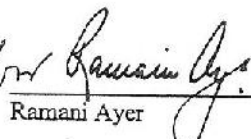
Benchmarks

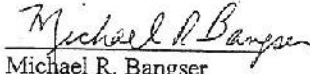
**MetroHartford Millennium Project:
An Economic Development Action Agenda**

Adopted by the
METROHARTFORD MILLENNIUM STEERING COMMITTEE

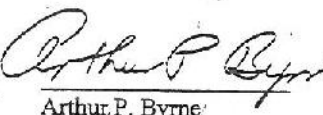

Karl J. Krapek, Chairman


Mariida Gandara Alfonso

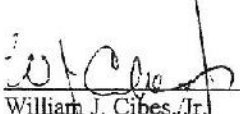

Ramani Ayer


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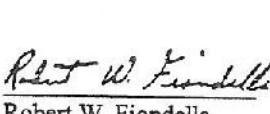

James M. Boucher



Arthur P. Byrne

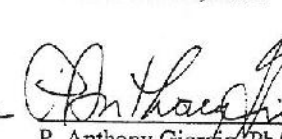

Steve Cassano

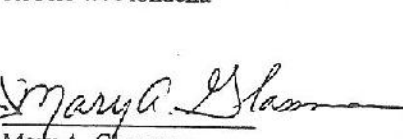

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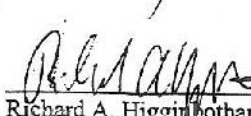

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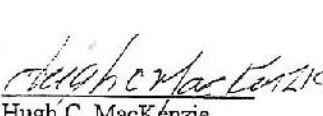

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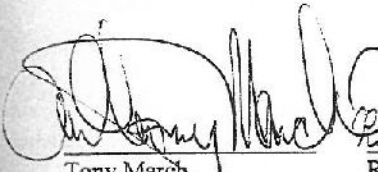

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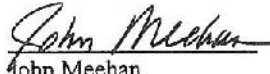

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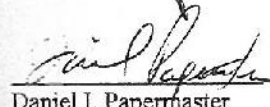
**MetroHartford Millennium Project:
An Economic Development Action Agenda**

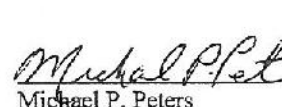
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METROHARTFORD MILLENNIUM STEERING COMMITTEE

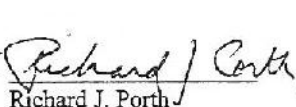

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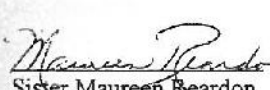

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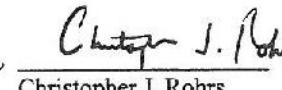

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Daniel I. Papernhaster

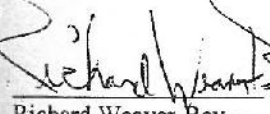

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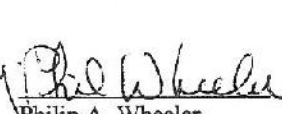

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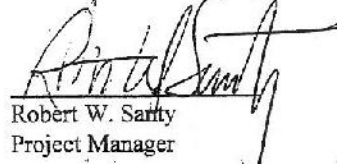

Sister Maureen Reardon


Christopher J. Rohrs


Richard B. Rosenthal


Richard Weaver-Bey


Philip A. Wheeler


Robert W. Sarty
Project Manager

November 18, 1997
The Old State House
Hartford, Connecticut

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APPENDIX A: RESULTS OF BUSINESS SURVEY

SUMMARY OF RESULTS

- Much of the job and real estate growth that is expected for the next three years will take place from firms already located within the region.
- Skilled labor is often difficult to come by in the region. Skilled production workers in particular represent the largest category of workers and are the hardest to find.
- Local schools and colleges are not producing students who have the skills to fill entry-level jobs in local companies. The lack of occupation-specific skills is a great barrier to recruitment.
- Businesses are interested in employee training, especially in the areas of occupation-specific technical skills.
- There is a high level of interest in inter-firm activities and cooperation, especially in the areas of quality assurance and cooperative training.
- Manufacturers are experiencing the need for outside assistance with many processes and operations.
- There is a low level of awareness among companies of the resources that are available to them.
- A large number of companies sell internationally. However, many are experiencing barriers to increased export activity, including lack of marketing and sales channels as well as inadequate market information.
- The quality of life in the region is often cited as the reason for a business' location and a positive factor in doing business in the area.

OVERVIEW OF RESPONDENTS

The results of this business survey are based on 203 completed responses. Surveys were sent to 1,209 companies translating to a response rate of 16.8 percent. Companies surveyed include manufacturers, business services, and health services companies located within the Hartford Labor Market Area.

The largest category of respondents was companies with 10 to 99 employees. These companies represented almost 69 percent of the total number of respondents. The second largest category was those with 100 to 499 employees, representing almost 18 percent of the respondents. And the two smallest categories were microbusinesses with less than 10 employees, 10.6 percent of respondents; and larger businesses with 500 or more employees, 3.5 percent of respondents.

The two largest categories of respondents by industry were machinery/computer equipment and fabricated metal products companies. The machinery and computer equipment industry represents 18 percent and the fabricated metal industry represents 16 percent of all respondents. The third largest category of respondents was companies involved in business services, representing 11 percent of the total. Another 7.9 percent of responses were from electronic and electrical equipment and component producers, and 7.4 percent were from printing and publishing firms. These industry categories were followed by a 5.4 percent share from transportation equipment manufacturers and a 5 percent share from rubber and miscellaneous plastics products manufacturers.

The largest concentration of respondents was from the cities and towns of Hartford, Bristol, Newington, Windsor, Farmington, Plainville, and South Windsor. Hartford had the highest number of respondents with just over 10 percent of the companies responding to the survey located in the city. Other cities and towns with each over 5 percent of the total were Bristol (7 percent), Newington (6.4 percent), Windsor (5.4 percent), and Farmington, Plainville, and South Windsor each with 5 percent.

GENERAL BUSINESS INFORMATION

Reasons for Location

The most common reason for current location was the availability of skilled labor in the area. Nearly 58 percent of the respondents noted that this was a very important reason for their current location. Also important were the cost advantages relative to other sites, and the fact that the company owner lives in the area (each reason was cited as very important by over 44 percent of the respondents).

Distribution of Sales

Most sales from the surveyed firms are made within the Hartford region (26.5 percent on average) or to areas of the U.S. outside of New England and New York (33.3 percent on average). While New York State is close by and easily accessible, a small percentage of sales (4.9 percent on average) are made to the state.

Non-manufacturing firms tend to sell more locally than manufacturing firms. The Hartford region and the remainder of Connecticut represent a larger market for service firms than for manufacturing ones. A large number of manufacturing firms (54 percent) direct only 10 percent or less of their sales to the region, while 50 percent see 10 percent or less of their sales going to other parts of the state.

One-half of the respondents sell a portion of their products internationally. The percentage is lower, however, among non-manufacturing firms: less than 38 percent of the surveyed service businesses make international sales. Among manufacturers, 11 percent make 25 percent or more of their sales to international markets, while under 6 percent of service firms make more than a quarter of their sales to other countries.

Importance of the Defense Industry

The defense industry still represents a fairly large customer base for many businesses. However, very few are highly dependent on it. While nearly two-thirds of the companies surveyed reported selling to the defense industry, fewer than 7 percent sell half or more of their products or services to defense, and only 10 percent sell 25 to 49 percent of their products or services to that industry. Among the 143 manufacturers answering a question pertaining to sales made to the defense industry, 94 companies reported selling to the industry, with 52 of those saying that 10 percent or more of their sales go to defense.

Outsourcing Activity

Just over one-quarter (27 percent) of the surveyed firms outsource or subcontract a significant part of their production. This outsourcing takes place in all areas, both within and outside of the Hartford region. Among the companies that outsource, an average of 21.4 percent of production is outsourced within the Hartford region. An additional 15 percent of production is sent out to other regions of Connecticut. Another 12 percent of production is subcontracted to firms located outside the U.S.

Three services in particular are outsourced: machining, heat treating, and plating. These are the top three services outsourced both within and outside of the Hartford region. More companies have their machining done within the region (27 percent) than outside (14 percent). Plating services are outsourced as much within the region as outside (19 percent in both cases), while heat treating services are obtained more within the region (21.6 percent) than outside (7.1 percent).

Inter-firm Activity

Industry associations, cooperative manufacturing, and quality assurance user groups are the most popular form of inter-firm activity. Most of the respondents (80 percent) have or have had in the past a membership to an industry association. One-third of the respondents have been involved in cooperative manufacturing with other firms, and close to one-third (31 percent) in quality assurance or ISO 9000 user groups.

There is a high level of interest in inter-firm activities among the companies surveyed. The types of activities that elicited the highest interest were quality assurance and cooperative training with other firms (24 percent of respondents showed interest in each activity). Interest was also fairly high in cooperative manufacturing with other firms (21.6 percent), cooperative marketing or sharing of exhibition space (20.7 percent), and cooperative design of new products (20.2 percent).

WORKFORCE AND TRAINING ISSUES

Employment Size and Occupational Categories

Employment growth has increased significantly since 1994, and is expected to continue to increase in the next three years. Total employment of companies surveyed increased by 15.7 percent between 1994 and 1997. This growth is expected to increase by another 15.4 percent between 1997 and 2000.

More than one-third of the respondents use temporary or seasonal workers. Of those that do use temporary or seasonal workers, the majority employ between 1 and 25 percent of their workforce in this category.

Production workers make up the bulk of employment among the companies surveyed. By far, the largest category of workers is skilled production workers, who make up an average of nearly 80 percent of the workforce. Unskilled production workers account for an additional 16.6 percent of the workforce. Executive/managerial and technical positions make up roughly equal proportions of the average workforce (12.7 percent and 12.3 percent, respectively), while 11 percent of the workforce is professional, 9 percent is clerical or administrative, and 8 percent is in sales/marketing.

Skills

Teamwork and customer service are the most important skills needed, according to the surveyed employers. On average, teamwork and customer service were rated as the most important skills for employees to have (based on a weighted average of responses). Teamwork is considered very important by 89 percent of the respondents, while 86 percent believe customer

service is very important. Manufacturing firms felt that teamwork was the first most important skill, while service firms felt that the most important was customer service.

Following in importance are math skills, problem solving, communications skills, and reading skills. These skill categories are followed by technical skills, supervisory skills, and computer skills, in order of importance. Communication and computer skills are more important among service firms than manufacturing ones.

The use of computers or programmable machine controls is widespread among the companies surveyed. Despite the fact that half of the respondents did not view computer skills as very important, one-half of the surveyed companies have half or more of their employees using computers or programmable machine controls on a weekly basis as part of their job. Another quarter have 25 to 50 percent of their workforce using computers or machine controls.

Quality of Local Schools

The surveyed companies hold a very low opinion of the area's public high schools. Only 3.7 percent think that public high schools with a general curriculum prepare students very well for their entry-level jobs, while an even lower 3.2 percent think the same of vocational high schools. While many feel the level of preparation offered by these schools is adequate, 47.3 percent think it is poor at general high schools, while 40 percent think it is poor at vocational high schools. While fewer service firms complained about public high schools with vocational curricula (24 percent compared to 44 percent of manufacturers,) a large number (46 percent) had no opinion on the matter.

The area's community and technical colleges also received rather poor ratings overall, although the opinion is less negative than for high schools. Only 5.6 percent approve of the preparation received at community colleges. Close to half the respondents (43 percent) believe the preparation is adequate while about 19 percent believe preparation is poor.

Service firms are more displeased than manufacturing firms with the region's community colleges. There were no responses that said that community colleges prepare students well for their jobs. Only 8.3 percent responded that community and technical colleges do a good job.

Response were slightly more encouraging in terms the preparation of students exiting the state university system. While 13 percent of the respondents stated the university system's preparation for entry-level jobs is very good, 44.4 percent think it is adequate, and 10.6 percent believe it is poor. Service firms are more displeased with the state university system than manufacturing firms.

The University of Connecticut is thought of favorably, with over 23 percent of respondents judging preparation there to be very good, and 32 percent responding it is adequate. Only 6 percent responded that preparation is poor. Similar to responses to previous "quality of school" questions, service had less favorable responses in regard to the University than manufacturers. While 11.1 percent of service firms responded that the University of

Connecticut does poorly at preparing local students, only 4.8 percent of manufacturers responded this way.

Recruitment

Businesses have the most difficulty filling skilled production positions. Nearly two-thirds of the respondents (62.3 percent) said they have difficulty finding and recruiting skilled production workers. An additional 38.4 percent of companies responded that they have difficulty recruiting to fill technical positions and 37.7 percent have difficulty with semi-skilled production positions. The positions that companies have the least trouble filling are unskilled production and clerical positions.

More specifically, skilled engineers, tool-makers, and sales/marketing employees are hard to find. When asked which specific types of positions were difficult to fill, 13 percent answered engineering positions. Tool-makers are also hard to come by for 12 percent, and sales/marketing and machining positions are hard to fill for 11 percent. Ten percent also have difficulty finding technicians of various kinds.

The lack of occupation-specific skills is by far the greatest barrier to recruiting employees. Nearly 74 percent of the respondents stated that lack of occupation-specific skills is an obstacle to recruiting. Work attitudes present a problem for 42 percent of respondents, while 34 percent responded that there is a general shortage of labor in the area. Employers do not perceive lack of adequate public transportation or lack of childcare to be barriers to recruitment.

Overall, manufacturers come upon more barriers in the recruiting process than do service firms. For each potential barrier, a higher percentage of manufacturers than service firms cited difficulties.

BUSINESS NEEDS

Training Needs

Overall, many companies voiced a need and desire for employee training. Half of the respondents (49.6 percent) could make use of training in technical skills specific to their product or service. These range from machining to assembly to insurance administration. Blueprint reading training is also in high demand (43.6 percent of respondents) as is total quality management training (42 percent). Basic literacy is in lowest demand, although even there, 22 percent of respondents said their employees could make use of training.

Operations Needs

The manufacturers responding to the survey expressed a significant need for assistance with certain manufacturing processes. Nearly 60 percent said they needed help with computer aided design, engineering, or manufacturing (CAD/CAE/CAM), while exactly half require assistance with manufacturing process, set-up, and/or scrap. Finally, close to 42 percent would like help with automation of assembly, robotics, computer control, and integration.

In terms of more general operations, respondents expressed the greatest need for assistance with market development, exporting, energy costs and conservation, and environmental, health, and safety compliance. Just about 43 percent of the responding firms said they needed help with market development and export. Also in demand was assistance with energy costs and conservation, mentioned by 37 percent of the surveyed firms. An even third said they could use help with environmental, health, and safety compliance issues. Respondents also indicated a need for assistance with a variety of other operations, such as plant layout, quality assurance, product development, and electronic data interchange, but to a lesser degree. One-fifth to one-quarter of the respondents indicated a need for assistance with each of these operations.

Financing Needs

Working capital and equipment loan/lease financing are the most sought after types of financing. Two-thirds of the respondents have tried to obtain working capital, and 60 percent have tried to get equipment loan/lease financing. Next is fixed rate commercial or industrial mortgage financing (43 percent of respondents), and then variable rate mortgage financing (30 percent). Finally, only 11.5 percent of the surveyed firms had ever tried to obtain venture capital.

Financing does not appear to be difficult to obtain in the region. Less than 16 percent of the companies surveyed said that they had financing needs that were going unmet. Among companies that sought financing of any kind, very few were turned down. The highest rejection rate is among companies applying for working capital: 57 percent of all the firms applied and obtained the financing, while 9 percent were turned down. In other categories of financing, only 0.7 percent to 3.1 percent of the firms were turned down.

LOCAL ECONOMIC DEVELOPMENT ORGANIZATIONS

The Connecticut Business and Industry Association (CBIA), the Connecticut Department of Economic and Community Development, and the Connecticut Development Authority are the most used resources in the area. Just over 47 percent of the surveyed firms have used CBIA. The Connecticut Department of Economic and Community Development and

the Connecticut Development Authority follow with 36 percent and 30 percent of respondents, respectively, utilizing their services. Another 21 percent have used UCONN.

The least used local resources are the Connecticut Technology Council (used by only 2.1 percent), the Connecticut Technology Associates (3 percent), the Business and Industry Services Network (3.6 percent), and the Hartford Economic Development Corporation (4.3 percent).

Three of the four most used resources received very good ratings. UCONN and CBIA received the most favorable ratings. In each case, about 71 to 72 percent of the respondents who had used these two resources gave them a favorable rating. On a scale of 1 to 3, 1 being favorable and 3 being unfavorable, UCONN scored a 1.3 and CBIA scored a 1.4. The Connecticut Development Authority scored a 1.6.

The state Department of Economic and Community Development, the second most used organization, scored only a 1.9. Only 41 percent of the respondents who had used the Department of Economic and Community Development gave it a favorable rating, while 26.5 percent had a negative opinion (the rest being neutral).

Overall, given the low numbers of companies that have used various organizations in the area, the survey presents evidence that, overall, businesses are not familiar with the resources available to them.

FACTORS AFFECTING BUSINESS

The four most positive factors affecting businesses in the area are highway access, quality of life, the proximity of suppliers, and air transportation. On a scale of 1 to 3, with 1 being positive and 3 being negative, highway access and quality of life scored a 1.34 and a 1.48, respectively. The proximity of suppliers and air transportation each scored a 1.5. Very few companies had negative opinions of these factors. Other positive factors included the telecommunications services and the proximity to markets, scoring a 1.59 and 1.62, respectively.

The four factors viewed as influencing business most negatively all pertain to costs: property taxes (scoring a 2.44), housing costs (2.43), energy costs (2.42), and the cost of labor (2.21). Other negative factors include the quality of state and local economic development services, local labor force skills, sewer and water costs, and port access, all scoring 2.1.

The availability of labor and the labor force skills were seen as fairly neutral in the way that they affect business in the area. In each case, close to a third of the respondents viewed these factors as positive, a third as neutral, and a third as negative. The availability of labor scored a 2.04 and labor force skills a 2.06, with 2.0 representing a neutral opinion.

Constraints

Many companies expect constraints in developing new products or modernizing production processes in the near future, especially when it comes to finding skilled workers. The availability of skilled workers will pose a problem for over two-thirds of the respondents (67.5 percent), for example. The suitability of current buildings will be a problem for 42 percent, and the availability of financing will be an issue for 39 percent despite the overall impression that financing is readily available for general purposes.

Companies are experiencing considerable barriers to increases in export sales. Lack of marketing and sales channels is by far the greatest barrier, with 60 percent of the respondents saying this represents an obstacle for them. Over 40 percent also say there is inadequate market information. One-third also feel they lack sufficient knowledge of import and export regulations and procedures. Another 29 percent listed a variety of other barriers, including language issues, costs, and market development.

Regional Assets and Shortcomings

Respondents to the survey, in an open-ended question regarding the region's assets and shortcomings as a place to do business, were more vocal about the region's shortcomings. Of the 163 respondents indicating shortcomings to the region (versus 131 companies responding by indicating assets), 34 percent said that taxes are too high, while 19 percent complained about the high cost of doing business in the region. Other frequent complaints included the state's "anti-business" attitude, the high cost of living, and the public education system.

Despite numerous shortcomings, however, many respondents mentioned several positive aspects of the region. Out of 131 respondents, 17 percent felt that the region's proximity to New York and Boston is a definite asset, and 15 percent praised the quality of life in the region. Another 13 percent appreciate the proximity to both customers and suppliers.

USE OF TRANSPORT METHODS

Road transportation is by far the most used means of transporting both supplies to businesses and products to market. Over 88 percent of the surveyed firms receive 74 to 100 percent of their supplies via road transportation, while 91 percent ship 74 to 100 percent of their products to market via road.

Many companies also use air transportation, but not for the majority of their products or supplies. All companies use air transportation to ship at least some of their products to market, while only 3 percent do not use air transportation at all to receive supplies. Roughly 77 percent of the firms surveyed receive 1 to 24 percent of their supplies by air, while 82 percent ship that percentage of their products to market via air. However, only 5 percent use air transportation for 74 to 100 percent of their shipping needs.

Rail transportation is hardly used at all. Three-quarters of the respondents do not receive any supplies by rail, while 71 percent do not use rail transportation to ship their products to market. While no companies rely solely on rail transportation to ship their products, there are a handful (6 percent) that do receive 74 to 100 percent of their supplies by rail.

FUTURE PLANS

Many companies have plans to relocate, expand, or open new facilities. Ninety five (or half) of the respondents are planning to expand or relocate their Hartford area facility within the next three years.

Most of the relocation or expansion activity will take place within the Hartford area. A significant number of the 95 respondents who have plans to expand or relocate (more than half) plan to do so at their current site, while another 22 percent plan to do so at a new site within the Hartford area. This translates to a total of 64 companies planning to expand within the Hartford area. Only 10.5 percent of the respondents who are planning to move (or 10 companies) are doing so out of the area to another part of the state, and 12 percent (or 11 companies) are moving out of state.

Non-manufacturing firms are far more likely to be opening new facilities outside of the region in the next three years than manufacturing firms. Over 43 percent of service firms are planning to open new facilities outside the region, while only 19 percent of manufacturers are planning to do so.

For the 25 companies offering an explanation for why they are choosing to relocate or expand outside of the region, the high cost of doing business and the high taxes in the region were the most common reasons. Nine companies said they were moving or expanding out of the region because of the high cost of doing business, while seven mentioned high taxes. Companies also mentioned the lack of an adequate workforce and the importance of proximity to customers.

In the next 12 months, 180 companies in the region will be hiring 1,543 employees, and one additional company is planning to hire 1,000 employees. Of these, 296 will be in industrial and commercial machinery and computer equipment (SIC 35). Another 201 will be in electronic and other electrical equipment and components (SIC 36) with the additional 1,000 from the single firm. Nearly as many (193) will be in business services, while 179 are expected to be hired in the manufacture of transportation equipment (SIC 37). Industries that expect to hire 60 to 70 employees in the next year include engineering and accounting service firms (SIC 87), primary metal industries (SIC 33), rubber and miscellaneous plastics products manufacturers (SIC 30), and food and kindred products industries (SIC 20).

Distribution of respondents by industry

Code	Standard Industrial Classification (SIC)		Number of respondents	Percent of respondents
	Name			
17	Construction		1	0.5
20	Food and kindred products		6	3.0
22	Textile mill products		1	0.5
23	Apparel		3	1.5
24	Lumber and wood products, (except furniture)		5	2.5
25	Furniture and fixtures		3	1.5
27	Printing and publishing		15	7.4
28	Chemicals and allied products		3	1.5
29	Petroleum refining and related industries		1	0.5
30	Rubber and misc. plastics products		10	4.9
33	Primary metal industries		7	3.4
34	Fabricated metal products		32	15.8
35	Industrial/commercial machinery and computer equipmt.		37	18.2
36	Electronic and other electrical equipmt. and components		16	7.9
37	Transportation equipment		11	5.4
38	Measuring, analyzing and controlling instruments		6	3.0
39	Miscellaneous manufacturing		5	2.5
42	Motor freight transportation and warehousing		1	0.5
50	Wholesale trade (durable goods)		3	1.5
51	Wholesale trade (non durable goods)		1	0.5
58	Eating and drinking places		1	0.5
63	Insurance carriers		4	2.0
67	Holding and other investment offices		1	0.5
70	Hotels and other lodging places		1	0.5
73	Business services		22	10.8
76	Miscellaneous repair services		1	0.5
87	Engineering/accounting services		4	2.0
	Unknown		2	1.0
	Total		203	100.0

Distribution of respondents by location

Town	# of respondents	% of respondents
Hartford	21	10.3
Bristol	14	6.9
Newington	13	6.4
Windsor	11	5.4
Farmington	10	4.9
Plainville	10	4.9
South Windsor	10	4.9
Manchester	9	4.4
East Hartford	8	3.9
Glastonbury	8	3.9
New Britain	7	3.4
Bloomfield	6	3.0
West Hartford	6	3.0
Middletown	5	2.5
Cromwell	4	2.0
Kensington	4	2.0
Southington	4	2.0
Winsted	4	2.0
Avon	3	1.5
East Berlin	3	1.5
Suffield	3	1.5
Terryville	3	1.5
Vernon Rockville	3	1.5
Durham	2	1.0
East Windsor	2	1.0
Ellington	2	1.0
Enfield	2	1.0
Middlefield	2	1.0
Rocky Hill	2	1.0
Andover	1	0.5
Bolton	1	0.5
Burlington	1	0.5
Canton	1	0.5
Collinsville	1	0.5
East Granby	1	0.5
East Haddam	1	0.5
Hebron	1	0.5
New Hartford	1	0.5
North Windham	1	0.5
Plantsville	1	0.5
Simsbury	1	0.5
Tolland	1	0.5
Unionville	1	0.5
Wethersfield	1	0.5
Windsor Locks	1	0.5
Total	203	100.0

Reasons for current location

	Very Important	Somewhat Important	Not Important	Overall Importance
Availability of skilled workforce	57.7	34.1	8.2	1.50
Cost advantage relative to other sites	44.5	30.6	24.9	1.80
Owner lives in the area	44.6	22.8	32.6	1.90
Transportation access	25.0	46.7	28.3	2.00
Proximity to customers	35.7	20.9	43.4	2.10
State or local incentives	25.7	26.3	47.9	2.20
Proximity to suppliers	13.3	37.8	48.9	2.30

Note 1: Total number of respondents=182

Note 2: The overall importance was calculated by assigning a value of 1 to each "very important" response, 2 to each "somewhat important" response and 3 to each "not important" response. The closer the answer to 1, the more important the factor.

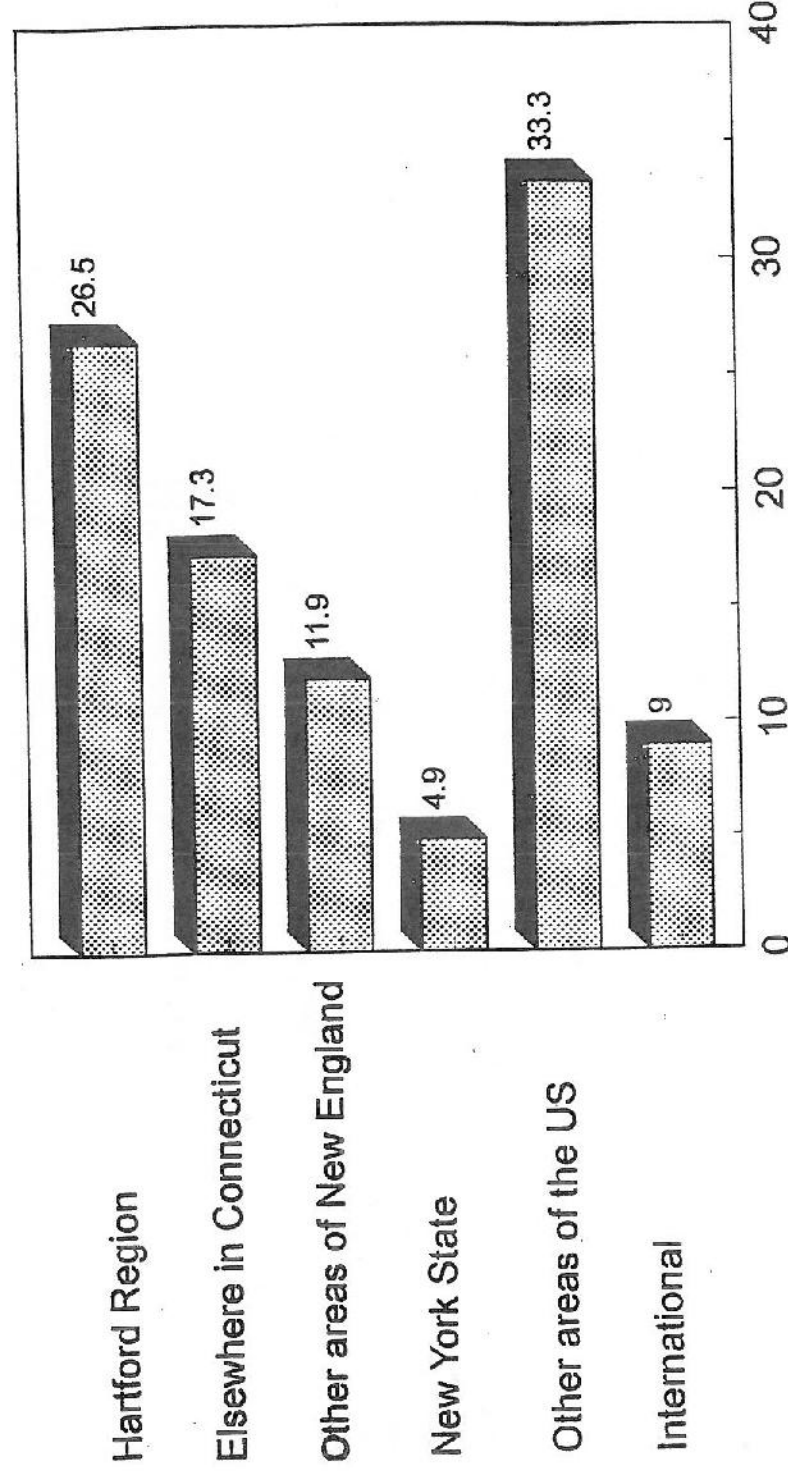
Reasons for current location among manufacturers

	Very Important	Somewhat Important	Not Important	Overall Importance
Availability of skilled workforce	54.5	38.6	6.9	1.52
Cost advantage relative to other sites	46.8	27.3	25.9	1.79
Owner lives in the area	44.2	22.4	33.3	1.89
Transportation access	23.8	49.7	26.6	2.01
Proximity to customers	35.9	19.3	44.8	2.07
State or local incentives	27.9	23.5	48.5	2.19
Proximity to suppliers	15.2	43.4	41.4	2.25

Note 1: Total number of respondents=160

Note 2: The overall importance was calculated by assigning a value of 1 to each "very important" response, 2 to each "somewhat important" response and 3 to each "not important" response. The closer the answer to 1, the more important the factor.

Average percentage of sales made to different areas



Distribution of sales by location

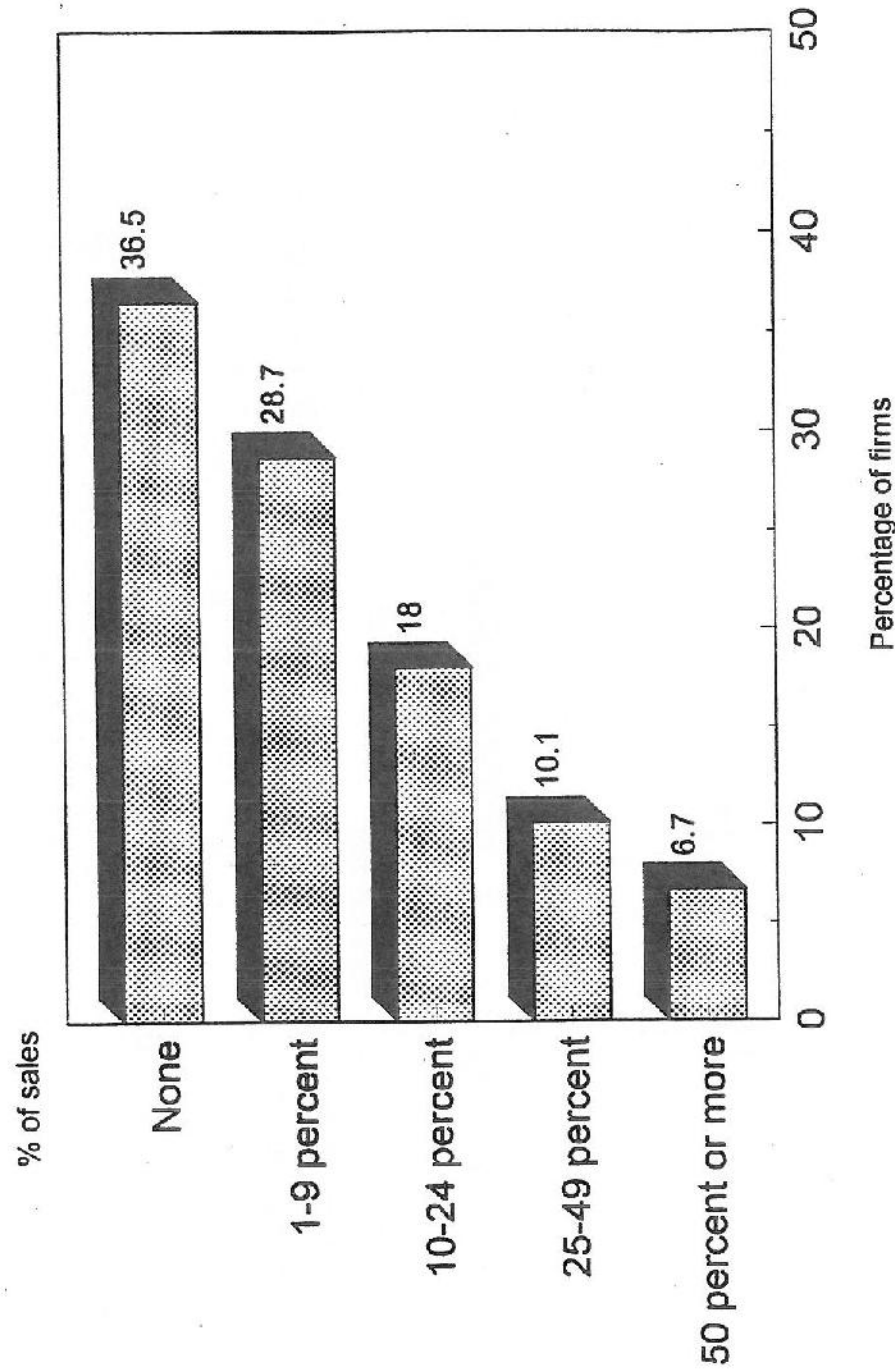
All firms

	No sales	1-9% of sales	10-24% of sales	25-49% of sales	50% of sales or more	Total # of responses
Hartford Region	20.6	28.0	11.6	14.8	24.9	169
Elsewhere in CT	19.4	28.6	23.0	17.3	11.5	191
Other areas of New England	28.2	24.5	31.9	10.6	4.8	188
New York State	46.7	34.1	14.8	4.4	0.0	182
Other areas of US	27.4	8.6	10.6	18.3	34.9	186
International	48.1	23.6	17.1	5.5	5.5	181

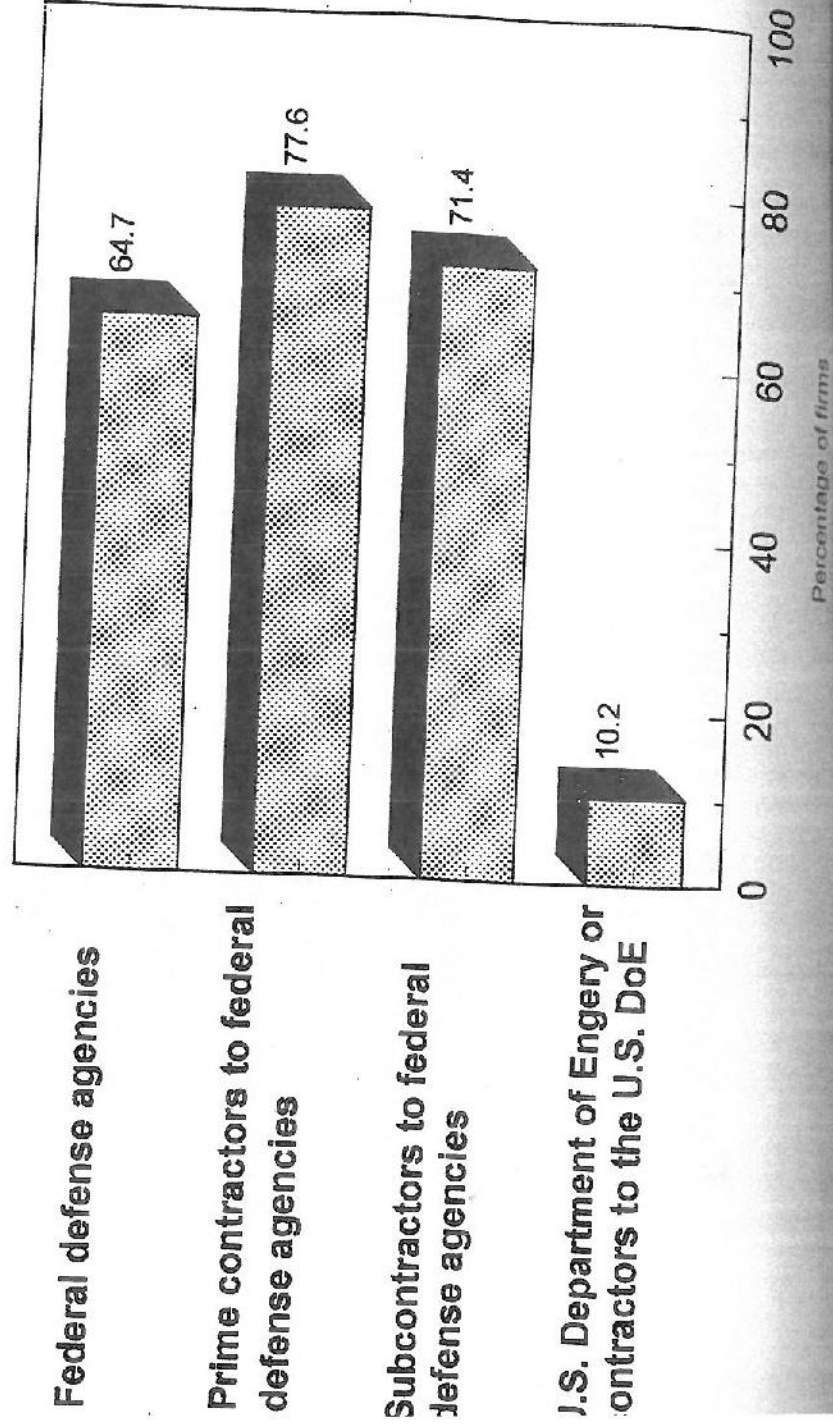
Manufacturing firms

	No sales	1-9% of sales	10-24% of sales	25-49% of sales	50% of sales or more	Total # of responses
Hartford Region	22.7	31.3	10.0	12.7	23.3	150
Elsewhere in CT	16.9	33.8	20.9	17.6	10.8	148
Other areas of New England	25.5	24.8	33.6	11.4	4.7	149
New York State	45.9	35.8	13.5	4.7	0.0	148
Other areas of US	22.0	8.8	10.7	17.6	40.9	159
International	47.3	23.6	18.2	6.1	4.7	148

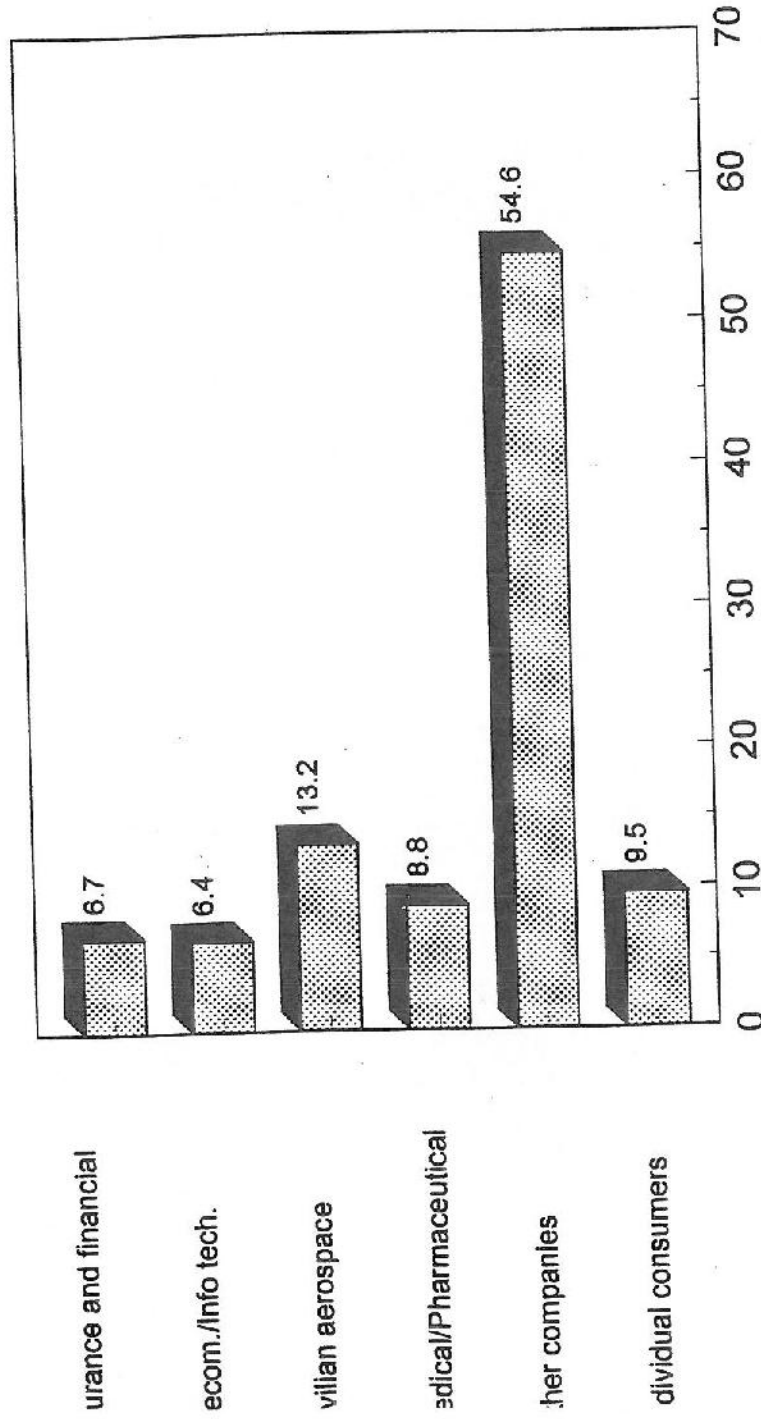
Percentage of sales made to the defense industry



Distribution of defense sales



Average percentage of sales made to each sector

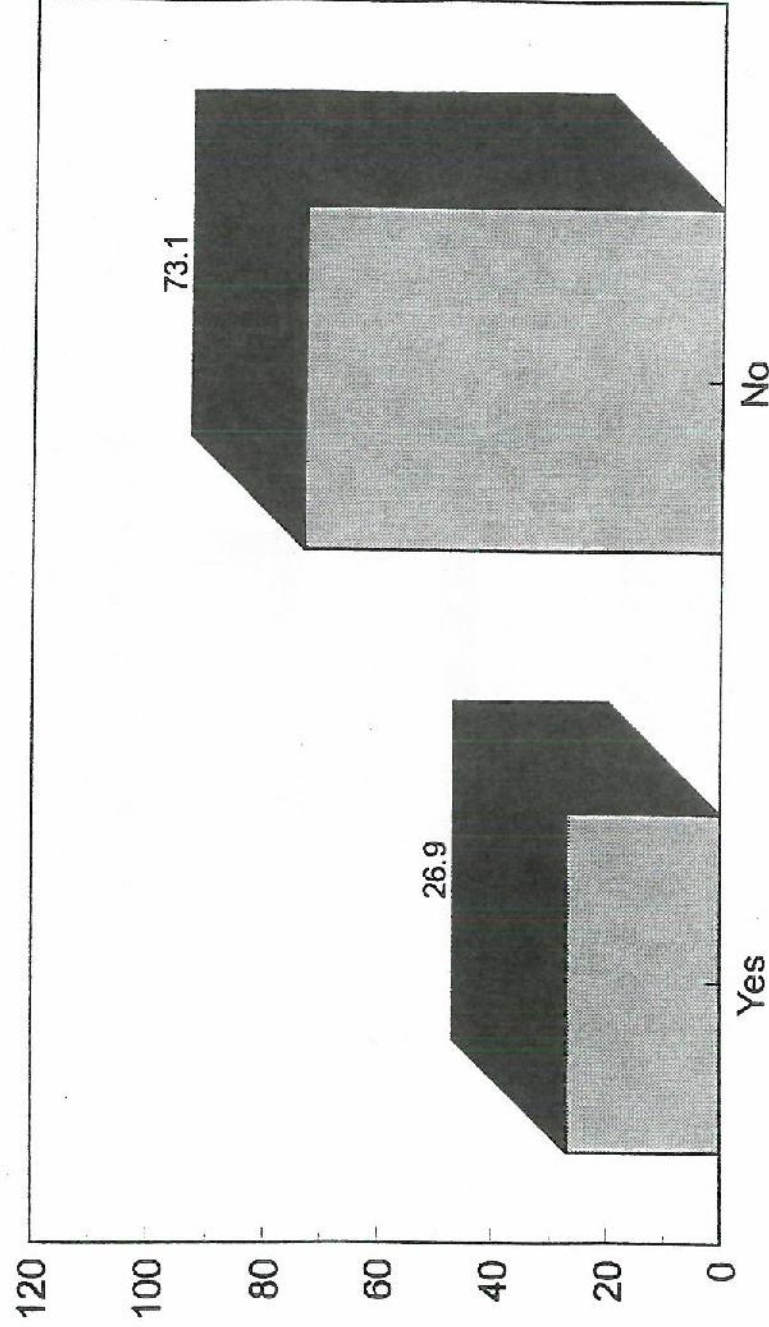


Distribution of sales by sector

	None	1-9 percent	10-24 percent	25-49 percent	50 percent or more	Total # of respondents
Insurance, financial service companies	74.7	7.5	9.8	3.4	4.6	174
Telecommunications/info tech. companies	63.7	12.3	18.1	1.8	4.1	171
William aerospace companies	52.0	14.7	15.8	5.6	11.9	177
Medical products/pharmaceuticals companies	52.0	17.7	20.0	5.1	5.1	175
Other companies or institutions	14.5	5.8	10.4	12.1	57.2	173
Individual consumers	71.8	8.0	6.8	4.3	9.3	162

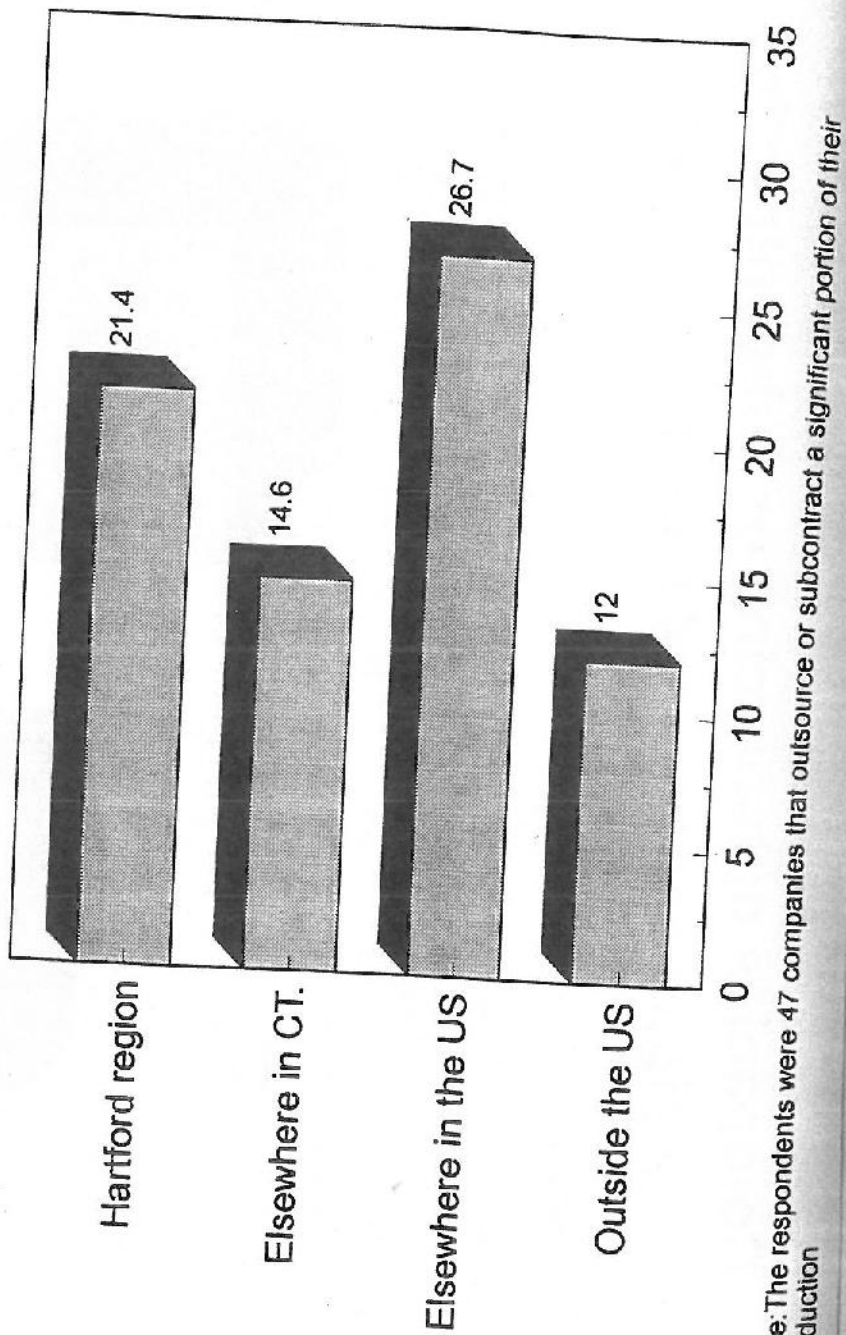
Companies outsourcing or subcontracting a significant part of their production

Percent of respondents



Note: Total number of respondents = 197

Average percentage of production outsourced or subcontracted



Note: The respondents were 47 companies that outsource or subcontract a significant portion of their production

Products and services outsourced

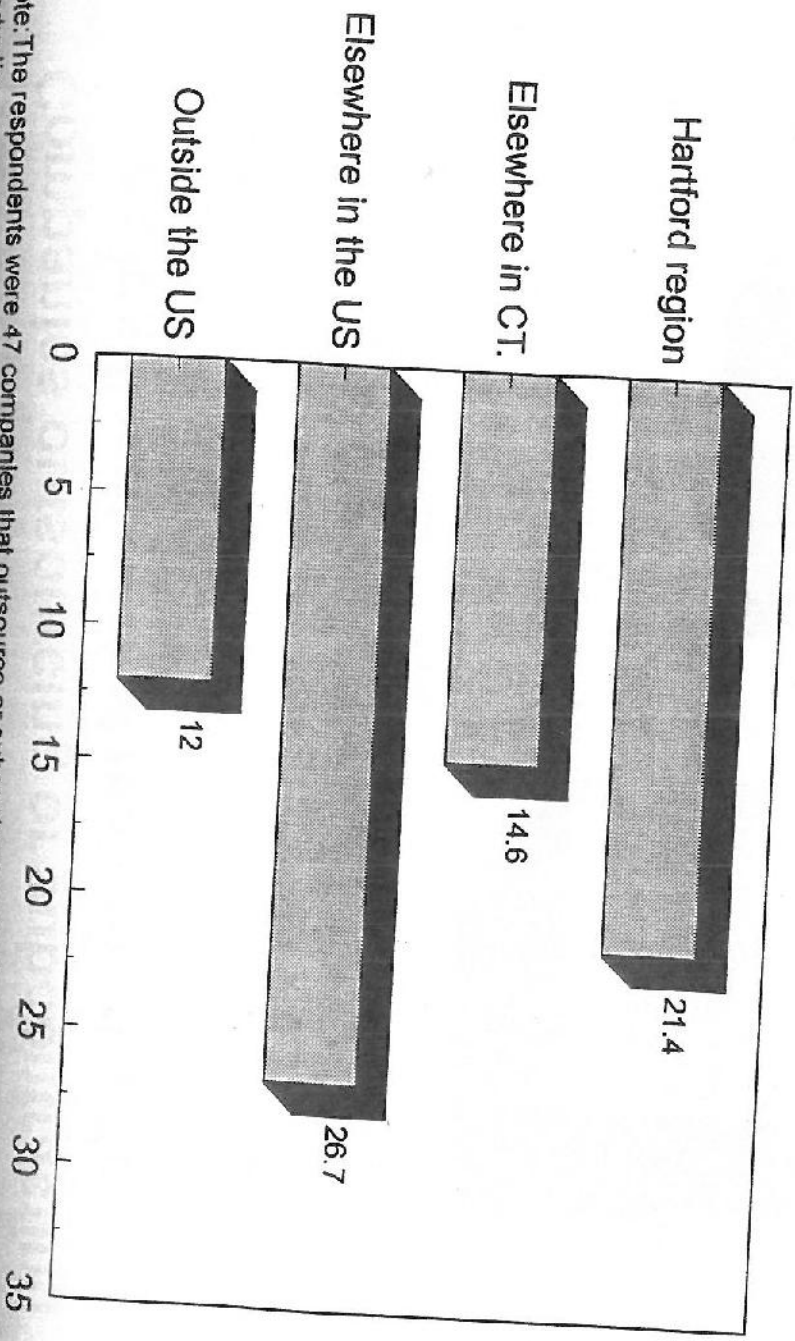
Major products/services outsourced to companies within the Hartford Region	Number of Respondents	Percent of Respondents
Machining	10	27.0
Heat treating	8	21.6
Plating	7	18.9

Number of respondents=37 companies that outsource to the region

Major products/services outsourced to companies outside the Hartford Region	Number of Respondents	Percent of Respondents
Plating	8	19.0
Machining	6	14.3
Heat treating	3	7.1

Number of respondents=42 companies that outsource outside the region

Average percentage of production outsourced or subcontracted



Note: The respondents were 47 companies that outsource or subcontract a significant portion of their production

Products and services outsourced

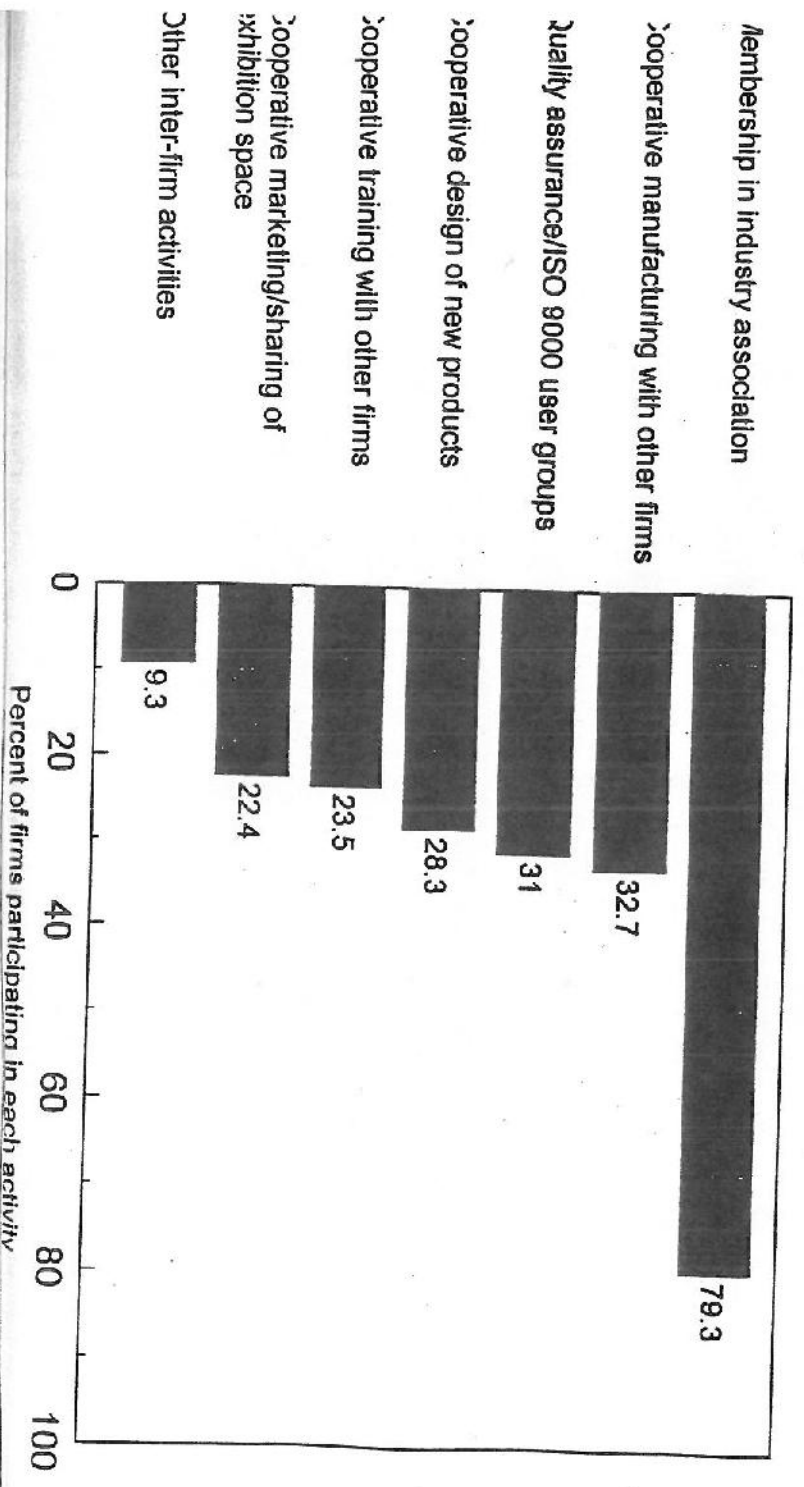
Number of respondents=42 companies that outsource outside the region

Major products/services outsourced	Number of Respondents	Percent of Respondents
Plating	8	19.0
Machining	6	14.3
Heat treating	3	7.1

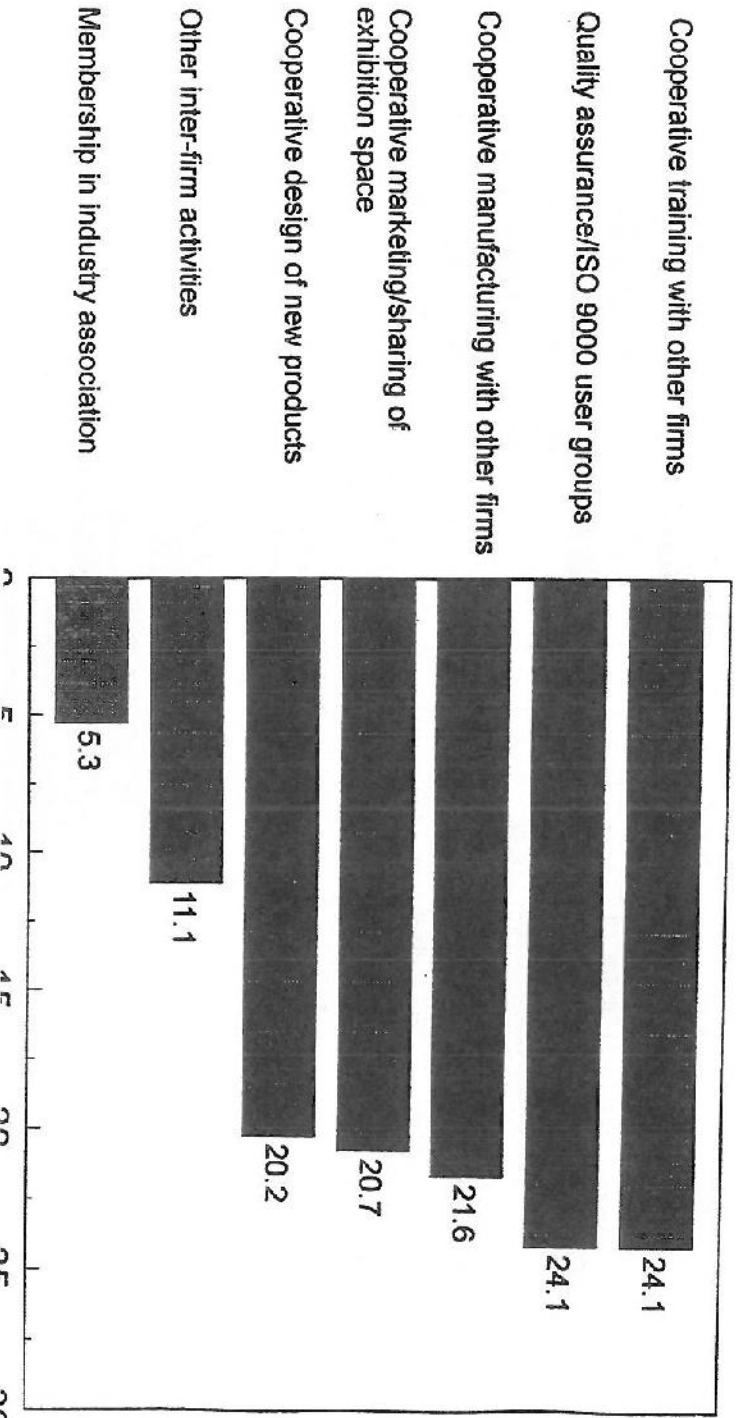
Number of respondents=37 companies that outsource to the region

Major products/services outsourced	Number of Respondents	Percent of Respondents
Machining	10	27.0
Heat treating	8	21.6
Plating	7	18.9

Participation in inter-firm activity



Interest in inter-firm activities



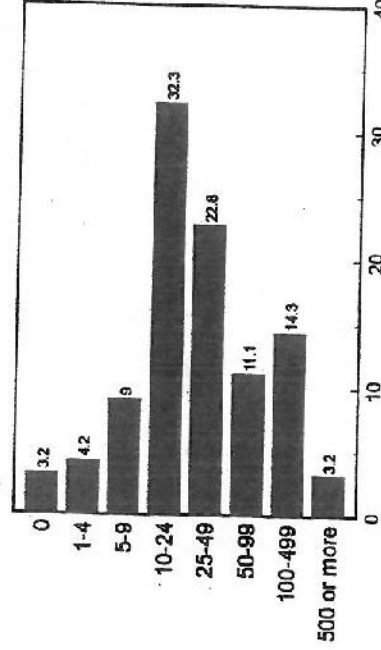
Inter-firm activity

	Have Participated	Have Not Participated		Total # of Respondents
		Interested	Not Interested	
Membership in industry association	79.3	5.3	15.4	188
Cooperative design of new products	28.3	20.2	51.4	173
Cooperative manufacturing with other firms	32.7	21.6	45.6	171
Cooperative training with other firms	23.5	24.1	52.4	170
Quality assurance/ISO 9000 user groups	31.0	24.1	44.8	174
Cooperative marketing/sharing of exhibition space	22.4	20.7	56.9	174
Other inter-firm activities	9.3	11.1	79.6	54

Number of Full Time Employees

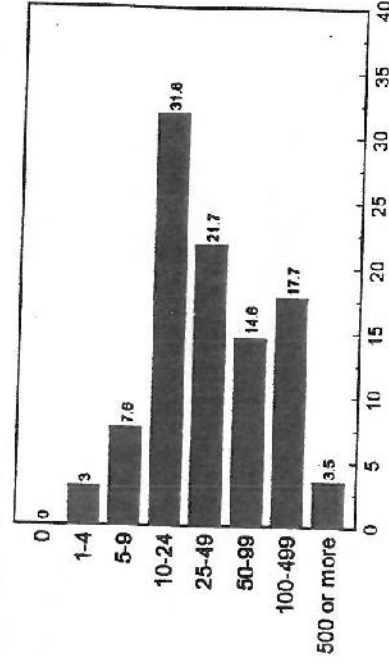
of full time employees

1994



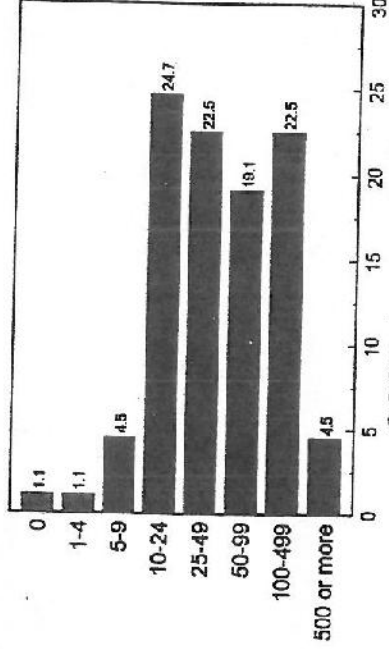
of full time employees

1997



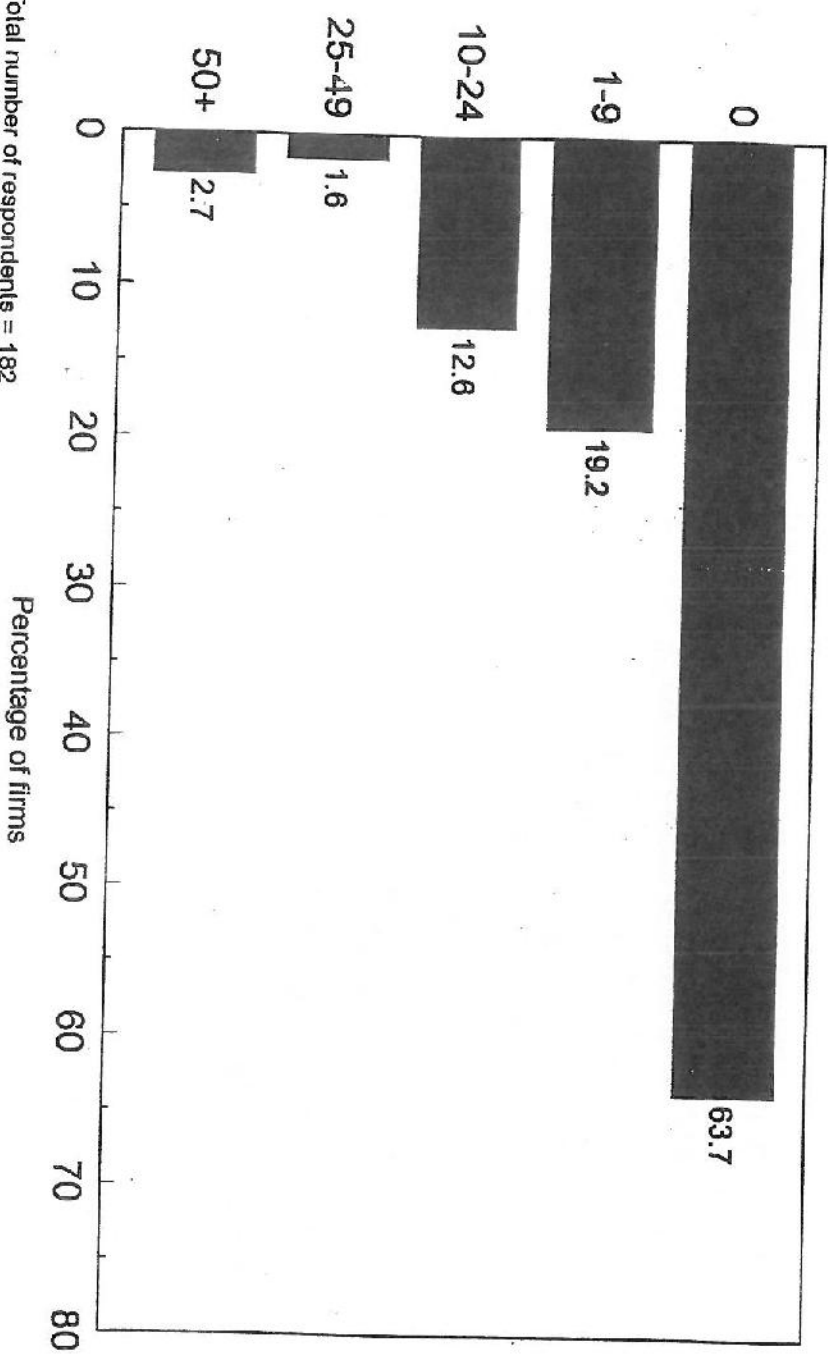
of full time employees

2000 (expected)

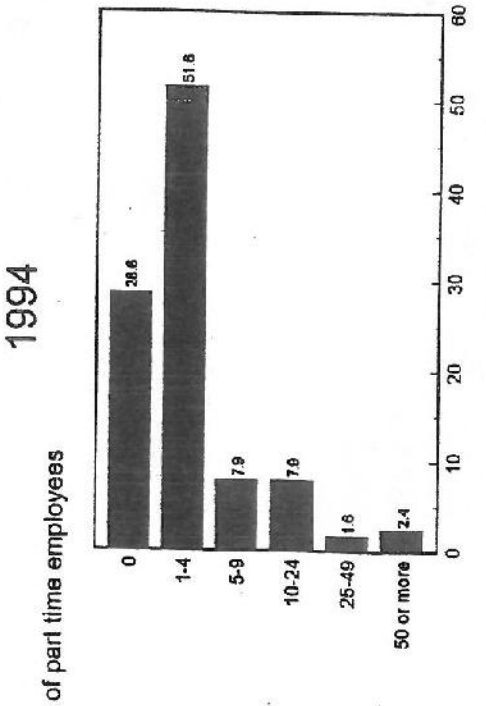
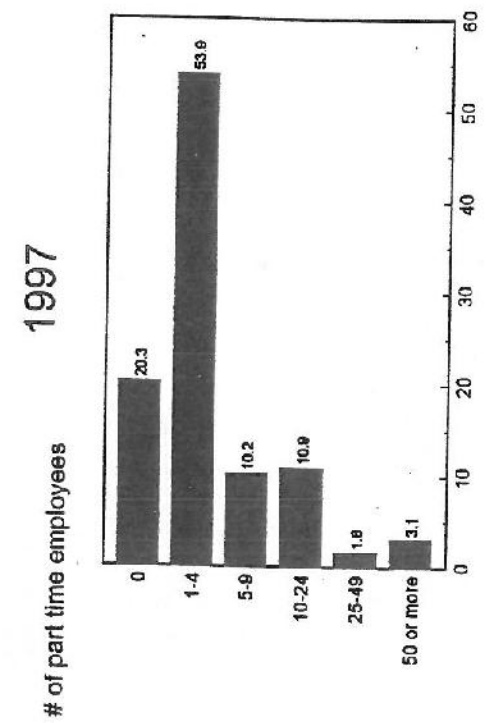
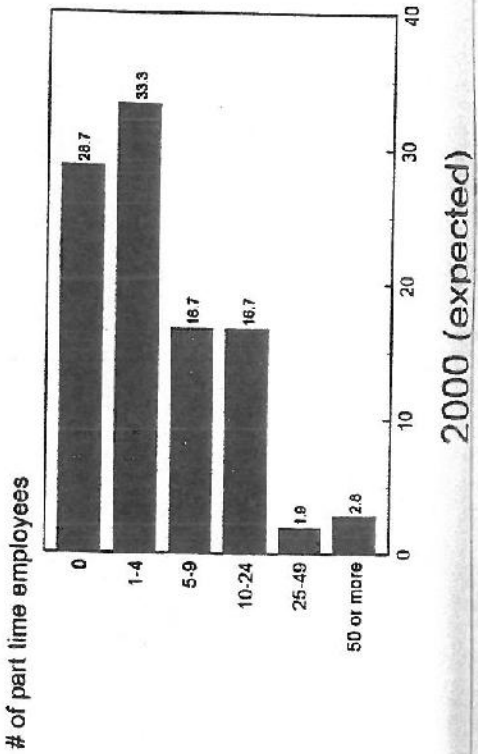


Temporary/Seasonal Workers

Percentage of temp/seasonal workers

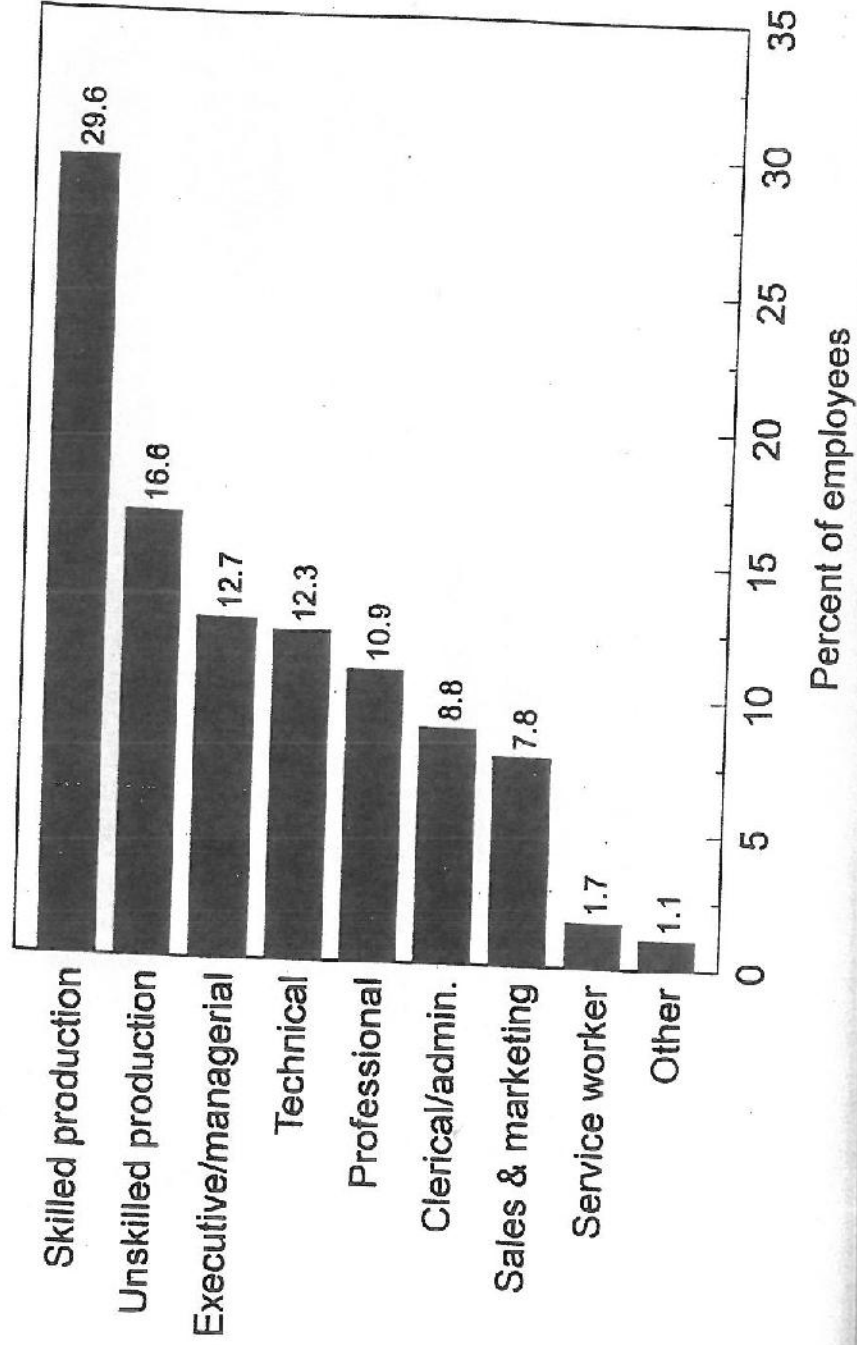


Note: Total number of respondents = 182



Number of Part Time Employees

Average distribution of workforce by category



Distribution of workforce by category

	Percent of employees					Total # of respondents
	0	1-9	10-24	25-49	50 or more	
Executive/managerial	3.8	37.8	48.6	6.5	3.2	185
Professional	47.0	18.2	25.4	8.8	6.6	181
Technical	33.1	26.5	23.8	9.4	7.2	181
Sales & Marketing	30.6	35.6	27.8	3.3	2.8	180
Clerical/Administrative	17.1	40.9	35.9	5.0	1.1	181
Unskilled production	41.8	13.0	19.8	12.4	13.0	177
Skilled craft & production	30.9	6.7	13.5	17.4	31.5	178
Service worker	85.2	9.5	4.1	0.0	1.2	169
Other	95.0	2.5	0.6	1.3	0.6	159

Importance of skills

All firms

	Very Important	Somewhat Important	Not Important	Total # of Respondents
Teamwork	88.9	10.1	1.0	199
Customer service	86.3	13.2	0.5	197
Problem solving	74.7	23.2	2.0	198
Reading skills	73.7	23.2	2.5	198
Communication skills	71.1	25.4	3.6	197
Math skills	69.8	27.6	2.5	199
Technical skills	66.8	28.6	4.6	196
Supervisory/Mgmt.	54.1	39.7	6.2	194
Computer skills	49.7	37.1	13.2	197

Manufacturing firms

	Very Important	Somewhat Important	Not Important	Total # of Respondents
Teamwork	87.8	10.9	1.3	156
Customer service	83.1	16.2	0.6	154
Problem solving	70.3	27.1	2.6	155
Reading skills	69.0	27.7	3.2	155
Math skills	69.9	26.9	3.2	156
Technical skills	65.6	29.9	4.5	154
Communication skills	64.7	30.8	4.5	156
Supervisory/Mgmt.	56.9	38.6	4.6	153
Computer skills	41.9	43.2	14.8	155

Average importance of skills

Manufacturing firms

	Weighted Average
Teamwork	1.1
Customer service	1.2
Math skills	1.3
Problem solving	1.3
Reading skills	1.3
Communication skills	1.4
Technical skills	1.4
Supervisory/Mgmt.	1.5
Computer skills	1.7

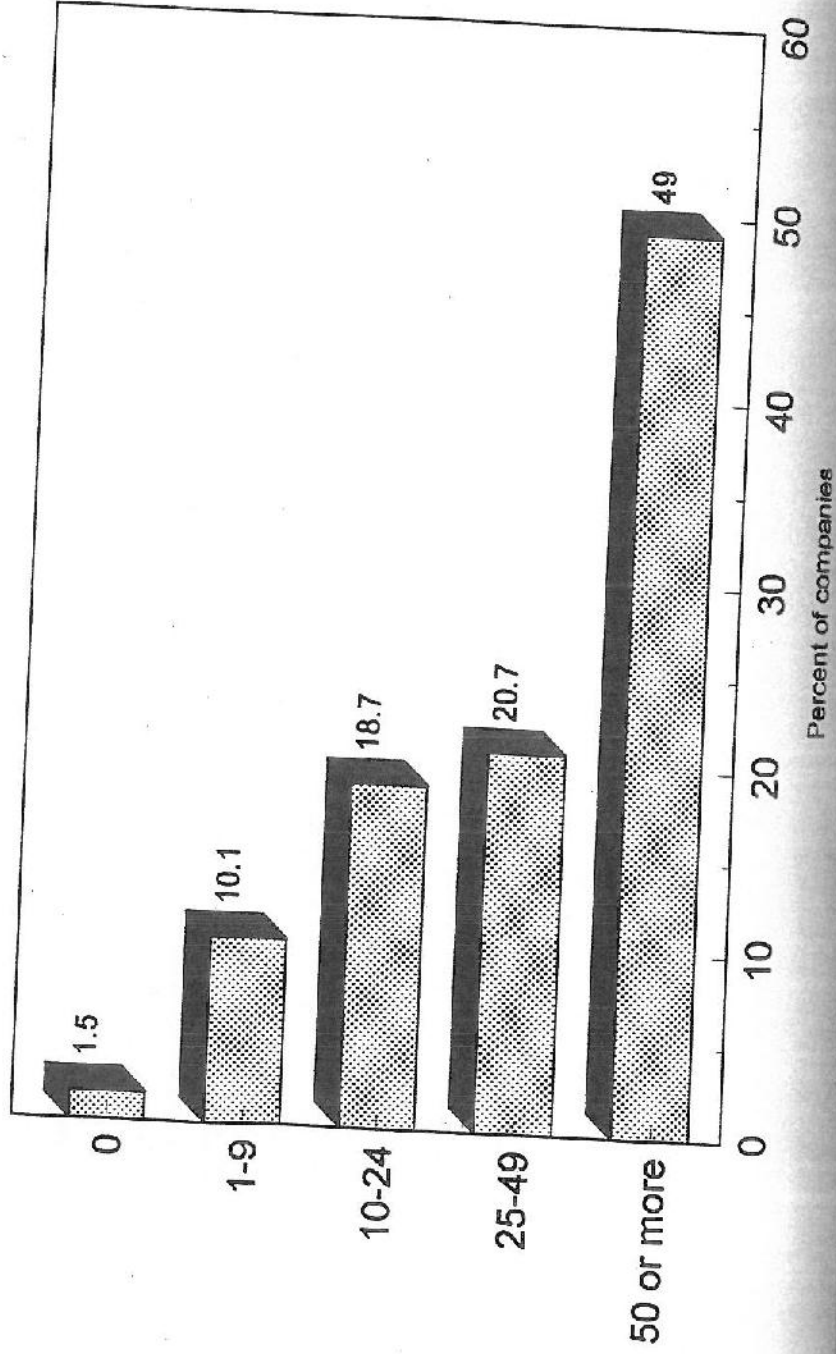
All firms

	Weighted Average
Teamwork	1.1
Customer service	1.1
Math skills	1.3
Problem solving	1.3
Communication skills	1.3
Reading skills	1.3
Technical skills	1.4
Supervisory/Mgmt.	1.5
Computer skills	1.6

Note: The weighted average score was calculated by assigning a value of 1 to each "very important" response, 2 to each "somewhat important" response and 3 to each "not important" response. The closer the result is to 1, the more important the skill.

Use of computers or programmable machine controls

Percent of employees using on a weekly basis



Quality of preparation offered by local schools

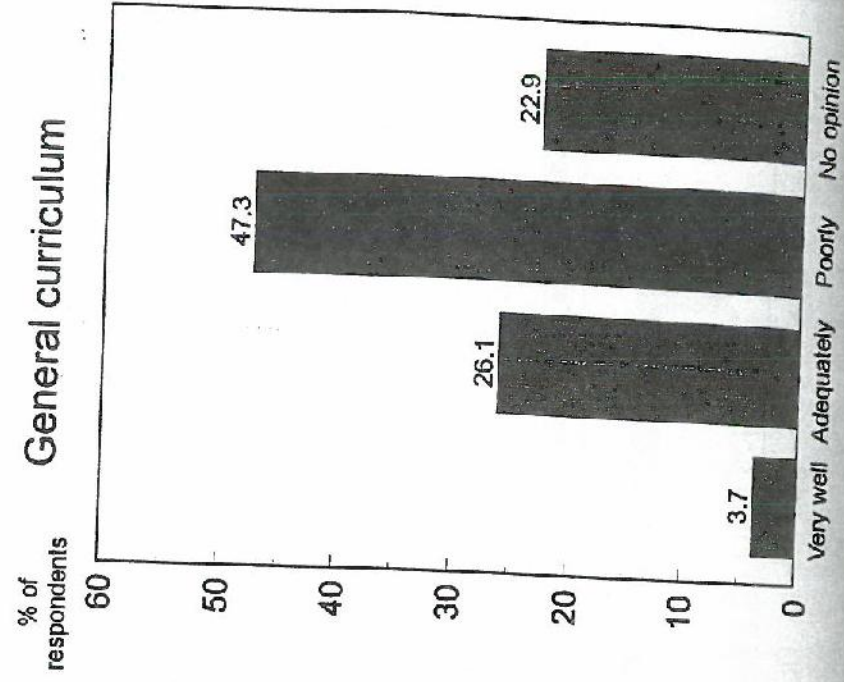
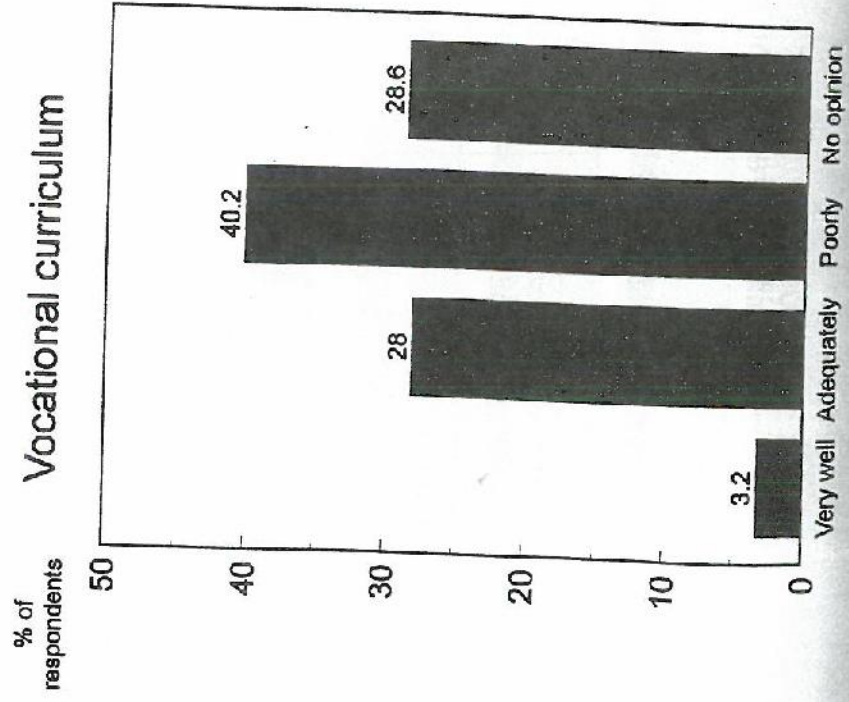
All firms

	Very well	Adequately	Poorly	No opinion	Total # of respondents
Public high schools--vocational curriculum	3.2	28.0	40.2	28.6	189
Public high schools--general curriculum	3.7	26.1	47.3	22.9	188
Vocational/technical colleges	9.7	49.5	18.3	22.6	186
Community colleges	5.6	43.3	19.4	31.7	180
Connecticut state university system	12.8	44.4	10.6	32.2	180
University of Connecticut	23.2	32.0	8.1	38.7	181

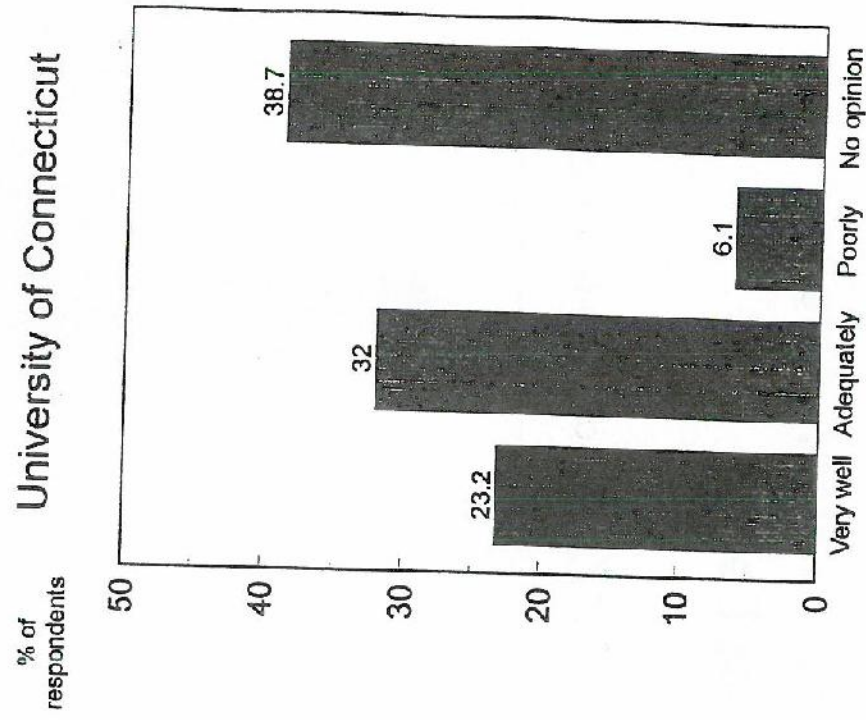
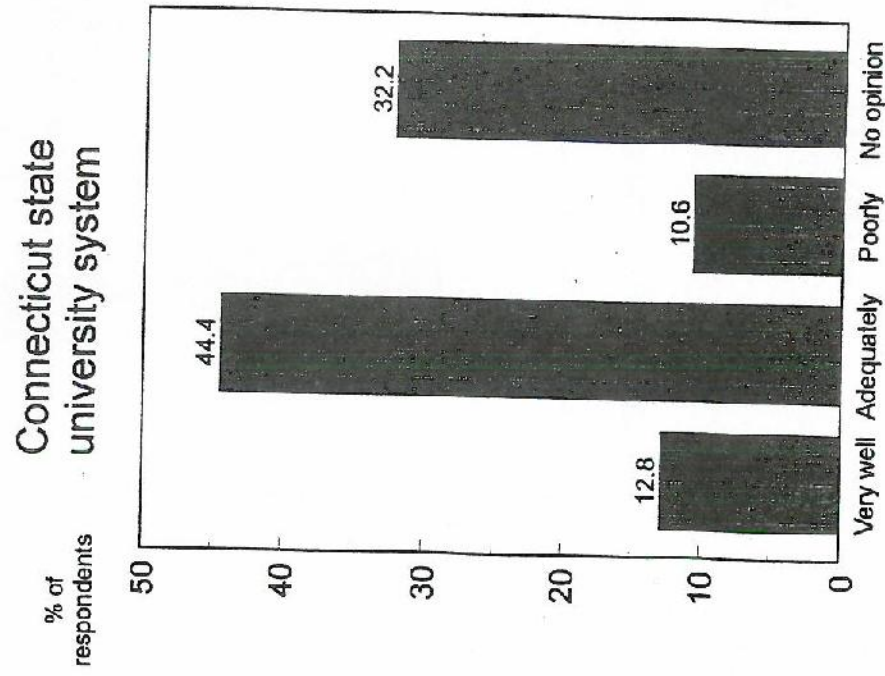
Manufacturing firms

	Very well	Adequately	Poorly	No opinion	Total # of respondents
Public high schools--vocational curriculum	3.3	28.0	44.0	24.7	150
Public high schools--general curriculum	2.7	28.4	47.3	21.6	148
Vocational/technical colleges	10.2	53.7	15.6	20.4	147
Community colleges	6.9	41.0	18.1	34.0	144
Connecticut state university system	13.8	41.4	9.7	35.2	145
University of Connecticut	24.1	29.7	4.8	41.4	145

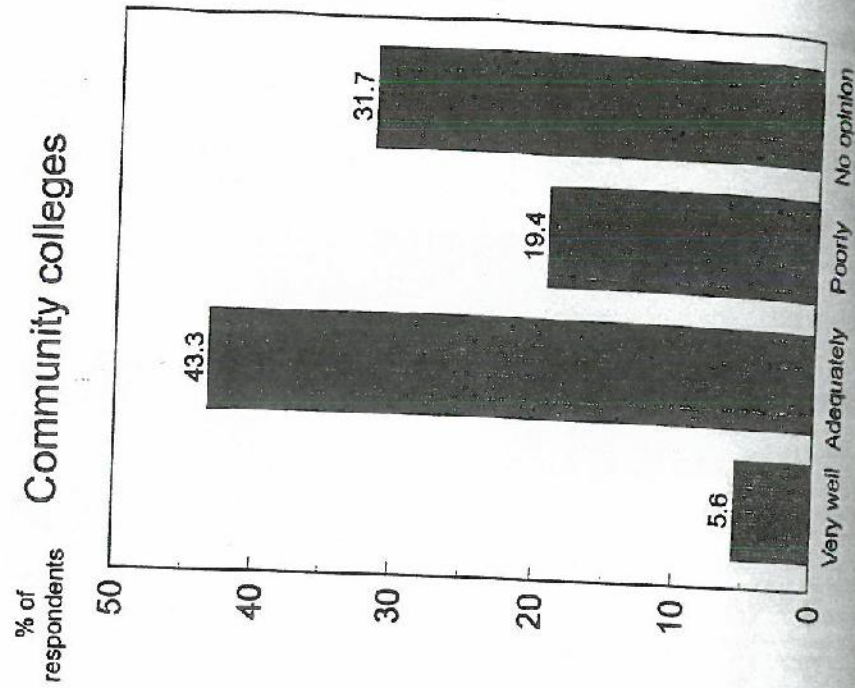
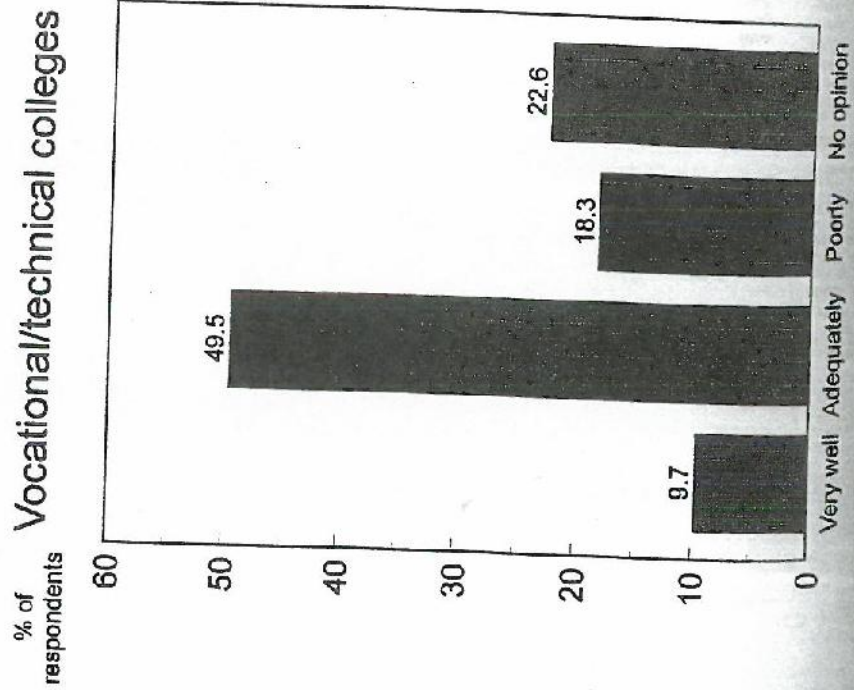
Quality of preparation offered by public high schools



Quality of preparation offered by universities



Quality of preparation offered by colleges



Difficulty recruiting employees

	Yes	No
Skilled production	62.3	37.7
Technical	38.4	61.6
Semi-skilled production	37.7	62.3
Engineering/scientific	27.0	73.0
Sales & marketing	23.9	76.1
Administrative/managerial	18.5	81.5
Unskilled production	10.1	89.9
Clerical	9.4	89.3

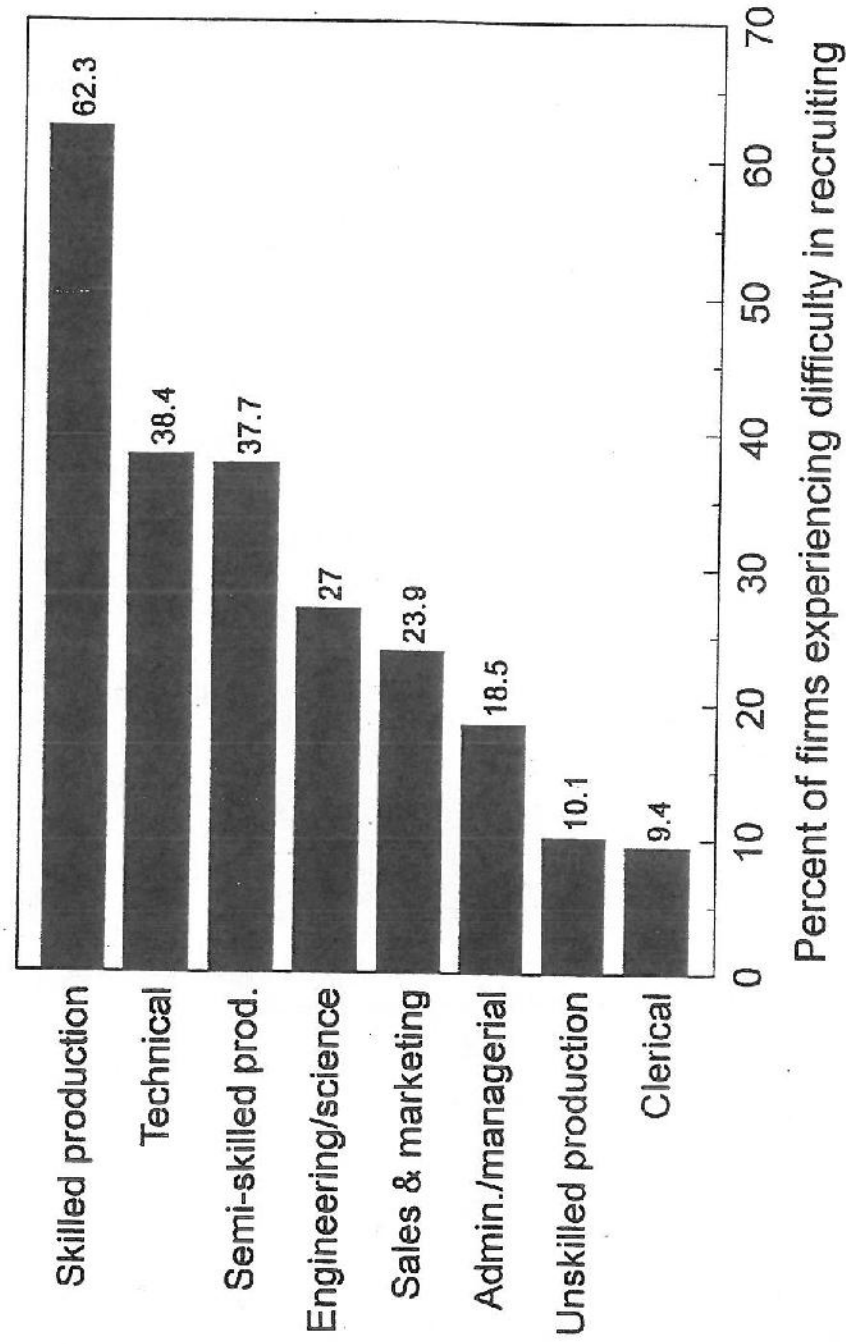
Note: Total number of respondents=159

Most difficult positions to fill

Positions	# of respondents	% of respondents
Engineering	18	13.1
Tool-making	16	11.7
Sales/marketing	15	10.9
Machining	15	10.9
Technical	14	10.2
Computer programming	8	5.8
Skilled/semi-skilled production	7	5.1
Welding	6	4.4
Machine set-up	6	4.4

Number of respondents=137

Difficulty recruiting employees



Barriers to recruiting process

	Yes	No
Lack of occupation-specific skills	73.8	26.3
Work attitudes	42.5	57.5
General shortage of labor in area	33.8	66.3
Lack of basic education	26.3	73.8
Unwillingness to work 2nd/3rd shifts	15.6	84.4
Lack of adequate public transportation	8.1	91.9
Lack of childcare	5.6	94.4

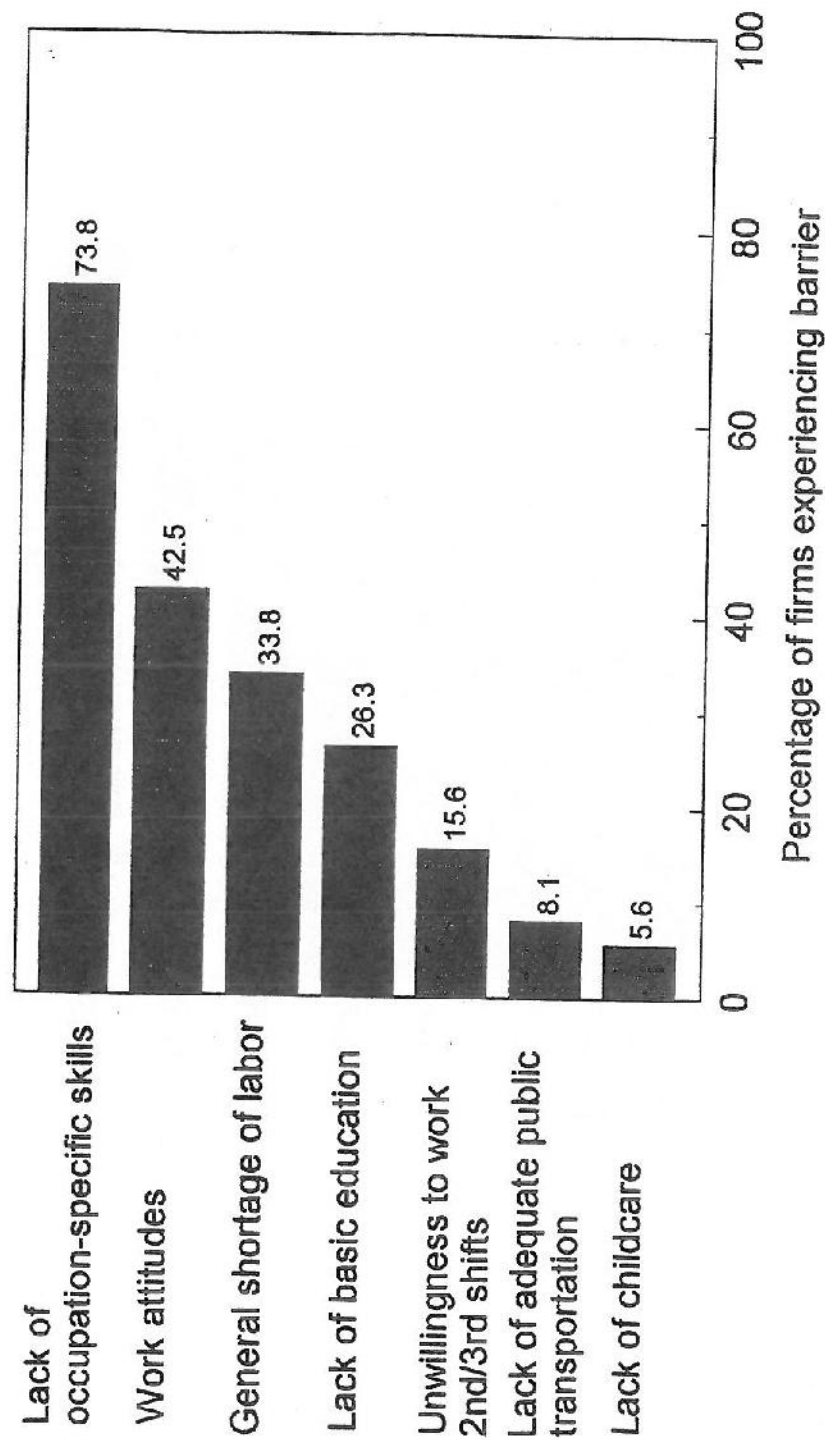
Note: Total number of respondents=160

Manufacturing firms

	Yes	No
Lack of occupation-specific skills	77.2	22.8
Work attitudes	43.3	56.7
General shortage of labor in area	33.1	66.9
Lack of basic education	29.9	70.1
Unwillingness to work 2nd/3rd shifts	18.1	81.9
Lack of adequate public transportation	8.7	91.3
Lack of childcare	4.7	95.3

Number of respondents=127

Obstacles to recruiting process

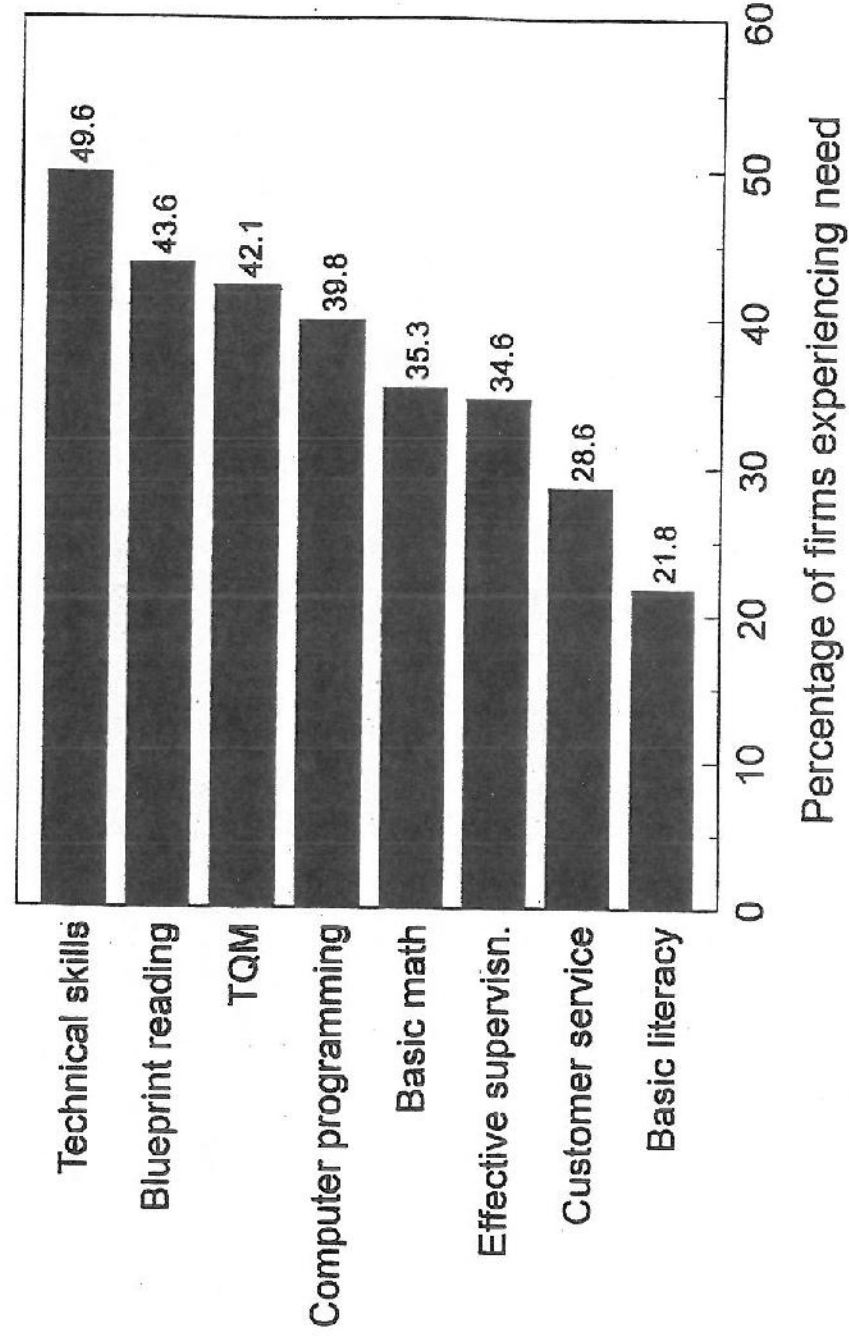


Need for specialized training

	Yes	No
Specific technical skills	49.6	49.6
Blueprint reading	43.6	56.4
Total quality management	42.1	57.9
Computer programming	39.8	60.2
Basic math	35.3	64.7
Effective supervision	34.6	65.4
Customer service	28.6	71.4
Basic literacy	21.8	78.2

Note: Total number of respondents=133

Need for specialized training

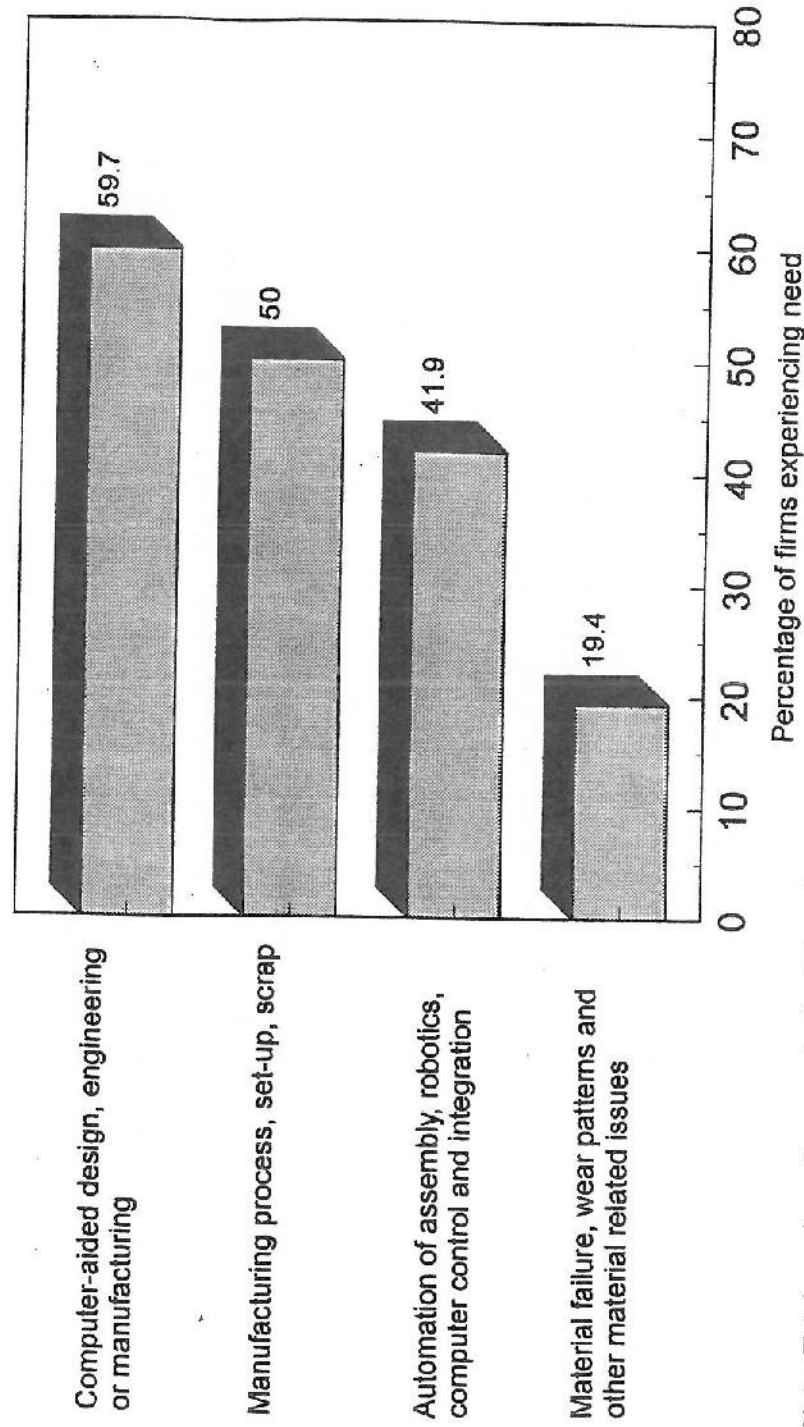


Need for assistance with manufacturing processes

	Yes	No
Computer aided design, engineering or manufacturing	59.7	40.3
Manufacturing process, set up, scrap	50.0	50.0
Automation of assembly, robotics, computer control and integration	41.9	56.5
Material failure, wear patterns and other material-related issues	19.4	80.6

Note: Total number of respondents=62

Need for assistance with manufacturing processes



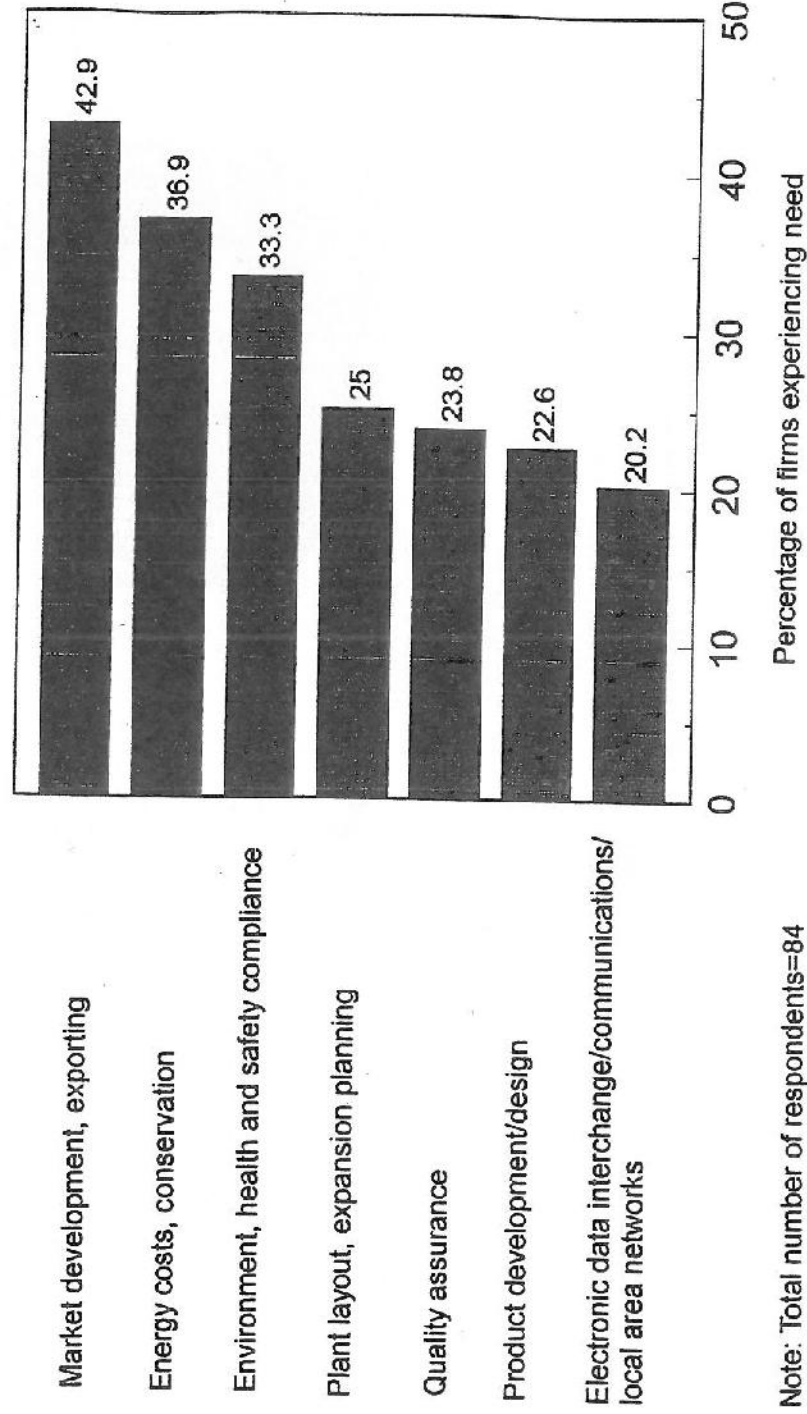
Note: Total number of respondents=62

Need for assistance with operations

	Yes	No
Market development, exporting	42.9	57.1
Energy costs, conservation	36.9	63.1
Environment, health and safety compliance	33.3	66.7
Plant layout, expansion planning	25.0	75.0
Quality assurance	23.8	76.2
Product development/design	22.6	77.4
Electronic data interchange/communications/local area networks	20.2	79.8

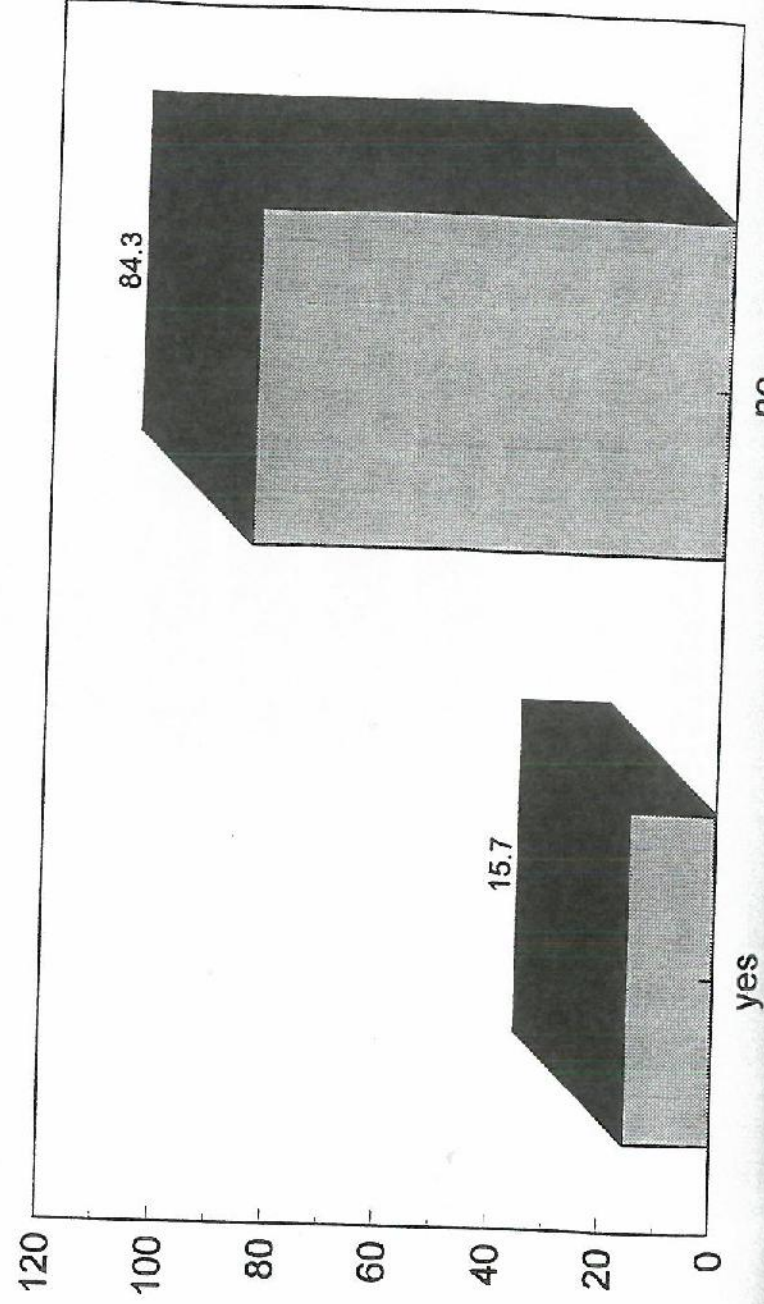
Note: Total number of respondents=84

Need for assistance with operations



Note: Total number of respondents=84

Financing needs



Note: Total number of respondents=186

Experience in obtaining financing

	Tried		Haven't tried	
	Able to obtain	Turned down	Need	Don't need
Working capital	57.0	9.1	4.8	29.1
Equipment loan/lease	58.4	1.8	5.4	34.3
Commercial/Industrial Mortgage (fixed rate)	42.8	3.1	6.9	47.2
Commercial/Industrial Mortgage (variable rate)	29.1	0.7	5.4	64.9
Venture capital	10.1	1.4	7.4	85.1

Note: Total number of respondents=166

Manufacturing firms

	Tried		Haven't tried	
	Able to obtain	Turned down	Need	Don't need
Working capital	57.6	9.1	9.1	23.5
Equipment loan/lease	58.1	1.5	6.9	33.8
Commercial/Industrial Mortgage (fixed rate)	44.5	3.9	7.8	43.8
Commercial/Industrial Mortgage (variable rate)	32.2	0.8	5.9	61.0
Venture capital	8.9	0.8	8.1	82.1

Number of respondents=127

Opinion of resources

	Opinion			Total # of responses	Weighted average
	Favorable	Neutral	Unfavorable		
UConn	71.9	25.0	3.1	32	1.3
CT. Business and Industry Association	71.0	22.6	6.5	62	1.4
Hartford Economic Development Corp.	40.0	60.0	0.0	10	1.6
CT. Development Authority	56.4	23.1	20.5	39	1.6
CT. Technical Assistance Program	44.4	50.0	5.6	18	1.6
Greater Hartford Chamber of Commerce	48.0	44.0	8.0	25	1.6
CT. Economic Resource Center	33.3	66.7	0.0	9	1.7
CONN/STEP	39.1	47.8	13.0	23	1.7
CT. Capital Region Growth Council	41.7	50.0	8.3	12	1.7
Small Business Development Center	37.5	45.8	16.7	24	1.8
CT. Technology Associates	30.0	60.0	10.0	10	1.8
Business and Industry Services Network	22.2	77.8	0.0	9	1.8
CT. Department of Economic and Community Development	40.8	32.7	26.5	49	1.9
Defense Informations Services Network	30.8	46.2	23.1	13	1.9
CT. Technology Council	22.2	66.7	11.1	9	1.9
Service Corps of Retired Executives	25.0	62.5	12.5	18	1.9
CT. Innovations, Inc.	7.7	76.9	15.4	13	2.1

Note: The weighted average was calculated by assigning a value of 1 to each "favorable" response, 2 to each "neutral" response, and 3 to each "unfavorable" response. The closer the answer to 1, the more favorable the overall response.

Use of resources

	Familiar	
	Have used	Haven't used
CT. Business and Industry Association	47.1	38.6
CT. Department of Economic and Community Development	35.7	65.0
CT. Development Authority	30.0	67.9
UConn	21.4	55.7
Greater Hartford Chamber of Commerce	15.0	67.1
CONN/STEP	12.1	42.9
Small Business Development Center	12.1	52.1
CT. Technical Assistance Program	10.0	47.9
Defense Informations Services Network	7.9	45.0
CT. Economic Resource Center	6.4	49.3
Service Corps of Retired Executives	6.4	55.0
CT. Innovations, Inc.	5.7	61.4
CT. Capital Region Growth Council	5.7	57.9
Hartford Economic Development Corp.	4.3	50.7
Business and Industry Services Network	3.6	42.9
CT. Technology Associates	2.9	45.0
CT. Technology Council	2.1	50.0

Note: Total number of respondents=120

Percentages may not add up to 100 as some respondents left part of the question blank.

Factors affecting business

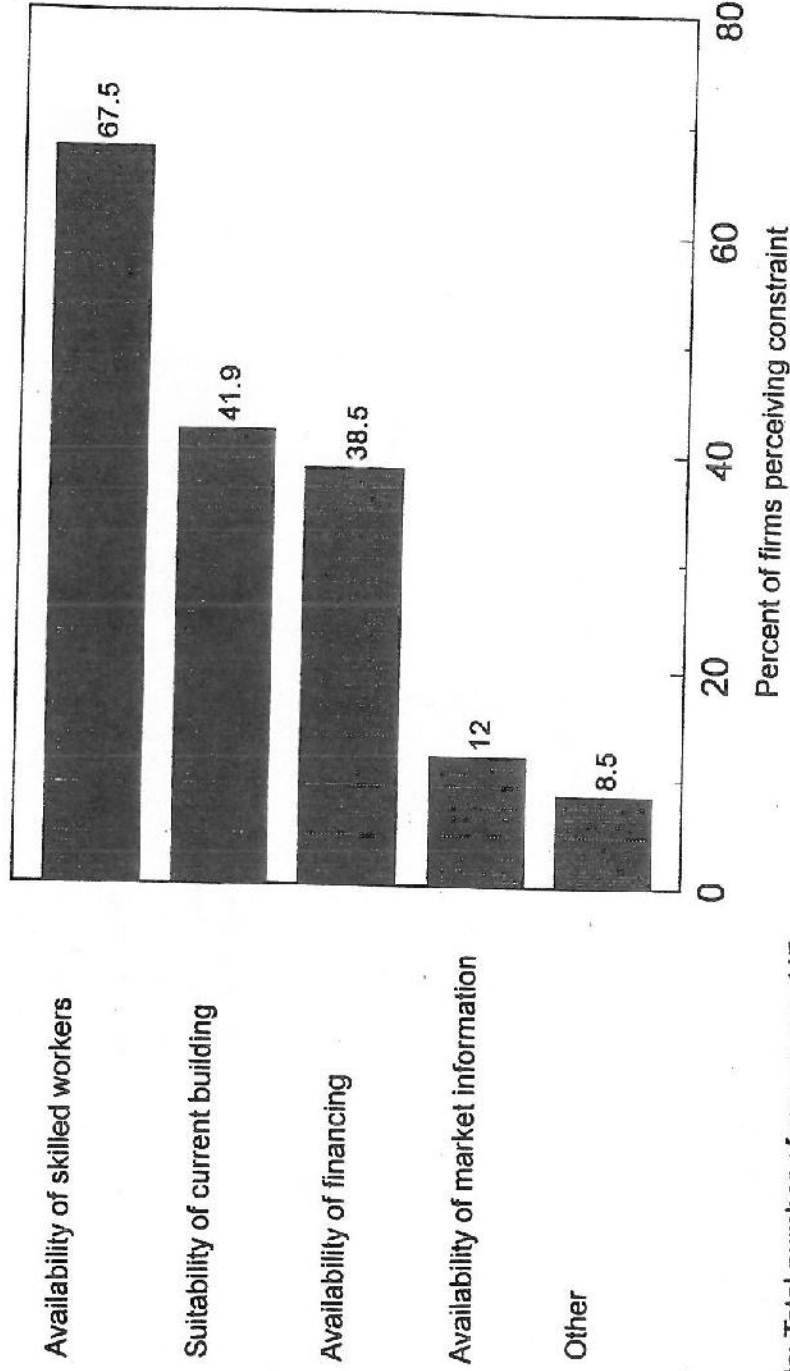
	Positive	Neutral	Negative	No Opinion	Weighted Average
Highway access	64.6	25.4	3.2	6.9	1.34
Quality of life	52.4	37.6	3.7	3.7	1.46
Proximity of suppliers	43.9	34.9	3.2	17.5	1.50
Air transportation	39.7	28.0	3.7	26.5	1.50
Telecom. services	38.6	45.0	3.2	9.0	1.59
Proximity to markets	42.3	32.8	10.1	14.8	1.62
Availability of land, buildings	27.5	33.3	10.1	23.8	1.75
Availability of bank loans	27.0	37.6	12.2	17.5	1.81
Sewer/water capacity	12.7	46.0	5.8	31.2	1.89
Energy supply	25.4	38.1	16.4	16.4	1.89
Quality of post-secondary training	19.6	44.4	16.4	13.2	1.96
Availability of risk capital	12.2	39.7	10.6	30.2	1.97
Rail service	5.8	21.7	4.8	63.5	1.97
Quality of primary/secondary schools	20.6	40.7	18.5	13.8	1.97
Availability of labor	30.7	32.3	34.4	2.6	2.04
Zoning	13.8	49.7	17.5	13.8	2.05
Sewer/water cost	12.2	41.3	16.4	27.0	2.06
Labor force skills	30.2	28.6	36.0	3.2	2.06
Quality of state/local econ. devpt. services	18.5	43.9	23.8	7.4	2.06
Port access	5.8	17.5	9.0	63.0	2.10
Cost of labor	23.8	28.6	44.4	2.1	2.21
Energy costs	15.9	19.0	52.9	10.1	2.42
Housing costs	10.1	25.4	45.0	13.2	2.43
Property taxes	14.8	21.7	55.6	5.8	2.44

Note 1: The weighted average was calculated by assigning a value of 1 to each "positive" response, 2 to each "neutral" response, and 3 to each "negative" response. The closer the answer to 1, the more favorable the overall response.

Note 2: Percentages may not add up to 100 as some respondents left part of the question unanswered.

Note 3: Total number of respondents=189

Constraints to developing new products or modernizing production processes in the next three years

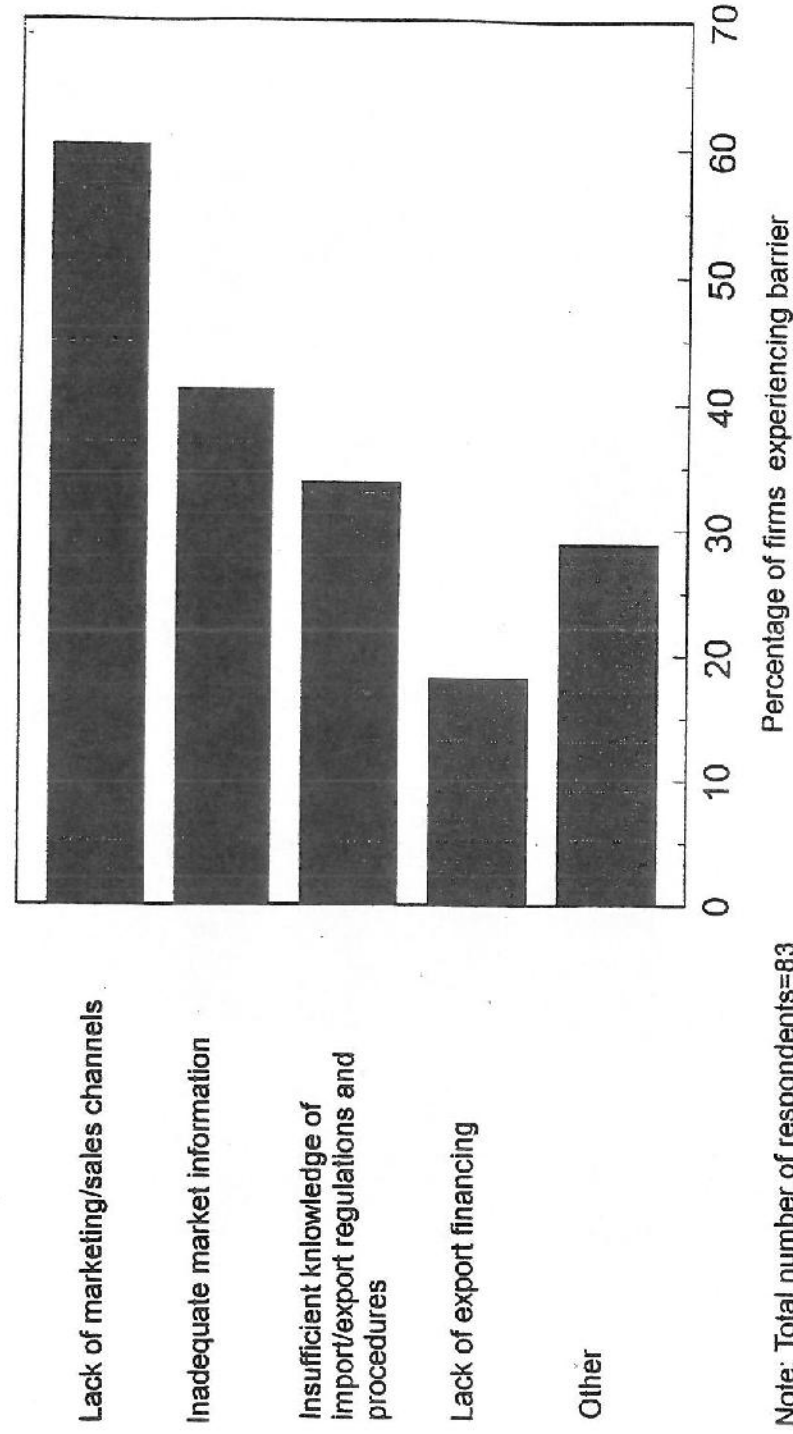


Barriers to increasing export sales

	Yes	No
Lack of marketing/sales channels	60.2	39.8
Inadequate market information	41.0	57.8
Insufficient knowledge of import/export regulations/procedures	33.7	66.3
Lack of export financing	18.1	81.9
Other	28.9	71.1

Note: Total number of respondents=83

Barriers to increasing export sales



Note: Total number of respondents=83

Hartford as a place to do business

Hartford region's assets

Asset	# of respondents	% of respondents
Location/proximity to NY and Boston	22	16.8
Quality of life	20	15.3
Proximity to suppliers/customers	17	13.0
Skilled labor force	15	11.5
Availability of work force	7	5.3

Number of respondents=131

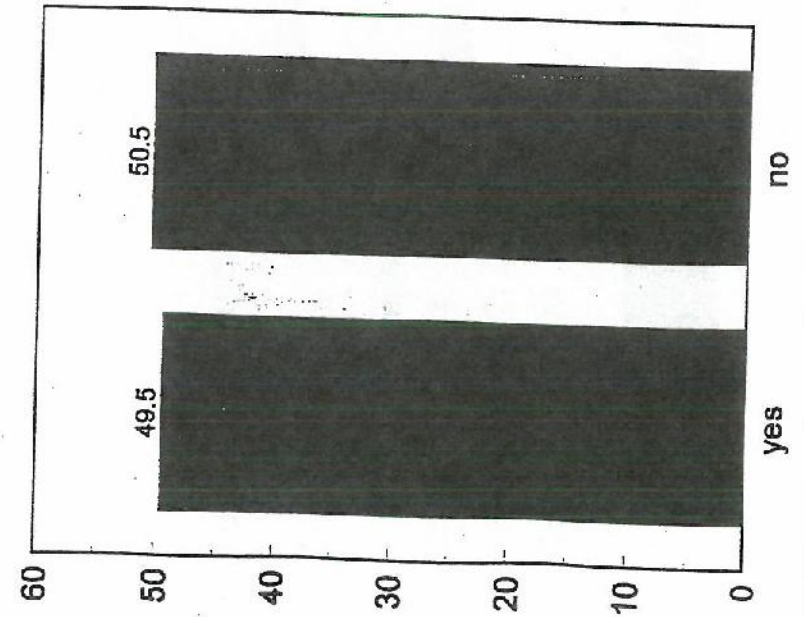
Hartford region's shortcomings

Shortcoming	# of respondents	% of respondents
High taxes	56	34.4
High cost of doing business	31	19.0
State's "anti-business" attitude	15	9.2
High cost of labor	14	8.6
High cost of living	14	8.6
Unskilled labor pool	14	8.6
High cost of utilities/energy	12	7.4
Public education	10	6.1

Number of respondents=163

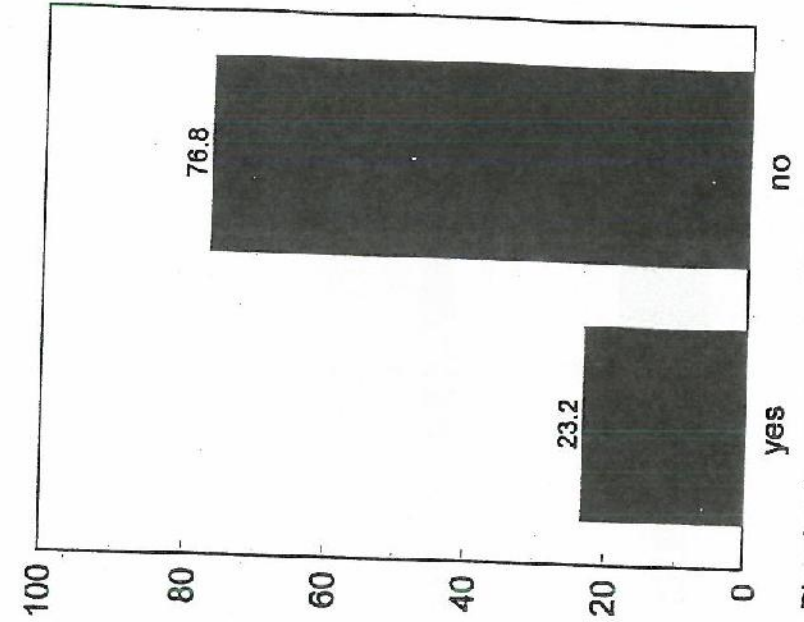
Plans for expansion, relocation or new facilities in the next three years

percent of firms



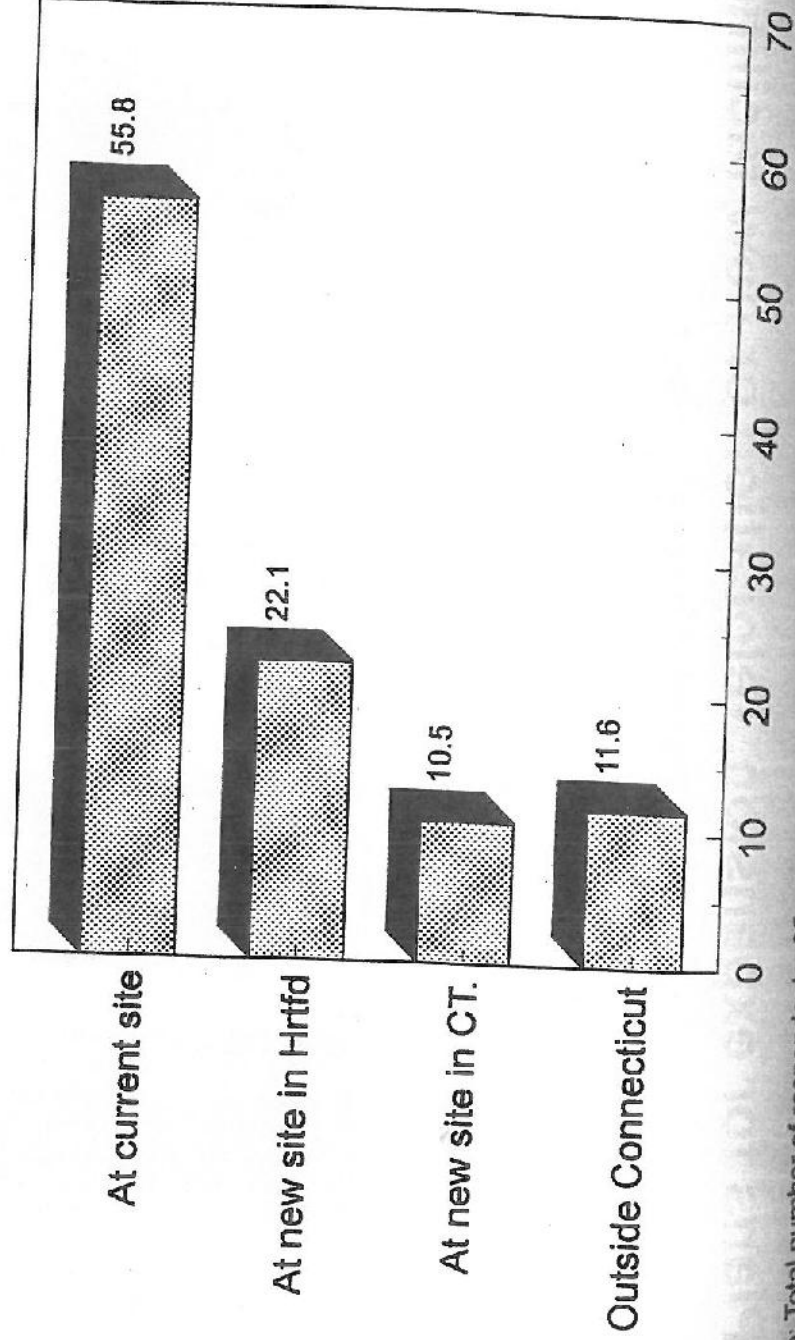
Planning expansion or relocation of area's facilities

Percent of firms



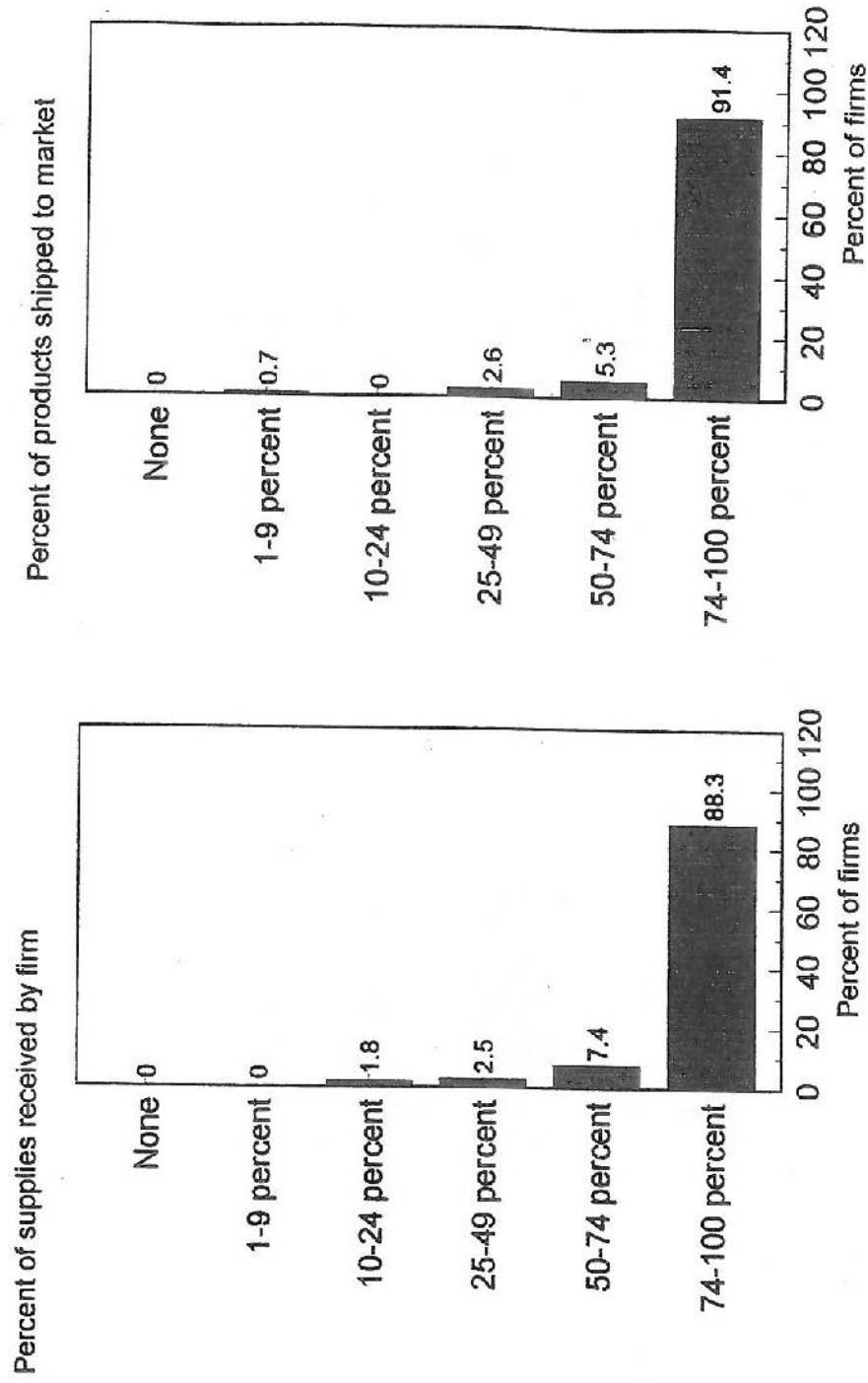
Planning to open new facilities outside the region

Site for expansion/relocation

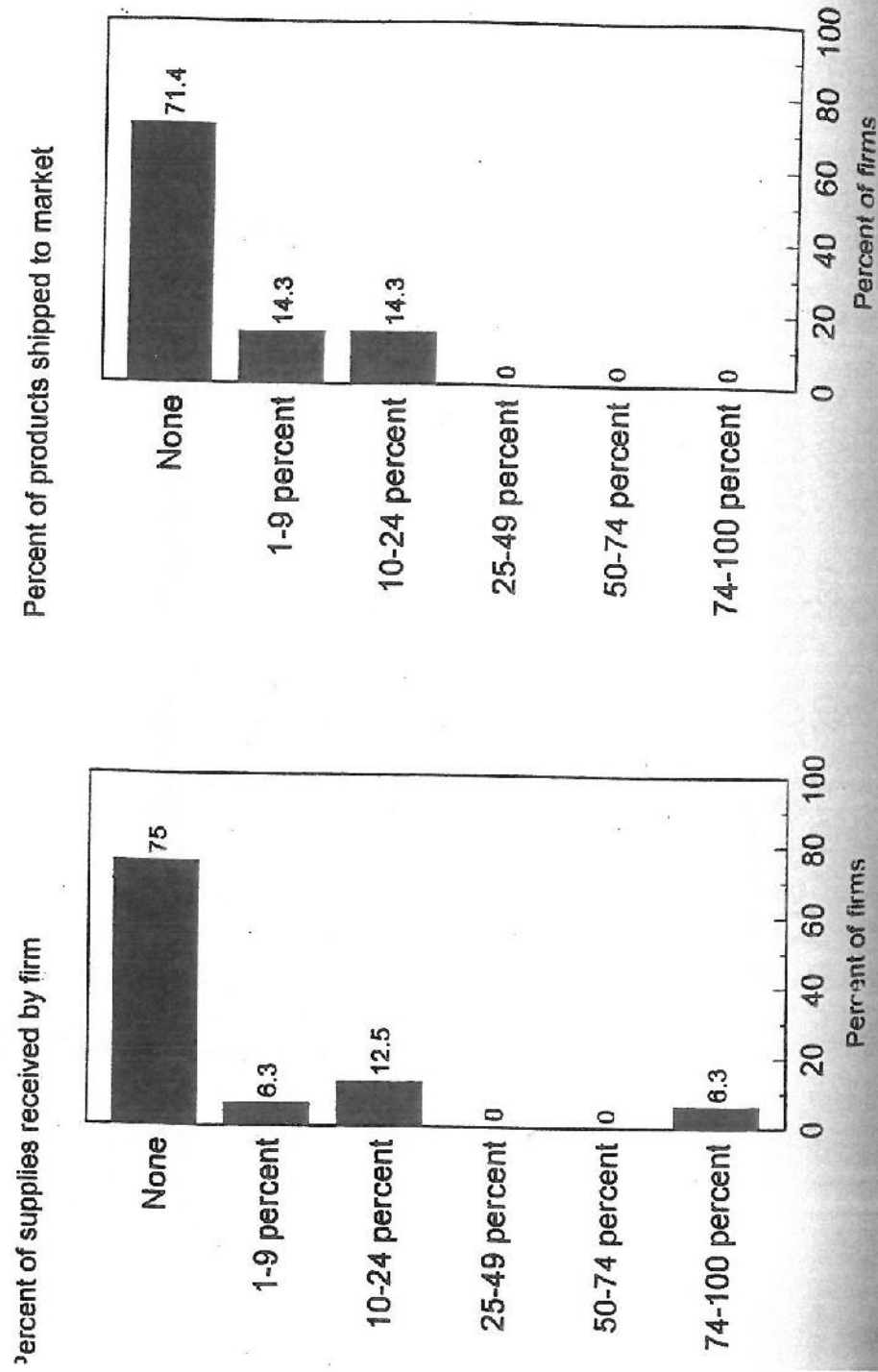


Note: Total number of respondents=95

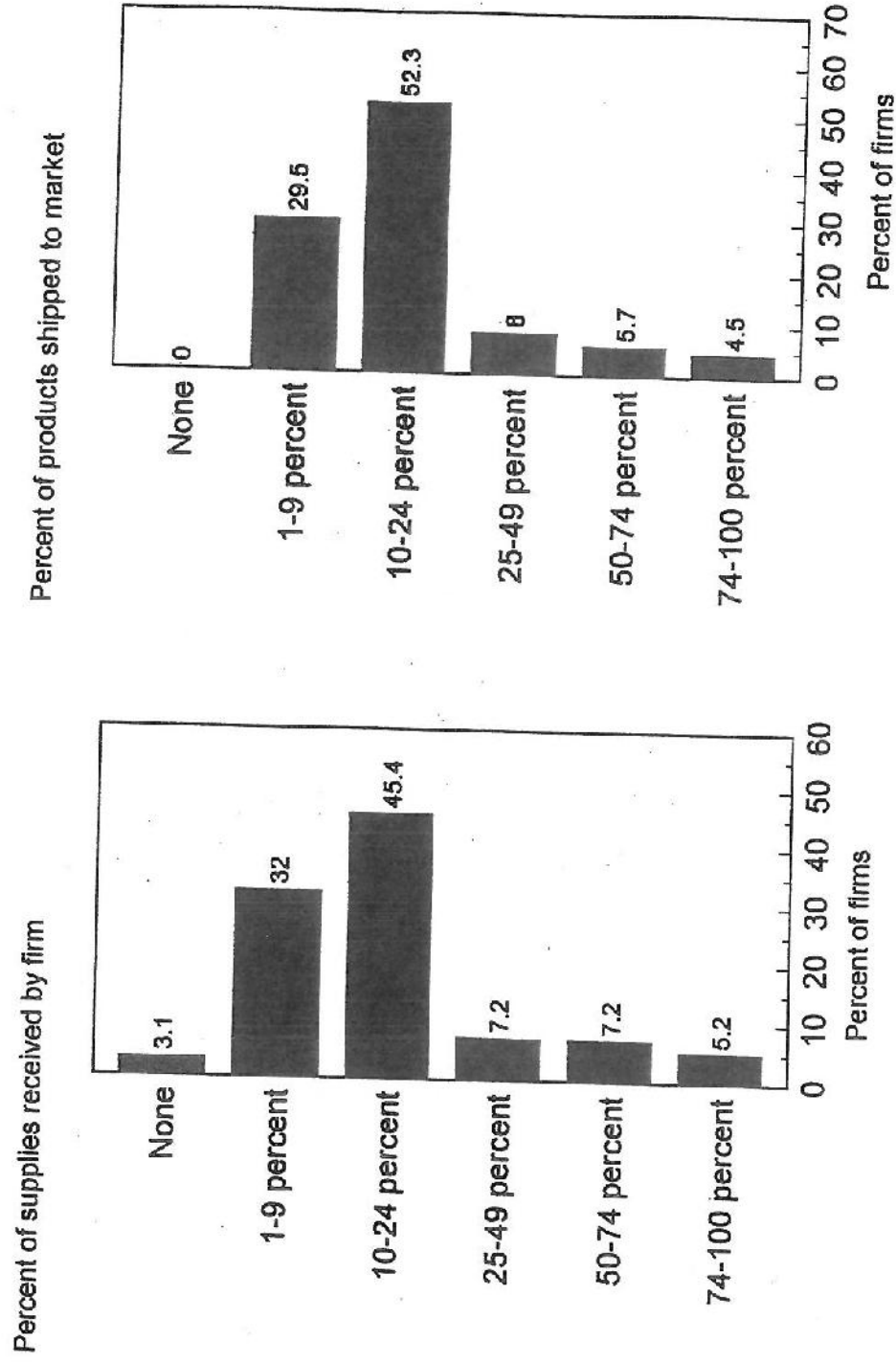
Use of road transportation



Use of rail transportation



Use of air transportation



APPENDIX B: THE REGION'S LABOR FORCE

In creating an economic development strategy for the Connecticut Capitol Region, it is critical to capitalize upon emerging and current business development opportunities by successfully matching capacity and skills of the regional labor force to these trends. This overview assesses the strengths and weaknesses of the existing labor force in the region, in particular, looking at trends in the migration of the population, size of the labor force and unemployment rates, occupational skills, skills of the unemployed, and educational attainment and performance of residents in the region. These categories will illuminate the barriers and opportunities that help shape a strategic economic development plan -- one that is targeted at populations in need and focused on developing strengths in the region.

LABOR FORCE SKILLS

One key to maintaining the deeply valued quality of life in the Hartford region is to improve overall productivity growth. The means to increase growth in the past was to add new workers to the existing workforce. An expanded workforce equates to more goods and services produced in the aggregate. However, the growth of the workforce has slowed dramatically in the Hartford region. The region can no longer rely on adding new workers to grow the workforce and, in fact, has suffered from the opposite trend the last five years. The critical issue, therefore, becomes the ability to increase the productivity growth among the existing workforce.

The key productivity improvement in the nation and the Hartford region rests upon a workforce that attains and utilizes a strong general education and training. The reorganization of the workplace demands it. In place of the rote production manufacturing methods of the past is a high performance workplace. In the 21st century workplace, responsibility is given to front line workers while decision making roles are reduced among middle management. The layers of bureaucracy disappear as front line workers are asked to use more judgment and assume responsibility for tasks such as quality control, production techniques, and scheduling. Work organizations like these require investments in an educated and trained workforce.¹

In light of these changes and in order to compete in the global economy, it is critical that the Hartford region have a well-trained and well-educated workforce. Student performance measures, enrollment figures, 1990 Census data, and employer survey information are examined below and used to assess the level of education and training achieved by residents of the Hartford region.

¹ For more information on this changing workplace dynamic, refer to *America's Choice: high skills or low wages!*, National Center on Education and the Economy, 1990.

➤ *The region has a high concentration of white collar workers, yet suffers from a vast disparity with the city in terms of residents with these same occupational characteristics.*

- *The region enjoys a high concentration of residents with jobs in professional, managerial, and technical occupations.* In 1990, more than 35 percent of the region's residents held jobs in these white collar occupations, better than the nation's 29.7 percent. The city lagged the national average with only 21.3 percent of its residents in white collar occupations.
- *There is a large disparity between the region and the central city in terms of concentration of white collar occupations.* A comparison with 30 similar regions and cities highlights the disparity. In 1990, the Hartford region ranked among the top 3 regions while the city ranked among the last two among cities for percent of residents with white collar jobs.

➤ *The Hartford region has a relatively high level of educational attainment, but lags the state in many categories.*

- *The Hartford region has a high level of educational attainment for persons over 25 years old as compared to the nation.* With those indicators measuring educational attainment after high school in 1990 the Hartford region fares very well. For example, 26.5 percent of its population has earned a bachelors degree or higher as compared to the nation's 20.3 percent. Forty-nine percent of the region's residents have attended at least some college or higher as compared to the nation's 45.2 percent. Although not comparing as well as the post high school attainment categories, 79.1 percent of the region's residents have graduated from high school or earned an equivalency as compared to the nation's 75.3 percent.

College Graduates
Percent of college graduates, 25 and older,
1990 (1990)

1 Raleigh/Durham, NC	31.7
2 Trenton, NJ	29.5
3 Hartford, CT	26.5
4 Richmond, VA	23.8
5 Albany, NY	23.5
6 Wilmington, DE	23.4
7 Columbus, OH	23.3
8 Rochester, NY	22.9
9 Salt Lake City, UT	22.9
10 Sacramento, CA	22.7
11 Des Moines, IA	22.6
12 Omaha, NE	22.5
13 Fort Worth, TX	22.4
14 Baton Rouge, LA	22.4
15 Wichita, KS	21.5
16 Milwaukee, WI	21.3
17 Sioux Falls, SD	20.7
18 St. Louis, MO	20.5
19 Providence, RI	20.4
20 Indianapolis, IN	20.2
21 Cincinnati, OH	19.9
22 Charlotte, NC	19.6
23 Fort Lauderdale, FL	18.8
24 Pittsburgh, PA	18.7
25 Jacksonville, FL	18.6
26 Harrisburg, PA	18
27 Tampa, FL	17.5
28 Louisville, KY	17.3
29 Fort Wayne, IN	16.2
30 Chattanooga, TN	15.9

Source: 1990 US Census

College Graduates
Percent of college graduates, 25 and older,
1990 (1990)

1 Raleigh/Durham, NC	40.6
2 Salt Lake City, UT	36.4
3 Albany, NY	29.5
4 Charlotte, NC	28.4
5 Baton Rouge, LA	28.3
6 Columbus, OH	24.6
7 Richmond, VA	24.2
8 Sacramento, CA	23.5
9 Omaha, NE	23.1
10 Sioux Falls, SD	22.9
11 Wichita, KS	22.7
12 Cincinnati, OH	22.2
13 Indianapolis, IN	21.9
14 Fort Lauderdale, FL	21.9
15 Providence, RI	21.6
16 Fort Worth, TX	21.5
17 Pittsburgh, PA	20.1
18 Rochester, NY	19
19 Wilmington, DE	18.9
20 Des Moines, IA	18.9
21 Tampa, FL	18.7
22 Jacksonville, FL	18.4
23 Chattanooga, TN	18.2
24 Louisville, KY	17.2
25 Fort Wayne, IN	15.7
26 St. Louis, MO	15.3
27 Milwaukee, WI	14.8
28 Hartford, CT	13.8
29 Harrisburg, PA	14
30 Trenton, NJ	10.5

Source: 1990 US Census

- *In contrast, the Hartford region slightly lags the state in many categories in terms of educational attainment.* In 1990, the state has higher rates of residents receiving high school degrees or higher than the Hartford region (79.2 percent as compared to 78.8 percent), some college or higher (49.7 percent versus 49.0 percent), and bachelors degrees or higher (11.0 percent versus 10.1 percent). The greatest disparity among all these indicators is the category of bachelors degrees or higher with a difference of 1.2 percentage points between the two areas.
- *Metropolitan Hartford trails only two comparable regions in terms of college graduates.* Out of the 30 regions that have been identified as comparable to the Hartford region in terms of population, economic base, and other demographics, the Hartford region has the third highest level of persons over 25 years of age with college degrees. Only two regions rank higher -- Raleigh/Durham, NC and Trenton, NJ. Regions such as Richmond, VA, Albany, NY, Providence, RI, Wilmington, DE and Des Moines, IA among others ranked lower.²

² See Comparable Regions data to see criteria for selection of 30 regions identified as "comparable."

- *The Hartford region has a higher concentration of its residents attaining associates and two-year professional degrees than the state and nation.* Even though the Hartford region lags the state in terms of those attaining higher education degrees, the region has 7.1 percent of its residents 25 years or older attaining associates degrees in 1990. This compares to the state's 6.6 percent and the nation's 6.2 percent. The higher concentration suggests a greater share of residents in the Hartford region attaining professional and technical degrees to meet the demands of the manufacturing base and service jobs in the area.
- *A mismatch exists in the region between the rates of high school graduates continuing on to four-year and two-year colleges and the region's rate of educational attainment.*
- *The Hartford region sends more of its high school graduates to four-year and two-year colleges than the state.* More than 58.0 percent of the 1996 high school graduates in the Hartford region continued on to four year colleges. This percentage compared favorably to the state's rate of 57.0 percent. The rates of high school graduates continuing on to two year colleges and other education in the Hartford region was also better (19.5 percent) as compared to the state (18.7 percent).
 - *The state is experiencing an overall increase in the number of high school graduates continuing at two- and four-year colleges and universities.* Since the graduating class of 1993, the state rate for graduates pursuing two- and four-year higher education has increased from 69.9 percent of the graduates in 1993 to more than 72.3 percent in 1996.³
 - *More high school graduates in the Hartford region choose not to enter the workforce but pursue other education immediately after high school than the state.* Only 17.0 percent of the region's graduates choose civilian or military employment after graduation. This compares to the 18.6 percent that the state experiences.
 - *The Hartford region's high school dropout rate is lower than the state and nation.* The region's high school dropout rate is only 8.5 percent. This rate compares favorably to the nation's rate of 11.2 percent and the nation's rate of 9.0 percent.
- *Despite some of the highest per pupil expenditures, residents of the City of Hartford have attained significantly lower levels of education than the region, state, and nation.*
- *The City of Hartford has one of the highest per pupil expenditures.* According to The Digest of Education Statistics, in 1992-1993 the City of Hartford had the highest per pupil expenditure among 30 comparable cities in the nation. The city spent \$8,817 per pupil.

³ Connecticut State Board of Education, "Profiles of Our Schools: Condition of Education in Connecticut 1995-96," February 1997.

- *The City of Hartford lags the region in terms of educational attainment.* In 1990 only 14.4 percent of Hartford's residents have bachelors degrees or higher as compared to 26.0 percent and 27.2 percent in the region and state respectively. In addition, 41.8 percent of the residents over the age of 25 do not have a high school degree or equivalency.
- *Hartford is one of the worst performers when compared to similar cities in terms of percent of high school and college graduates.* When measured against the percentages of 30 comparable cities in 1990, Hartford ranks second to last with only 59.4 percent of those over 25 years old graduating from high school or earning an equivalency. Hartford ranks third to last when compared to 30 other similar cities in terms of percent of college graduates. Only 14.4 percent of Hartford's population over 25 years of age has earned a college degree.

High School Graduates
Percent of high school graduates,
25 and older, 1990 (MSA)

1 Salt Lake City, UT	85.6
2 Des Moines, IA	85.4
3 Omaha, NE	84.4
4 Sacramento, CA	83
5 Sioux Falls, SD	82.7
6 Wichita, KS	82.2
7 Fort Wayne, IN	80
8 Raleigh/Durham, NC	80
9 Columbus, OH	79.8
10 Albany, NY	79.8
11 Milwaukee, WI	79.7
12 Wilmington, DE	79.5
13 Hartford, CT	79.1
14 Rochester, NY	79
15 Fort Worth, TX	78.9
16 Indianapolis, IN	78.1
17 Jacksonville, FL	77.4
18 Pittsburgh, PA	77.3
19 Trenton, NJ	77.1
20 Harrisburg, PA	76.9
21 Baton Rouge, LA	76.8
22 Fort Lauderdale, FL	76.8
23 St. Louis, MO	75.9
24 Richmond, VA	75.8
25 Tampa, FL	75.1
26 Cincinnati, OH	74.4
27 Louisville, KY	73.3
28 Charlotte, NC	72.5
29 Providence, RI	71
30 Chattanooga, TN	68

Source: 1990 US Census

High School Graduates
Percent of high school graduates, 25
and older, 1990 (City)

1 Raleigh/Durham, NC	86.6
2 Sioux Falls, SD	83.4
3 Salt Lake City, UT	83
4 Omaha, NE	82.6
5 Wichita, KS	81.9
6 Des Moines, IA	81
7 Charlotte, NC	81
8 Columbus, OH	78.7
9 Albany, NY	77.7
10 Fort Wayne, IN	77.1
11 Jacksonville, FL	76.9
12 Sacramento, CA	76.9
13 Baton Rouge, LA	76.8
14 Indianapolis, IN	76.5
15 Fort Lauderdale, FL	74.2
16 Pittsburgh, PA	72.4
17 Fort Worth, TX	71.6
18 Milwaukee, WI	71.5
19 Tampa, FL	70.6
20 Cincinnati, OH	69.6
21 Chattanooga, TN	69
22 Rochester, NY	68.8
23 Richmond, VA	68.1
24 Wilmington, DE	67.7
25 Harrisburg, PA	67.2
26 Louisville, KY	67.2
27 St. Louis, MO	62.8
28 Providence, RI	62.8
29 Hartford, CT	59.4
30 Trenton, NJ	59.2

Source: 1990 US Census

- *The City of Hartford has the highest drop out rate in the state.* Almost 49.0 percent of Hartford public school's class of 1996 dropped out of high school over four years. This cumulative drop out rate is almost 3 times the state average of 16.4 percent. This

rate is the highest in the state by more than 10 percentage points (New London is second to last with a cumulative drop out rate of 38.4).

➤ *Connecticut students perform well as compared to the nation in academic performance standards such as mastery test scores, although one area of concern includes state scores related to mathematics.*

- *Connecticut's grade 4, 6, and 8 students perform better than the nation in comparable mastery test scores.* Connecticut students achieved higher norms in all three grades and in all content areas (reading, writing, and math) as compared to the nation. Students in grades 4, 6, and 8 achieved higher scores than 59 percent to 66 percent of students nationally depending on the grade and subject area.⁴
- *While experiencing 3 consecutive years of increasing levels of performance on the Connecticut Mastery Test, Connecticut students were relatively weaker in some areas of mathematics.* Results of the 1996 Connecticut Master Test⁵ confirm an upward trend in student performance in reading, writing, and mathematics from 1993 to 1996. There are some areas where students were weaker in terms of performance levels. The areas of weakest performance include estimation, fractions, measurement, and geometry. Areas of relatively weaker performance include mathematical conceptual understanding and problem solving.

➤ *Of the region's school districts that were among the ten lowest performers on the CMT, half were from urban districts and half from towns on the region's outskirts.*

- *The worst performers in the region were cities such as Hartford and New Britain.* Hartford scored the worst in the region on the reading, writing, and math portions of the 1996 Connecticut Mastery test. Only 12 percent of its students met the state goals on the math test as compared to the state average of 54 percent. In addition, only 18 percent and 15 percent of Hartford students reached the state goals on the writing and reading tests as compared to the state averages of 51 percent and 59 percent. New Britain was the third worst performer in the region in the writing and math test portions and tied for second in the reading test portion. Other cities that performed poorly include Bloomfield, East Hartford, Bristol, and Middletown (reading portion only).
- *Other poor performers include towns on the region's boundaries such as Windham, Chaplin, and Barkhamsted.* Windham recorded the second worst scores in the region with only 25, 21, and 30 percent of its students reaching state goals on the math, writing, and reading tests. Additional towns that scored poorly on more than one test include Chaplin (among the 5 worst performers in the region on math and reading) and

⁴ "Students show third straight year of improvement on Connecticut Mastery Tests," January 17, 1997.

⁵ The Connecticut Mastery Test is a statewide assessment administered each fall and measures the academic performance of approximately 110,000 students in Grades 4, 6, and 8. Aggregate data is not available for the region, rather only on a town-by-town basis as outlined below.

Barkhamsted (among the 10 worst in both math and writing). Towns that scored poorly on one test include Colchester, East Haddam, Winchester, Plymouth, and Stafford.

Reading Test		Writing Test		Math Test	
Town	Percent	Town	Percent	Town	Percent
Hartford	15	Hartford	18	Hartford	12
New Britain	30	Windham	21	Windham	25
Windham	30	New Britain	25	New Britain	28
Bloomfield	47	Bristol	41	Bloomfield	39
Chaplin	52	East Hartford	41	Chaplin	42
East Windsor	54	Chaplin	43	Bristol	43
Bristol	55	Colchester	43	Barkhamsted	44
East Hartford	55	Windsor	44	East Hartford	46
Middletown	55	Barkhamsted	47	East Windsor	47
Stratford	55	Bloomfield	47	East Haddam	48
		Winchester	47	Plymouth	48
		Windsor Locks	47		
State Avg.	59	State Avg.	51	State Avg.	54

Source: Connecticut State Board of Education, "Profiles of Our Schools."

➤ *Connecticut is renowned for its high SAT participation rates, although the region lags both the state and nation in terms of scores.*

- *Connecticut leads the nation in the percentage of its students who take the SAT.* Eight out of 10 high school seniors take the SAT in Connecticut as compared to 4 in 10 for the nation. Massachusetts is the only other state that has a comparable rate to Connecticut's.
- *Connecticut's SAT scores parallel the national average while the Hartford region lags both the state and nation.* The national average for SAT scores in 1996 are 498 for math and 505 for verbal. The state performs slightly better in terms of math scores with an average of 499 for math, while the state performs slightly lower than the national verbal average with an average of 503 for verbal. The Hartford region lags all of these scores with averages of 496 for math and 498 for verbal.

DEMOGRAPHIC TRENDS

➤ *The Hartford Region suffers from a drastic decline in its labor force and population.*

- *The region's labor force has experienced an alarming decline -- at rates faster than the state and opposite a national increase.* Over the last 10 years the Hartford region has suffered a -5.4 percent decline in the size of its labor force. During this same time period, from 1988 to 1997⁶, the state only declined at a rate of -0.5 percent while the nation increased at a rate of 11.5 percent. Between 1993 and 1997 the rate of decline in the size of the labor force in the Hartford region has become worse at -5.9 percent -- again worse than the state's decline of -2.3 percent and nation's increase of 5.9 percent. In addition, the region and city performed poorly in comparison to 30 similar regions and cities between 1992 and 1995.

Labor Force Growth
Percent Labor Force Change between
1992-1995 (MSA)

1 Fort Wayne, IN	33.7%
2 Sioux Falls, SD	27.1%
3 Indianapolis, IN	23.4%
4 Raleigh/Durham, NC	22.4%
5 Salt Lake City, UT	19.6%
6 Rochester, NY	10.4%
7 Pittsburgh, PA	9.9%
8 Fort Worth, TX	9.4%
9 Charlotte, NC	7.5%
10 Jacksonville, FL	6.9%
11 Omaha, NE	6.7%
12 Richmond, VA	6.2%
13 Tampa, FL	5.0%
14 St. Louis, MO	4.8%
15 Fort Lauderdale, FL	4.5%
16 Albany, NY	3.4%
17 Louisville, KY	3.1%
18 Chattanooga, TN	2.9%
19 Columbus, OH	2.8%
20 Cincinnati, OH	1.7%
21 Milwaukee, WI	1.2%
22 Des Moines, IA	0.8%
23 Wichita, KS	-1.1%
24 Baton Rouge, LA	-1.0%
25 Harrisburg, PA	-2.7%
26 Trenton, NJ	-3.3%
27 Hartford, CT	-5.4%
28 Sacramento, CA	-8.7%
29 Wilmington, DE	-10.7%
30 Providence, RI	n/a

Source: U.S. Bureau of Labor Statistics

Labor Force Growth
Percent Labor Force Change between 1992-
1995 (City)

1 Salt Lake City, UT	18.9%
2 Charlotte, NC	8.8%
5 Fort Worth, TX	6.5%
4 Fort Wayne, IN	6.4%
5 Chattanooga, TN	6.0%
6 Raleigh/Durham, NC	5.4%
7 Tampa, FL	5.1%
8 Columbus, OH	4.0%
9 Fort Lauderdale, FL	3.8%
10 Omaha, NE	3.5%
11 Albany, NY	3.3%
12 Rochester, NY	3.1%
13 Sioux Falls, SD	2.5%
14 Louisville, KY	0.4%
15 Des Moines, IA	0.1%
16 Richmond, VA	-0.1%
17 Sacramento, CA	-0.9%
18 Wichita, KS	-1.5%
19 Harrisburg, PA	-2.6%
20 Baton Rouge, LA	-2.7%
21 St. Louis, MO	-3.4%
22 Wilmington, DE	-4.4%
23 Trenton, NJ	-4.4%
24 Pittsburgh, PA	-7.4%
25 Cincinnati, OH	-7.7%
26 Providence, RI	-13.4%
27 Hartford, CT	-14.8%
28 Sacramento, CA	-16.8%
29 Milwaukee, WI	n/a
30 Indianapolis, IN	n/a
31 Jacksonville, FL	n/a

Source: U.S. Bureau of Labor Statistics

- *The region has seen most towns decline in labor force except those with small numbers of people of working age.*

Changes in Hartford LMA Labor Force							
5 Towns with Largest Decrease				5 Towns with Largest Increase			
Town	1993	1997	% change	Town	1993	1997	% change
Hartford	57,242	51,531	-10.0%	Ashford	2,225	2,316	4.1%
New Britain	37,084	33,670	-9.2%	Berlin	8,808	9,100	3.4%
Windham	10,638	9,767	-8.2%	Burlington	4,236	4,365	3.1%
Vernon	17,881	15,974	-8.1%	East Haddam	3,988	4,007	0.6%
Chaplin	1,193	1,099	-7.9%	Colchester	6,310	6,284	-0.4%

Source: CT Department of Labor

- *The region's population has decreased in the last five years and is projected to grow at a slower rate in the future than the state.* From 1990 to 1995, the region's population was estimated to decrease by -0.3 percent. In this same time period the state's population grew slightly by 0.1 percent. The region's lagging rate as compared to the state is projected to continue through the year 2000. The region's growth rate between 1995 and 2000 is projected to increase to only 0.7 percent while the states rate is projected to reach 0.8 percent.⁷
- *When measured against 30 regions with comparable demographics and economic indicators, the Hartford region ranks last in terms of population growth.* In fact, of the 30 regions identified, the Hartford region is one of two with a negative population growth rate between 1990 and 1997. During this time frame the Hartford region is projected to decrease by -0.9 percent.

⁶ Labor force size in 1997 is through February.

⁷ Connecticut Department of Economic Development and Connecticut Department of Labor.

Population Growth
Percent Population Change Between
1990-1997 (MSA)

1 Raleigh/Durham, NC	22.1
2 Salt Lake City, UT	16.8
3 Fort Lauderdale, FL	16.8
4 Fort Worth, TX	16.1
5 Charlotte, NC	13.8
6 Sacramento, CA	13.3
7 Tampa, FL	10.9
8 Sioux Falls, SD	10.6
9 Columbus, OH	10.4
10 Jacksonville, FL	9.9
11 Richmond, VA	9.6
12 Indianapolis, IN	9.2
13 Baton Rouge, LA	9.0
14 Des Moines, IA	8.6
15 Wilmington, DE	7.5
16 Chattanooga, TN	6.6
17 Wichita, KS	6.5
18 Harrisburg, PA	6.3
19 Cincinnati, OH	6.2
20 Omaha, NE	5.3
21 Louisville, KY	4.7
22 Fort Wayne, IN	4.0
23 St. Louis, MO	3.6
24 Rochester, NY	3.4
25 Albany, NY	3.3
26 Milwaukee, WI	2.2
27 Trenton, NJ	1.8
28 Pittsburgh, PA	0.7
29 Providence, RI	0.6
30 Hartford, CT	-0.5

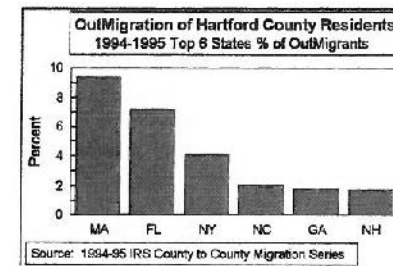
Source: Fitch-Rival Almanac, 1997
Population Estimates by World and Population, Inc.

Population Growth
Percent Population Change Between
1990-1994 (City)

1 Charlotte, NC	10.57%
2 Raleigh/Durham, NC	10.38%
3 Fort Lauderdale, FL	9.01%
4 Sioux Falls, SD	8.29%
5 Salt Lake City, UT	7.45%
6 Fort Wayne, IN	5.94%
7 Jacksonville, FL	4.14%
8 Albany, NY	3.71%
9 Baton Rouge, LA	3.62%
10 Harrisburg, PA	3.56%
11 Omaha, NE	2.75%
12 Indianapolis, IN	2.07%
13 Wichita, KS	2.05%
14 Tampa, FL	1.97%
15 Wilmington, DE	1.78%
16 Sacramento, CA	1.25%
17 Fort Worth, TX	0.94%
18 Columbus, OH	0.47%
19 Louisville, KY	0.46%
20 Des Moines, IA	0.40%
21 Chattanooga, TN	-0.14%
22 Rochester, NY	-0.20%
23 Richmond, VA	-0.96%
24 Cincinnati, OH	-1.61%
25 Milwaukee, WI	-1.76%
26 Pittsburgh, PA	-2.57%
27 Providence, RI	-3.93%
28 Trenton, NJ	-4.77%
29 St. Louis, MO	-7.16%
30 Hartford, CT	-11.12%

Source: 1995 Census and City Data

five states that Hartford County residents migrated to are Florida (+7.0 percent), New York (+4.0 percent), North Carolina (+2.1 percent), Georgia (+1.8 percent), and New Hampshire (+1.7 percent). Those moving to foreign addresses account for 2.1 percent. The top five counties/areas of destination outside of Connecticut and Massachusetts include New York County, Foreign/Overseas areas, Palm Beach County (FL), Broward County (FL), and Maricopa County (AZ).



➤ **Migration data indicates a net loss of income and people in the Hartford region.**

- In 1995 out-migrants from Hartford County outnumbered in-migrants by 8,832 people. IRS data indicates that in the 1994-1995 fiscal year 30,271 people or 4.5 percent of the population moved out of Hartford County while only 21,439 migrated into the county.⁸
- Most out-migrants moved to Connecticut and Massachusetts with other more frequented destinations including Florida, New York, North Carolina, Georgia, and New Hampshire. More than 35.0 percent of the 30,271 migrants moved to other counties in Connecticut and another 9.4 percent moved to Massachusetts. The next

⁸ Information gathered from 1994-1995 IRS Area-to-Area Migration and County Income Data, Internal Revenue Statistical Services.

- Those moving out of the Hartford region have a higher median income than those moving into the region. The median income of those families migrating out of the region had a median income of \$26,042. This total is \$651 higher than the median income of \$25,391 of those migrating into the region. The region lost an aggregate income of \$408,129 through migration.
 - Families that migrated out of Hartford County with the highest median incomes went to counties in New York, New Jersey, Virginia and Ohio. These counties include Erie County, OH (\$68,894), Nassau, NY (\$41,013), Onandaga, NY (\$40,650), Morris, NJ (\$40,000), Fairfax, VA (\$36,231), and Suffolk, NY (\$35,664). All of these counties had at least 35 families migrate from Hartford County in 1994-1995.
 - Families that migrated into Hartford County with high median incomes came from New York, Pennsylvania, and Massachusetts. These counties include Montgomery County, PA (\$46,455), Albany, NY (\$37,999), Allegheny, PA (\$33,503), Norfolk, MA (\$33,949), and Westchester, NY (\$33,503). All of these counties had at least 35 families migrate in to Hartford County in 1994-1995.
- **The Hartford region has lost a disproportionate number of its youth between the ages of 10 and 24.**
- Between 1980 and 1990 the region lost -21.2 percent of its population between the ages of 10 and 24. This rate of loss was also experienced at the state level, albeit at a slower rate of -19.1 percent. The greatest disparity in loss between the region and state was in the age group of 20 to 24. In this group the region lost -13.9 percent of its population while the state lost only -7.5 percent.

- *The region has a smaller share of its population in the age groups of 24 years and below as compared to the nation.* For example, in 1990 the region's population in the age group 10 to 14 is 5.9 percent of the total while the nation's proportion is 6.9 percent of the total. The regional-national age disparity is consistent within all sub age groups below 24.
- *However, residents of Hartford city are much younger than the region overall.* When the age distribution is broken down further, there are vast differences between the region and central city. The disparity is greatest when comparing those younger than 18 years of age with other comparable regions.

Child Population
Percent of Population under 18, 1990 (MSA)

1 Salt Lake City, UT	35.5
2 Baton Rouge, LA	28.6
3 Fort Wayne, IN	28.2
4 Omaha, NE	27.9
5 Wichita, KS	27.7
6 Sioux Falls, SD	27.4
7 Fort Worth, TX	27.3
8 Cincinnati, OH	26.8
9 Sacramento, CA	26.4
10 St. Louis, MO	26.3
11 Milwaukee, WI	26.3
12 Indianapolis, IN	26.2
13 Des Moines, IA	25.5
14 Louisville, KY	25.3
15 Rochester, NY	25.1
16 Columbus, OH	25.1
17 Chattanooga, TN	24.7
18 Charlotte, NC	24.7
19 Wilmington, DE	24.5
20 Jacksonville, FL	24.3
21 Richmond, VA	24.3
22 Harrisburg, PA	23.4
23 Albany, NY	23.3
24 Raleigh/Durham, NC	22.7
25 Providence, RI	22.5
26 Trenton, NJ	22.5
27 Hartford, CT	22.5
28 Pittsburgh, PA	22
29 Tampa, FL	20.4
30 Fort Lauderdale, FL	20.4

Source: 1995 County and City Extra

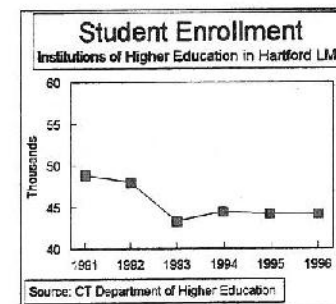
Child Population
Percent of Population under 18, 1990 (City)

1 Milwaukee, WI	27.4
2 Hartford, CT	22.5
3 Harrisburg, PA	26.7
4 Wichita, KS	26.6
5 Fort Worth, TX	26.5
6 Fort Wayne, IN	26.4
7 Sacramento, CA	26.3
8 Rochester, NY	26.1
9 Jacksonville, FL	25.9
10 Sioux Falls, SD	25.8
11 Indianapolis, IN	25.6
12 Omaha, NE	25.5
13 St. Louis, MO	25.3
14 Cincinnati, OH	25.1
15 Salt Lake City, UT	25
16 Baton Rouge, LA	24.9
17 Wilmington, DE	24.9
18 Charlotte, NC	24.3
19 Des Moines, IA	24.2
20 Providence, RI	23.9
21 Columbus, OH	23.7
22 Louisville, KY	23.5
23 Chattanooga, TN	23.3
24 Richmond, VA	22.9
25 Tampa, FL	22.9
26 Pittsburgh, PA	19.9
27 Raleigh/Durham, NC	19.6
28 Fort Lauderdale, FL	18.9
29 Albany, NY	18.1
30 Trenton, NJ	16.5

Source: 1995 County and City Extra

- *There is a trend of decreasing student enrollment and degrees conferred among those attending the regions institutions of higher education.*
 - *The region's institutions of higher education have been experiencing decreasing numbers in student enrollment.* Colleges, universities, and other educational institutions in the Hartford region have experienced a -9.6 percent decrease in student

enrollment between 1991 and 1996. This rate of decline is faster than the state's overall decline of -7.3 percent.

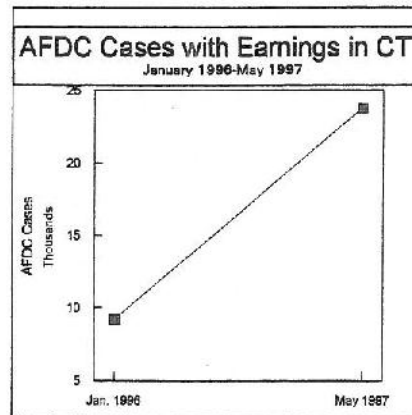


- *There has been a statewide trend in declining numbers among in-state students enrolled in Connecticut's institutions of higher education.* In data collected from all of the states institutions, enrolled students from in-state decreased by -10.3 percent between 1991 and 1995. At the same time, out of state enrollees increased by 3.2 percent.⁹
- *The City of Hartford mirrors many of the region's shifts in terms of population and labor force migration.*
 - *The population of the City of Hartford has steadily declined for the past 40 years.* Since a high of 177,397 people in 1950, the city's population has decreased to an estimated 124,196 in 1994. This decline represents a -42.8 percent rate. Between 1990 and 1995 the rate of decline is at -5.69 percent. This decline compares to a regional decline of -0.3 percent between 1990 and 1995.
 - *The size of the labor force in Hartford city has declined at the fastest rate in the region.* Between 1993 and February of 1997, the labor force declined by a rate of -10.0 percent - faster than the region's rate of decline of -6.2 percent. Although, the number of people in Hartford's labor force as of February 1997 is 51,531 - still the highest number of people of working age in the region.

⁹ This data was not able to be collected among the region's colleges and universities.

POPULATION WITH SPECIAL WORKFORCE NEEDS

- *Welfare reform is profoundly changing the structure of the labor force with the more than 50,000 people statewide receiving AFDC positioning to begin work.*
- *Connecticut has one of the strictest time limits for benefits in the country -- a regulation that has resulted in an increase in the number of people receiving AFDC with earnings from work. From January 1996 to May 1997, the number of AFDC recipients with additional job earnings has increased by 14,589 people to a total of 23,784 statewide. Of these, 52.2 percent work more than 20 hours per week and 18.5 percent work more than 35 hours per week.*



Source: CT Dept. of Social Services

- *Despite reform measures that have dropped single adults from welfare (general assistance), the number of AFDC cases in the Hartford region virtually has remained the same. Since 1993 the number of AFDC cases has risen slightly by 11 to 21,140 cases, an increase of .1 percent. The total number of cases in February of 1997 represents approximately 40.0 percent of the caseload in the region.*
- *The Hartford region still has a higher concentration of AFDC cases as compared to the state. There are 19.6 AFDC cases for every 1,000 residents in the Hartford region. This ratio does not compare favorably to the state ratio of 17.3 cases per 1,000 residents.¹⁰*

¹⁰ These figures are derived from Department of Labor population estimates and Department of Social Services welfare statistics for 1995.

- *The City of Hartford's AFDC caseload dropped between 1993 and 1997, opposite of all other major cities in the region. Between these years Hartford's caseload decreased by 1,364 cases or at a rate of 11.8 percent. Other major cities in the region, New Britain, Bristol, West Hartford, East Hartford, Enfield, and Middletown, all experienced increases in caseloads. East Hartford's experienced the largest increase in its caseload with an additional 323 cases between 1993 and 1997 followed by New Britain (194 new cases at a 7.6 percent rate of increase), and Bristol (140 new cases at an 18.7 percent rate of increase).¹¹*
- *Although decreasing in aggregate terms, in 1995 the City of Hartford still had the highest ratio of AFDC recipients per 1,000 residents in the region. The City of Hartford had the highest ratio in the region with 86.5 AFDC cases per 1,000 residents. The only other towns that had ratios above the region's average were New Britain (40.2 cases/1000), Windham (36.3 cases/1000), and East Hartford (25.5 cases/1000).*

Professional Workers
Percent of all workers in professional,
managerial, and technical jobs, 1990
(MSA)

1 Trenton, NJ	58.8
2 Raleigh/Durham, NC	37.9
3 Hartford, CT	37.8
4 Albany, NY	34
5 Sacramento, CA	33.3
6 Rochester, NY	33
7 Columbus, OH	32.7
8 Richmond, VA	32.3
9 Baton Rouge, LA	32.1
10 Salt Lake City, UT	31.9
11 Wilmington, DE	31.6
12 Fort Worth, TX	31.4
13 Pittsburgh, PA	31.3
14 St. Louis, MO	31.3
15 Cincinnati, OH	30.9
16 Wichita, KS	30.8
17 Des Moines, IA	30.4
18 Omaha, NE	30.4
19 Fort Lauderdale, FL	29.9
20 Milwaukee, WI	29.8
21 Indianapolis, IN	29.6
22 Providence, RI	29.4
23 Tampa, FL	29.3
24 Jacksonville, FL	28.9
25 Harrisburg, PA	28.8
26 Louisville, KY	27.6
27 Sioux Falls, SD	27.2
28 Charlotte, NC	27
29 Fort Wayne, IN	26.3
30 Chattanooga, TN	26.2

Source: 1997 County and City Extra

Professional Workers
Percent of all workers in professional,
managerial, and technical jobs, 1990 (City)

1 Raleigh/Durham, NC	41
2 Albany, NY	38.8
3 Salt Lake City, UT	37.4
4 Baton Rouge, LA	35.6
5 Sacramento, CA	34.7
6 Columbus, OH	33.6
7 Cincinnati, OH	33.6
8 Pittsburgh, PA	33.1
9 Charlotte, NC	32.5
10 Wichita, KS	31.7
11 Indianapolis, IN	31.1
12 Richmond, VA	31
13 Omaha, NE	30.8
14 Rochester, NY	29.4
15 Wilmington, DE	29.4
16 Fort Worth, TX	29.3
17 Tampa, FL	29.2
18 Jacksonville, FL	28.9
19 Providence, RI	28.9
20 Sioux Falls, SD	28.9
21 Fort Lauderdale, FL	28.7
22 Chattanooga, TN	28.2
23 Louisville, KY	28.1
24 St. Louis, MO	27.3
25 Des Moines, IA	26.9
26 Fort Wayne, IN	26.8
27 Harrisburg, PA	26.2
28 Milwaukee, WI	24.8
29 Hartford, CT	23.3
30 Trenton, NJ	21.1

Source: 1997 County and City Extra

¹¹ Connecticut Department of Labor and Department of Social Services.

➤ *Two trends demarcate the data on the characteristics on the unemployed in the Hartford region; the region's losses have slowed among occupations identified as white-collar and the proportion of minorities among the unemployed is increasing at an alarming rate.*

- *The losses among the Hartford region's unemployed have slowed among those identified in white collar professions.* The concentration of those in the occupations of professional, technical, managerial, clerical, and sales in the Hartford region (49.4 percent of all unemployed) is roughly equivalent to the concentration in the state (48.1 percent). The decline in the rate of change between 1993 and 1997 among these occupations in the Hartford region, however, has only been at -3.5 percent as compared to the state's decline of -28.4 percent.¹²
- *The rate of change in the Hartford region among those who are unemployed and minority has increased dramatically in the last few years -- opposite of the state's decline among the same population.* Between 1993 and 1997, the number of unemployed minorities increased by 27.8 percent as compared to the state's decline in the number of minorities among the unemployed at -20.1 percent. The most dramatic increase among the region's unemployed is Hispanics with a 60.4 percent growth between 1993 and 1997.

¹² Connecticut Department of Labor, Characteristics of Jobseekers.

APPENDIX C:
METROHARTFORD MILLENNIUM PROJECT
COMPARABLE CITIES ANALYSIS

MetroHartford Millennium Project
Comparable Cities Analysis
 A Comparison of 30 Cities and Metropolitan Regions

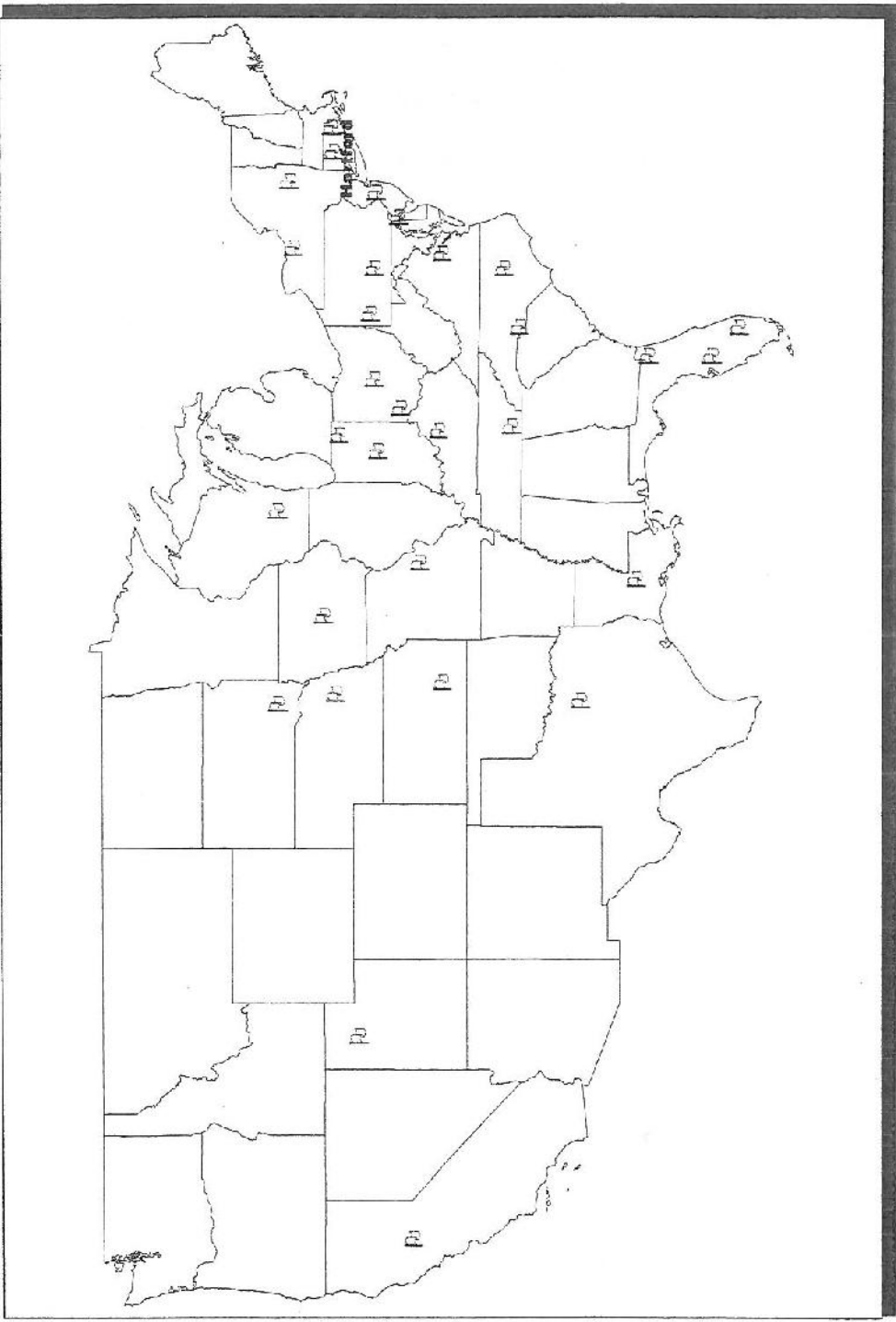


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Selection of Comparable Cities

One of the most important components of this analysis was the selection of appropriate comparable cities. Although there are a multitude of major cities throughout the United States that could have been chosen, we used three criteria in selecting 30 regions of the country for comparison. These measures were: (1) Population Size and Area Density; (2) Governmental Structure; and (3) Economic Structure of the Region.

Below each of three selection criteria used to identify these 30 regions, the specific measure under each criteria and the regions that were identified under each region, is listed.

Selection Criteria	Population Size and Area Density	Governmental Structure	Economic Structure of the Region
Specific Measure	<p>Comparable Population</p> <p>Charlotte Cincinnati Columbus Fort Lauderdale Fort Worth Hartford Indianapolis Jacksonville Louisville Milwaukee Providence Raleigh Richmond Rochester Sacramento Salt Lake City</p>	<p>Capitol Cities</p> <p>Albany, NY Baton Rouge, LA Columbus, OH Des Moines, IA Hartford, CT Harrisburg, PA Indianapolis, IN Providence, RI Raleigh, NC Richmond, VA Sacramento, CA Salt Lake City, UT Trenton, NJ</p>	<p>Manufacturing Charlotte Chattanooga Cincinnati Columbus Fort Lauderdale Fort Worth Indianapolis Louisville Milwaukee Providence</p> <p>Aerospace/Defense Milwaukee St. Louis Wichita</p> <p>Financial Services Charlotte Columbus Des Moines Harrisburg Indianapolis Jacksonville Milwaukee Omaha Richmond Salt Lake City Wilmington</p> <p>Services Fort Lauderdale Fort Worth Milwaukee Omaha Pittsburgh Providence Rochester Stony Falls St. Louis Tampa</p> <p>Government Albany Baton Rouge Columbus Des Moines Harrisburg Jacksonville Richmond Sacramento Salt Lake City Trenton</p> <p>State Government Albany Baton Rouge Harrisburg Richmond Sacramento Trenton</p>

MetroHartford Millennium Project - Comparable Cities Analysis
Summary Table of Results

I. Demographic Indicators

Population and Population Growth	Top Third	Average	Bottom Third	Numerical Rank	Section & Page #
MSA Total Population, 1997 (MSA)		✓			
Central City Total Population, 1994 (City)			✓	13 out of 30	1.2
Population Growth, 1990-1997 (MSA)			✓	25 out of 30	1.2
Population Growth, 1990-1994 (City)			✓	30 out of 30	1.3
Long-Term Population Growth, 1980-1994 (City)			✓	30 out of 30	1.3
Central City Share of MSA Population, 1994			✓	26 out of 30	1.3
			✓	29 out of 30	1.3
Age Distribution					
Median Age, 1990 (MSA)	✓			7 out of 30	1.4
Median Age, 1990 (City)			✓	30 out of 30	1.4
Dependency Ratio, 1990 (MSA)			✓	23 out of 30	1.4
Dependency Ratio, 1990 (City)			✓	22 out of 30	1.4
Child Population, 1990 (MSA)			✓	27 out of 30	1.5
Child Population, 1990 (City)	✓			2 out of 30	1.5
Young Adult Population, 1990 (MSA)			✓	11 out of 30	1.5
Young Adult Population, 1990 (City)	✓			6 out of 30	1.5
Adult Working Population, 1990 (MSA)	✓			6 out of 30	1.6
Adult Working Population, 1990 (City)	✓		✓	26 out of 30	1.6
Elderly Population, 1990 (MSA)	✓			7 out of 30	1.6
Elderly Population, 1990 (City)			✓	27 out of 30	1.6
Household Composition					
Number of Households, 1990 (MSA)			✓	12 out of 30	1.7
Growth in Households, 1980-1990 (MSA)			✓	14 out of 30	1.7
Female Headed Households, 1990 (MSA)			✓	16 out of 30	1.7
Female Headed Households, 1990 (City)	✓			3 out of 30	1.7
Race, Birthplace, and Ethnicity					
Race: White Population, 1990 (MSA)		✓		15 out of 30	1.8
Race: White Population, 1990 (City)			✓	30 out of 30	1.8
Race: Black Population, 1990 (MSA)			✓	19 out of 30	1.8
Race: Black Population, 1990 (City)	✓			7 out of 30	1.8
Race: Asian Population, 1990 (MSA)			✓	6 out of 30	1.9
Race: Asian Population, 1990 (City)	✓			18 out of 30	1.9
Race: American Indians and Others, 1990 (MSA)			✓	3 out of 30	1.9
Race: American Indians and Others, 1990 (City)	✓			14 out of 30	1.9
Birthplace: Foreign-born Population, 1990 (MSA)			✓	4 out of 30	1.10
Birthplace: Foreign-born Population, 1990 (City)	✓			3 out of 30	1.10
Ethnicity: Hispanic Population, 1990 (MSA)			✓	4 out of 30	1.10
Ethnicity: Hispanic Population, 1990 (City)	✓			1 out of 30	1.10
Spatial Distribution and Area Density					
Land Area (MSA)			✓	25 out of 30	1.11
Land Area (City)			✓	27 out of 30	1.11
Area Density (MSA)			✓	7 out of 30	1.11
Area Density (City)			✓	3 out of 30	1.11
Reserved Land Area (MSA)			✓	10 out of 30	1.12
City Share of MSA Land Area			✓	25 out of 30	1.12

I. Demographics

MetroHartford Millennium Project - Comparable Cities Analysis Summary Table of Results

II. Performance Indicators

Top Third Average Bottom Third Numerical Rank Section & Page #

	Top Third	Average	Bottom Third	Numerical Rank	Section & Page #
Labor Force Characteristics					
Labor Force Growth, 1992-1995 (MSA)			✓	27 out of 29	II.2
Labor Force Growth, 1992-1995 (City)			✓	27 out of 27	II.2
Work Disabled Persons, 1990 (MSA)			✓	28 out of 30	II.2
Work Disabled Persons, 1990 (City)		✓		14 out of 30	II.2
% Professional Workers, 1990 (MSA)	✓			3 out of 30	II.3
% Professional Workers, 1990 (City)			✓	29 out of 30	II.3
% Blue Collar Workers, 1990 (MSA)		✓		17 out of 30	II.3
% Blue Collar Workers, 1990 (City)		✓		16 out of 30	II.3

Income

Per Capita Income, 1994, (MSA)	✓			2 out of 30	II.4
Per Capita Income, 1994, (City)			✓	27 out of 30	II.4
Average Household Income, 1996, (MSA)	✓			2 out of 30	II.4
Average Household Income, 1996, (City)			✓	24 out of 30	II.4
Dividends, Interest, and Rent, 1994 (MSA)		✓		11 out of 30	II.5
Transfer Payments, 1994 (MSA)		✓		18 out of 30	II.5
Proprietor Income, 1994 (MSA)		✓		14 out of 30	II.5
Total Income from Earnings, 1994 (MSA)		✓		14 out of 30	II.5

Income Growth

Per Capita Income Growth, 1994, (MSA)			✓	27 out of 30	II.5
Dividends, Interest, and Rent Income Growth, 1990-94 (MSA)			✓	27 out of 30	II.6
Transfer Payment Income Growth, 1990-94 (MSA)	✓			9 out of 30	II.6
Proprietor Income Growth, 1990-94 (MSA)			✓	29 out of 30	II.6
Earnings Income Growth, 1990-94 (MSA)			✓	30 out of 30	II.6

Poverty

Individual Poverty, 1989 (MSA)			✓	30 out of 30	II.7
Individual Poverty, 1989 (City)	✓			1 out of 30	II.7
Individual Poverty Growth, 1989 (MSA)			✓	22 out of 30	II.7
Homelessness, 1995 (City)	✓			1 out of 30	II.7
Families in Poverty, 1989 (MSA)			✓	29 out of 30	II.8
Families in Poverty, 1989 (City)	✓			1 out of 30	II.8
Children's Poverty, 1989 (City)	✓			2 out of 30	II.8
Elderly Poverty, 1989 (City)	✓			7 out of 30	II.8

Educational Attainment

High School Graduates, 1990 (MSA)			✓	13 out of 30	II.9
High School Graduates, 1990 (City)			✓	29 out of 30	II.9
College Graduates, 1990 (City)	✓			3 out of 30	II.9
College Graduates, 1990 (City)			✓	28 out of 30	II.9

II. Performance

MetroHartford Millennium Project - Comparable Cities Analysis Summary Table of Results

III. Economic Performance Indicators

Top Third Average Bottom Third Numerical Rank Section & Page #

Employment

Employment, 1995 (MSA)			✓	13 out of 30	III.2
Employment, 1995 (City)			✓	25 out of 30	III.2
Blue Collar Job Projections, 1997-2000 (MSA)			✓	29 out of 30	III.2
White Collar Job Projections, 1997-2000 (MSA)			✓	21 out of 30	III.2

Employment By Sector

% Manufacturing Employment, 1994 (MSA)			✓	11 out of 30	III.3
% FIRE Employment, 1994 (MSA)			✓	2 out of 30	III.3
% Service Employment, 1994 (MSA)			✓	20 out of 30	III.3
% Government Employment, 1994 (MSA)			✓	13 out of 30	III.3

Unemployment

Unemployment, 1995 (MSA)	✓			4 out of 30	III.4
Unemployment, 1995 (City)	✓			2 out of 30	III.4
Average Unemployment Rate, 1992-1995 (MSA)	✓			3 out of 30	III.4

Employment Growth

Employment Growth, 1990-1997 (MSA)			✓	30 out of 30	III.5
Projected Employment Growth, 1997-2000 (MSA)			✓	30 out of 30	III.5
Manufacturing Employment Growth, 1990-94 (MSA)			✓	30 out of 30	III.6
FIRE Employment Growth, 1990-94 (MSA)			✓	30 out of 30	III.6
Service Employment Growth, 1990-94 (MSA)			✓	30 out of 30	III.6
Government Employment Growth, 1990-94 (MSA)			✓	26 out of 30	III.6

Earnings

Earnings, 1995 (MSA)			✓	29 out of 30	III.7
Earnings Growth, 1994 (MSA)			✓	30 out of 30	III.7
Above Average Earnings Projections, 1997-2000 (MSA)			✓	29 out of 30	III.7
Average Earnings Projections, 1997-2000 (MSA)	✓			10 out of 30	III.7

Earnings By Type of Employment and By Sector

Manufacturing Share of Total Earnings, 1990-94 (MSA)			✓	15 out of 30	III.8
FIRE Share of Total Earnings, 1990-94 (MSA)			✓	2 out of 30	III.8
Service Share of Total Earnings, 1990-94 (MSA)			✓	16 out of 30	III.8
Government Share of Total Earnings, 1990-94 (MSA)			✓	14 out of 30	III.8
Average Earnings per Job, 1994 (MSA)	✓			2 out of 30	III.9
Growth in Average Annual Earnings per Job, 1990-1994 (MSA)			✓	19 out of 30	III.9

Earnings Growth

Manufacturing Earnings Growth, 1990-94 (MSA)			✓	30 out of 30	III.10
FIRE Earnings Growth, 1990-94 (MSA)			✓	29 out of 30	III.10
Service Earnings Growth, 1990-94 (MSA)			✓	30 out of 30	III.10
Government Earnings Growth, 1990-94 (MSA)			✓	24 out of 30	III.10

MetroHartford Millennium Project - Comparable Cities Analysis Summary Table of Results

III. Economic Performance Indicators

Section & Page #

	Top Third	Average	Bottom Third	Numerical Rank	Section & Page #
continued					
Manufacturing Share of Earnings Growth, 1990-94 (MSA)			✓	29 out of 30	III.11
IRE Share of Earnings Growth, 1990-94 (MSA)			✓	22 out of 30	III.11
Service Share of Earnings Growth, 1990-94 (MSA)	✓			5 out of 30	III.11
Government Share of Earnings Growth, 1990-94 (MSA)	✓			1 out of 30	III.11
Regional Economic Vitality					
Per Capita Economic Output, 1992 (MSA)			✓	21 out of 30	III.12
Per Capita Economic Output, 1992 (City)			✓	29 out of 30	III.12
Exports, 1994 (MSA)	✓			16 out of 29	III.12
Growth in Exports, 1993-1994 (MSA)		✓		26 out of 29	III.12
Manufacturing Value of Shipments per capita, 1992 (MSA)				18 out of 30	III.13
Manufacturing Value of Shipments per capita, 1992 (City)		✓		30 out of 30	III.13
Wholesale Sales per capita, 1992 (MSA)			✓	22 out of 30	III.13
Wholesale Sales per capita, 1992 (City)			✓	29 out of 30	III.13
Retail Sales per capita, 1992 (MSA)			✓	21 out of 30	III.14
Retail Sales per capita, 1992 (City)			✓	26 out of 29	III.14
Service Receipts per capita, 1992 (MSA)			✓	9 out of 30	III.14
Service Receipts per capita, 1992 (City)			✓	7 out of 29	III.14
Central City Share of Manufacturing Shipments, 1992			✓	29 out of 30	III.13
Central City Share of Wholesale Sales, 1992			✓	28 out of 29	III.13
Central City Share of Retail Sales, 1992			✓	27 out of 29	III.13

III. Economic Performance

IV. Economic Conditions Indicators

Section & Page #

	Top Third	Average	Bottom Third	Numerical Rank	Section & Page #
Bank Deposits					
Commercial Bank Deposits, 1996 (MSA)			✓	21 out of 30	IV.2
Commercial Bank Deposits Per Capita, 1996 (MSA)			✓	27 out of 30	IV.2
Commercial Banks, 1996 (MSA)			✓	28 out of 30	IV.2
Commercial Bank Branches, 1996 (MSA)			✓	26 out of 30	IV.2

Business Development

Total Number of Business Establishments, 1994 (MSA)	✓			10 out of 30	IV.3
Businesses as a % of Total Population, 1994 (MSA)		✓		2 out of 4	IV.3
Employees per Business Establishment, 1994 (MSA)			✓	23 out of 30	IV.4
Employees per Hispanic Business Establishment, 1994 (MSA)			✓	23 out of 28	IV.4
Employees per Black Business Establishment, 1994 (MSA)		✓		13 out of 26	IV.4
Employees per Native American Business Establishment, 1994 (MSA)			✓	1 out of 29	IV.4
Hispanic Businesses, 1992 (MSA)			✓	9 out of 29	IV.5
Hispanic Businesses By Total Business Population, 1992 (MSA)			✓	27 out of 29	IV.5
Hispanic Businesses By Hispanic Population, 1992 (MSA)			✓	11 out of 29	IV.5
Sales and Receipts of Hispanic Businesses, 1992 (MSA)			✓	17 out of 29	IV.6
Average Sales and Receipts of Hispanic Businesses, 1992 (MSA)			✓	14 out of 29	IV.6
Sales and Receipts of Hispanic Businesses By Income, 1992 (MSA)			✓	13 out of 28	IV.6
Employees of Hispanic Businesses, 1992 (MSA)			✓	13 out of 28	IV.6
Employees of Hispanic Businesses By Total Area Laborforce, 1992 (MSA)			✓	13 out of 28	IV.6

IV. Economic Conditions Indicators

continued

	Top Third	Average	Bottom Third	Numerical Rank	Section & Page #
Black Businesses, 1992 (MSA)		✓		17 out of 29	IV.7
Black Businesses By Total Business Population, 1992 (MSA)			✓	21 out of 29	IV.7
Black Businesses By Black Population, 1992 (MSA)			✓	12 out of 29	IV.7
Sales and Receipts of Black Businesses, 1992 (MSA)			✓	15 out of 28	IV.7
Average Sales and Receipts of Black Businesses, 1992 (MSA)			✓	7 out of 28	IV.8
Sales and Receipts of Black Businesses By Income, 1992 (MSA)			✓	18 out of 28	IV.8
Employees of Black Businesses, 1992 (MSA)			✓	16 out of 26	IV.8
Employees of Black Businesses By Total Area Laborforce, 1992 (MSA)			✓	18 out of 26	IV.8
Native American and Asian (NAA) Businesses, 1992 (MSA)			✓	12 out of 29	IV.9
NAA Businesses By Total Business Population, 1992 (MSA)			✓	13 out of 29	IV.9
NAA Businesses By Black Population, 1992 (MSA)			✓	24 out of 29	IV.9
Sales and Receipts of NAA Businesses, 1992 (MSA)			✓	5 out of 29	IV.9
Average Sales and Receipts of NAA Businesses, 1992 (MSA)			✓	3 out of 29	IV.10
Sales and Receipts of NAA Businesses By Income, 1992 (MSA)			✓	7 out of 29	IV.10
Employees of NAA Businesses, 1992 (MSA)			✓	2 out of 29	IV.10
Employees of NAA Businesses By Total Area Laborforce, 1992 (MSA)			✓	2 out of 29	IV.10

Facilities Costs and Vacancy Rates

Industrial Vacancy Rates, 1997 (Central Business District)				unranked	IV.11
Industrial Vacancy Rates, 1997 (Outside Central Business District)	✓			2 out of 22	IV.11
Average Industrial Lease Price, 1997 (Central Business District)		✓		6 out of 16	IV.11
Average Industrial Lease Price, 1997 (Outside Central Business District)			✓	17 out of 25	IV.11
Average Industrial Lease Price, 1997 (Outside Central Business District)			✓	3 out of 12	IV.12
Cost of Construction, 1997 (MSA)			✓	7 out of 25	IV.12
Inventory of Class A Space, 1997 (Central Business District)			✓	1 out of 26	IV.13
Inventory of Class A Space, 1997 (Outside Central Business District)			✓	3 out of 26	IV.13
Inventory of Class B Space, 1997 (Central Business District)			✓	2 out of 26	IV.13
Inventory of Class B Space, 1997 (Outside Central Business District)			✓	1 out of 25	IV.13
Rental Rates of Class A Space, 1997 (Central Business District)			✓	8 out of 19	IV.14
Rental Rates of Class A Space, 1997 (Outside Central Business District)			✓	4 out of 14	IV.14
Rental Rates of Class B Space, 1997 (Central Business District)			✓	7 out of 15	IV.14
Rental Rates of Class B Space, 1997 (Outside Central Business District)			✓	12 out of 16	IV.14
Value of New Residential Construction, 1995 (MSA)			✓	22 out of 30	IV.15
Value of New Residential Construction, 1995 (City)			✓	29 out of 29	IV.15
Per Capita Value of New Residential Construction, 1995 (MSA)			✓	29 out of 30	IV.15
Per Capita Value of New Residential Construction, 1995 (City)			✓	29 out of 30	IV.15

IV. Economic Conditions

V. Governance and Public Service Indicators

Section & Page #

	Top Third	Average	Bottom Third	Numerical Rank	Section & Page #
State and Local Taxes					
Total Tax Expenditures, 1997		✓		15 out of 30	V.2
State and Local Income Tax Expenditures, 1997		✓		15 out of 30	V.2
Property Tax Expenditures, 1997		✓		16 out of 30	V.2
Sales Tax Expenditures, 1997			✓	23 out of 30	V.2

Local General Revenue

General Revenue, 1992 (City)	✓			7 out of 28	V.3
Per Capita General Revenue, 1992 (City)	✓			1 out of 28	V.3
General Revenue as a Percentage of Income, 1992 (City)		✓		12 out of 28	V.3

Local Outstanding Debt

Local Government Outstanding Debt, 1992 (City)	✓			5 out of 28	V.4
Per Capita Local Government Outstanding Debt, 1992 (City)	✓			6 out of 28	V.4
Local Government Outstanding Debt as a Percentage of Income, 1992 (City)		✓		2 out of 28	V.4

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V. Governance and Public Service Indicators

Section & Page #

Expenditures	Top Third	Average	Bottom Third	Numerical Rank	Section & Page #
Local Government Expenditures, 1992 (City)	✓	✓		12 out of 30	V.5
Per Capita Local Government Expenditures, 1992 (City)			✓	7 out of 30	V.5
Local Government Expenditures as a Percentage of Income, 1992 (City)	✓	✓		25 out of 30	V.6
Local Government Highway Expenditures, 1992 (MSA)		✓		18 out of 30	V.6
Local Government Health Care and Hospitals Expenditures, 1992 (MSA)		✓		28 out of 30	V.6
Local Government Public Protection Expenditures, 1992 (MSA)		✓		14 out of 30	V.6
Local Government Public Welfare Expenditures, 1992 (MSA)		✓		15 out of 30	V.6
Local Government Education Expenditures, 1992 (MSA)	✓	✓		5 out of 30	V.7
Local Government Per Pupil Expenditures, 1991 (City)	✓	✓		3 out of 29	V.7
Local Government Per Pupil Expenditures, 1992 (City)	✓	✓		1 out of 25	V.7
Change in Per Pupil Expenditures, 1991-1992 (City)	✓	✓		10 out of 24	V.7

Governance Structures

Total Local Governments, 1992 (County)	✓	✓		12 out of 30	V.8
Government Units as a % of Total Population, 1992 (MSA)	✓	✓		16 out of 30	V.8
Government Units with Voting Power, 1992 (MSA)	✓	✓		7 out of 26	V.8
Government Voting Units with Power as a % of Population, 1992 (MSA)	✓	✓		10 out of 26	V.8

Federal Funds and Grant Awards

Federal Funds and Grants, 1995 (MSA)	✓	✓		12 out of 30	V.9
Per Capita Federal Funds and Grants, 1995 (MSA)	✓	✓		17 out of 30	V.9
Federal Procurement Contract Awards, 1995 (MSA)	✓	✓		15 out of 30	V.9
Federal Procurement Contract Awards, 1995 (City)	✓	✓		29 out of 30	V.9
Federal Defense Contracts, 1995 (MSA)	✓	✓		11 out of 30	V.10
Federal Defense Contracts, 1995 (City)	✓	✓		36 out of 30	V.10
Federal City Share of Defense Contracts, 1994	✓	✓		28 out of 30	V.10

V. Governance and Public Service

VI. Educational Institutions

Secondary School Enrollments	Top Third	Average	Bottom Third	Numerical Rank	Section & Page #
Public School Enrollment, 1990 (MSA)	✓			8 out of 30	VI.2
Private School Enrollment, 1990 (MSA)	✓			23 out of 30	VI.2
Minority Student Enrollment, 1990 (City)	✓			1 out of 25	VI.2

Educational Institutions

School Districts, 1997 (MSA)	✓			1 out of 26	VI.3
Dependent Public School Systems, 1992 (County)	✓			1 out of 30	VI.3
Outstanding Secondary School, 1997 (MSA)	✓			4 out of 30	VI.3
Student/Teacher Ratio, 1990 (City)	✓			3 out of 21	VI.3
Associate of Arts Colleges, 1997 (MSA)	✓			4 out of 30	VI.4
Disadvantaged Colleges, 1997 (MSA)	✓			15 out of 30	VI.4
Master's Level Colleges, 1997 (MSA)	✓			10 out of 30	VI.4
Doctoral Level Colleges, 1997 (MSA)	✓			10 out of 30	VI.4
Total Number of Colleges and Universities, 1997 (MSA)	✓			4 out of 30	VI.5
Total Number of Colleges and Universities by Population, 1997 (MSA)	✓			9 out of 30	VI.5

Educational Enrollments By Type of Institution

Total Population Enrolled in College or University, 1997 (MSA)	✓			26 out of 30	VI.6
Associate of Arts College Enrollments, 1997 (MSA)	✓			16 out of 30	VI.6
Baccalaureate College Enrollments, 1997 (MSA)	✓			28 out of 30	VI.6
Graduate School Enrollments, 1997 (MSA)	✓			17 out of 30	VI.6

VI. Educational Institutions

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VII. Housing Indicators

Housing Expenditures	Top Third	Average	Bottom Third	Numerical Rank	Section & Page #
Rent Costs, 1990 (MSA)	✓			1 out of 30	VII.2
Rent Costs as a % of Income, 1990 (MSA)	✓			10 out of 30	VII.2
Single Family Home Prices, 1995 (MSA)	✓			1 out of 30	VII.2
Single Family Home Price Growth, 1994-1995 (MSA)	✓			26 out of 27	VII.2
Monthly Homeowners Costs (w/Mortgage), 1990 (MSA)	✓			1 out of 30	VII.3
Monthly Homeowners Costs (no Mortgage), 1990 (MSA)	✓			1 out of 30	VII.3

Housing Conditions

Substandard Housing, 1990 (MSA)	✓			19 out of 30	VII.4
Substandard Housing, 1990 (City)	✓			1 out of 30	VII.4
Share of Affordable Housing, 1996 (MSA)	✓			6 out of 29	VII.4
Poverty Rate, 1990 (MSA)	✓			2 out of 3	VII.4

New Housing

New Housing Permits Issued, 1997 (MSA)	✓			25 out of 25	VII.5
Growth in New Housing Permits Issued, 1990-1997 (MSA)	✓			17 out of 30	VII.5

VII. Housing

VIII. Quality of Life Indicators

Medical Care	Top Third	Average	Bottom Third	Numerical Rank	Section & Page #
General Hospitals by Population, 1997 (MSA)			✓	24 out of 30	VIII.2
Hospital Beds by Population, 1997 (MSA)			✓	23 out of 30	VIII.2
Physicians, 1997 (MSA)	✓			3 out of 30	VIII.2
Nursing Home Beds, 1997 (MSA)	✓			2 out of 30	VIII.2
Infant Mortality Rates, 1992-1994 (MSA)	✓			20 out of 30	VIII.3

Crime

Violent Crime, 1995 (MSA)	✓			16 out of 28	VIII.4
Violent Crime, 1995 (City)	✓			15 out of 29	VIII.4
Property Crime, 1995 (MSA)	✓			13 out of 28	VIII.4
Property Crime, 1995 (City)	✓			21 out of 29	VIII.4

Libraries and Local News Sources

Public Library Branches, 1997 (MSA)	✓			19 out of 30	VIII.5
Library Books, 1997 (MSA)	✓			2 out of 30	VIII.5
Book Circulation at Public Libraries, 1997 (MSA)	✓			8 out of 30	VIII.5
Newspaper Daily Circulation by Population, 1997 (MSA)	✓			11 out of 30	VIII.6
Newspaper Sunday Circulation by Population, 1997 (MSA)	✓			12 out of 30	VIII.6
Annual Newspaper Subscription Rate, 1997 (MSA)	✓			13 out of 30	VIII.6
Newspaper Ad Rates, 1997 (MSA)	✓			8 out of 30	VIII.6

Cultural Arts

Museums and Art Galleries by Population, 1997 (MSA)	✓			6 out of 30	VIII.7
Teaching Artist Residencies by Population, 1997 (MSA)	✓			1 out of 30	VIII.7
Resident Ensemble Play Dates by Population, 1997 (MSA)	✓			5 out of 30	VIII.7
Resident Ensemble Play Dates by Population, 1997 (MSA)	✓			2 out of 30	VIII.7
Movie Screens by Population, 1997 (MSA)	✓			22 out of 30	VIII.8
Aquariums and Zoons, 1997 (MSA)	✓			16 out of 30	VIII.8

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VIII. Quality of Life Indicators

continued

Top Third Average Bottom Third Numerical Rank Section & Page #

Sports and Recreation

Recreation Areas, 1997 (MSA)				15 out of 30	VIII.9
Miles of Recreation Areas, 1997 (MSA)	✓			13 out of 30	VIII.9
NCAA Sports Teams, 1997 (MSA)			✓	28 out of 30	VIII.9
Professional Sports Teams, 1997 (MSA)			✓	22 out of 30	VIII.9
Golf Courses, 1997 (MSA)			✓	29 out of 30	VIII.10

Transportation

Journey to work: Drove alone, 1997 (MSA)			✓	28 out of 30	VIII.11
Journey to work: Car Pools, 1997 (MSA)	✓			6 out of 30	VIII.11
Journey to work: Public Transportation, 1997 (MSA)	✓			2 out of 30	VIII.11
Journey to work: Home workers, no journey, 1997 (MSA)			✓	29 out of 30	VIII.11
Daily Commute, 1997 (MSA)			✓	18 out of 30	VIII.12
Buses at Rushhour, 1997 (MSA)			✓	11 out of 30	VIII.12
Major Interstate Highways by Population			✓	18 out of 30	VIII.12
Weekly Amtrak Departures, 1997 (MSA)	✓			4 out of 30	VIII.13
Domestic Airline Service			✓	3 out of 6	VIII.13
Airline Commuter Destinations			✓	14 out of 30	VIII.13
Airline Jet Destinations			✓	14 out of 30	VIII.13

VIII. Quality of Life

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Demographic Indicators

General Overview

Overall, Hartford is experiencing significant declines in population with much of that loss in population originating from the central city. Between 1990 and 1994 for example, Hartford city lost approximately 11% of its population while the MSA lost about 1% from 1990 to 1997. Major disparities between the central city and the larger MSA are found among age, race and ethnicity, and some of the household characteristics.

Summary of the Analysis

Population

✓ Hartford has experienced the most severe population declines among all of these comparable cities since 1990 both in terms of the city and the larger MSA.

Age

✓ The median age of residents of Hartford city is the youngest of any of the comparable cities at 28.4 years of age. Although the median age of residents in the MSA generally is slightly higher, Hartford residents are still much younger than the residents of the other regions in the analysis.

✓ When we break down the age distribution further however, we see vast differences between the MSA and the central city. Residents of Hartford city are much younger reflecting the greater number of children and young adults (ages 18 to 24) who reside there.

Households

✓ While the Hartford region ranked about average in terms of household composition, Hartford city was third among all comparable cities in terms of the number of female headed households.

Race, Ethnicity and Place of Birth

✓ The disparity between the central city and MSA is striking in terms of race and ethnicity when compared to the other comparable cities. Hartford city has fewer white residents and more Hispanic residents than any other comparable city. Hartford city ranked 7th in terms of the percentage of Blacks in the city. In the larger MSA, the percentage of each racial group was fairly average.

✓ The percentage of Blacks and Hispanics is significantly higher in Hartford city. The disparity between the MSA and Hartford city in regard to these groups is about 30% for each group respectively. These groups also make up the majority of minorities in the region. Asians and Native Americans are fewer in number and are scattered across the Hartford region. In contrast to Hispanics and Blacks, the percentage of Whites, Asians and Native Americans are higher in the MSA rather than in the central city.

✓ The percentage of foreign born residents is quite high in the Hartford region. In 1998, 15.3% of the central city and 8.8% of the MSA was home to foreign born residents.

Spatial Distribution and Area Density

✓ When compared to the other regions, both the Hartford's central city and the MSA areas are relatively smaller in terms of total land area. Hartford city and MSA are however more densely populated. Finally, Hartford's central city comprises a very small percentage of the total MSA.

Population

MSA Total Population 1997

1	St. Louis, MO	2,385,491
2	Pittsburgh, PA	2,411,452
3	Tampa, FL	2,301,290
4	Cincinnati, OH	1,624,828
5	Fort Worth, TX	1,587,369
6	Sacramento, CA	1,532,961
7	Indianapolis, IN	1,512,641
8	Columbus, OH	1,490,732
9	Fort Lauderdale, FL	1,470,959
10	Milwaukee, WI	1,466,324
11	Charlotte, NC	1,330,347
12	Salt Lake City, UT	1,258,039
13	Hartford, CT	1,148,011
14	Providence, RI	1,126,101
15	Rochester, NY	1,100,554
16	Raleigh/Durham, NC	1,055,334
17	Jacksonville, FL	1,003,309
18	Louisville, KY	995,287
19	Richmond, VA	953,050
20	Albany, NY	891,897
21	Omaha, NE	675,404
22	Harrisburg, PA	626,870
23	Baton Rouge, LA	577,101
24	Wilmington, DE	553,196
25	Wichita, KS	518,192
26	Fort Wayne, IN	475,167
27	Chattanooga, TN	452,791
28	Des Moines, IA	428,117
29	Trenton, NJ	331,971
30	Sioux Falls, SD	154,564

Source: Florida Rural/Urban, 1997

Central City Population 1994

1	Indianapolis, IN	757,275
2	Jacksonville, FL	700,852
3	Columbus, OH	635,913
4	Milwaukee, WI	617,044
5	Fort Worth, TX	451,814
6	Charlotte, NC	437,797
7	Raleigh/Durham, NC	380,146
8	Sacramento, CA	373,964
9	St. Louis, MO	368,215
10	Pittsburgh, PA	358,883
11	Cincinnati, OH	358,170
12	Omaha, NE	345,033
13	Wichita, KS	310,236
14	Tampa, FL	285,523
15	Louisville, KY	270,308
16	Rochester, NY	231,170
17	Baton Rouge, LA	227,482
18	Richmond, VA	201,108
19	Des Moines, IA	191,965
20	Fort Wayne, IN	183,359
21	Salt Lake City, UT	171,849
22	Fort Lauderdale, FL	162,842
23	Chattanooga, TN	152,259
24	Providence, RI	150,639
25	Hartford, CT	124,806
26	Sioux Falls, SD	109,174
27	Albany, NY	104,828
28	Trenton, NJ	84,441
29	Wilmington, DE	72,799
30	Harrisburg, PA	54,238

Source: County and City Data, 1997

Population and Population Growth

Population Growth (MSA)
Percent Population Change between 1990-1997

1	Raleigh/Durham, NC	22.1
2	Salt Lake City, UT	16.8
3	Fort Lauderdale, FL	16.6
4	Fort Worth, TX	16.1
5	Charlotte, NC	13.8
6	Sacramento, CA	13.3
7	Tampa, FL	10.9
8	Sioux Falls, SD	10.6
9	Columbus, OH	10.4
10	Jacksonville, FL	9.9
11	Richmond, VA	9.6
12	Indianapolis, IN	9.2
13	Baton Rouge, LA	9.0
14	Des Moines, IA	8.6
15	Wilmington, DE	7.5
16	Chattanooga, TN	6.6
17	Wichita, KS	6.5
18	Harrisburg, PA	6.3
19	Cincinnati, OH	6.2
20	Omaha, NE	5.3
21	Louisville, KY	4.7
22	Fort Wayne, IN	4.0
23	St. Louis, MO	3.6
24	Rochester, NY	3.4
25	Albany, NY	3.3
26	Milwaukee, WI	2.2
27	Trenton, NJ	1.8
28	Pittsburgh, PA	0.7
29	Providence, RI	(0.8)
30	Hartford, CT	(0.9)

Source: Florida Rural/Urban, 1997
Population Estimates by Focals and People Economics, Inc.

Population Growth (City)
Percent Population Change between 1990-1994

1	Charlotte, NC	10.57%
2	Raleigh/Durham, NC	10.33%
3	Fort Lauderdale, FL	9.01%
4	Sioux Falls, SD	8.29%
5	Salt Lake City, UT	7.45%
6	Fort Wayne, IN	5.94%
7	Jacksonville, FL	4.14%
8	Albany, NY	3.71%
9	Baton Rouge, LA	3.62%
10	Harrisburg, PA	3.58%
11	Omaha, NE	2.75%
12	Indianapolis, IN	2.07%
13	Wichita, KS	2.05%
14	Tampa, FL	1.97%
15	Wilmington, DE	1.78%
16	Sacramento, CA	1.25%
17	Fort Worth, TX	0.94%
18	Columbus, OH	0.47%
19	Louisville, KY	0.46%
20	Des Moines, IA	0.40%
21	Chattanooga, TN	-0.14%
22	Rochester, NY	-0.20%
23	Richmond, VA	-0.96%
24	Cincinnati, OH	-1.61%
25	Milwaukee, WI	-1.76%
26	Pittsburgh, PA	-2.97%
27	Providence, RI	-3.93%
28	Trenton, NJ	-4.77%
29	St. Louis, MO	-7.18%
30	Hartford, CT	-11.11%

Source: 1990 County and City Data

Long-term Population Growth
Percent Population Change between 1980-1994

1	Raleigh/Durham, NC	51.39%
2	Charlotte, NC	39.23%
3	Sacramento, CA	35.62%
4	Sioux Falls, SD	34.22%
5	Jacksonville, FL	29.55%
6	Fort Worth, TX	17.30%
7	Columbus, OH	12.58%
8	Wichita, KS	11.09%
9	Omaha, NE	9.79%
10	Indianapolis, IN	8.03%
11	Fort Wayne, IN	6.48%
12	Fort Lauderdale, FL	6.24%
13	Salt Lake City, UT	5.41%
14	Tampa, FL	5.16%
15	Wilmington, DE	3.71%
16	Baton Rouge, LA	3.67%
17	Albany, NY	3.05%
18	Harrisburg, PA	1.83%
19	Des Moines, IA	1.55%
20	Milwaukee, WI	-3.01%
21	Providence, RI	-3.93%
22	Rochester, NY	-4.37%
23	Cincinnati, OH	-7.08%
24	Richmond, VA	-8.26%
25	Trenton, NJ	-8.34%
26	Hartford, CT	-8.94%
27	Louisville, KY	-9.43%
28	Chattanooga, TN	-10.20%
29	Pittsburgh, PA	-15.35%
30	St. Louis, MO	-18.73%

Source: 1990 County and City Data

Central City Share of MSA
Central city population as a percent of MSA population, 1994

1	Jacksonville, FL	72.83%
2	Sioux Falls, SD	72.04%
3	Wichita, KS	61.21%
4	Omaha, NE	52.08%
5	Indianapolis, IN	51.81%
6	Des Moines, IA	46.57%
7	Columbus, OH	44.69%
8	Baton Rouge, LA	40.76%
9	Raleigh/Durham, NC	39.39%
10	Fort Wayne, IN	39.09%
11	Milwaukee, WI	37.69%
12	Charlotte, NC	34.73%
13	Chattanooga, TN	34.67%
14	Fort Worth, TX	30.85%
15	Louisville, KY	27.56%
16	Trenton, NJ	25.63%
17	Sacramento, CA	23.55%
18	Richmond, VA	21.94%
19	Rochester, NY	21.20%
20	Cincinnati, OH	18.91%
21	Providence, RI	16.52%
22	Pittsburgh, PA	14.94%
23	Salt Lake City, UT	14.58%
24	St. Louis, MO	14.52%
25	Wilmington, DE	13.45%
26	Tampa, FL	13.24%
27	Albany, NY	11.98%
28	Fort Lauderdale, FL	11.77%
29	Hartford, CT	11.27%
30	Harrisburg, PA	8.90%

Source: 1997 County and City Data and 1990 County and City Data

Age Distribution

Median Age
1990 (MSA)

1 Tampa, FL	38.8
2 Fort Lauderdale, FL	37.9
3 Pittsburgh, PA	36.9
4 Harrisburg, PA	34.8
5 Chattanooga, TN	34.5
6 Trenton, NJ	34.2
7 Hartford, CT	34.2
8 Providence, RI	34.0
9 Albany, NY	33.9
10 Louisville, KY	33.8
11 Richmond, VA	33.3
12 St. Louis, MO	33.2
13 Rochester, NY	32.9
14 Charlotte, NC	32.8
15 Milwaukee, WI	32.7
16 Des Moines, IA	32.6
17 Wilmington, DE	32.6
18 Sacramento, CA	32.5
19 Indianapolis, IN	32.4
20 Cincinnati, OH	32.2
21 Jacksonville, FL	32.2
22 Fort Wayne, IN	32.1
23 Wichita, KS	32.0
24 Raleigh/Durham, NC	31.9
25 Sioux Falls, SD	31.6
26 Omaha, NE	31.6
27 Columbus, OH	31.5
28 Fort Worth, TX	31.0
29 Baton Rouge, LA	29.9
30 Salt Lake City, UT	27.5

Source: 1995 County and City Estee

Median Age
1990 (City)

1 Fort Lauderdale, FL	37.3
2 Chattanooga, TN	34.7
3 Pittsburgh, PA	34.6
4 Louisville, KY	34.3
5 Tampa, FL	33.3
6 Richmond, VA	33.2
7 St. Louis, MO	32.8
8 Wilmington, DE	32.7
9 Des Moines, IA	32.3
10 Omaha, NE	32.2
11 Charlotte, NC	31.8
12 Harrisburg, PA	31.8
13 Sacramento, CA	31.7
14 Wichita, KS	31.7
15 Indianapolis, IN	31.7
16 Fort Wayne, IN	31.6
17 Trenton, NJ	31.4
18 Jacksonville, FL	31.4
19 Sioux Falls, SD	31.3
20 Salt Lake City, UT	31.1
21 Cincinnati, OH	30.9
22 Albany, NY	30.8
23 Raleigh/Durham, NC	30.5
24 Fort Worth, TX	30.3
25 Milwaukee, WI	30.3
26 Baton Rouge, LA	30.0
27 Rochester, NY	29.7
28 Columbus, OH	29.4
29 Providence, RI	29.3
30 Hartford, CT	N/A

Source: 1995 County and City Estee

Dependency Ratio
Percent of persons under 18 or older than 64,
1990 (MSA)

1 Salt Lake City, UT	43.9
2 Tampa, FL	42.0
3 Fort Lauderdale, FL	41.1
4 Fort Wayne, IN	40.2
5 Wichita, KS	39.6
6 Sioux Falls, SD	39.3
7 St. Louis, MO	39.1
8 Pittsburgh, PA	39.1
9 Cincinnati, OH	38.9
10 Milwaukee, WI	38.8
11 Omaha, NE	38.6
12 Louisville, KY	37.9
13 Chattanooga, TN	37.8
14 Providence, RI	37.7
15 Rochester, NY	37.6
16 Indianapolis, IN	37.5
17 Baton Rouge, LA	37.4
18 Albany, NY	37.4
19 Harrisburg, PA	37.3
20 Sacramento, CA	37.3
21 Des Moines, IA	37.2
22 Fort Worth, TX	36.1
23 Hartford, CT	35.9
24 Wilmington, DE	35.7
25 Richmond, VA	35.6
26 Charlotte, NC	35.6
27 Trenton, NJ	35.2
28 Jacksonville, FL	35.2
29 Columbus, OH	35.1
30 Raleigh/Durham, NC	32.3

Source: 1995 County and City Estee

Dependency Ratio
Percent of persons under 18 or older than 64, 1990
(City)

1 St. Louis, MO	42.0
2 Omaha, NE	41.3
3 Louisville, KY	40.1
4 Fort Wayne, IN	39.8
5 Milwaukee, WI	39.8
6 Harrisburg, PA	39.7
7 Wilmington, DE	39.7
8 Salt Lake City, UT	39.5
9 Cincinnati, OH	39.0
10 Wichita, KS	39.0
11 Chattanooga, TN	38.6
12 Sacramento, CA	38.3
13 Richmond, VA	38.2
14 Rochester, NY	38.1
15 Pittsburgh, PA	37.9
16 Fort Worth, TX	37.7
17 Des Moines, IA	37.5
18 Sioux Falls, SD	37.5
19 Tampa, FL	37.5
20 Providence, RI	37.5
21 Indianapolis, IN	37.2
22 Hartford, CT	37.0
23 Fort Lauderdale, FL	36.8
24 Jacksonville, FL	36.6
25 Baton Rouge, LA	36.4
26 Charlotte, NC	34.0
27 Albany, NY	33.5
28 Columbus, OH	32.8
29 Trenton, NJ	29.4
30 Raleigh/Durham, NC	28.4

Source: 1995 County and City Estee

Section 1

Age Distribution detailed characteristics

Child Population

Percent of Population under 18, 1990 (MSA)

1 Salt Lake City, UT	35.5
2 Baton Rouge, LA	28.6
3 Fort Wayne, IN	28.2
4 Omaha, NE	27.9
5 Wichita, KS	27.7
6 Sioux Falls, SD	27.4
7 Fort Worth, TX	27.3
8 Cincinnati, OH	26.8
9 Sacramento, CA	26.4
10 St. Louis, MO	26.3
11 Milwaukee, WI	26.3
12 Indianapolis, IN	26.2
13 Des Moines, IA	25.5
14 Louisville, KY	25.3
15 Rochester, NY	25.1
16 Columbus, OH	25.1
17 Chattanooga, TN	24.7
18 Charlotte, NC	24.7
19 Wilmington, DE	24.5
20 Jacksonville, FL	24.3
21 Richmond, VA	24.3
22 Harrisburg, PA	23.4
23 Albany, NY	23.3
24 Raleigh/Durham, NC	22.7
25 Providence, RI	22.5
26 Trenton, NJ	22.5
27 Hartford, CT	22.5
28 Pittsburgh, PA	22.0
29 Tampa, FL	20.4
30 Fort Lauderdale, FL	20.4

Source: 1995 County and City Estee

Child Population

Percent of Population under 18, 1990 (City)

1 Milwaukee, WI	27.4
2 Hartford, CT	27.4
3 Harrisburg, PA	26.7
4 Wichita, KS	26.6
5 Fort Worth, TX	26.5
6 Fort Wayne, IN	26.4
7 Sacramento, CA	26.3
8 Rochester, NY	26.1
9 Jacksonville, FL	25.9
10 Sioux Falls, SD	25.8
11 Indianapolis, IN	25.6
12 Omaha, NE	25.5
13 St. Louis, MO	25.3
14 Cincinnati, OH	25.1
15 Salt Lake City, UT	25.0
16 Baton Rouge, LA	24.9
17 Wilmington, DE	24.9
18 Charlotte, NC	24.3
19 Des Moines, IA	24.2
20 Providence, RI	23.9
21 Columbus, OH	23.9
22 Louisville, KY	23.7
23 Chattanooga, TN	23.5
24 Richmond, VA	22.9
25 Tampa, FL	22.9
26 Pittsburgh, PA	19.9
27 Raleigh/Durham, NC	19.6
28 Fort Lauderdale, FL	18.8
29 Albany, NY	18.1
30 Trenton, NJ	16.5

Source: 1995 County and City Estee

Young Adult Population

Percent of Population ages 18 to 24, 1990 (MSA)

1 Jacksonville, FL	27.4
2 Raleigh/Durham, NC	13.6
3 Baton Rouge, LA	12.9
4 Columbus, OH	12.5
5 Providence, RI	12.0
6 Albany, NY	11.9
7 Trenton, NJ	11.9
8 Wilmington, DE	11.8
9 Rochester, NY	11.2
10 Charlotte, NC	11.1
11 Hartford, CT	11.0
12 Fort Worth, TX	10.8
13 Richmond, VA	10.6
14 Des Moines, IA	10.6
15 Harrisburg, PA	10.5
16 Salt Lake City, UT	10.4
17 Sioux Falls, SD	10.2
18 Cincinnati, OH	10.2
19 Milwaukee, WI	10.1
20 Omaha, NE	10.1
21 Chattanooga, TN	10.1
22 Indianapolis, IN	9.9
23 Fort Wayne, IN	9.7
24 Sacramento, CA	9.6
25 Wichita, KS	9.6
26 Louisville, KY	9.6
27 St. Louis, MO	9.5
28 Pittsburgh, PA	9.4
29 Tampa, FL	8.6
30 Fort Lauderdale, FL	8.2

Source: 1995 County and City Estee

Young Adult Population

Percent of Population ages 18 to 24, 1990 (City)

1 Albany, NY	19.8
2 Providence, RI	17.6
3 Raleigh/Durham, NC	17.5
4 Baton Rouge, LA	16.4
5 Columbus, OH	15.5
6 Hartford, CT	15.0
7 Pittsburgh, PA	13.7
8 Rochester, NY	13.0
9 Richmond, VA	12.9
10 Cincinnati, OH	12.8
11 Salt Lake City, UT	12.3
12 Milwaukee, WI	12.0
13 Des Moines, IA	11.9
14 Fort Worth, TX	11.7
15 Sioux Falls, SD	11.4
16 Jacksonville, FL	11.1
17 Omaha, NE	10.9
18 Trenton, NJ	10.9
19 Fort Wayne, IN	10.9
20 Chattanooga, TN	10.8
21 Tampa, FL	10.8
22 Charlotte, NC	10.6
23 Harrisburg, PA	10.4
24 Indianapolis, IN	10.4
25 St. Louis, MO	10.3
26 Wichita, KS	10.2
27 Sacramento, CA	10.1
28 Louisville, KY	9.9
29 Wilmington, DE	9.7
30 Fort Lauderdale, FL	8.1

Source: 1995 County and City Estee

Section 2

Age Distribution detailed characteristics

Adult Working Population

Percent of Population ages 24-64, 1990 (MISA)

1	Raleigh/Durham, NC	54.1
2	Richmond, VA	53.9
3	Fort Worth, TX	53.2
4	Charlotte, NC	53.2
5	Sacramento, CA	53.1
6	Harrisburg, PA	53.1
7	Trenton, NJ	52.7
8	Louisville, KY	52.6
9	Indianapolis, IN	52.5
10	Wilmington, DE	52.5
11	Columbus, OH	52.4
12	Harrisburg, PA	52.3
13	Chattanooga, TN	52.1
14	Des Moines, IA	52.1
15	Jacksonville, FL	51.7
16	Pittsburgh, PA	51.4
17	St. Louis, MO	51.4
18	Rochester, NY	51.3
19	Omaha, NE	51.3
20	Milwaukee, WI	51.2
21	Cincinnati, OH	50.9
22	Wichita, KS	50.7
23	Albany, NY	50.7
24	Fort Lauderdale, FL	50.6
25	Sioux Falls, SD	50.5
26	Providence, RI	50.4
27	Fort Wayne, IN	50.1
28	Baton Rouge, LA	49.5
29	Tampa, FL	49.4
30	Salt Lake City, UT	45.6

Source: 1993 County and City Data

Adult Working Population

Percent of Population ages 24-64, 1990 (City)

1	Charlotte, NC	55.4
2	Fort Lauderdale, FL	55.1
3	Raleigh/Durham, NC	54.3
4	Indianapolis, IN	52.4
5	Jacksonville, FL	52.3
6	Columbus, OH	51.7
7	Tampa, FL	51.7
8	Sacramento, CA	51.6
9	Sioux Falls, SD	51.1
10	Richmond, VA	50.9
11	Wichita, KS	50.8
12	Omaha, NE	50.8
13	Wilmington, DE	50.7
14	Chattanooga, TN	50.7
15	Fort Worth, TX	50.6
16	Des Moines, IA	50.5
17	Louisville, KY	50.2
18	Harrisburg, PA	49.8
19	Trenton, NJ	49.7
20	Fort Wayne, IN	49.3
21	Rochester, NY	49.0
22	Pittsburgh, PA	48.4
23	Cincinnati, OH	48.3
24	Milwaukee, WI	48.2
25	Salt Lake City, UT	48.1
26	Harrisburg, PA	47.9
27	St. Louis, MO	47.8
28	Baton Rouge, LA	47.3
29	Albany, NY	46.6
30	Providence, RI	44.8

Source: 1993 County and City Data

Elderly Population

Percent of Population ages 64+, 1990 (MISA)

1	Tampa, FL	21.6
2	Fort Lauderdale, FL	20.7
3	Pittsburgh, PA	17.1
4	Providence, RI	15.2
5	Albany, NY	14.1
6	Harrisburg, PA	13.9
7	Harrisburg, PA	13.4
8	Chattanooga, TN	13.1
9	Trenton, NJ	13.0
10	St. Louis, MO	12.8
11	Louisville, KY	12.6
12	Milwaukee, WI	12.5
13	Rochester, NY	12.5
14	Cincinnati, OH	12.1
15	Fort Wayne, IN	12.0
16	Wichita, KS	11.9
17	Sioux Falls, SD	11.9
18	Des Moines, IA	11.7
19	Indianapolis, IN	11.4
20	Richmond, VA	11.3
21	Wilmington, DE	11.2
22	Sacramento, CA	10.9
23	Charlotte, NC	10.9
24	Jacksonville, FL	10.9
25	Omaha, NE	10.7
26	Columbus, OH	10.0
27	Raleigh/Durham, NC	9.6
28	Baton Rouge, LA	8.9
29	Fort Worth, TX	8.8
30	Salt Lake City, UT	8.4

Source: 1993 County and City Data

Elderly Population

Percent of Population ages 64+, 1990 (City)

1	Fort Lauderdale, FL	18.0
2	Pittsburgh, PA	18.0
3	St. Louis, MO	16.7
4	Louisville, KY	16.6
5	Omaha, NE	15.8
6	Albany, NY	15.4
7	Chattanooga, TN	15.3
8	Richmond, VA	15.3
9	Wilmington, DE	14.8
10	Tampa, FL	14.6
11	Salt Lake City, UT	14.5
12	Cincinnati, OH	13.9
13	Providence, RI	13.6
14	Fort Wayne, IN	13.4
15	Des Moines, IA	13.3
16	Harrisburg, PA	13.0
17	Trenton, NJ	12.9
18	Wichita, KS	12.4
19	Milwaukee, WI	12.4
20	Rochester, NY	12.0
21	Sacramento, CA	12.0
22	Sioux Falls, SD	11.7
23	Indianapolis, IN	11.6
24	Baton Rouge, LA	11.5
25	Fort Worth, TX	11.2
26	Jacksonville, FL	10.7
27	Harrisburg, PA	9.8
28	Charlotte, NC	9.1
29	Columbus, OH	9.1
30	Raleigh/Durham, NC	8.8

Source: 1993 County and City Data

Household Characteristics

Households

Number of Households, 1990 (MISA)

1	Fort Lauderdale, FL	1,220,797
2	Pittsburgh, PA	947,248
3	St. Louis, MO	942,119
4	Tampa, FL	869,481
5	Cincinnati, OH	679,137
6	Milwaukee, WI	537,732
7	Indianapolis, IN	529,814
8	Columbus, OH	513,498
9	Fort Worth, TX	506,281
10	Sacramento, CA	505,476
11	Charlotte, NC	440,670
12	Harrisburg, PA	433,651
13	Rochester, NY	396,089
14	Louisville, KY	366,364
15	Salt Lake City, UT	347,531
16	Providence, RI	345,290
17	Jacksonville, FL	343,526
18	Raleigh/Durham, NC	334,506
19	Richmond, VA	331,824
20	Albany, NY	330,484
21	Omaha, NE	240,149
22	Harrisburg, PA	226,353
23	Wilmington, DE	188,886
24	Baton Rouge, LA	188,377
25	Fort Wayne, IN	168,806
26	Chattanooga, TN	163,117
27	Des Moines, IA	153,100
28	Trenton, NJ	116,941
29	Sioux Falls, SD	53,142
30	Wichita, KS	48,228

Source: 1993 County and City Data

Household Growth

Percent of growth in households, 1980-1990 (MISA)

1	Fort Worth, TX	42.3
2	Raleigh/Durham, NC	41.5
3	Sacramento, CA	34.8
4	Tampa, FL	32.4
5	Jacksonville, FL	32.3
6	Charlotte, NC	28.7
7	Richmond, VA	23.2
8	Salt Lake City, UT	20.1
9	Wilmington, DE	19.3
10	Fort Lauderdale, FL	18.8
11	Sioux Falls, SD	18.5
12	Columbus, OH	16.9
13	Baton Rouge, LA	14.8
14	Harrisburg, PA	13.9
15	Indianapolis, IN	13.1
16	Harrisburg, PA	12.5
17	Des Moines, IA	11.7
18	Cincinnati, OH	11.5
19	Omaha, NE	11.4
20	Albany, NY	11.3
21	Providence, RI	11.3
22	Trenton, NJ	10.5
23	Chattanooga, TN	10.3
24	St. Louis, MO	9.9
25	Rochester, NY	9.3
26	Fort Wayne, IN	8.4
27	Louisville, KY	7.8
28	Milwaukee, WI	7.4
29	Wichita, KS	5.4
30	Pittsburgh, PA	1.4

Source: 1993 County and City Data

Female Headed Households

Percent of Female Headed Households, 1990 (MISA)

1	Baton Rouge, LA	14.4
2	Richmond, VA	13.6
3	Louisville, KY	13.5
4	Trenton, NJ	13.2
5	Milwaukee, WI	13.0
6	Fort Lauderdale, FL	12.8
7	Jacksonville, FL	12.6
8	Chattanooga, TN	12.5
9	St. Louis, MO	12.5
10	Cincinnati, OH	12.1
11	Sacramento, CA	12.0
12	Charlotte, NC	12.0
13	Providence, RI	11.9
14	Wilmington, DE	11.8
15	Indianapolis, IN	11.7
16	Harrisburg, PA	11.6
17	Columbus, OH	11.6
18	Rochester, NY	11.5
19	Pittsburgh, PA	11.5
20	Omaha, NE	11.2
21	Raleigh/Durham, NC	11.2
22	Albany, NY	10.6
23	Wichita, KS	10.5
24	Fort Worth, TX	10.4
25	Salt Lake City, UT	10.0
26	Des Moines, IA	9.9
27	Tampa, FL	9.9
28	Fort Wayne, IN	9.8
29	Harrisburg, PA	9.6
30	Sioux Falls, SD	8.5

Source: 1993 County and City Data

Female Headed Households

Percent of Female Headed Households, 1990 (City)

1	Trenton, NJ	28.8
2	Charlotte, NC	28.0
3	Harrisburg, PA	27.6
4	Harrisburg, PA	23.1
5	Wilmington, DE	21.8
6	Rochester, NY	20.6
7	St. Louis, MO	20.5
8	Richmond, VA	19.8
9	Milwaukee, WI	19.8
10	Providence, RI	18.4
11	Louisville, KY	18.3
12	Cincinnati, OH	18.2
13	Baton Rouge, LA	17.7
14	Pittsburgh, PA	17.2
15	Chattanooga, TN	17.1
16	Tampa, FL	15.5
17	Albany, NY	14.7
18	Sacramento, CA	14.3
19	Columbus, OH	14.2
20	Fort Wayne, IN	13.8
21	Indianapolis, IN	13.6
22	Jacksonville, FL	13.4
23	Fort Worth, TX	13.3
24	Omaha, NE	13.3
25	Des Moines, IA	11.9
26	Raleigh/Durham, NC	11.3
27	Fort Lauderdale, FL	11.3
28	Wichita, KS	11.1
29	Salt Lake City, UT	10.2
30	Sioux Falls, SD	9.4

Source: 1993 County and City Data

Race and Ethnicity Characteristics

White Population

Percent of White Persons, 1990 (MSA)

1	Sioux Falls, SD	97.5
2	Des Moines, IA	93.8
3	Albany, NY	93.4
4	Salt Lake City, UT	93.3
5	Fort Wayne, IN	91.6
6	Pittsburgh, PA	91.5
7	Harrisburg, PA	91.3
8	Providence, RI	91.2
9	Omaha, NE	89.4
10	Tampa, FL	88.4
11	Rochester, NY	87.9
12	Wichita, KS	87.3
13	Cincinnati, OH	86.4
14	Louisville, KY	86.2
15	Hartford, CT	85.9
16	Columbus, OH	85.8
17	Indianapolis, IN	85.5
18	Chattanooga, TN	85.2
19	Milwaukee, WI	82.6
20	Wilmington, DE	82.4
21	Fort Lauderdale, FL	81.7
22	St. Louis, MO	81.5
23	Fort Worth, TX	80.7
24	Sacramento, CA	79.4
25	Charlotte, NC	78.5
26	Trenton, NJ	75.1
27	Jacksville, FL	74.7
28	Raleigh/Durham, NC	73.4
29	Richmond, VA	68.8
30	Baton Rouge, LA	68.8

Source: 1995 County and City Data

White Population

Percent of White Persons, 1990 (City)

1	Sioux Falls, SD	96.8
2	Des Moines, IA	89.2
3	Salt Lake City, UT	87.0
4	Omaha, NE	83.9
5	Wichita, KS	82.3
6	Fort Wayne, IN	80.5
7	Indianapolis, IN	76.2
8	Albany, NY	75.5
9	Columbus, OH	74.4
10	Jacksonville, FL	72.7
11	Pittsburgh, PA	72.1
12	Tampa, FL	70.9
13	Providence, RI	69.9
14	Fort Lauderdale, FL	69.6
15	Louisville, KY	69.2
16	Raleigh/Durham, NC	69.2
17	Charlotte, NC	65.6
18	Chattanooga, TN	65.0
19	Fort Worth, TX	63.8
20	Milwaukee, WI	63.4
21	Rochester, NY	61.1
22	Cincinnati, OH	60.5
23	Sacramento, CA	60.1
24	Baton Rouge, LA	53.9
25	St. Louis, MO	50.9
26	Richmond, VA	43.4
27	Harrisburg, PA	42.6
28	Trenton, NJ	42.1
29	Wilmington, DE	42.1
30	Hartford, CT	41.0

Source: 1995 County and City Data

Black Population

Percent of Black Persons, 1990 (MSA)

1	Baton Rouge, LA	29.6
2	Richmond, VA	29.2
3	Raleigh/Durham, NC	24.2
4	Jacksonville, FL	19.9
5	Charlotte, NC	19.9
6	Trenton, NJ	18.9
7	St. Louis, MO	17.0
8	Fort Lauderdale, FL	15.4
9	Wilmington, DE	14.8
10	Milwaukee, WI	13.8
11	Chattanooga, TN	13.7
12	Indianapolis, IN	13.2
13	Louisville, KY	12.9
14	Cincinnati, OH	12.5
15	Columbus, OH	12.1
16	Fort Worth, TX	10.6
17	Tampa, FL	9.0
18	Rochester, NY	8.9
19	Hartford, CT	8.5
20	Omaha, NE	8.0
21	Wichita, KS	7.6
22	Pittsburgh, PA	7.5
23	Sacramento, CA	7.4
24	Fort Wayne, IN	6.7
25	Harrisburg, PA	6.7
26	Albany, NY	4.6
27	Providence, RI	3.9
28	Des Moines, IA	3.8
29	Salt Lake City, UT	1.0
30	Sioux Falls, SD	0.6

Source: 1995 County and City Data

Black Population

Percent of Black Persons, 1990 (City)

1	Richmond, VA	55.2
2	Wilmington, DE	52.4
3	Harrisburg, PA	50.6
4	Trenton, NJ	49.3
5	St. Louis, MO	47.5
6	Baton Rouge, LA	43.9
7	Hartford, CT	38.9
8	Cincinnati, OH	37.9
9	Chattanooga, TN	33.7
10	Charlotte, NC	31.8
11	Rochester, NY	31.5
12	Milwaukee, WI	30.5
13	Louisville, KY	29.7
14	Fort Lauderdale, FL	28.1
15	Raleigh/Durham, NC	27.6
16	Pittsburgh, PA	25.8
17	Tampa, FL	25.0
18	Jacksonville, FL	24.4
19	Columbus, OH	22.6
20	Indianapolis, IN	22.3
21	Fort Worth, TX	22.0
22	Albany, NY	20.6
23	Fort Wayne, IN	16.7
24	Sacramento, CA	15.3
25	Providence, RI	14.8
26	Omaha, NE	13.1
27	Wichita, KS	11.3
28	Des Moines, IA	7.1
29	Salt Lake City, UT	1.7
30	Sioux Falls, SD	0.7

Source: 1995 County and City Data

Section 1.8

Race and Ethnicity Characteristics

continued

Asian Population

Percent of Asian Persons, 1990 (MSA)

1	Sacramento, CA	13.3
2	Fort Worth, TX	8.7
3	Trenton, NJ	6.1
4	Salt Lake City, UT	5.8
5	Jacksonville, FL	5.4
6	Hartford, CT	3.3
7	Wichita, KS	5.1
8	Providence, RI	5.0
9	Milwaukee, WI	3.6
10	Rochester, NY	3.1
11	Fort Lauderdale, FL	2.9
12	Wilmington, DE	2.8
13	Tampa, FL	2.7
14	Des Moines, IA	2.5
15	Omaha, NE	2.5
16	Raleigh/Durham, NC	2.4
17	Columbus, OH	2.4
18	Richmond, VA	2.1
19	Albany, NY	2.0
20	Harrisburg, PA	2.0
21	Sioux Falls, SD	1.9
22	Fort Wayne, IN	1.8
23	Charlotte, NC	1.7
24	Baton Rouge, LA	1.6
25	St. Louis, MO	1.5
26	Indianapolis, IN	1.3
27	Cincinnati, OH	1.1
28	Chattanooga, TN	1.1
29	Pittsburgh, PA	1.0
30	Louisville, KY	1.0

Source: 1995 County and City Data

Asian Population

Percent of Asian Persons, 1990 (City)

1	Sacramento, CA	15.0
2	Providence, RI	5.9
3	Salt Lake City, UT	4.7
4	Wichita, KS	2.6
5	Raleigh/Durham, NC	2.5
6	Columbus, OH	2.4
7	Des Moines, IA	2.4
8	Albany, NY	2.3
9	Fort Worth, TX	2.0
10	Jacksonville, FL	1.9
11	Milwaukee, WI	1.9
12	Harrisburg, PA	1.8
13	Rochester, NY	1.8
14	Charlotte, NC	1.8
15	Baton Rouge, LA	1.7
16	Pittsburgh, PA	1.6
17	Tampa, FL	1.4
18	Hartford, CT	1.4
19	Cincinnati, OH	1.1
20	Chattanooga, TN	1.0
21	Fort Wayne, IN	1.0
22	Omaha, NE	1.0
23	Indianapolis, IN	0.9
24	Richmond, VA	0.9
25	Fort Lauderdale, FL	0.9
26	St. Louis, MO	0.9
27	Louisville, KY	0.7
28	Trenton, NJ	0.7
29	Sioux Falls, SD	0.7
30	Wilmington, DE	0.4

Source: 1995 County and City Data

American Indian and Others Population

Percent of American Indians and Other Persons, 1990 (MSA)

1	Fort Worth, TX	6.5
2	Sacramento, CA	5.6
3	Hartford, CT	5.5
4	Salt Lake City, UT	3.4
5	Jacksonville, FL	3.4
6	Wichita, KS	3.4
7	Providence, RI	3.2
8	Trenton, NJ	3.1
9	Milwaukee, WI	3.0
10	Rochester, NY	2.3
11	Tampa, FL	1.8
12	Fort Lauderdale, FL	1.6
13	Omaha, NE	1.5
14	Wilmington, DE	1.4
15	Sioux Falls, SD	1.4
16	Fort Wayne, IN	1.1
17	Harrisburg, PA	0.9
18	Des Moines, IA	0.9
19	Albany, NY	0.8
20	Raleigh/Durham, NC	0.8
21	Charlotte, NC	0.8
22	Richmond, VA	0.6
23	St. Louis, MO	0.5
24	Columbus, OH	0.5
25	Indianapolis, IN	0.5
26	Baton Rouge, LA	0.5
27	Chattanooga, TN	0.4
28	Louisville, KY	0.4
29	Pittsburgh, PA	0.3
30	Cincinnati, OH	0.3

Source: 1995 County and City Data

American Indian and Others Population

Percent of American Indians and Other Persons, 1990 (City)

1	Salt Lake City, UT	1.6
2	Sioux Falls, SD	1.6
3	Sacramento, CA	1.2
4	Wichita, KS	1.2
5	Milwaukee, WI	0.9
6	Providence, RI	0.9
7	Omaha, NE	0.7
8	Rochester, NY	0.7
9	Fort Worth, TX	0.5
10	Des Moines, IA	0.4
11	Charlotte, NC	0.4
12	Jacksonville, FL	0.4
13	Albany, NY	0.3
14	Hartford, CT	0.3
15	Harrisburg, PA	0.3
16	Fort Wayne, IN	0.3
17	Tampa, FL	0.3
18	Trenton, NJ	0.3
19	Raleigh/Durham, NC	0.3
20	St. Louis, MO	0.2
21	Louisville, KY	0.2
22	Richmond, VA	0.2
24	Indianapolis, IN	0.2
25	Fort Lauderdale, FL	0.2
26	Columbus, OH	0.2
27	Cincinnati, OH	0.2
28	Chattanooga, TN	0.2
29	Wilmington, DE	0.2
30	Baton Rouge, LA	0.1

Source: 1995 County and City Data

Section 1.9

Race and Ethnicity Characteristics

continued

Foreign Population
Percent of Foreign Persons, 1990 (MSA)

1 Fort Lauderdale, FL	15.8
2 Providence, RI	10.0
3 Sacramento, CA	9.0
4 Hartford, CT	8.8
5 Trenton, NJ	8.7
6 Tampa, FL	7.1
7 Fort Worth, TX	6.2
8 Rochester, NY	5.0
9 Albany, NY	4.3
10 Salt Lake City, UT	3.9
11 Wilmington, DE	3.8
12 Milwaukee, WI	3.6
13 Jacksonville, FL	3.5
14 Raleigh/Durham, NC	3.4
15 Wichita, KS	3.1
16 Columbus, OH	2.7
17 Richmond, VA	2.6
18 Pittsburgh, PA	2.4
19 Omaha, NE	2.3
20 Des Moines, IA	2.1
21 Charlotte, NC	2.1
22 St. Louis, MO	2.0
23 Harrisburg, PA	2.0
24 Baton Rouge, LA	2.0
25 Cincinnati, OH	1.8
26 Indianapolis, IN	1.6
27 Fort Wayne, IN	1.5
28 Sioux Falls, SD	1.4
29 Louisville, KY	1.3
30 Chattanooga, TN	1.2

Source: 1992 County and City Data

Foreign Population
Percent of Foreign Persons, 1990 (City)

1 Providence, RI	19.6
2 Fort Lauderdale, FL	17.4
3 Hartford, CT	15.3
4 Sacramento, CA	13.7
5 Fort Worth, TX	9.0
6 Salt Lake City, UT	8.3
7 Tampa, FL	8.0
8 Albany, NY	7.7
9 Trenton, NJ	7.6
10 Rochester, NY	6.2
11 Raleigh/Durham, NC	5.0
12 Milwaukee, WI	4.7
13 Pittsburgh, PA	4.6
14 Wichita, KS	4.0
15 Charlotte, NC	3.8
16 Columbus, OH	3.7
17 Wilmington, DE	3.5
18 Jacksonville, FL	3.5
19 Des Moines, IA	3.1
20 Baton Rouge, LA	3
21 Harrisburg, PA	2.9
22 Cincinnati, OH	2.8
23 Omaha, NE	2.8
24 St. Louis, MO	2.5
25 Fort Wayne, IN	2.2
26 Indianapolis, IN	1.9
27 Richmond, VA	1.8
28 Sioux Falls, SD	1.7
29 Chattanooga, TN	1.7
30 Louisville, KY	1.5

Source: 1992 County and City Data

Hispanic Population
Percent of Hispanic Persons, 1990 (MSA)

1 Fort Worth, TX	11.1
2 Sacramento, CA	10.8
3 Fort Lauderdale, FL	8.6
4 Hartford, CT	6.8
5 Tampa, FL	6.7
6 Trenton, NJ	6.0
7 Salt Lake City, UT	5.8
8 Jacksonville, FL	5.4
9 Providence, RI	4.8
10 Wichita, KS	4.1
11 Milwaukee, WI	3.6
12 Rochester, NY	3.0
13 Omaha, NE	2.6
14 Wilmington, DE	2.4
15 Albany, NY	1.7
16 Des Moines, IA	1.7
17 Harrisburg, PA	1.7
18 Fort Wayne, IN	1.7
19 Baton Rouge, LA	1.4
20 Raleigh/Durham, NC	1.1
21 Richmond, VA	1.1
22 St. Louis, MO	1.1
23 Charlotte, NC	0.9
24 Indianapolis, IN	0.9
25 Columbus, OH	0.8
26 Chattanooga, TN	0.6
27 Louisville, KY	0.6
28 Pittsburgh, PA	0.6
29 Cincinnati, OH	0.5
30 Sioux Falls, SD	0.5

Source: 1992 County and City Data

Hispanic Population
Percent of Hispanic Persons, 1990 (City)

1 Hartford, CT	31.6
2 Fort Worth, TX	19.5
3 Sacramento, CA	16.2
4 Providence, RI	15.5
5 Tampa, FL	15.0
6 Trenton, NJ	14.1
7 Salt Lake City, UT	9.7
8 Rochester, NY	8.7
9 Harrisburg, PA	7.7
10 Fort Lauderdale, FL	7.2
11 Wilmington, DE	7.1
12 Milwaukee, WI	6.3
13 Wichita, KS	5.0
14 Omaha, NE	3.1
15 Albany, NY	3.1
16 Fort Wayne, IN	2.7
17 Des Moines, IA	2.4
18 Jacksonville, FL	2.4
19 Baton Rouge, LA	1.6
20 Raleigh/Durham, NC	1.4
21 Charlotte, NC	1.4
22 St. Louis, MO	1.3
23 Indianapolis, IN	1.1
24 Columbus, OH	1.1
25 Pittsburgh, PA	0.9
26 Richmond, VA	0.9
27 Louisville, KY	0.7
28 Cincinnati, OH	0.7
29 Chattanooga, TN	0.6
30 Sioux Falls, SD	0.6

Source: 1992 County and City Data

Spatial Distribution and Area Density

Land Area
Square Kilometers (MSA)

1 St. Louis, MO	16,556
2 Sacramento, CA	13,193
3 Pittsburgh, PA	11,974
4 Cincinnati, OH	9,868
5 Indianapolis, IN	9,126
6 Raleigh/Durham, NC	9,041
7 Rochester, NY	8,873
8 Charlotte, NC	8,751
9 Albany, NY	8,347
10 Columbus, OH	8,139
11 Wichita, KS	7,687
12 Richmond, VA	7,628
13 Fort Worth, TX	7,557
14 Jacksonville, FL	6,826
15 Tampa, FL	6,617
16 Omaha, NE	6,412
17 Fort Wayne, IN	6,339
18 Louisville, KY	5,367
19 Harrisburg, PA	5,157
20 Chattanooga, TN	4,726
21 Milwaukee, WI	4,645
22 Des Moines, IA	4,475
23 Salt Lake City, UT	4,190
24 Baton Rouge, LA	4,108
25 Hartford, CT	3,923
26 Sioux Falls, SD	3,593
27 Fort Lauderdale, FL	3,131
28 Wilmington, DE	2,729
29 Providence, RI	2,436
30 Trenton, NJ	585

Source: 1992 County and City Data

Land Area
Square Kilometers (City)

1 Jacksonville, FL	2,004.0
2 Indianapolis, IN	950.0
3 Fort Worth, TX	728.0
4 Columbus, OH	494.4
5 Charlotte, NC	451.6
6 Raleigh/Durham, NC	407.7
7 Chattanooga, TN	306.7
8 Wichita, KS	298.2
9 Salt Lake City, UT	282.4
10 Tampa, FL	281.5
11 Omaha, NE	260.7
12 Sacramento, CA	249.4
13 Milwaukee, WI	248.8
14 Cincinnati, OH	200.0
15 Des Moines, IA	194.9
16 Baton Rouge, LA	191.5
17 Fort Wayne, IN	162.3
18 Louisville, KY	160.9
19 St. Louis, MO	160.4
20 Richmond, VA	155.7
21 Pittsburgh, PA	144.1
22 Sioux Falls, SD	116.7
23 Rochester, NY	92.7
24 Fort Lauderdale, FL	81.2
25 Albany, NY	55.4
26 Providence, RI	47.8
27 Hartford, CT	11.8
28 Wilmington, DE	27.9
29 Harrisburg, PA	21.0
30 Trenton, NJ	19.8

Source: 1992 County and City Data

Area Density
Number of Persons Per Square Kilometer (MSA)

1 Trenton, NJ	567.47
2 Fort Lauderdale, FL	469.80
3 Providence, RI	462.27
4 Tampa, FL	347.78
5 Milwaukee, WI	315.68
6 Salt Lake City, UT	300.25
7 Hartford, CT	277.64
8 Fort Worth, TX	210.05
9 Wilmington, DE	202.71
10 Pittsburgh, PA	201.39
11 Louisville, KY	185.45
12 Columbus, OH	183.16
13 Indianapolis, IN	165.75
14 Cincinnati, OH	164.66
15 St. Louis, MO	156.17
16 Charlotte, NC	152.02
17 Jacksonville, FL	146.98
18 Baton Rouge, LA	140.48
19 Richmond, VA	124.94
20 Rochester, NY	124.03
21 Harrisburg, PA	121.56
22 Raleigh/Durham, NC	116.73
23 Sacramento, CA	106.85
24 Albany, NY	105.33
25 Omaha, NE	95.81
26 Chattanooga, TN	95.67
27 Des Moines, IA	74.96
28 Fort Wayne, IN	67.41
29 Wichita, KS	67.41
30 Sioux Falls, SD	43.02

Source: 1992 County and City Data

Area Density
Number of Persons Per Square Kilometer (City)

1 Trenton, NJ	4,264.70
2 Providence, RI	3,151.44
3 Hartford, CT	2,777.33
4 Wilmington, DE	2,609.28
5 Harrisburg, PA	2,582.76
6 Rochester, NY	2,493.74
7 Pittsburgh, PA	2,490.51
8 Milwaukee, WI	2,480.08
9 St. Louis, MO	2,295.60
10 Fort Lauderdale, FL	2,005.44
11 Albany, NY	1,892.20
12 Cincinnati, OH	1,790.85
13 Louisville, KY	1,679.98
14 Sacramento, CA	1,499.45
15 Omaha, NE	1,323.49
16 Richmond, VA	1,291.64
17 Columbus, OH	1,285.97
18 Baton Rouge, LA	1,187.90
19 Fort Wayne, IN	1,129.75
20 Wichita, KS	1,040.36
21 Tampa, FL	1,014.29
22 Des Moines, IA	995.20
23 Charlotte, NC	970.08
24 Sioux Falls, SD	935.51
25 Raleigh/Durham, NC	932.39
26 Indianapolis, IN	787.13
27 Fort Worth, TX	620.62
28 Salt Lake City, UT	608.53
29 Chattanooga, TN	486.44
30 Jacksonville, FL	349.73

Source: 1992 County and City Data

Spatial Distribution and Area Density

continued

Reserved Land Area

Areas Reserved by Federal Protection or State Designated Recreation Areas, in Acres (MSA)

1	Sacramento, CA	67,339
2	Salt Lake City, UT	55,336
3	Chattanooga, TN	7,711
4	Wilmington, DE	5,330
5	Pittsburgh, PA	4,639
6	Trenton, NJ	3,611
7	St. Louis, MO	3,442
8	Rochester, NY	2,988
9	Jacksonville, FL	2,882
10	Hartford, CT	2,850
11	Providence, RI	2,550
12	Tampa, FL	2,449
13	Columbus, OH	2,335
14	Richmond, VA	2,041
15	Cincinnati, OH	2,021
16	Albany, NY	1,335
17	Charlotte, NC	1,211
18	Raleigh/Durham, NC	1,091
19	Louisville, KY	1,051
20	Harrisburg, PA	0,901
21	Omaha, NE	0,701
22	Des Moines, IA	0,611
23	Fort Worth, TX	0,571
24	Wichita, KS	0,521
25	Baton Rouge, LA	0,501
26	Sioux Falls, SD	0,471
27	Milwaukee, WI	0,361
28	Fort Wayne, IN	0,171
29	Fort Lauderdale, FL	0,141
30	Indianapolis, IN	0,121

Source: 1990 County and City Data

City Share of MSA Land Area

City land area as a percentage of the total MSA land area, square kilometers 1997

1	Jacksonville, FL	29.36
2	Indianapolis, IN	10.41
3	Fort Worth, TX	9.63
4	Salt Lake City, UT	6.74
5	Chattanooga, TN	6.49
6	Columbus, OH	6.08
7	Milwaukee, WI	5.36
8	Charlotte, NC	5.16
9	Baton Rouge, LA	4.66
10	Raleigh/Durham, NC	4.51
11	Des Moines, IA	4.36
12	Tampa, FL	4.25
13	Omaha, NE	4.07
14	Wichita, KS	3.88
15	Trenton, NJ	3.38
16	Sioux Falls, SD	3.25
17	Louisville, KY	3.00
18	Fort Lauderdale, FL	2.59
19	Fort Wayne, IN	2.56
20	Richmond, VA	2.04
21	Cincinnati, OH	2.03
22	Providence, RI	1.96
23	Sacramento, CA	1.89
24	Pittsburgh, PA	1.20
25	Hartford, CT	1.14
26	Rochester, NY	1.04
27	Wilmington, DE	1.02
28	St. Louis, MO	0.97
29	Albany, NY	0.66
30	Harrisburg, PA	0.41

Source: 1995 County and City Data

Summary of the Analysis

Laborforce

- ✓ Hartford has experienced significant declines in the laborforce in both the central city and the MSA. Compared to other regions, Hartford's central city and MSA experienced some of the most dramatic laborforce declines between 1992 and 1995. Only Sacramento and Wilmington experienced higher declines among these comparable MSA areas.
- ✓ A slightly higher percentage of Hartford's central city residents are work disabled. While the central city ranked about average in terms of work disabled persons, the MSA ranked much better among these comparable cities with only 6.1% of the laborforce being work disabled.

Occupational Distribution

- ✓ The distinction between the central city and MSA is clearly exhibited upon examination of the occupational distribution of the region. While Hartford was 3rd in terms of the percentage of professional workers in the MSA, it was 29th when ranked among other central cities. In contrast, there is no disparity between the percentage of blue collar workers in the central city and the MSA generally. Moreover, the percentage of blue collar workers was about average when compared to other regions.

Income

- ✓ Hartford has one of the highest per capita and household income levels in the country. Hartford's per capita income for the MSA was second only to Trenton NJ. The per capita income for the central city was significantly lower and in 1989, ranked 27th among the 30 comparable cities. During more recent years however, per capita and household income levels have risen slowly when compared with other regions. Hartford's MSA, for example, was ranked 29th for per capita income growth between 1990 and 1994.
- ✓ Reflecting generally slow income growth, Hartford ranked fairly on income growth indicators across income sources. Closer examination of income growth reveals that the largest growth in personal income in the Hartford region has come from the growth in transfer payment income.

Poverty

- ✓ No where is the disparity between the central city and the MSA more apparent than in poverty statistics. While Hartford's MSA had the lowest individual poverty rate among comparable cities, it had the highest among the central cities of these regions. Additionally, Hartford has the highest homelessness rate among the comparable cities.
- ✓ Moreover, while the number of families in poverty in the Hartford MSA is lower than almost all of the comparable cities, it is the highest among the central cities of these regions. Additionally, Hartford's rate of child poverty and elder poverty are also notably high when compared to these regions as well.
- ✓ While the disparity between the MSA and central city in terms of poverty is large, the MSA experienced an 8.4% decline in poverty overall while poverty in the central city increased dramatically over the same period.

Educational Attainment

- ✓ The educational attainment of Hartford's MSA residents is fairly high for compared to other regions. Hartford ranked 3rd among all regions for its percentage of college graduates in the MSA. Hartford city residents in contrast, had one of the lowest rates of high school completion or college graduation.

Labor Force Characteristics

Labor Force Growth
Percent Labor Force Change between 1992-1995 (MSA)

1 Fort Wayne, IN	33.7%
2 Sioux Falls, SD	27.1%
3 Indianapolis, IN	23.4%
4 Raleigh/Durham, NC	22.4%
5 Salt Lake City, UT	19.6%
6 Rochester, NY	10.4%
7 Pittsburgh, PA	9.9%
8 Fort Worth, TX	9.4%
9 Charlotte, NC	7.5%
10 Jacksonville, FL	6.9%
11 Omaha, NE	6.7%
12 Richmond, VA	6.2%
13 Tampa, FL	5.0%
14 St. Louis, MO	4.8%
15 Fort Lauderdale, FL	4.5%
16 Albany, NY	3.4%
17 Louisville, KY	3.1%
18 Chattanooga, TN	2.9%
19 Columbus, OH	2.8%
20 Cincinnati, OH	1.7%
21 Milwaukee, WI	1.2%
22 Des Moines, IA	0.8%
23 Wichita, KS	-1.1%
24 Baton Rouge, LA	-1.6%
25 Harrisburg, PA	-2.7%
26 Trenton, NJ	-3.3%
27 Portland, CT	-3.5%
28 Sacramento, CA	-8.7%
29 Wilmington, DE	-10.7%
Providence, RI	n/a

Source: U.S. Bureau of Labor Statistics

Labor Force Growth
Percent Labor Force Change between 1992-1995 (City)

1 Salt Lake City, UT	18.9%
2 Charlotte, NC	8.8%
3 Fort Worth, TX	6.5%
4 Fort Wayne, IN	6.4%
5 Chattanooga, TN	6.0%
6 Raleigh/Durham, NC	5.4%
7 Tampa, FL	5.1%
8 Columbus, OH	4.0%
9 Fort Lauderdale, FL	3.8%
10 Omaha, NE	3.5%
11 Albany, NY	3.3%
12 Rochester, NY	3.1%
13 Sioux Falls, SD	2.5%
14 Louisville, KY	0.4%
15 Des Moines, IA	0.1%
16 Richmond, VA	-0.1%
17 Sacramento, CA	-0.9%
18 Wichita, KS	-1.5%
19 Harrisburg, PA	-2.6%
20 Baton Rouge, LA	-2.7%
21 St. Louis, MO	-3.4%
22 Wilmington, DE	-4.4%
23 Trenton, NJ	-4.4%
24 Pittsburgh, PA	-7.4%
25 Cincinnati, OH	-7.7%
26 Providence, RI	-13.4%
27 Portland, CT	-14.3%
Milwaukee, WI	n/a
Indianapolis, IN	n/a
Jacksonville, FL	n/a

Source: U.S. Bureau of Labor Statistics

Work Disabled Persons
Percent of work disabled persons, 1990 (MSA)

1 Chattanooga, TN	9.8
2 Tampa, FL	9.8
3 Sacramento, CA	9.1
4 Jacksonville, FL	9.1
5 Cincinnati, OH	8.8
6 Louisville, KY	8.8
7 Pittsburgh, PA	8.7
8 Columbus, OH	8.1
9 Baton Rouge, LA	7.7
10 Wichita, KS	7.7
11 Indianapolis, IN	7.6
12 Milwaukee, WI	7.6
13 Sioux Falls, SD	7.6
14 St. Louis, MO	7.6
15 Charlotte, NC	7.4
16 Omaha, NE	7.4
17 Rochester, NY	7.4
18 Salt Lake City, UT	7.4
19 Des Moines, IA	7.3
20 Wilmington, DE	7.2
21 Harrisburg, PA	7.2
22 Fort Lauderdale, FL	7.1
23 Albany, NY	7.1
24 Fort Worth, TX	7
25 Richmond, VA	7
26 Fort Wayne, IN	7
27 Raleigh/Durham, NC	6.6
28 Portland, CT	6.1
29 Trenton, NJ	6
30 Providence, RI	6

Source: 1997 County and City Data

Work Disabled Persons
Percent of work disabled persons, 1990 (City)

1 Harrisburg, PA	12.3
2 Cincinnati, OH	11.5
3 Louisville, KY	11.5
4 Rochester, NY	11.2
5 Chattanooga, TN	11.1
6 St. Louis, MO	11.1
7 Tampa, FL	10.9
8 Sacramento, CA	10.8
9 Pittsburgh, PA	10.7
10 Wilmington, DE	10.6
11 Milwaukee, WI	10.2
12 Trenton, NJ	9.9
13 Providence, RI	9.9
14 Portland, CT	9.8
15 Salt Lake City, UT	9.5
16 Richmond, VA	9.3
17 Jacksonville, FL	9.1
18 Des Moines, IA	9.1
19 Columbus, OH	8.9
20 Fort Wayne, IN	8.9
21 Wichita, KS	8.5
22 Fort Worth, TX	8.5
23 Sioux Falls, SD	8.3
24 Indianapolis, IN	8.2
25 Omaha, NE	8.2
26 Fort Lauderdale, FL	8
27 Albany, NY	8
28 Baton Rouge, LA	7.6
29 Charlotte, NC	7.6
30 Raleigh/Durham, NC	6.5
31 Portland, CT	6

Source: 1997 County and City Data

Labor Force Characteristics

Professional Workers
Percent of all workers in professional, managerial, and technical jobs, 1990 (MSA)

1 Trenton, NJ	38.8
2 Raleigh/Durham, NC	37.9
3 Portland, CT	35.1
4 Albany, NY	34.0
5 Sacramento, CA	33.3
6 Rochester, NY	33.0
7 Columbus, OH	32.7
8 Richmond, VA	32.3
9 Baton Rouge, LA	32.1
10 Salt Lake City, UT	31.9
11 Wilmington, DE	31.6
12 Fort Worth, TX	31.4
13 Pittsburgh, PA	31.3
14 St. Louis, MO	31.3
15 Cincinnati, OH	30.9
16 Wichita, KS	30.8
17 Des Moines, IA	30.4
18 Omaha, NE	30.4
19 Fort Lauderdale, FL	29.9
20 Milwaukee, WI	29.8
21 Indianapolis, IN	29.6
22 Providence, RI	29.4
23 Tampa, FL	29.3
24 Jacksonville, FL	28.9
25 Harrisburg, PA	28.8
26 Louisville, KY	27.6
27 Sioux Falls, SD	27.2
28 Charlotte, NC	27.0
29 Fort Wayne, IN	26.3
30 Chattanooga, TN	26.2
31 Portland, CT	21.1
Trenton, NJ	n/a

Source: 1997 County and City Data

Professional Workers
Percent of all workers in professional, managerial, and technical jobs, 1990 (City)

1 Raleigh/Durham, NC	41.0
2 Albany, NY	38.8
3 Salt Lake City, UT	37.4
4 Baton Rouge, LA	35.6
5 Sacramento, CA	34.7
6 Columbus, OH	33.6
7 Cincinnati, OH	33.6
8 Pittsburgh, PA	33.1
9 Charlotte, NC	32.5
10 Wichita, KS	31.7
11 Indianapolis, IN	31.1
12 Richmond, VA	31.0
13 Omaha, NE	30.8
14 Rochester, NY	29.4
15 Wilmington, DE	29.4
16 Fort Worth, TX	29.3
17 Tampa, FL	29.2
18 Jacksonville, FL	28.9
19 Providence, RI	28.9
20 Sioux Falls, SD	28.9
21 Fort Lauderdale, FL	28.7
22 Chattanooga, TN	28.2
23 Louisville, KY	28.1
24 St. Louis, MO	27.3
25 Des Moines, IA	26.9
26 Fort Wayne, IN	26.8
27 Harrisburg, PA	26.2
28 Milwaukee, WI	24.8
29 Portland, CT	21.1
30 Trenton, NJ	n/a

Source: 1997 County and City Data

Blue Collar Workers
Percent of all workers in precision production, craft and repair jobs, 1990 (MSA)

1 Wichita, KS	13.9
2 Charlotte, NC	12.7
3 Baton Rouge, LA	12.7
4 Fort Wayne, IN	12.6
5 Providence, RI	12.1
6 Chattanooga, TN	12.0
7 Fort Worth, TX	11.8
8 Fort Lauderdale, FL	11.7
9 Louisville, KY	11.6
10 Jacksonville, FL	11.5
11 Milwaukee, WI	11.5
12 Rochester, NY	11.4
13 Indianapolis, IN	11.4
14 Wilmington, DE	11.2
15 Salt Lake City, UT	11.0
16 Tampa, FL	11.0
17 Portland, CT	10.9
18 Cincinnati, OH	10.9
19 Richmond, VA	10.9
20 Pittsburgh, PA	10.8
21 Harrisburg, PA	10.8
22 St. Louis, MO	10.6
23 Sacramento, CA	10.5
24 Sioux Falls, SD	10.2
25 Raleigh/Durham, NC	10.1
26 Albany, NY	9.5
27 Omaha, NE	9.5
28 Columbus, OH	9.1
29 Des Moines, IA	8.6
30 Trenton, NJ	8.0

Source: 1997 County and City Data

Blue Collar Workers
Percent of all workers in precision production, craft and repair jobs, 1990 (City)

1 Wichita, KS	13.1
2 Fort Worth, TX	11.5
3 Jacksonville, FL	11.1
4 Fort Wayne, IN	10.9
5 Providence, RI	10.7
6 Rochester, NY	10.4
7 Milwaukee, WI	10.2
8 Fort Lauderdale, FL	10.1
9 Tampa, FL	9.8
10 Indianapolis, IN	9.8
11 Louisville, KY	9.7
12 Sioux Falls, SD	9.4
13 Des Moines, IA	9.2
14 Chattanooga, TN	9.1
15 Omaha, NE	9.1
16 Portland, CT	9.0
17 Charlotte, NC	8.8
18 Trenton, NJ	8.7
19 Sacramento, CA	8.5
20 Baton Rouge, LA	8.1
21 Wilmington, DE	7.8
22 Harrisburg, PA	7.8
23 Cincinnati, OH	7.8
24 St. Louis, MO	7.7
25 Raleigh/Durham, NC	7.5
26 Columbus, OH	7.5
27 Salt Lake City, UT	7.4
28 Pittsburgh, PA	7.4
29 Richmond, VA	7.3
30 Albany, NY	5.0

Source: 1997 County and City Data

Income

Per Capita Income
1994 (MSA)

1	Trenton, NJ	\$30,176
2	Hartford, CT	\$28,812
3	Fort Lauderdale, FL	\$24,706
4	Wilmington, DE	\$24,685
5	Richmond, VA	\$24,358
6	Milwaukee, WI	\$23,948
7	St. Louis, MO	\$23,685
8	Des Moines, IA	\$23,681
9	Indianapolis, IN	\$23,169
10	Raleigh/Durham, NC	\$22,992
11	Sioux Falls, SD	\$22,991
12	Pittsburgh, PA	\$22,751
13	Albany, NY	\$22,700
14	Rochester, NY	\$22,593
15	Omaha, NE	\$22,514
16	Cincinnati, OH	\$22,303
17	Harrisburg, PA	\$22,289
18	Louisville, KY	\$22,081
19	Columbus, OH	\$22,058
20	Charlotte, NC	\$21,945
21	Providence, RI	\$21,928
22	Sacramento, CA	\$21,855
23	Wichita, KS	\$21,511
24	Fort Worth, TX	\$21,412
25	Tampa, FL	\$21,358
26	Fort Wayne, IN	\$21,350
27	Jacksonville, FL	\$20,938
28	Chattanooga, TN	\$19,890
29	Baton Rouge, LA	\$19,385
30	Salt Lake City, UT	\$18,623

Per Capita Income
1989 (City)

1	Fort Lauderdale, FL	\$19,814
2	Charlotte, NC	\$16,793
3	Raleigh/Durham, NC	\$15,426
4	Indianapolis, IN	\$14,605
5	Wichita, KS	\$14,516
6	Wilmington, DE	\$14,256
7	Sacramento, CA	\$14,087
8	Richmond, VA	\$13,993
9	Omaha, NE	\$13,957
10	Jacksonville, FL	\$13,857
11	Albany, NY	\$13,742
12	Des Moines, IA	\$13,710
13	Sioux Falls, SD	\$13,677
14	Salt Lake City, UT	\$13,482
15	Tampa, FL	\$13,277
16	Fort Worth, TX	\$13,162
17	Columbus, OH	\$13,151
18	Fort Wayne, IN	\$12,726
19	Pittsburgh, PA	\$12,580
20	Cincinnati, OH	\$12,547
21	Baton Rouge, LA	\$12,398
22	Chattanooga, TN	\$12,332
23	Providence, RI	\$11,838
24	Rochester, NY	\$11,704
25	Louisville, KY	\$11,527
26	Milwaukee, WI	\$11,105
27	Harrisburg, PA	\$11,037
28	Trenton, NJ	\$11,018
30	St. Louis, MO	\$10,798

Average Household Income
1994 (MSA)

1	Trenton, NJ	\$90,500
2	Hartford, CT	\$70,100
3	Wilmington, DE	\$70,100
4	Milwaukee, WI	\$69,300
5	St. Louis, MO	\$67,100
6	Richmond, VA	\$66,900
7	Fort Lauderdale, FL	\$65,500
8	Sioux Falls, SD	\$64,600
9	Rochester, NY	\$64,100
10	Omaha, NE	\$64,000
11	Des Moines, IA	\$63,800
12	Fort Wayne, IN	\$63,000
13	Salt Lake City, UT	\$62,900
14	Fort Worth, TX	\$62,800
15	Sacramento, CA	\$62,700
16	Indianapolis, IN	\$62,600
17	Raleigh/Durham, NC	\$62,300
18	Louisville, KY	\$61,900
19	Charlotte, NC	\$61,600
20	Albany, NY	\$61,500
21	Harrisburg, PA	\$61,100
22	Pittsburgh, PA	\$61,000
23	Providence, RI	\$60,300
24	Jacksonville, FL	\$59,200
25	Columbus, OH	\$59,000
26	Baton Rouge, LA	\$56,900
27	Wichita, KS	\$55,800
28	Tampa, FL	\$55,600
29	Chattanooga, TN	\$55,200
30	Cincinnati, OH	\$46,600

Median Household Income
1990 (City)

1	Charlotte, NC	\$31,873
2	Raleigh/Durham, NC	\$29,351
3	Jacksonville, FL	\$28,513
4	Sacramento, CA	\$28,183
5	Wichita, KS	\$28,024
6	Sioux Falls, SD	\$27,286
7	Fort Lauderdale, FL	\$27,239
8	Omaha, NE	\$26,927
9	Des Moines, IA	\$26,703
10	Columbus, OH	\$26,651
11	Fort Worth, TX	\$26,547
12	Wilmington, DE	\$26,389
13	Fort Wayne, IN	\$26,344
14	Trenton, NJ	\$25,719
15	Albany, NY	\$25,152
16	Indianapolis, IN	\$24,083
17	Milwaukee, WI	\$23,627
18	Richmond, VA	\$23,551
19	Salt Lake City, UT	\$22,967
20	Rochester, NY	\$22,785
21	Tampa, FL	\$22,772
22	Chattanooga, TN	\$22,197
23	Providence, RI	\$22,147
24	Hartford, CT	\$22,140
25	Baton Rouge, LA	\$21,898
26	Cincinnati, OH	\$21,006
27	Pittsburgh, PA	\$20,747
28	Harrisburg, PA	\$20,329
29	Louisville, KY	\$20,141
30	St. Louis, MO	\$19,458

Source: Regional Economic Information System (REIS)

Source: Regional Economic Information System (REIS)

Source: Pine Tree Almanac, 1997

Source: 1997 County and City Expo

Income
(continued)

Dividends, Interest, and Rent
Percent of Total Personal Income from
Dividends, Interest, and Rent, 1994 (MSA)

1	Fort Lauderdale, FL	25.7%
2	Tampa, FL	21.2%
3	Wilmington, DE	18.5%
4	Trenton, NJ	18.5%
5	St. Louis, MO	18.1%
6	Richmond, VA	17.9%
7	Cincinnati, OH	17.2%
8	Louisville, KY	16.7%
9	Pittsburgh, PA	16.2%
10	Milwaukee, WI	16.2%
11	Hartford, CT	15.0%
12	Omaha, NE	15.5%
13	Providence, RI	15.5%
14	Wichita, KS	15.4%
15	Albany, NY	15.2%
16	Fort Wayne, IN	15.2%
17	Rochester, NY	15.2%
18	Harrisburg, PA	14.7%
19	Des Moines, IA	14.3%
20	Chattanooga, TN	14.3%
21	Sioux Falls, SD	13.9%
22	Jacksonville, FL	13.8%
23	Indianapolis, IN	13.7%
24	Raleigh/Durham, NC	13.7%
25	Columbus, OH	12.9%
26	Charlotte, NC	12.8%
27	Baton Rouge, LA	12.7%
28	Salt Lake City, UT	12.4%
29	Sacramento, CA	12.2%
30	Fort Worth, TX	11.3%

Source: Regional Economic Information System (REIS)

Transfer Payments
Percent of Total Personal Income from
Transfer Payment, 1994 (MSA)

1	Providence, RI	21.0%
2	Pittsburgh, PA	20.5%
3	Tampa, FL	20.3%
4	Albany, NY	19.4%
5	Sacramento, CA	19.3%
6	Rochester, NY	18.2%
7	Chattanooga, TN	17.5%
8	Jacksonville, FL	16.9%
9	Harrisburg, PA	16.3%
10	Baton Rouge, LA	16.2%
11	Cincinnati, OH	16.2%
12	Milwaukee, WI	16.0%
13	Fort Lauderdale, FL	15.9%
14	Columbus, OH	15.5%
15	Louisville, KY	15.5%
16	St. Louis, MO	15.3%
17	Wichita, KS	15.2%
18	Hartford, CT	15.2%
19	Trenton, NJ	14.3%
20	Omaha, NE	14.1%
21	Indianapolis, IN	13.5%
22	Salt Lake City, UT	13.5%
23	Fort Wayne, IN	13.5%
24	Wilmington, DE	13.4%
25	Richmond, VA	13.3%
26	Fort Worth, TX	12.7%
27	Des Moines, IA	12.7%
28	Charlotte, NC	12.1%
29	Sioux Falls, SD	11.8%
30	Raleigh/Durham, NC	11.0%

Source: Regional Economic Information System (REIS)

Proprietor Income
Percent of Total Personal Income from
Proprietor Income, 1994 (MSA)

1	Sioux Falls, SD	13.6%
2	Sacramento, CA	9.5%
3	Fort Worth, TX	8.7%
4	Pittsburgh, PA	8.6%
5	Raleigh/Durham, NC	8.1%
6	Wichita, KS	8.0%
7	Omaha, NE	8.0%
8	Des Moines, IA	7.6%
9	Columbus, OH	7.4%
10	Chattanooga, TN	7.2%
11	Harrisburg, PA	7.2%
12	Baton Rouge, LA	7.1%
13	Charlotte, NC	7.0%
14	Hartford, CT	6.9%
15	Salt Lake City, UT	6.6%
16	Trenton, NJ	6.6%
17	Indianapolis, IN	6.6%
18	St. Louis, MO	6.4%
19	Louisville, KY	6.4%
20	Jacksonville, FL	6.2%
21	Fort Wayne, IN	6.1%
22	Wilmington, DE	6.1%
23	Providence, RI	6.1%
24	Tampa, FL	5.9%
25	Cincinnati, OH	5.8%
26	Rochester, NY	5.8%
27	Albany, NY	5.4%
28	Fort Lauderdale, FL	5.3%
29	Richmond, VA	5.3%
30	Milwaukee, WI	4.7%

Source: Regional Economic Information System (REIS)

Earnings
Percent of Total Personal Income from
Earnings, 1994 (MSA)

1	Fort Worth, TX	76.0%
2	Raleigh/Durham, NC	75.7%
3	Charlotte, NC	75.1%
4	Sioux Falls, SD	74.3%
5	Salt Lake City, UT	74.1%
6	Des Moines, IA	73.0%
7	Indianapolis, IN	72.8%
8	Columbus, OH	71.6%
9	Fort Wayne, IN	71.3%
10	Baton Rouge, LA	71.1%
11	Omaha, NE	70.4%
12	Wichita, KS	69.3%
13	Jacksonville, FL	69.3%
14	Hartford, CT	69.3%
15	Harrisburg, PA	69.0%
16	Richmond, VA	68.8%
17	Sacramento, CA	68.5%
18	Chattanooga, TN	68.2%
19	Wilmington, DE	68.1%
20	Milwaukee, WI	67.8%
21	Louisville, KY	67.8%
22	Trenton, NJ	67.2%
23	Rochester, NY	66.7%
24	Cincinnati, OH	66.6%
25	St. Louis, MO	66.5%
26	Albany, NY	65.4%
27	Providence, RI	63.6%
28	Pittsburgh, PA	63.3%
29	Tampa, FL	58.6%
30	Fort Lauderdale, FL	58.5%

Source: Regional Economic Information System (REIS)

Income Growth

Dividends, Interest, and Rent Income Growth

Percent of Total Personal Income Growth from Dividends, Interest, and Rent, 1990-1994 (MSA)

1 Omaha, NE	26.02%
2 Salt Lake City, UT	21.36%
3 Wilmington, DE	17.98%
4 Sioux Falls, SD	16.82%
5 Charlotte, NC	16.63%
6 Raleigh/Durham, NC	13.57%
7 Jacksonville, FL	13.21%
8 Louisville, KY	12.14%
9 Des Moines, IA	11.82%
10 Columbus, OH	11.61%
11 Richmond, VA	9.10%
12 Wichita, KS	9.09%
13 Milwaukee, WI	8.82%
14 Tampa, FL	8.26%
15 Chattanooga, TN	8.23%
16 Indianapolis, IN	8.11%
17 Harrisburg, PA	8.05%
18 Baton Rouge, LA	7.69%
19 St. Louis, MO	8.11%
20 Cincinnati, OH	6.28%
21 Sacramento, CA	6.02%
22 Pittsburgh, PA	4.32%
23 Fort Wayne, IN	3.27%
24 Trenton, NJ	3.26%
25 Fort Lauderdale, FL	2.44%
26 Albany, NY	2.22%
27 Hartford, CT	1.99%
28 Providence, RI	1.64%
29 Fort Worth, TX	-0.36%
30 Rochester, NY	-4.30%

Source: Regional Economic Information System (REIS)

Transfer Payment Income Growth

Percent of Total Personal Income Growth from Transfer Payments, 1990-1994 (MSA)

1 Baton Rouge, LA	54.64%
2 Fort Worth, TX	47.48%
3 Wilmington, DE	46.74%
4 Raleigh/Durham, NC	46.41%
5 Rochester, NY	43.68%
6 Jacksonville, FL	43.27%
7 Trenton, NJ	42.60%
8 Albany, NY	42.17%
9 Hartford, CT	42.03%
10 Charlotte, NC	41.68%
11 Providence, RI	41.21%
12 Indianapolis, IN	41.17%
13 Richmond, VA	40.34%
14 Fort Wayne, IN	40.13%
15 Chattanooga, TN	39.99%
16 Sacramento, CA	39.72%
17 Columbus, OH	39.70%
18 Wichita, KS	39.51%
19 Fort Lauderdale, FL	38.14%
20 Cincinnati, OH	37.58%
21 St. Louis, MO	37.53%
22 Tampa, FL	35.94%
23 Omaha, NE	35.75%
24 Pittsburgh, PA	35.67%
25 Louisville, KY	34.47%
26 Sioux Falls, SD	34.25%
27 Harrisburg, PA	33.34%
28 Milwaukee, WI	33.25%
29 Des Moines, IA	32.68%
30 Salt Lake City, UT	31.11%

Source: Regional Economic Information System (REIS)

Proprietor Income Growth

Percent of Total Personal Income Growth from Proprietor's Income, 1990-1994 (MSA)

1 Sioux Falls, SD	61.85%
2 Fort Worth, TX	51.45%
3 Wilmington, DE	45.93%
4 Chattanooga, TN	44.96%
5 Fort Lauderdale, FL	43.03%
6 Salt Lake City, UT	42.74%
7 Raleigh/Durham, NC	38.76%
8 Columbus, OH	36.88%
9 Baton Rouge, LA	36.24%
10 Wichita, KS	35.68%
11 Jacksonville, FL	34.36%
12 Cincinnati, OH	33.99%
13 Des Moines, IA	33.85%
14 St. Louis, MO	32.62%
15 Tampa, FL	32.39%
16 Indianapolis, IN	32.09%
17 Richmond, VA	31.44%
18 Sacramento, CA	29.66%
19 Milwaukee, WI	29.47%
20 Pittsburgh, PA	29.25%
21 Fort Wayne, IN	29.24%
22 Charlotte, NC	27.57%
23 Omaha, NE	26.65%
24 Albany, NY	24.46%
25 Harrisburg, PA	24.16%
26 Rochester, NY	24.11%
27 Louisville, KY	23.08%
28 Trenton, NJ	20.54%
29 Hartford, CT	19.91%
30 Providence, RI	18.34%

Source: Regional Economic Information System (REIS)

Earnings Income Growth

Percent of Total Personal Income Growth from Earnings, 1990-1994 (MSA)

1 Sioux Falls, SD	43.59%
2 Salt Lake City, UT	36.3%
3 Raleigh/Durham, NC	34.8%
4 Des Moines, IA	29.1%
5 Indianapolis, IN	29.0%
6 Columbus, OH	28.0%
7 Fort Lauderdale, FL	27.8%
8 Baton Rouge, LA	27.5%
9 Charlotte, NC	27.2%
10 Louisville, KY	26.6%
11 Tampa, FL	25.7%
12 Chattanooga, TN	24.3%
13 Fort Wayne, IN	24.1%
14 Omaha, NE	24.1%
15 Fort Worth, TX	23.6%
16 Cincinnati, OH	23.3%
17 Milwaukee, WI	23.0%
18 Harrisburg, PA	22.1%
19 Jacksonville, FL	21.9%
20 Pittsburgh, PA	20.5%
21 Wichita, KS	20.0%
22 Richmond, VA	19.7%
23 St. Louis, MO	19.7%
24 Wilmington, DE	19.3%
25 Sacramento, CA	18.1%
26 Trenton, NJ	18.0%
27 Albany, NY	16.4%
28 Rochester, NY	15.5%
29 Providence, RI	11.9%
30 Hartford, CT	7.0%

Source: Regional Economic Information System (REIS)

Poverty

Individual Poverty

Percent of persons in poverty, 1989 (MSA)

1 Baton Rouge, LA	18.8
2 Wichita, KS	15.6
3 Chattanooga, TN	13.4
4 Louisville, KY	12.8
5 Pittsburgh, PA	12.1
6 Columbus, OH	11.9
7 Jacksonville, FL	11.8
8 Cincinnati, OH	11.6
9 Milwaukee, WI	11.6
10 Tampa, FL	11.4
11 Sacramento, CA	11.3
12 Fort Worth, TX	11.0
13 St. Louis, MO	10.8
14 Raleigh/Durham, NC	10.5
15 Fort Lauderdale, FL	10.2
16 Indianapolis, IN	9.9
17 Providence, RI	9.8
18 Richmond, VA	9.8
19 Charlotte, NC	9.6
20 Rochester, NY	9.6
21 Omaha, NE	9.5
22 Salt Lake City, UT	9.4
23 Albany, NY	8.8
24 Des Moines, IA	8.8
25 Sioux Falls, SD	7.8
26 Harrisburg, PA	7.8
27 Fort Wayne, IN	7.6
28 Wilmington, DE	7.5
29 Trenton, NJ	7.4
30 Hartford, CT	7.1

Source: 1991 County and City Data

Individual Poverty

Percent of persons in poverty, 1989 (City)

1 Harrisburg, PA	27.6
2 Harrisburg, PA	27.0
3 Baton Rouge, LA	26.2
4 St. Louis, MO	24.6
5 Cincinnati, OH	24.3
6 Rochester, NY	23.5
7 Providence, RI	23.0
8 Louisville, KY	22.6
9 Milwaukee, WI	22.2
10 Pittsburgh, PA	21.4
11 Richmond, VA	20.9
12 Tampa, FL	19.4
13 Albany, NY	18.3
14 Chattanooga, TN	18.2
15 Wilmington, DE	18.1
16 Trenton, NJ	18.1
17 Fort Worth, TX	17.4
18 Sacramento, CA	17.2
19 Columbus, OH	17.2
20 Fort Lauderdale, FL	17.1
21 Salt Lake City, UT	16.4
22 Des Moines, IA	12.9
23 Jacksonville, FL	12.8
24 Omaha, NE	12.6
25 Indianapolis, IN	12.5
26 Wichita, KS	12.5
27 Raleigh/Durham, NC	11.8
28 Fort Wayne, IN	11.5
29 Charlotte, NC	10.8
30 Sioux Falls, SD	8.5

Source: 1995 County and City Data

Individual Poverty Growth

Percent of change in individual poverty between 1980-1990 (MSA)

1 Milwaukee, WI	43.1
2 Pittsburgh, PA	34.5
3 Wichita, KS	29.9
4 Baton Rouge, LA	26.2
5 Fort Worth, TX	18.4
6 Louisville, KY	13.2
7 Salt Lake City, UT	12.1
8 Fort Lauderdale, FL	12.0
9 Cincinnati, OH	10.5
10 Des Moines, IA	8.8
11 Rochester, NY	8.0
12 Columbus, OH	7.4
13 Indianapolis, IN	6.3
14 Sacramento, CA	5.8
15 Omaha, NE	5.7
16 St. Louis, MO	4.5
17 Fort Wayne, IN	(0.7)
18 Chattanooga, TN	(1.7)
19 Harrisburg, PA	(2.1)
20 Tampa, FL	(2.7)
21 Providence, RI	(4.8)
22 Hartford, CT	(8.1)
23 Charlotte, NC	(8.6)
24 Albany, NY	(10.5)
25 Sioux Falls, SD	(12.9)
26 Richmond, VA	(13.7)
27 Raleigh/Durham, NC	(17.2)
28 Trenton, NJ	(20.7)
29 Jacksonville, FL	(21.5)
30 Wilmington, DE	(30.2)

Source: 1995 County and City Data

Homelessness

Number of persons in emergency shelters and/or viable in street locations per every 100,000 persons, 1995 (City)

1 Hartford, CT	675
2 Trenton, NJ	533
3 Albany, NY	475
4 Fort Lauderdale, FL	435
5 Harrisburg, PA	387
6 Sacramento, CA	385
7 Wilmington, DE	364
8 Louisville, KY	309
9 Cincinnati, OH	287
10 Salt Lake City, UT	285
11 Des Moines, IA	231
12 Fort Worth, TX	229
13 St. Louis, MO	222
14 Pittsburgh, PA	218
15 Tampa, FL	161
16 Charlotte, NC	151
17 Richmond, VA	144
18 Providence, RI	139
19 Rochester, NY	138
20 Raleigh/Durham, NC	135
21 Wichita, KS	127
22 Chattanooga, TN	115
23 Sioux Falls, SD	108
24 Jacksonville, FL	105
25 Columbus, OH	102
26 Omaha, NE	97
27 Fort Wayne, IN	86
28 Milwaukee, WI	79
29 Indianapolis, IN	77
30 Baton Rouge, LA	55

Source: 1995 County and City Data

Poverty
continued

Families in Poverty
Percent of families in poverty, 1989 (MSA)

1	Baton Rouge, LA	14.7
2	Wichita, KS	12.2
3	Chattanooga, TN	10.6
4	Louisville, KY	10.2
5	Pittsburgh, PA	9.4
6	Cincinnati, OH	9.2
7	Milwaukee, WI	8.9
8	Jacksonville, FL	8.9
9	Sacramento, CA	8.7
10	Columbus, OH	8.5
11	Fort Worth, TX	8.2
12	St. Louis, MO	8.1
13	Tampa, FL	7.8
14	Indianapolis, IN	7.5
15	Richmond, VA	7.4
16	Salt Lake City, UT	7.4
17	Charlotte, NC	7.2
18	Raleigh/Durham, NC	7.2
19	Omaha, NE	7.2
20	Fort Lauderdale, FL	7.1
21	Providence, RI	7.0
22	Rochester, NY	7.0
23	Des Moines, IA	6.4
24	Albany, NY	6.0
25	Fort Wayne, IN	5.4
26	St. Louis, MO	5.3
27	Harrisburg, PA	5.3
28	Trenton, NJ	5.3
29	Hartford, CT	5.2
30	Wilmington, DE	5.1

Source: 1993 County and City Data

Families in Poverty
Percent of families in poverty, 1989 (City)

1	Harrisburg, PA	35.1
2	Harrisburg, PA	23.9
3	Rochester, NY	21.1
4	Cincinnati, OH	20.7
5	St. Louis, MO	20.6
6	Baton Rouge, LA	20.3
7	Louisville, KY	18.6
8	Milwaukee, WI	18.5
9	Providence, RI	18.3
10	Richmond, VA	17.4
11	Pittsburgh, PA	16.6
12	Trenton, NJ	15.1
13	Wilmington, DE	15.1
14	Tampa, FL	15.0
15	Chattanooga, TN	14.4
16	Sacramento, CA	13.8
17	Fort Worth, TX	13.6
18	Fort Lauderdale, FL	13.1
19	Columbus, OH	12.6
20	Albany, NY	12.1
21	Salt Lake City, UT	11.9
22	Jacksonville, FL	9.8
23	Indianapolis, IN	9.7
24	Omaha, NE	9.6
25	Wichita, KS	9.5
26	Des Moines, IA	9.5
27	Raleigh/Durham, NC	9.5
28	Charlotte, NC	8.5
29	Fort Wayne, IN	8.3
30	St. Louis, MO	5.5

Source: 1993 County and City Data

Children's Poverty
Percent of persons under 18 years of age in poverty, 1989 (City)

1	Harrisburg, PA	44.4
2	Harrisburg, PA	38.6
3	St. Louis, MO	39.3
4	Rochester, NY	38.0
5	Milwaukee, WI	37.6
6	Cincinnati, OH	37.2
7	Richmond, VA	35.6
8	Baton Rouge, LA	35.4
9	Louisville, KY	35.1
10	Providence, RI	34.5
11	Pittsburgh, PA	32.2
12	Tampa, FL	30.6
13	Fort Lauderdale, FL	30.5
14	Sacramento, CA	28.2
15	Chattanooga, TN	27.9
16	Wilmington, DE	26.9
17	Trenton, NJ	26.8
18	Albany, NY	25.7
19	Fort Worth, TX	24.6
20	Columbus, OH	24.0
21	Salt Lake City, UT	20.9
22	Des Moines, IA	18.8
23	Indianapolis, IN	18.6
24	Omaha, NE	18.5
25	Jacksonville, FL	18.4
26	Wichita, KS	17.5
27	Raleigh/Durham, NC	17.4
28	Fort Wayne, IN	16.1
29	Charlotte, NC	15.7
30	St. Louis, MO	9.3

Source: 1993 County and City Data

Elderly Poverty
Percent of persons over 64 years of age in poverty, 1989 (City)

1	Tampa, FL	19.4
2	Providence, RI	19.2
3	Harrisburg, PA	18.7
4	St. Louis, MO	18.7
5	Baton Rouge, LA	18.2
6	Chattanooga, TN	17.5
7	Hartford, CT	17.4
8	Wilmington, DE	17.4
9	Cincinnati, OH	17.3
10	Louisville, KY	17.0
11	Richmond, VA	16.5
12	Jacksonville, FL	16.1
13	Raleigh/Durham, NC	14.9
14	Trenton, NJ	14.7
15	Pittsburgh, PA	14.4
16	Fort Worth, TX	14.4
17	Charlotte, NC	13.8
18	Rochester, NY	13.3
19	Columbus, OH	13.0
20	Albany, NY	11.8
21	Indianapolis, IN	11.7
22	Fort Lauderdale, FL	10.8
23	Omaha, NE	10.6
24	Milwaukee, WI	10.0
25	Salt Lake City, UT	9.8
26	Wichita, KS	9.6
27	St. Louis, MO	9.5
28	Des Moines, IA	9.1
29	Fort Wayne, IN	9.0
30	Sacramento, CA	8.8

Source: 1993 County and City Data

Educational Attainment

High School Graduates
Percent of high school graduates, 25 and older, 1990 (MSA)

1	Salt Lake City, UT	85.6
2	Des Moines, IA	85.4
3	Omaha, NE	84.4
4	Sacramento, CA	83.0
5	St. Louis, MO	82.7
6	Wichita, KS	82.2
7	Fort Wayne, IN	80.0
8	Raleigh/Durham, NC	80.0
9	Columbus, OH	79.8
10	Albany, NY	79.8
11	Milwaukee, WI	79.7
12	Wilmington, DE	79.5
13	Hartford, CT	79.1
14	Rochester, NY	79.0
15	Fort Worth, TX	78.9
16	Indianapolis, IN	78.1
17	Jacksonville, FL	77.4
18	Pittsburgh, PA	77.3
19	Trenton, NJ	77.1
20	Harrisburg, PA	76.9
21	Baton Rouge, LA	76.8
22	Fort Lauderdale, FL	76.8
23	St. Louis, MO	75.9
24	Richmond, VA	75.8
25	Tampa, FL	75.1
26	Cincinnati, OH	74.4
27	Louisville, KY	73.3
28	Charlotte, NC	72.5
29	Providence, RI	71.0
30	Chattanooga, TN	68.0

Source: 1990 US Census

High School Graduates
Percent of high school graduates, 25 and older, 1990 (City)

1	Raleigh/Durham, NC	86.6
2	St. Louis, MO	83.4
3	Salt Lake City, UT	83.0
4	Omaha, NE	82.6
5	Wichita, KS	81.9
6	Des Moines, IA	81.0
7	Charlotte, NC	81.0
8	Columbus, OH	78.7
9	Albany, NY	77.7
10	Fort Wayne, IN	77.1
11	Jacksonville, FL	76.9
12	Sacramento, CA	76.9
13	Baton Rouge, LA	76.8
14	Indianapolis, IN	76.5
15	Fort Lauderdale, FL	74.2
16	Pittsburgh, PA	72.4
17	Fort Worth, TX	71.6
18	Milwaukee, WI	70.6
19	Tampa, FL	70.6
20	Cincinnati, OH	69.6
21	Chattanooga, TN	69.0
22	Rochester, NY	68.8
23	Richmond, VA	68.1
24	Wilmington, DE	67.7
25	Harrisburg, PA	67.2
26	Louisville, KY	67.2
27	St. Louis, MO	62.8
28	Providence, RI	62.8
29	Hartford, CT	59.4
30	Trenton, NJ	58.2

Source: 1990 US Census

College Graduates
Percent of college graduates, 25 and older, 1990 (MSA)

1	Raleigh/Durham, NC	31.7
2	Trenton, NJ	29.5
3	Hartford, CT	26.5
4	Richmond, VA	23.8
5	Albany, NY	23.6
6	Wilmington, DE	23.4
7	Columbus, OH	23.3
8	Rochester, NY	22.9
9	Salt Lake City, UT	22.9
10	Sacramento, CA	22.7
11	Des Moines, IA	22.6
12	Omaha, NE	22.5
13	Fort Worth, TX	22.4
14	Baton Rouge, LA	22.4
15	Wichita, KS	21.5
16	Milwaukee, WI	21.3
17	St. Louis, MO	20.7
18	St. Louis, MO	20.5
19	Providence, RI	20.4
20	Indianapolis, IN	20.2
21	Cincinnati, OH	19.9
22	Charlotte, NC	19.6
23	Fort Lauderdale, FL	18.8
24	Pittsburgh, PA	18.7
25	Jacksonville, FL	18.6
26	Harrisburg, PA	18.0
27	Tampa, FL	17.3
28	Louisville, KY	17.2
29	Fort Wayne, IN	16.2
30	Chattanooga, TN	15.9

Source: 1990 US Census

College Graduates
Percent of college graduates, 25 and older, 1990 (City)

1	Raleigh/Durham, NC	40.6
2	Salt Lake City, UT	30.4
3	Albany, NY	29.5
4	Charlotte, NC	28.4
5	Baton Rouge, LA	28.3
6	Columbus, OH	24.6
7	Richmond, VA	24.2
8	Sacramento, CA	23.5
9	Omaha, NE	23.1
10	St. Louis, MO	22.9
11	Wichita, KS	22.7
12	Cincinnati, OH	22.2
13	Indianapolis, IN	21.9
14	Fort Lauderdale, FL	21.9
15	Providence, RI	21.6
16	Fort Worth, TX	21.5
17	Pittsburgh, PA	20.1
18	Rochester, NY	19.0
19	Wilmington, DE	18.9
20	Des Moines, IA	18.9
21	Tampa, FL	18.7
22	Jacksonville, FL	18.4
23	Chattanooga, TN	18.2
24	Louisville, KY	17.2
25	Fort Wayne, IN	15.7
26	St. Louis, MO	15.3
27	Milwaukee, WI	14.8
28	Hartford, CT	14.1
29	Harrisburg, PA	14.0
30	Trenton, NJ	10.5

Source: 1990 US Census

Summary of the Analysis

Employment

- ✓ Hartford experienced the worst levels of employment growth of all regions between 1990 and 1997. Hartford lost 6.4% of its jobs during period compared for example to Raleigh/Durham, NC at the top of the employment growth comparison which captured about 25% employment growth during the same period.
- ✓ The number of blue collar and white collar jobs projected for the Hartford region is significantly below most other comparable regions. Hartford's economy ranks 29th in terms of emerging job opportunities in blue collar industries and 21st in white collar industries. From 1997 to 2000, Hartford is expected to lose a significant amount of job opportunities almost predominantly within blue collar industries.
- ✓ Currently, Hartford has the second highest employment by sector in Finance, Insurance, and Real Estate among the comparable regions. Employment in other sectors was average when compared to other regions.
- ✓ Hartford has the 2nd highest unemployment rate in the central city and the 4th highest in the MSA. Between 1992 and 1995, Hartford also had the 3rd highest unemployment rate overall.

Earnings

- ✓ Hartford has the second highest earnings by sector in Finance, Insurance, and Real Estate compared to other regions. This is a reflection of Hartford's high level of employment in these sectors. Consistent with the overall employment findings, earnings in other sectors was average when compared to other regions.
- ✓ Hartford is second only to Trenton, NJ in terms of the highest average earnings per job of other comparable regions. Growth in earnings between 1990-1994 was moderate when compared to these regions.

- ✓ Hartford has had the greatest increase in the share of total earnings from the government sector among all other comparable regions. Hartford also had the 2nd lowest change in share of total earnings growth in Manufacturing. With the exception of earnings in the government sector, Hartford has demonstrated the slowest earning growth across most industries compared to these regions. [11]

Regional Vitality

- ✓ Overall, economic output of the Hartford region is minimal when compared with these other regions. The central city share of local economic output is 2nd to last among the comparable regions. The MSA as a whole performed slightly better and Hartford ranked 21st among these regions.
- ✓ When economic output is examined in more detail, the Hartford's central city lags behind almost all other regions in all measures of regional economic vitality.
- ✓ Among the comparable regions, Hartford is one of the major centers of exported goods. Hartford ranks 10th of the 30 regions in terms of goods exported to other countries. Although growth in the number of goods exported is low among these regions with Hartford ranking 26th.

Section III.1

Employment

Economic Performance Indicators

Employment

Number of persons employed, 1995 (MSA)

1	St. Louis, MO	1,481,063
2	Pittsburgh, PA	1,265,325
3	Tampa, FL	1,161,595
4	Cincinnati, OH	942,661
5	Indianapolis, IN	931,466
6	Milwaukee, WI	920,995
7	Columbus, OH	908,772
8	Charlotte, NC	809,258
9	Fort Worth, TX	801,678
10	Sacramento, CA	770,473
11	Salt Lake City, UT	720,499
12	Fort Lauderdale, FL	711,179
13	Hartford, CT	700,207
14	Raleigh/Durham, NC	657,435
15	Rochester, NY	623,189
16	Louisville, KY	606,490
17	Richmond, VA	597,395
18	Jacksonville, FL	580,844
19	Albany, NY	510,445
20	Providence, RI	486,439
21	Omaha, NE	444,459
22	Harrisburg, PA	390,116
23	Wilmington, DE	326,338
24	Wichita, KS	320,588
25	Baton Rouge, LA	318,564
26	Fort Wayne, IN	305,308
27	Des Moines, IA	303,116
28	Chattanooga, TN	256,409
29	Trenton, NJ	221,098
30	Sioux Falls, SD	113,704

Source: U.S. Bureau of Labor Statistics

Employment

Number of persons employed, 1995 (City)

1	Indianapolis, IN	372,602
2	Columbus, OH	325,088
3	Jacksonville, FL	314,432
4	Milwaukee, WI	274,237
5	Charlotte, NC	216,696
6	Fort Worth, TX	206,967
7	Raleigh/Durham, NC	189,060
8	Omaha, NE	167,866
9	Sacramento, CA	161,812
10	St. Louis, MO	161,434
11	Cincinnati, OH	158,881
12	Pittsburgh, PA	153,991
13	Wichita, KS	149,768
14	Tampa, FL	129,830
15	Louisville, KY	115,546
16	Rochester, NY	101,942
17	Des Moines, IA	99,816
18	Richmond, VA	96,229
19	Baton Rouge, LA	95,679
20	Fort Wayne, IN	85,039
21	Salt Lake City, UT	75,698
22	Fort Lauderdale, FL	74,643
23	Providence, RI	69,200
24	Chattanooga, TN	67,875
25	Hartford, CT	56,870
26	Sioux Falls, SD	54,787
27	Albany, NY	49,915
28	Trenton, NJ	37,616
29	Wilmington, DE	33,188
30	Harrisburg, PA	22,901

Source: U.S. Bureau of Labor Statistics

New Jobs in Blue-Collar Industries^a

Number of New Jobs Expected in Predominantly Blue-Collar Industries, 1997-2000 (MSA)

1	Fort Worth, TX	11,708
2	Raleigh/Durham, NC	10,918
3	Salt Lake City, UT	10,105
4	Tampa, FL	9,083
5	Sacramento, CA	8,552
6	Charlotte, NC	6,785
7	Indianapolis, IN	4,122
8	Cincinnati, OH	4,013
9	Fort Lauderdale, FL	3,564
10	Richmond, VA	3,355
11	Fort Wayne, IN	3,218
12	Louisville, KY	2,670
13	St. Louis, MO	2,611
14	Baton Rouge, LA	2,497
15	Columbus, OH	2,294
16	Harrisburg, PA	2,061
17	Wichita, KS	1,962
18	Rochester, NY	1,851
19	Milwaukee, WI	1,705
20	Omaha, NE	1,098
21	Sioux Falls, SD	793
22	Chattanooga, TN	511
23	Des Moines, IA	476
24	Albany, NY	300
25	Jacksonville, FL	214
26	Wilmington, DE	77
27	Trenton, NJ	(546)
28	Providence, RI	(1,630)
29	Hartford, CT	(2,300)
30	Pittsburgh, PA	(2,270)

Source: Plains/Inland Americas, 1997
Economic Forecast From Woods & Poole Economics, Inc.

Note: The term "blue-collar industries" refers to farming, forestry, mining, manufacturing, transportation, and public utilities.

New Jobs in White-Collar Industries^a

Number of New Jobs Expected in Predominantly White-Collar Industries, 1997-2000 (MSA)

1	Tampa, FL	64,828
2	Sacramento, CA	42,942
3	Raleigh/Durham, NC	37,826
4	Fort Worth, TX	37,120
5	Columbus, OH	35,396
6	Salt Lake City, UT	34,093
7	Fort Lauderdale, FL	32,113
8	St. Louis, MO	27,775
9	Cincinnati, OH	26,520
10	Charlotte, NC	25,752
11	Indianapolis, IN	25,540
12	Pittsburgh, PA	21,457
13	Milwaukee, WI	18,548
14	Richmond, VA	17,108
15	Louisville, KY	16,709
16	Rochester, NY	16,668
17	Albany, NY	14,504
18	Des Moines, IA	11,938
19	Harrisburg, PA	10,829
20	Providence, RI	9,800
21	Hartford, CT	9,340
22	Baton Rouge, LA	8,923
23	Wichita, KS	8,182
24	Omaha, NE	8,098
25	Fort Wayne, IN	7,345
26	Wilmington, DE	7,319
27	Chattanooga, TN	6,932
28	Trenton, NJ	4,422
29	Sioux Falls, SD	3,297
30	Jacksonville, FL	1,507

Source: Plains/Inland Americas, 1997

Economic Forecast From Woods & Poole Economics, Inc.

Note: The term "white-collar industries" refers to trade, finance, insurance, real estate, services, and government other than military.

Section III.2

Employment By Sector

Finance, Insurance, and Real Estate Employment, 1994 (MSA)

Proportion of Total Employment covered by Finance, Insurance, and Real Estate Employment, 1994 (MSA)

Rank	MSA	Proportion (%)
1	Fort Wayne, IN	23.5%
2	Rochester, NY	20.9%
3	Milwaukee, WI	19.3%
4	Charlotte, NC	19.2%
5	Chattanooga, TN	18.5%
6	Providence, RI	18.1%
7	Wichita, KS	18.1%
8	Louisville, KY	15.3%
9	Cincinnati, OH	15.2%
10	Wilmington, DE	14.7%
11	Indianapolis, IN	13.7%
12	St. Louis, MO	13.5%
13	Indianapolis, IN	13.5%
14	Fort Worth, TX	13.5%
15	Raleigh/Durham, NC	13.0%
16	Harrisburg, PA	12.3%
17	Trenton, NJ	11.1%
18	St. Louis, MO	10.8%
19	Pittsburgh, PA	10.8%
20	Salt Lake City, UT	10.7%
21	Richmond, VA	10.5%
22	Columbus, OH	10.4%
23	Albany, NY	8.8%
24	Des Moines, IA	8.7%
25	Omaha, NE	8.6%
26	Tampa, FL	7.9%
27	Baton Rouge, LA	7.5%
28	Jacksonville, FL	6.3%
29	Fort Lauderdale, FL	6.2%
30	Sacramento, CA	5.3%

Source: Regional Economic Information System

Service Employment, 1994 (MSA)

Proportion of Total Employment covered by Service Employment, 1994 (MSA)

Rank	MSA	Proportion (%)
1	Fort Lauderdale, FL	36.2%
2	Tampa, FL	35.8%
3	Trenton, NJ	35.7%
4	Pittsburgh, PA	34.9%
5	Providence, RI	32.6%
6	Albany, NY	31.7%
7	St. Louis, MO	31.6%
8	Omaha, NE	31.4%
9	Milwaukee, WI	30.9%
10	Raleigh/Durham, NC	30.4%
11	Rochester, NY	30.4%
12	Jacksonville, FL	29.6%
13	Sioux Falls, SD	29.3%
14	Louisville, KY	29.2%
15	Columbus, OH	29.1%
16	Cincinnati, OH	29.0%
17	Sacramento, CA	28.8%
18	Des Moines, IA	28.6%
19	Wilmington, DE	28.4%
20	Indianapolis, IN	28.4%
21	Wichita, KS	28.2%
22	Fort Worth, TX	28.2%
23	Salt Lake City, UT	28.1%
24	Daton Rouge, LA	28.0%
25	Indianapolis, IN	27.6%
26	Harrisburg, PA	26.1%
27	Chattanooga, TN	26.1%
28	Richmond, VA	25.9%
29	Fort Wayne, IN	25.1%
30	Charlotte, NC	24.4%

Source: Regional Economic Information System

Government Employment, 1994 (MSA)

Proportion of Total Employment covered by Government Employment, 1994 (MSA)

Rank	MSA	Proportion (%)
1	Sacramento, CA	24.6%
2	Trenton, NJ	22.4%
3	Albany, NY	22.2%
4	Richmond, VA	19.6%
5	Baton Rouge, LA	19.1%
6	Harrisburg, PA	19.0%
7	Raleigh/Durham, NC	17.9%
8	Salt Lake City, UT	16.6%
9	Jacksonville, FL	16.1%
10	Columbus, OH	15.5%
11	Chattanooga, TN	14.5%
12	Omaha, NE	14.1%
13	Indianapolis, IN	13.0%
14	Indianapolis, IN	12.8%
15	Providence, RI	12.8%
16	Wichita, KS	12.6%
17	Rochester, NY	12.4%
18	Wilmington, DE	12.2%
19	St. Louis, MO	11.7%
20	Des Moines, IA	11.7%
21	Tampa, FL	11.6%
22	Louisville, KY	11.4%
23	Cincinnati, OH	11.4%
24	Fort Worth, TX	11.3%
25	Fort Lauderdale, FL	11.2%
26	Charlotte, NC	10.6%
27	Pittsburgh, PA	10.5%
28	Milwaukee, WI	10.3%
29	Fort Wayne, IN	8.9%
30	Sioux Falls, SD	8.7%

Source: Regional Economic Information System

Unemployment

Unemployment, 1995 (MSA)

Percent of persons unemployed, 1995 (MSA)

Rank	MSA	Rate (%)
1	Providence, RI	7.30%
2	Sacramento, CA	6.70%
3	Baton Rouge, LA	6.10%
4	Indianapolis, IN	6.00%
5	Pittsburgh, PA	5.90%
6	Fort Lauderdale, FL	5.70%
7	Des Moines, IA	5.60%
8	Trenton, NJ	5.40%
9	Albany, NY	5.00%
10	Fort Worth, TX	4.90%
11	Chattanooga, TN	4.80%
12	St. Louis, MO	4.70%
13	Wichita, KS	4.70%
14	Wilmington, DE	4.70%
15	Rochester, NY	4.60%
16	Tampa, FL	4.40%
17	Louisville, KY	4.40%
18	Cincinnati, OH	4.30%
19	Indianapolis, IN	3.90%
20	Fort Wayne, IN	3.90%
21	Harrisburg, PA	3.80%
22	Jacksonville, FL	3.70%
23	Richmond, VA	3.70%
24	Milwaukee, WI	3.50%
25	Charlotte, NC	3.40%
26	Salt Lake City, UT	3.30%
27	Columbus, OH	3.10%
28	Omaha, NE	2.80%
29	Raleigh/Durham, NC	2.60%
30	Sioux Falls, SD	2.00%

Source: U.S. Bureau of Labor Statistics

Unemployment, 1995 (City)

Percent of persons unemployed, 1995 (City)

Rank	City	Rate (%)
1	Trenton, NJ	11.30%
2	Indianapolis, IN	10.00%
3	Providence, RI	8.60%
4	Sacramento, CA	8.20%
5	St. Louis, MO	7.60%
6	Rochester, NY	7.10%
7	Fort Lauderdale, FL	7.10%
8	Baton Rouge, LA	6.40%
9	Fort Worth, TX	6.40%
10	Pittsburgh, PA	6.10%
11	Albany, NY	5.90%
12	Cincinnati, OH	5.80%
13	Chattanooga, TN	5.50%
14	Harrisburg, PA	5.50%
15	Tampa, FL	5.40%
16	Wichita, KS	5.30%
17	Richmond, VA	5.20%
18	Milwaukee, WI	5.00%
19	Wilmington, DE	5.00%
20	Louisville, KY	4.80%
21	Fort Wayne, IN	4.70%
22	Indianapolis, IN	4.40%
23	Jacksonville, FL	3.90%
24	Salt Lake City, UT	3.60%
25	Columbus, OH	3.40%
26	Des Moines, IA	3.30%
27	Charlotte, NC	3.20%
28	Omaha, NE	3.20%
29	Raleigh/Durham, NC	3.00%
30	Sioux Falls, SD	2.10%

Source: U.S. Bureau of Labor Statistics

Average Unemployment Rate, 1992-1995 (MSA)

Average unemployment rate, 1992-1995 (MSA)

Rank	MSA	Average Rate (%)
1	Sacramento, CA	7.3
2	Fort Lauderdale, FL	6.9
3	Indianapolis, IN	6.4
4	Pittsburgh, PA	6.4
5	Baton Rouge, LA	6.3
6	Cincinnati, OH	6.1
7	Trenton, NJ	6.0
8	Fort Worth, TX	5.9
9	Tampa, FL	5.8
10	Albany, NY	5.5
11	Chattanooga, TN	5.4
12	St. Louis, MO	5.4
13	Wilmington, DE	5.4
14	Jacksonville, FL	5.4
15	Providence, RI	5.2
16	Louisville, KY	5.1
17	Fort Wayne, IN	5.0
18	Rochester, NY	5.0
19	Richmond, VA	5.0
20	Des Moines, IA	4.8
21	Harrisburg, PA	4.6
22	Wichita, KS	4.6
23	Indianapolis, IN	4.5
24	Charlotte, NC	4.3
25	Columbus, OH	4.2
26	Milwaukee, WI	4.0
27	Salt Lake City, UT	4.0
28	Raleigh/Durham, NC	3.3
29	Omaha, NE	3.1
30	Sioux Falls, SD	2.2

Source: U.S. Bureau of Labor Statistics

Employment Growth

Projected Employment Growth
Percent of projected employment growth,
1997-2000 (MSA)

1	Raleigh/Durham, NC	6.7
2	Sacramento, CA	6.3
3	Tampa, FL	5.8
4	Salt Lake City, UT	5.7
5	Fort Worth, TX	5.6
6	Fort Lauderdale, FL	4.8
7	Des Moines, IA	4.0
8	Columbus, OH	3.9
9	Charlotte, NC	3.8
10	Baton Rouge, LA	3.4
11	Sioux Falls, SD	3.4
12	Harrisburg, PA	3.2
13	Fort Wayne, IN	3.2
14	Richmond, VA	3.2
15	Indianapolis, IN	3.1
16	Wichita, KS	3.1
17	Cincinnati, OH	3.1
18	Louisville, KY	3.0
19	Albany, NY	2.8
20	Rochester, NY	2.8
21	Chattanooga, TN	2.7
22	Milwaukee, WI	2.2
23	Wilmington, DE	2.2
24	Jacksonville, FL	2.1
25	St. Louis, MO	2.0
26	Omaha, NE	2.0
27	Providence, RI	1.7
28	Trenton, NJ	1.7
29	Pittsburgh, PA	1.5
30	Hartford, CT	1.0

Source: *Plaza-Rand-Altmann, 1997*
Economic Forecast From Woods & Poole Economics, Inc.

Employment Growth
Percent of employment change, 1990-1997
(MSA)

1	Raleigh/Durham, NC	24.8
2	Salt Lake City, UT	23.8
3	Sioux Falls, SD	23.2
4	Baton Rouge, LA	18.1
5	Fort Lauderdale, FL	18.1
6	Tampa, FL	16.0
7	Fort Worth, TX	15.2
8	Fort Wayne, IN	14.2
9	Louisville, KY	13.8
10	Charlotte, NC	13.7
11	Chattanooga, TN	13.6
12	Jacksonville, FL	13.2
13	Columbus, OH	13.0
14	Indianapolis, IN	11.5
15	Des Moines, IA	11.4
16	Omaha, NE	9.8
17	Cincinnati, OH	9.8
18	Richmond, VA	9.5
19	Milwaukee, WI	9.0
20	Wichita, KS	7.6
21	St. Louis, MO	7.4
22	Harrisburg, PA	6.9
23	Sacramento, CA	6.0
24	Rochester, NY	5.8
25	Wilmington, DE	5.5
26	Albany, NY	5.2
27	Trenton, NJ	4.5
28	Pittsburgh, PA	4.2
29	Providence, RI	(1.0)
30	Hartford, CT	(1.0)

Source: *Plaza-Rand-Altmann, 1997*
Economic Forecast From Woods & Poole Economics, Inc.

Employment Growth By Sector

Manufacturing Employment Growth
Percent Manufacturing Employment Change
between 1990-1994 (MSA)

1	Sioux Falls, SD	24.4
2	Fort Wayne, IN	7.8
3	Salt Lake City, UT	6.9
4	Raleigh/Durham, NC	5.8
5	Louisville, KY	3.7
6	Omaha, NE	3.2
7	Baton Rouge, LA	1.8
8	Milwaukee, WI	-0.4
9	Chattanooga, TN	-0.8
10	Columbus, OH	-1.1
11	Charlotte, NC	-1.1
12	Fort Lauderdale, FL	-2.0
13	Indianapolis, IN	-2.6
14	Des Moines, IA	-4.1
15	Jacksonville, FL	-4.1
16	Tampa, FL	-4.4
17	Sacramento, CA	-4.8
18	Harrisburg, PA	-4.9
19	Richmond, VA	-5.4
20	Albany, NY	-5.8
21	Cincinnati, OH	-6.4
22	Pittsburgh, PA	-7.3
23	Rochester, NY	-7.8
24	Providence, RI	-10.2
25	Wichita, KS	-10.6
26	St. Louis, MO	-11.3
27	Trenton, NJ	-11.6
28	Fort Worth, TX	-11.9
29	Wilmington, DE	-15.7
30	Hartford, CT	-30.6

Source: *Regional Economic Information System*

Finance, Insurance, and Real Estate Employment Growth
Percent of Finance, Insurance, and Real Estate
Employment Change between, 1990-1994
(MSA)

1	Salt Lake City, UT	18.9
2	Wilmington, DE	16.7
3	Baton Rouge, LA	14.1
4	Des Moines, IA	11.9
5	Jacksonville, FL	11.2
6	Charlotte, NC	8.6
7	Indianapolis, IN	8.5
8	Cincinnati, OH	8.1
9	Harrisburg, PA	7.0
10	Albany, NY	6.1
11	Sioux Falls, SD	5.7
12	Omaha, NE	4.2
13	Millwaukee, WI	3.9
14	Wichita, KS	3.9
15	Chattanooga, TN	3.6
16	Richmond, VA	3.2
17	Sacramento, CA	3.0
18	Louisville, KY	2.3
19	Fort Lauderdale, FL	2.1
20	Fort Worth, TX	1.9
21	Pittsburgh, PA	1.8
22	Columbus, OH	1.5
23	Tampa, FL	1.4
24	Trenton, NJ	-0.6
25	Raleigh/Durham, NC	-0.8
26	Rochester, NY	-1.7
27	Fort Wayne, IN	-2.2
28	St. Louis, MO	-2.4
29	Providence, RI	-8.2
30	Hartford, CT	-13.2

Source: *Regional Economic Information System*

Service Employment Growth
Percent Service Employment Change between
1990-1994 (MSA)

1	Raleigh/Durham, NC	23.4
2	Fort Lauderdale, FL	23.2
3	Charlotte, NC	20.4
4	Chattanooga, TN	19.8
5	Baton Rouge, LA	19.8
6	Jacksonville, FL	19.1
7	Sioux Falls, SD	18.9
8	Fort Wayne, IN	18.2
9	Tampa, FL	18.0
10	Salt Lake City, UT	17.3
11	Fort Worth, TX	16.9
12	Indianapolis, IN	14.1
13	Louisville, KY	13.0
14	Wichita, KS	12.6
15	Columbus, OH	12.2
16	Harrisburg, PA	12.0
17	St. Louis, MO	11.3
18	Millwaukee, WI	11.2
19	Des Moines, IA	10.9
20	Cincinnati, OH	9.5
21	Omaha, NE	9.3
22	Rochester, NY	9.2
23	Albany, NY	9.1
24	Sacramento, CA	8.6
25	Trenton, NJ	8.0
26	Richmond, VA	7.8
27	Pittsburgh, PA	6.6
28	Providence, RI	6.5
29	Wilmington, DE	5.5
30	Hartford, CT	1.7

Source: *Regional Economic Information System*

Government Employment Growth
Percent Government Employment Change between
1990-1994 (MSA)

1	Raleigh/Durham, NC	12.9
2	Fort Lauderdale, FL	12.3
3	Wichita, KS	11.0
4	Charlotte, NC	10.0
5	Sioux Falls, SD	9.6
6	Fort Worth, TX	6.2
7	Fort Wayne, IN	4.7
8	Baton Rouge, LA	4.6
9	Salt Lake City, UT	4.4
10	Chattanooga, TN	4.2
11	Rochester, NY	4.2
12	Wilmington, DE	4.2
13	Columbus, OH	4.1
14	Indianapolis, IN	4.0
15	Cincinnati, OH	3.7
16	Tampa, FL	3.2
17	Louisville, KY	3.0
18	Richmond, VA	2.7
19	Des Moines, IA	2.7
20	Harrisburg, PA	2.5
21	Milwaukee, WI	2.1
22	St. Louis, MO	1.3
23	Pittsburgh, PA	-0.1
24	Providence, RI	-0.9
25	Sacramento, CA	-1.5
26	Hartford, CT	-3.0
27	Albany, NY	-3.1
28	Omaha, NE	-4.4
29	Trenton, NJ	-4.6
30	Jacksonville, FL	-7.4

Source: *Regional Economic Information System*

Earnings

Earnings
Amount of Earnings from Employment, 1994
(M\$A)

1	St. Louis, MO	\$39,968,363
2	Pittsburgh, PA	\$34,574,525
3	Tampa, FL	\$26,983,127
4	Indianapolis, IN	\$24,658,919
5	Fort Worth, TX	\$23,832,129
6	Milwaukee, WI	\$23,636,443
7	Cincinnati, OH	\$23,496,788
8	Columbus, OH	\$22,463,407
9	Sacramento, CA	\$21,584,795
10	Hartford, CT	\$20,709,975
11	Charlotte, NC	\$20,767,614
12	Fort Lauderdale, FL	\$19,971,919
13	Raleigh/Durham, NC	\$16,806,510
14	Rochester, NY	\$16,426,044
15	Salt Lake City, UT	\$16,255,497
16	Richmond, VA	\$15,357,816
17	Louisville, KY	\$14,674,507
18	Jacksonville, FL	\$14,109,467
19	Albany, NY	\$12,986,953
20	Providence, RI	\$12,710,808
21	Omaha, NE	\$10,505,557
22	Harrisburg, PA	\$9,377,221
23	Wilmington, DE	\$9,104,187
24	Baton Rouge, LA	\$7,688,942
25	Wichita, KS	\$7,560,360
26	Des Moines, IA	\$7,202,404
27	Fort Wayne, IN	\$7,136,060
28	Trenton, NJ	\$6,682,444
29	Chattanooga, TN	\$5,951,169
30	Sioux Falls, SD	\$2,587,870

Source: U.S. Bureau of Labor Statistics

Earnings Growth
Percent Total Earnings Change between
1990-1994 (M\$A)

1	Sioux Falls, SD	40.3%
2	Salt Lake City, UT	36.0%
3	Raleigh/Durham, NC	35.5%
4	Baton Rouge, LA	30.0%
5	Fort Lauderdale, FL	29.8%
6	Des Moines, IA	28.9%
7	Indianapolis, IN	28.4%
8	Columbus, OH	28.1%
9	Charlotte, NC	27.2%
10	Louisville, KY	26.4%
11	Tampa, FL	25.9%
12	Fort Worth, TX	24.4%
13	Omaha, NE	24.3%
14	Chattanooga, TN	24.1%
15	Fort Wayne, IN	23.8%
16	Cincinnati, OH	23.3%
17	Milwaukee, WI	23.3%
18	Harrisburg, PA	22.9%
19	Jacksonville, FL	21.9%
20	Pittsburgh, PA	21.0%
21	Wichita, KS	19.9%
22	Richmond, VA	19.9%
23	St. Louis, MO	19.5%
24	Wilmington, DE	19.1%
25	Trenton, NJ	17.8%
26	Sacramento, CA	17.4%
27	Albany, NY	17.0%
28	Rochester, NY	16.0%
29	Providence, RI	12.6%
30	Hartford, CT	12.6%

Source: Regional Economic Information System

New Jobs in Industries with Above Average Earnings*
Number of New Jobs Expected in Industries with Above Average Earnings, 1997-2000
(M\$A)

1	Fort Worth, TX	12,199
2	Raleigh/Durham, NC	10,617
3	Tampa, FL	9,244
4	Charlotte, NC	8,711
5	Salt Lake City, UT	8,525
6	Fort Lauderdale, FL	6,626
7	Sacramento, CA	6,008
8	Cincinnati, OH	5,202
9	Indianapolis, IN	4,208
10	Richmond, VA	4,105
11	Columbus, OH	3,428
12	Fort Wayne, IN	3,391
13	Milwaukee, WI	2,694
14	Louisville, KY	2,512
15	Harrisburg, PA	2,335
16	Baton Rouge, LA	2,249
17	Rochester, NY	2,160
18	Wichita, KS	2,009
19	St. Louis, MO	1,774
20	Omaha, NE	1,537
21	Des Moines, IA	1,027
22	Sioux Falls, SD	843
23	Chattanooga, TN	730
24	Wilmington, DE	246
25	Jacksonville, FL	46
26	Albany, NY	(333)
27	Trenton, NJ	(343)
28	Pittsburgh, PA	(1,664)
29	Hartford, CT	(2,080)
30	Providence, RI	(2,110)

Source: Please Read Altonomics, 1997

Economic Forecast From Woods & Poole Economists, Inc.

*Note: The term "industries with above average earnings" refers to industries where earnings per worker are higher than usual.

New Jobs in Industries with Average Earnings*
Number of New Jobs Expected in Industries with Average Earnings, 1997-2000 (M\$A)

1	Sacramento, CA	16,648
2	Raleigh/Durham, NC	9,491
3	Salt Lake City, UT	9,079
4	Tampa, FL	8,862
5	Fort Worth, TX	7,501
6	Columbus, OH	7,198
7	Charlotte, NC	6,462
8	Richmond, VA	4,881
9	Indianapolis, IN	4,705
10	Hartford, CT	4,500
11	Cincinnati, OH	4,371
12	Fort Lauderdale, FL	4,211
13	Wilmington, DE	3,893
14	Pittsburgh, PA	2,933
15	Harrisburg, PA	2,806
16	Milwaukee, WI	2,781
17	St. Louis, MO	2,770
18	Baton Rouge, LA	2,491
19	Albany, NY	2,475
20	Louisville, KY	2,220
21	Trenton, NJ	1,900
22	Providence, RI	1,818
23	Des Moines, IA	1,449
24	Rochester, NY	1,374
25	Fort Wayne, IN	1,258
26	Omaha, NE	1,226
27	Wichita, KS	916
28	Sioux Falls, SD	707
29	Chattanooga, TN	707
30	Jacksonville, FL	452

Source: Please Read Altonomics, 1997

Economic Forecast From Woods & Poole Economists, Inc.

*Note: The term "industries with average earnings" refers to industries where earnings per worker are typical.

Earnings by Type of Employment and By Sector

Manufacturing Share of Total Earnings

Percent of Total Earnings covered by Manufacturing Sector, 1994 (M\$A)

1	Fort Wayne, IN	35.5%
2	Rochester, NY	34.2%
3	Wichita, KS	29.1%
4	Wilmington, DE	28.9%
5	Milwaukee, WI	27.3%
6	Cincinnati, OH	24.4%
7	Louisville, KY	23.0%
8	Chattanooga, TN	22.4%
9	Charlotte, NC	22.3%
10	Indianapolis, IN	22.1%
11	Providence, RI	21.8%
12	St. Louis, MO	21.6%
13	Fort Worth, TX	19.9%
14	Raleigh/Durham, NC	19.4%
15	Hartford, CT	19.0%
16	Pittsburgh, PA	17.8%
17	Harrisburg, PA	16.6%
18	Trenton, NJ	16.6%
19	Richmond, VA	16.5%
20	Columbus, OH	16.3%
21	Baton Rouge, LA	15.0%
22	Salt Lake City, UT	14.0%
23	Sioux Falls, SD	13.1%
24	Albany, NY	13.1%
25	Des Moines, IA	12.5%
26	Omaha, NE	11.8%
27	Tampa, FL	10.0%
28	Jacksonville, FL	8.7%
29	Fort Lauderdale, FL	8.7%
30	Sacramento, CA	7.4%

Source: Regional Economic Information System

Finance, Insurance, and Real Estate Share of Total Earnings

Percent of Total Earnings covered by Finance, Insurance, and Real Estate Sector, 1994 (M\$A)

1	Des Moines, IA	16.8%
2	Hartford, CT	14.0%
3	Jacksonville, FL	12.6%
4	Wilmington, DE	12.3%
5	Richmond, VA	10.6%
6	Columbus, OH	10.0%
7	Sioux Falls, SD	9.8%
8	Omaha, NE	9.5%
9	Fort Lauderdale, FL	9.2%
10	Indianapolis, IN	9.0%
11	Charlotte, NC	8.9%
12	Tampa, FL	8.7%
13	Milwaukee, WI	8.2%
14	Albany, NY	7.4%
15	Providence, RI	7.3%
16	Chattanooga, TN	7.3%
17	Salt Lake City, UT	7.3%
18	Harrisburg, PA	7.2%
19	St. Louis, MO	7.1%
20	Louisville, KY	7.0%
21	Sacramento, CA	6.9%
22	Cincinnati, OH	6.9%
23	Pittsburgh, PA	6.5%
24	Fort Wayne, IN	6.4%
25	Trenton, NJ	6.4%
26	Baton Rouge, LA	6.3%
27	Raleigh/Durham, NC	5.6%
28	Rochester, NY	5.1%
29	Wichita, KS	4.7%
30	Fort Worth, TX	4.6%

Source: Regional Economic Information System

Service Share of Total Earnings

Percent of Total Earnings covered by Service Sector, 1994 (M\$A)

1	Tampa, FL	34.8%
2	Fort Lauderdale, FL	34.3%
3	Trenton, NJ	32.9%
4	Pittsburgh, PA	32.1%
5	Providence, RI	31.4%
6	Raleigh/Durham, NC	28.2%
7	Sioux Falls, SD	27.6%
8	Jacksonville, FL	27.5%
9	Albany, NY	27.5%
10	Omaha, NE	27.1%
11	St. Louis, MO	27.1%
12	Sacramento, CA	26.4%
13	Columbus, OH	26.3%
14	Milwaukee, WI	26.3%
15	Baton Rouge, LA	25.8%
16	Hartford, CT	25.8%
17	Salt Lake City, UT	25.7%
18	Louisville, KY	25.6%
19	Cincinnati, OH	25.5%
20	Wichita, KS	25.4%
21	Des Moines, IA	25.0%
22	Fort Worth, TX	24.5%
23	Rochester, NY	24.3%
24	Chattanooga, TN	24.2%
25	Indianapolis, IN	24.2%
26	Wilmington, DE	23.0%
27	Harrisburg, PA	22.7%
28	Richmond, VA	22.1%
29	Charlotte, NC	21.2%
30	Fort Wayne, IN	20.7%

Source: Regional Economic Information System

Government Share of Total Earnings

Percent of Total Earnings covered by Government Sector, 1994 (M\$A)

1	Sacramento, CA	30.9%
2	Albany, NY	27.5%
3	Trenton, NJ	25.7%
4	Harrisburg, PA	22.7%
5	Richmond, VA	20.8%
6	Raleigh/Durham, NC	19.3%
7	Jacksonville, FL	18.8%
8	Salt Lake City, UT	18.5%
9	Chattanooga, TN	18.1%
10	Baton Rouge, LA	17.4%
11	Columbus, OH	17.1%
12	Omaha, NE	15.8%
13	Providence, RI	14.6%
14	Hartford, CT	14.5%
15	Rochester, NY	13.8%
16	Fort Lauderdale, FL	13.8%
17	Tampa, FL	13.7%
18	Indianapolis, IN	13.6%
19	Des Moines, IA	13.2%
20	Louisville, KY	12.2%
21	Wichita, KS	12.1%
22	St. Louis, MO	11.9%
23	Fort Worth, TX	11.9%
24	Cincinnati, OH	11.7%
25	Milwaukee, WI	11.4%
26	Wilmington, DE	11.3%
27	Pittsburgh, PA	11.3%
28	Charlotte, NC	10.1%
29	Sioux Falls, SD	9.5%
30	Fort Wayne, IN	8.9%

Source: Regional Economic Information System

Earnings by Type of Employment and By Sector

Growth in Average Annual Earnings Per Job
All Sectors, 1990-1994 (MISA)

1	Trenton, NJ	21.4
2	Raleigh/Durham, NC	19.6
3	Columbus, OH	19.3
4	Indianapolis, IN	19.0
5	Des Moines, IA	18.8
6	Tampa, FL	18.4
7	Charlotte, NC	18.3
8	Salt Lake City, UT	18.2
9	Wilmington, DE	18.1
10	Milwaukee, WI	18.1
11	Pittsburgh, PA	17.9
12	Trenton, NJ	17.7
13	Cincinnati, OH	17.5
14	Omaha, NE	17.5
15	Louisville, KY	17.1
16	Harrisburg, PA	16.9
17	Sacramento, CA	16.8
18	Fort Worth, TX	16.7
19	Hartford, CT	16.7
20	St. Louis, MO	16.4
21	Chattanooga, TN	16.3
22	Albany, NY	16.2
23	Fort Wayne, IN	16.0
24	Richmond, VA	15.9
25	Baton Rouge, LA	15.8
26	Fort Lauderdale, FL	15.7
27	Providence, RI	15.2
28	Rochester, NY	14.8
29	Wichita, KS	14.7
30	Jacksonville, FL	14.5

Average Earnings Per Job
All Sectors, 1994 (MISA)

1	Trenton, NJ	\$36,104
2	Hartford, CT	\$34,920
3	Wilmington, DE	\$32,106
4	Pittsburgh, PA	\$29,565
5	St. Louis, MO	\$29,398
6	Sacramento, CA	\$29,316
7	Rochester, NY	\$29,137
8	Indianapolis, IN	\$28,944
9	Charlotte, NC	\$28,708
10	Milwaukee, WI	\$28,600
11	Cincinnati, OH	\$28,238
12	Richmond, VA	\$28,196
13	Albany, NY	\$28,176
14	Raleigh/Durham, NC	\$28,046
15	Fort Worth, TX	\$27,629
16	Harrisburg, PA	\$27,473
17	Columbus, OH	\$27,418
18	Des Moines, IA	\$26,978
19	Providence, RI	\$26,910
20	Louisville, KY	\$26,542
21	Wichita, KS	\$26,363
22	Fort Lauderdale, FL	\$26,359
23	Omaha, NE	\$26,167
24	Jacksonville, FL	\$25,891
25	Fort Wayne, IN	\$25,872
26	Baton Rouge, LA	\$25,866
27	Chattanooga, TN	\$25,367
28	Tampa, FL	\$24,969
29	Sioux Falls, SD	\$24,796
30	Salt Lake City, UT	\$24,520

Source: *Regional Economic Information System*

Source: *Regional Economic Information System*

Section III D

Earnings Growth By Sector

Manufacturing Earnings Growth
Percent Manufacturing Earnings Change
between 1990-1994 (MISA)

1	Sioux Falls, SD	51.2%
2	Raleigh/Durham, NC	31.4%
3	Omaha, NE	27.3%
4	Fort Wayne, IN	26.3%
5	Salt Lake City, UT	23.7%
6	Louisville, KY	22.0%
7	Indianapolis, IN	21.4%
8	Columbus, OH	21.3%
9	Sacramento, CA	20.7%
10	Charlottesville, NC	19.7%
11	Fort Lauderdale, FL	19.3%
12	Baton Rouge, LA	19.1%
13	Milwaukee, WI	18.2%
14	Chattanooga, TN	17.7%
15	Harrisburg, PA	16.0%
16	Cincinnati, OH	14.8%
17	Des Moines, IA	14.5%
18	Pittsburgh, PA	14.2%
19	Jacksonville, FL	13.8%
20	Albany, NY	12.1%
21	Tampa, FL	11.4%
22	Richmond, VA	9.0%
23	St. Louis, MO	7.3%
24	Rochester, NY	7.3%
25	Providence, RI	7.2%
26	Wilmington, DE	6.7%
27	Wichita, KS	6.7%
28	Trenton, NJ	5.2%
29	Fort Worth, TX	4.6%
30	Hartford, CT	-6.6%

Source: *Regional Economic Information System*

Finance, Insurance, and Real Estate Earnings Growth
Percent Finance, Insurance, and Real Estate Earnings Change between 1990-1994 (MISA)

1	Salt Lake City, UT	62.7%
2	Wilmington, DE	61.1%
3	Indianapolis, IN	50.4%
4	Albany, NY	47.3%
5	Baton Rouge, LA	47.0%
6	Fort Worth, TX	46.5%
7	Charlotte, NC	45.3%
8	Des Moines, IA	41.3%
9	Sacramento, CA	41.3%
10	Cincinnati, OH	37.0%
11	Jacksonville, FL	36.8%
12	Richmond, VA	33.7%
13	Harrisburg, PA	33.5%
14	Milwaukee, WI	32.8%
15	Columbus, OH	32.5%
16	Sioux Falls, SD	32.1%
17	Chattanooga, TN	31.6%
18	Omaha, NE	31.5%
19	Tampa, FL	31.5%
20	Raleigh/Durham, NC	31.3%
21	Fort Lauderdale, FL	28.5%
22	Louisville, KY	27.5%
23	Wichita, KS	27.4%
24	Pittsburgh, PA	25.8%
25	Trenton, NJ	24.7%
26	St. Louis, MO	22.1%
27	Rochester, NY	21.0%
28	Fort Wayne, IN	14.0%
29	Hartford, CT	11.8%
30	Providence, RI	7.4%

Source: *Regional Economic Information System*

Service Earnings Growth
Percent Service Earnings Change between 1990-1994 (MISA)

1	Raleigh/Durham, NC	50.1%
2	Sioux Falls, SD	42.6%
3	Salt Lake City, UT	42.2%
4	Tampa, FL	40.6%
5	Baton Rouge, LA	40.3%
6	Charlotte, NC	39.6%
7	Chattanooga, TN	39.6%
8	Fort Lauderdale, FL	39.0%
9	Fort Worth, TX	37.2%
10	Jacksonville, FL	37.2%
11	Fort Wayne, IN	36.4%
12	Indianapolis, IN	34.4%
13	Columbus, OH	34.3%
14	Louisville, KY	33.8%
15	Omaha, NE	33.3%
16	Milwaukee, WI	32.2%
17	Des Moines, IA	31.9%
18	St. Louis, MO	31.0%
19	Wichita, KS	30.7%
20	Rochester, NY	30.4%
21	Harrisburg, PA	30.2%
22	Cincinnati, OH	29.9%
23	Sacramento, CA	28.3%
24	Richmond, VA	27.2%
25	Albany, NY	27.2%
26	Providence, RI	26.3%
27	Pittsburgh, PA	25.9%
28	Trenton, NJ	25.6%
29	Wilmington, DE	25.5%
30	Hartford, CT	20.3%

Source: *Regional Economic Information System*

Government Earnings Growth
Percent Government Earnings Change between 1990-1994 (MISA)

1	Fort Lauderdale, FL	24.5%
2	Sioux Falls, SD	24.5%
3	Charlotte, NC	23.2%
4	Raleigh/Durham, NC	22.5%
5	Wichita, KS	22.0%
6	Wilmington, DE	20.3%
7	Indianapolis, IN	19.9%
8	Cincinnati, OH	19.6%
9	Columbus, OH	19.5%
10	Fort Worth, TX	19.0%
11	Salt Lake City, UT	18.9%
12	Fort Wayne, IN	18.8%
13	Rochester, NY	18.6%
14	Milwaukee, WI	18.5%
15	Des Moines, IA	18.4%
16	Harrisburg, PA	18.1%
17	Pittsburgh, PA	17.8%
18	Tampa, FL	17.3%
19	Baton Rouge, LA	17.2%
20	Louisville, KY	17.1%
21	Chattanooga, TN	16.9%
22	St. Louis, MO	16.1%
23	Richmond, VA	16.0%
24	Hartford, CT	15.6%
25	Trenton, NJ	14.7%
26	Sacramento, CA	13.4%
27	Providence, RI	13.1%
28	Albany, NY	11.7%
29	Omaha, NE	8.6%
30	Jacksonville, FL	8.1%

Source: *Regional Economic Information System*

Section III D

Earnings Growth By Sector

Finance, Insurance, and Real Estate Share of Total Earnings Growth

Percent Change in Finance, Insurance, and Real Estate Share of Total Earnings between 1990-1994 (MISA)

Rank	State/City	Percent Change
1	Wilmington, DE	35.33%
2	Albany, NY	25.93%
3	Sacramento, CA	20.36%
4	Salt Lake City, UT	19.07%
5	Fort Worth, TX	17.81%
6	Indianapolis, IN	17.12%
7	Charlotte, NC	14.26%
8	Baton Rouge, LA	13.10%
9	Jacksonville, FL	12.23%
10	Richmond, VA	11.55%
11	Cincinnati, OH	11.06%
12	Des Moines, IA	9.63%
13	Harrisburg, PA	8.67%
14	Milwaukee, WI	7.75%
15	Wichita, KS	6.21%
16	Chattanooga, TN	6.04%
17	Trenton, NJ	5.86%
18	Omaha, NE	5.77%
19	Tampa, FL	4.40%
20	Rochester, NY	4.31%
21	Pittsburgh, PA	3.90%
22	Hartford, CT	3.30%
23	Columbus, OH	3.39%
24	St. Louis, MO	2.14%
25	Louisville, KY	0.87%
26	Fort Lauderdale, FL	-0.99%
27	Raleigh/Durham, NC	-3.09%
28	Providence, RI	-4.63%
29	Sioux Falls, SD	-6.01%
30	Fort Wayne, IN	-7.94%

Source: Regional Economic Information System

Manufacturing Share of Total Earnings Growth

Percent Change in Manufacturing Share of Total Earnings between 1990-1994 (MISA)

Rank	State/City	Percent Change
1	Sioux Falls, SD	7.63%
2	Sacramento, CA	2.82%
3	Omaha, NE	2.42%
4	Fort Wayne, IN	2.01%
5	Raleigh/Durham, NC	-3.01%
6	Louisville, KY	-3.48%
7	Milwaukee, WI	-4.15%
8	Albany, NY	-4.19%
9	Providence, RI	-4.81%
10	Chattanooga, TN	-5.16%
11	Columbus, OH	-5.32%
12	Indianapolis, IN	-5.46%
13	Harrisburg, PA	-5.62%
14	Pittsburgh, PA	-5.67%
15	Charlotte, NC	-5.84%
16	Jacksonville, FL	-6.65%
17	Cincinnati, OH	-6.89%
18	Rochester, NY	-7.52%
19	Fort Lauderdale, FL	-8.07%
20	Baton Rouge, LA	-8.38%
21	Richmond, VA	-9.08%
22	Salt Lake City, UT	-9.50%
23	St. Louis, MO	-10.24%
24	Wilmington, DE	-10.36%
25	Trenton, NJ	-10.68%
26	Wichita, KS	-11.06%
27	Des Moines, IA	-11.18%
28	Tampa, FL	-11.52%
29	Hartford, CT	-13.35%
30	Fort Worth, TX	-15.88%

Source: Regional Economic Information System

Service Industry Share of Total Earnings Growth

Percent Change in Service Industry Share of Total Earnings between 1990-1994 (MISA)

Rank	State/City	Percent Change
1	Jacksonville, FL	12.57%
2	Chattanooga, TN	12.51%
3	Rochester, NY	12.42%
4	Providence, RI	12.16%
5	Hartford, CT	11.64%
6	Tampa, FL	11.60%
7	Raleigh/Durham, NC	10.81%
8	Fort Worth, TX	10.35%
9	Fort Wayne, IN	10.12%
10	Charlotte, NC	9.80%
11	St. Louis, MO	9.62%
12	Sacramento, CA	9.31%
13	Wichita, KS	9.00%
14	Albany, NY	8.69%
15	Baton Rouge, LA	7.89%
16	Omaha, NE	7.25%
17	Milwaukee, WI	7.19%
18	Fort Lauderdale, FL	7.07%
19	Trenton, NJ	6.67%
20	Richmond, VA	6.11%
21	Harrisburg, PA	5.95%
22	Louisville, KY	5.81%
23	Wilmington, DE	5.39%
24	Cincinnati, OH	5.31%
25	Columbus, OH	4.81%
26	Indianapolis, IN	4.61%
27	Salt Lake City, UT	4.04%
28	Pittsburgh, PA	3.99%
29	Des Moines, IA	2.31%
30	Sioux Falls, SD	1.52%

Source: Regional Economic Information System

Government Share of Total Earnings Growth

Percent Change in Government Share of Total Earnings between 1990-1994 (MISA)

Rank	State/City	Percent Change
1	Hartford, CT	6.84%
2	Wichita, KS	5.88%
3	Rochester, NY	5.38%
4	Wilmington, DE	2.36%
5	Charlotte, NC	2.27%
6	Providence, RI	2.08%
7	Fort Lauderdale, FL	0.87%
8	Cincinnati, OH	0.52%
9	Pittsburgh, PA	-0.33%
10	St. Louis, MO	-0.47%
11	Milwaukee, WI	-0.46%
12	Trenton, NJ	-0.51%
13	Fort Wayne, IN	-0.68%
14	Harrisburg, PA	-0.72%
15	Richmond, VA	-0.74%
16	Fort Worth, TX	-0.74%
17	Sacramento, CA	-1.59%
18	Indianapolis, IN	-2.85%
19	Chattanooga, TN	-2.98%
20	Columbus, OH	-3.08%
21	Albany, NY	-3.19%
22	Tampa, FL	-3.99%
23	Louisville, KY	-4.54%
24	Raleigh/Durham, NC	-4.72%
25	Des Moines, IA	-4.95%
26	Sioux Falls, SD	-5.76%
27	Baton Rouge, LA	-7.06%
28	Salt Lake City, UT	-9.76%
29	Jacksonville, FL	-10.77%
30	Omaha, NE	-11.98%

Source: Regional Economic Information System

Regional Economic Vitality

continued

Per Capita Economic Output

Total economic output, in millions 1992 (MISA)

Rank	State/City	Output
1	Charlotte, NC	\$62,075
2	Cincinnati, OH	\$59,359
3	Wilmington, DE	\$55,719
4	Fort Wayne, IN	\$54,110
5	Louisville, KY	\$53,951
6	Richmond, VA	\$50,253
7	Milwaukee, WI	\$49,421
8	Raleigh/Durham, NC	\$48,360
9	Baton Rouge, LA	\$46,246
10	St. Louis, MO	\$45,709
11	Des Moines, IA	\$45,402
12	Indianapolis, IN	\$43,356
13	Wichita, KS	\$42,794
14	Omaha, NE	\$41,989
15	Rochester, NY	\$41,702
16	Sioux Falls, SD	\$41,131
17	Columbus, OH	\$39,157
18	Fort Lauderdale, FL	\$37,197
19	Fort Worth, TX	\$36,986
20	Harrisburg, PA	\$36,656
21	Hartford, CT	\$36,512
22	Chattanooga, TN	\$36,373
23	Salt Lake City, UT	\$35,486
24	Pittsburgh, PA	\$34,467
25	Jacksonville, FL	\$34,447
26	Trenton, NJ	\$32,615
27	Tampa, FL	\$32,350
28	Albany, NY	\$31,316
29	Sacramento, CA	\$29,739
30	Providence, RI	\$22,726

Source: 1997 County and City Data

*Given by the sum of manufacturing value of shipments, retail and wholesale sales, service receipts from taxable services industries, and the net value of construction.

Per Capita Economic Output

Total economic output, in millions 1992 (City)

Rank	State/City	Output
1	Louisville, KY	\$112,545
2	Richmond, VA	\$111,175
3	Charlotte, NC	\$106,703
4	Salt Lake City, UT	\$103,354
5	Tampa, FL	\$81,338
6	Cincinnati, OH	\$77,678
7	Fort Lauderdale, FL	\$76,894
8	Rochester, NY	\$68,360
9	Harrisburg, PA	\$67,148
10	Chattanooga, TN	\$66,882
11	Pittsburgh, PA	\$64,477
12	Fort Wayne, IN	\$63,134
13	Omaha, NE	\$60,788
14	St. Louis, MO	\$56,447
15	Raleigh/Durham, NC	\$53,709
16	Wichita, KS	\$52,612
17	Fort Worth, TX	\$50,448
18	Sioux Falls, SD	\$50,331
19	Des Moines, IA	\$47,119
20	Baton Rouge, LA	\$44,890
21	Columbus, OH	\$42,963
22	Albany, NY	\$40,779
23	Wilmington, DE	\$40,156
24	Indianapolis, IN	\$39,766
25	Jacksonville, FL	\$37,180
26	Sacramento, CA	\$32,715
27	Providence, RI	\$31,014
28	Milwaukee, WI	\$29,500
29	Hartford, CT	\$29,500
30	Trenton, NJ	\$17,975

Source: 1997 County and City Data

*Given by the sum of manufacturing value of shipments, retail and wholesale sales, service receipts from taxable services industries, and the net value of construction.

Exports

Goods exported to foreign countries, in millions 1994 (MISA)

Rank	State/City	Exports
1	Richmond, VA	5,260.5
2	Cincinnati, OH	4,056.0
3	Wilmington, DE	3,720.3
4	St. Louis, MO	3,673.3
5	Pittsburgh, PA	3,150.6
6	Rochester, NY	3,143.6
7	Indianapolis, IN	3,003.8
8	Milwaukee, WI	2,913.5
9	Fort Worth, TX	2,052.0
10	Hartford, CT	1,967.0
11	Tampa, FL	1,835.8
12	Salt Lake City, UT	1,808.6
13	Louisville, KY	1,798.8
14	Charlotte, NC	1,782.8
15	Raleigh/Durham, NC	1,738.6
16	Wichita, KS	1,540.5
17	Fort Lauderdale, FL	1,506.6
18	Columbus, OH	1,295.4
19	Providence, RI	1,246.0
20	Sacramento, CA	1,087.9
21	Albany, NY	831.3
22	Fort Wayne, IN	770.8
23	Harrisburg, PA	535.0
24	Jacksonville, FL	500.3
25	Baton Rouge, LA	457.9
26	Omaha, NE	393.2
27	Des Moines, IA	348.9
28	Trenton, NJ	237.5
29	Chattanooga, TN	237.2
30	Sioux Falls, SD	n/a

Report on Over 250 U.S. Cities, Department of Commerce, 1996

Growth in Exports

Percent change in goods exported to foreign countries between 1993-1994 in millions (MISA)

Rank	State/City	Growth
1	Harrisburg, PA	57.7
2	Tampa, FL	41.7
3	Omaha, NE	31.2
4	Richmond, VA	31.1
5	Fort Worth, TX	28.2
6	Milwaukee, WI	24.7
7	Jacksonville, FL	23.6
8	Albany, NY	22.9
9	Fort Wayne, IN	20.3
10	Indianapolis, IN	14.4
11	Charlotte, NC	14.0
12	Fort Lauderdale, FL	14.0
13	Columbus, OH	11.0
14	Providence, RI	9.1
15	Salt Lake City, UT	8.9
16	Wilmington, DE	8.7
17	Chattanooga, TN	8.7
18	Raleigh/Durham, NC	8.5
19	St. Louis, MO	8.0
20	Louisville, KY	7.5
21	Wichita, KS	6.7
22	Trenton, NJ	6.1
23	Pittsburgh, PA	5.4
24	Cincinnati, OH	4.1
25	Des Moines, IA	3.5
26	Hartford, CT	n/a
27	Rochester, NY	1.7
28	Sacramento, CA	1.1
29	Baton Rouge, LA	(18.9)
30	Sioux Falls, SD	n/a

Source: Metropolitan Area Reports, An Export Performance Report on Over 250 U.S. Cities, Department of Commerce, 1996

Regional Economic Vitality

continued

Manufacturing Value of Shipments Per Capita

Value of manufacturing shipments as a percentage of the population, 1992 (MISA)

1	Louisville, KY	\$25,797
2	Fort Wayne, IN	\$25,310
3	Baton Rouge, LA	\$23,873
4	Rochester, NY	\$22,152
5	Charlotte, NC	\$21,151
6	Raleigh/Durham, NC	\$20,072
7	Richmond, VA	\$19,995
8	Milwaukee, WI	\$19,634
9	Cincinnati, OH	\$19,507
10	Wichita, KS	\$19,370
11	Wilmington, DE	\$19,034
12	St. Louis, MO	\$17,105
13	Chattanooga, TN	\$14,754
14	Indianapolis, IN	\$13,745
15	Des Moines, IA	\$13,006
16	Sioux Falls, SD	\$12,297
17	Fort Worth, TX	\$12,294
18	Harrisburg, PA	\$11,501
19	Columbus, OH	\$11,324
20	Omaha, NE	\$9,948
21	Salt Lake City, UT	\$9,659
22	Providence, RI	\$8,098
23	Trenton, NJ	\$7,781
24	Pittsburgh, PA	\$7,685
25	Albany, NY	\$7,132
26	Jacksonville, FL	\$7,032
27	Sacramento, CA	\$5,679
28	Tampa, FL	\$4,889
29	Fort Lauderdale, FL	\$3,822

Source: 1997 County and City Year

Manufacturing Value of Shipments Per Capita

Value of manufacturing shipments as a percentage of the population, 1992 (City)

1	Louisville, KY	\$65,140
2	Richmond, VA	\$63,071
3	Rochester, NY	\$42,298
4	Cincinnati, OH	\$34,007
5	Salt Lake City, UT	\$25,211
6	Wichita, KS	\$23,148
7	Chattanooga, TN	\$22,615
8	Fort Worth, TX	\$21,940
9	St. Louis, MO	\$20,650
10	Des Moines, IA	\$20,005
11	Fort Wayne, IN	\$19,268
12	Charlotte, NC	\$17,321
13	Indianapolis, IN	\$17,236
14	Sioux Falls, SD	\$15,701
15	Omaha, NE	\$14,626
16	Baton Rouge, LA	\$13,473
17	Columbus, OH	\$11,648
18	Milwaukee, WI	\$11,286
19	Raleigh/Durham, NC	\$10,254
20	Tampa, FL	\$9,577
21	Sacramento, CA	\$9,067
22	Providence, RI	\$8,977
23	Harrisburg, PA	\$8,825
24	Albany, NY	\$8,093
25	Fort Lauderdale, FL	\$7,914
26	Jacksonville, FL	\$7,781
27	Trenton, NJ	\$7,234
28	Pittsburgh, PA	\$5,989
29	Wilmington, DE	\$5,181

Source: 1997 County and City Year

Wholesale Sales Per Capita

Total amount of wholesale sales as a percentage of the population, 1992 (MISA)

1	Charlotte, NC	\$27,083
2	Cincinnati, OH	\$24,581
3	Wilmington, DE	\$22,093
4	Omaha, NE	\$17,635
5	Fort Wayne, IN	\$16,968
6	Des Moines, IA	\$16,776
7	Richmond, VA	\$16,546
8	St. Louis, MO	\$15,516
9	Milwaukee, WI	\$15,171
10	Indianapolis, IN	\$15,083
11	Louisville, KY	\$15,023
12	Fort Lauderdale, FL	\$14,059
13	Pittsburgh, PA	\$13,713
14	Raleigh/Durham, NC	\$13,318
15	Sioux Falls, SD	\$13,161
16	Jacksonville, FL	\$13,089
17	Columbus, OH	\$12,941
18	Salt Lake City, UT	\$12,274
19	Harrisburg, PA	\$11,878
20	Tampa, FL	\$11,494
21	Fort Worth, TX	\$11,302
22	Wichita, KS	\$9,664
23	Baton Rouge, LA	\$9,092
24	Des Moines, IA	\$9,006
25	Chattanooga, TN	\$8,809
26	Sacramento, CA	\$8,786
27	Trenton, NJ	\$8,519
28	Albany, NY	\$8,324
29	Rochester, NY	\$5,724

Source: 1997 County and City Year

Wholesale Sales Per Capita

Total amount of wholesale sales as a percentage of the population, 1992 (City)

1	Charlotte, NC	\$66,453
2	Salt Lake City, UT	\$47,882
3	Tampa, FL	\$44,158
4	Harrisburg, PA	\$40,362
5	Pittsburgh, PA	\$38,041
6	Fort Lauderdale, FL	\$32,530
7	Louisville, KY	\$30,749
8	Richmond, VA	\$26,337
9	Cincinnati, OH	\$26,064
10	Omaha, NE	\$25,994
11	Fort Wayne, IN	\$23,913
12	Raleigh/Durham, NC	\$23,161
13	Indianapolis, IN	\$22,919
14	St. Louis, MO	\$22,497
15	Chattanooga, TN	\$21,059
16	Albany, NY	\$17,537
17	Jacksonville, FL	\$16,833
18	Wilmington, DE	\$16,128
19	Fort Worth, TX	\$16,032
20	Sioux Falls, SD	\$15,797
21	Columbus, OH	\$15,718
22	Rochester, NY	\$14,347
23	Baton Rouge, LA	\$13,005
24	Des Moines, IA	\$12,501
25	Sacramento, CA	\$12,310
26	Wichita, KS	\$12,029
27	Providence, RI	\$11,669
28	Milwaukee, WI	\$9,469
29	Harrisburg, PA	\$9,241
30	Trenton, NJ	\$5,652

Source: 1997 County and City Year

Regional Economic Vitality

continued

Retail Sales Per Capita

Total amount of retail sales as a percentage of the population, 1992 (MISA)

1	Fort Lauderdale, FL	\$11,761
2	Albany, NY	\$11,176
3	Sioux Falls, SD	\$10,884
4	Des Moines, IA	\$9,625
5	Wilmington, DE	\$9,452
6	Columbus, OH	\$9,212
7	Cincinnati, OH	\$9,149
8	Tampa, FL	\$9,145
9	Indianapolis, IN	\$9,080
10	Milwaukee, WI	\$9,044
11	Sacramento, CA	\$9,002
12	Harrisburg, PA	\$8,738
13	Jacksonville, FL	\$8,674
14	Raleigh/Durham, NC	\$8,588
15	Wichita, KS	\$8,571
16	Fort Worth, TX	\$8,538
17	Trenton, NJ	\$8,358
18	Charlotte, NC	\$8,322
19	Chattanooga, TN	\$8,300
20	Omaha, NE	\$8,234
21	Harrisburg, PA	\$8,181
22	Louisville, KY	\$8,083
23	Salt Lake City, UT	\$8,054
24	Richmond, VA	\$8,041
25	Fort Wayne, IN	\$7,984
26	Baton Rouge, LA	\$7,842
27	St. Louis, MO	\$7,796
28	Pittsburgh, PA	\$7,523
29	Rochester, NY	\$7,429
30	Providence, RI	\$5,591

Source: 1997 County and City Year

Retail Sales Per Capita

Total amount of retail sales as a percentage of the population, 1992 (City)

1	Fort Lauderdale, FL	\$19,761
2	Chattanooga, TN	\$14,263
3	Salt Lake City, UT	\$13,728
4	Sioux Falls, SD	\$12,781
5	Fort Wayne, IN	\$12,737
6	Tampa, FL	\$12,705
7	Baton Rouge, LA	\$12,114
8	Charlotte, NC	\$11,525
9	Raleigh/Durham, NC	\$11,499
10	Wichita, KS	\$11,009
11	Omaha, NE	\$10,927
12	Columbus, OH	\$10,826
13	Des Moines, IA	\$10,250
14	Richmond, VA	\$10,232
15	Harrisburg, PA	\$9,522
16	Jacksonville, FL	\$8,939
17	Wilmington, DE	\$8,836
18	Albany, NY	\$8,683
19	Fort Worth, TX	\$8,177
20	Cincinnati, OH	\$7,593
21	Sacramento, CA	\$7,501
22	Louisville, KY	\$7,304
23	Pittsburgh, PA	\$7,293
24	St. Louis, MO	\$5,368
25	Milwaukee, WI	\$5,330
26	Harrisburg, PA	\$4,855
27	Providence, RI	\$4,855
28	Rochester, NY	\$4,728
29	Trenton, NJ	\$2,138
30	Indianapolis, IN	n/a

Source: 1997 County and City Year

Service Receipts Per Capita

Total amount of service sector receipts as a percentage of the population, 1992 (MISA)

1	Trenton, NJ	\$7,687
2	Fort Lauderdale, FL	\$7,548
3	Tampa, FL	\$6,819
4	Raleigh/Durham, NC	\$6,377
5	Sacramento, CA	\$6,245
6	Omaha, NE	\$6,167
7	Cincinnati, OH	\$6,115
8	Des Moines, IA	\$6,046
9	Harrisburg, PA	\$5,836
10	Columbus, OH	\$5,672
11	Richmond, VA	\$5,667
12	Jacksonville, FL	\$5,645
13	Milwaukee, WI	\$5,566
14	Pittsburgh, PA	\$5,540
15	Charlotte, NC	\$5,511
16	Salt Lake City, UT	\$5,496
17	Indianapolis, IN	\$5,443
18	Baton Rouge, LA	\$5,430
19	St. Louis, MO	\$5,290
20	Wichita, KS	\$5,186
21	Wilmington, DE	\$5,138
22	Louisville, KY	\$5,043
23	Fort Worth, TX	\$4,846
24	Sioux Falls, SD	\$4,786
25	Harrisburg, PA	\$4,532
26	Albany, NY	\$4,477
27	Chattanooga, TN	\$4,305
28	Fort Wayne, IN	\$3,841
29	Rochester, NY	\$3,794
30	Providence, RI	\$3,309

Source: 1997 County and City Year

Service Receipts Per Capita

Total amount of service sector receipts as a percentage of the population, 1992 (City)

1	Fort Lauderdale, FL	\$16,685
2	Salt Lake City, UT	\$16,532
3	Tampa, FL	\$14,897
4	Pittsburgh, PA	\$13,153
5	Richmond, VA	\$11,535
6	Charlotte, NC	\$11,398
7	Harrisburg, PA	\$11,026
8	Wilmington, DE	\$10,635
9	Cincinnati, OH	\$10,009
10	Louisville, KY	\$9,351
11	Omaha, NE	\$9,242
12	Chattanooga, TN	\$8,940
13	Raleigh/Durham, NC	\$8,795
14	Albany, NY	\$8,640
15	Baton Rouge, LA	\$8,521
16	Harrisburg, PA	\$8,437
17	Sacramento, CA	\$8,302
18	St. Louis, MO	\$7,932
19	Des Moines, IA	\$7,570
20	Providence, RI	\$7,213
21	Fort Wayne, IN	\$7,213
22	Wichita, KS	\$7,073
23	Rochester, NY	\$6,987
24	Columbus, OH	\$6,693
25	Fort Worth, TX	\$6,460
26	Jacksonville, FL	\$6,213
27	Sioux Falls, SD	\$6,168
28	Milwaukee, WI	\$4,929
29	Trenton, NJ	\$2,950
30	Indianapolis, IN	n/a

Source: 1997 County and City Year

Regional Economic Vitality

continued

Central City Share of Manufacturing Value of Shipments
Percent of the value of manufacturing shipments generated from the central city, 1992

1	Sioux Falls, SD	92.08%
2	Jacksonville, FL	81.38%
3	Omaha, NE	76.97%
4	Des Moines, IA	75.35%
5	Wichita, KS	74.69%
6	Richmond, VA	73.65%
7	Louisville, KY	71.48%
8	Indianapolis, IN	67.16%
9	Fort Worth, TX	58.40%
10	Charlottesville, VA	55.03%
11	Columbus, OH	48.21%
12	Sacramento, CA	43.56%
13	Rochester, NY	41.54%
14	Cincinnati, OH	41.50%
15	Salt Lake City, UT	38.77%
16	Fort Wayne, IN	28.82%
17	Charlotte, NC	27.75%
18	Tampa, FL	26.43%
19	Trenton, NJ	25.28%
20	Milwaukee, WI	25.17%
21	Fort Lauderdale, FL	24.51%
22	Baton Rouge, LA	23.41%
23	Raleigh/Durham, NC	20.37%
24	St. Louis, MO	19.19%
25	Providence, RI	15.31%
26	Albany, NY	13.29%
27	Pittsburgh, PA	12.04%
28	Harrisburg, PA	6.82%
29	Hartford, CT	4.83%
30	Wilmington, DE	3.78%

Source: 1992 County and City Data

Central City Share of Wholesale Sales
Proportion of wholesale sales generated from the central city, 1992

1	Jacksonville, FL	94.82%
2	Sioux Falls, SD	86.57%
3	Charlottesville, VA	83.94%
4	Charlotte, NC	83.14%
5	Indianapolis, IN	81.38%
6	Wichita, KS	77.80%
7	Omaha, NE	77.17%
8	Raleigh/Durham, NC	69.34%
9	Baton Rouge, LA	59.33%
10	Salt Lake City, UT	57.95%
11	Louisville, KY	57.94%
12	Columbus, OH	56.93%
13	Fort Wayne, IN	53.36%
14	Tampa, FL	51.83%
15	Fort Worth, TX	46.42%
16	Pittsburgh, PA	42.84%
17	Sacramento, CA	38.13%
18	Rochester, NY	37.50%
19	Richmond, VA	37.17%
20	Des Moines, IA	36.50%
21	Harrisburg, PA	30.18%
22	Providence, RI	28.15%
23	Fort Lauderdale, FL	27.39%
24	Milwaukee, WI	27.39%
25	Cincinnati, OH	25.24%
26	Albany, NY	24.10%
27	St. Louis, MO	23.04%
28	Trenton, NJ	17.49%
29	Hartford, CT	10.37%
30	Wilmington, DE	10.13%

Source: 1992 County and City Data

Central City Share of Retail Sales
Proportion of retail sales generated from the central city, 1992

1	Sioux Falls, SD	84.69%
2	Wichita, KS	80.28%
3	Jacksonville, FL	75.98%
4	Omaha, NE	69.48%
5	Baton Rouge, LA	64.07%
6	Charlottesville, VA	61.69%
7	Fort Wayne, IN	60.40%
8	Columbus, OH	55.08%
9	Raleigh/Durham, NC	53.39%
10	Des Moines, IA	52.16%
11	Charlotte, NC	46.93%
12	Fort Worth, TX	31.34%
13	Richmond, VA	29.71%
14	Milwaukee, WI	25.80%
15	Louisville, KY	25.38%
16	Salt Lake City, UT	25.32%
17	Sacramento, CA	22.74%
18	Fort Lauderdale, FL	19.89%
19	Cincinnati, OH	19.76%
20	Tampa, FL	18.74%
21	Pittsburgh, PA	14.97%
22	Rochester, NY	13.85%
23	Wilmington, DE	12.97%
24	Providence, RI	11.99%
25	St. Louis, MO	10.94%
26	Harrisburg, PA	9.68%
27	Albany, NY	9.10%
28	Hartford, CT	n/a
29	Trenton, NJ	6.95%
30	Indianapolis, IN	n/a

Source: 1992 County and City Data

Central City Share of Service Receipts
Proportion of service receipts generated from the central city, 1992

1	Sioux Falls, SD	92.93%
2	Wichita, KS	85.24%
3	Jacksonville, FL	81.15%
4	Omaha, NE	78.46%
5	Charlottesville, VA	74.55%
6	Fort Wayne, IN	71.09%
7	Charlotte, NC	70.08%
8	Baton Rouge, LA	65.08%
9	Des Moines, IA	61.33%
10	Columbus, OH	55.30%
11	Raleigh/Durham, NC	54.99%
12	Louisville, KY	52.50%
13	Richmond, VA	47.52%
14	Salt Lake City, UT	44.69%
15	Fort Worth, TX	43.63%
16	Rochester, NY	40.07%
17	Cincinnati, OH	38.96%
18	Milwaukee, WI	38.77%
19	Pittsburgh, PA	36.66%
20	Sacramento, CA	36.28%
21	Providence, RI	30.11%
22	Tampa, FL	29.47%
23	Wilmington, DE	28.73%
24	Fort Lauderdale, FL	26.17%
25	St. Louis, MO	23.83%
26	Albany, NY	22.59%
27	Hartford, CT	22.50%
28	Harrisburg, PA	16.53%
29	Trenton, NJ	10.43%
30	Indianapolis, IN	n/a

Source: 1992 County and City Data

Summary of the Analysis

Banking Industry

- ✓ Hartford ranks 27th among the comparable regions in the total amount of commercial bank deposits per capita. The per capita commercial bank deposit is \$7.22 compared to Wilmington, DE who captured the highest amount of commercial banking dollars at \$46.46 per capita.
- ✓ The number of commercial bank branches and the number of commercial banks serving the Hartford region generally is low when compared to other regions. Hartford ranks 28th in terms of the number of banks serving the region and 26th in terms of the number of bank branches per its population.

Business Development

- ✓ Hartford ranks 10th among these regions in terms of the number of businesses in the area.

Minority Business Development

- ✓ Overall, the number of employees as a percentage of the total number of business establishments was fairly low for Hartford when compared with other regions. Hartford ranked 23rd in terms of the number of employees per business establishment and on average there are about 23 employees for every business establishment.

Facilities Costs and Vacancy Rates

- ✓ Overall, Hartford is about average in terms of the number of minority businesses operating in the area. Hartford ranked highest in this regard in the number of Hispanic businesses. Additionally, the number of employees as a percentage of the number of businesses was highest for Native American and Asian business establishments in Hartford.
- ✓ The stability of minority businesses (in terms of sales and receipts, and number of employees) was about average when compared to the performance of minority businesses in other comparable regions.
- ✓ Comparatively, Hartford has a high vacancy rate for industrial space. Lease prices for both the central business district and the MSA generally are comparable to other regions.
- ✓ Hartford also has a high inventory or class A and class B space both in the central business district and in the MSA generally. Rental rates are about average generally although class A space in the MSA generally is slightly higher in the Hartford region. □□
- ✓ Value of new construction in Hartford is much lower than most other comparable regions and the value of construction in Hartford's central city is much lowest among these regions.

Bank Deposits

Commercial Bank Deposits
Total amount of bank deposits in all FDIC insured Commercial Banks and U.S. Branches of Foreign Banks, 1996 (M\$A)

1	Pittsburgh, PA	\$35,762,026
2	St. Louis, MO	\$29,484,585
3	Wilmington, DE	\$25,760,034
4	Tampa, FL	\$23,964,181
5	Cincinnati, OH	\$18,179,832
6	Charlotte, NC	\$17,157,115
7	Richmond, VA	\$15,171,745
8	Columbus, OH	\$14,974,421
9	Indianapolis, IN	\$14,399,521
10	Fort Lauderdale, FL	\$14,270,874
11	Milwaukee, WI	\$14,163,488
12	Louisville, KY	\$12,083,577
13	Fort Worth, TX	\$10,752,072
14	Providence, RI	\$10,063,424
15	Albany, NY	\$9,655,575
16	Salt Lake City, UT	\$9,420,070
17	Raleigh/Durham, NC	\$9,208,404
18	Jacksonville, FL	\$8,468,404
19	Sacramento, CA	\$8,461,376
20	Rochester, NY	\$8,458,126
21	Portland, ME	\$8,381,113
22	Omaha, NE	\$7,429,929
23	Harrisburg, PA	\$6,441,497
24	Baton Rouge, LA	\$5,384,645
25	Sioux Falls, SD	\$4,852,660
26	Fort Wayne, IN	\$4,354,390
27	Des Moines, IA	\$4,461,629
28	Chattanooga, TN	\$4,418,090
29	Trenton, NJ	\$4,365,357
30	Wichita, KS	\$1,261,641

Source: 1997 FDIC Summary of Deposits, ABA Table (Commercial Banks)

Commercial Bank Deposits Per Capita
Total bank deposits in all FDIC insured Commercial Banks and U.S. Branches of Foreign Banks as a percentage of the population, 1996 (M\$A)

1	Wilmington, DE	\$46.46
2	Sioux Falls, SD	\$31.40
3	Richmond, VA	\$15.92
4	Pittsburgh, PA	\$14.83
5	Trenton, NJ	\$13.15
6	Louisville, KY	\$12.90
7	Louisville, KY	\$12.14
8	St. Louis, MO	\$11.40
9	Cincinnati, OH	\$11.00
10	Omaha, NE	\$11.00
11	Albany, NY	\$10.83
12	Des Moines, IA	\$10.42
13	Tampa, FL	\$10.41
14	Harrisburg, PA	\$10.28
15	Columbus, OH	\$10.05
16	Chattanooga, TN	\$9.76
17	Fort Lauderdale, FL	\$9.70
18	Milwaukee, WI	\$9.66
19	Fort Wayne, IN	\$9.58
20	Indianapolis, IN	\$9.52
21	Baton Rouge, LA	\$9.33
22	Providence, RI	\$8.94
23	Raleigh/Durham, NC	\$8.73
24	Jacksonville, FL	\$8.44
25	Rochester, NY	\$7.69
26	Salt Lake City, UT	\$7.49
27	Portland, ME	\$7.49
28	Fort Worth, TX	\$6.77
29	Sacramento, CA	\$5.52
30	Wichita, KS	\$2.43

Source: 1997 FDIC Summary of Deposits, ABA Table (Commercial Banks)

Commercial Banks
Total number of FDIC insured Commercial Banks per every 100,000, 1996 (M\$A)

1	Sioux Falls, SD	14.88
2	Omaha, NE	7.25
3	Wilmington, DE	6.51
4	Des Moines, IA	5.61
5	Chattanooga, TN	5.30
6	Fort Wayne, IN	4.84
7	Trenton, NJ	4.82
8	Harrisburg, PA	4.79
9	St. Louis, MO	4.02
10	Baton Rouge, LA	3.81
11	Fort Worth, TX	3.78
12	Cincinnati, OH	3.14
13	Louisville, KY	2.91
14	Richmond, VA	2.73
15	Milwaukee, WI	2.54
16	Salt Lake City, UT	2.54
17	Wichita, KS	2.51
18	Albany, NY	2.35
19	Fort Lauderdale, FL	2.24
20	Columbus, OH	2.21
21	Tampa, FL	2.13
22	Charlotte, NC	2.10
23	Sacramento, CA	2.02
24	Jacksonville, FL	1.99
25	Indianapolis, IN	1.98
26	Rochester, NY	1.91
27	Raleigh/Durham, NC	1.71
28	Portland, ME	1.48
29	Pittsburgh, PA	1.41
30	Providence, RI	1.15

Source: 1997 FDIC Summary of Deposits, ABA Table (Commercial Banks)

Commercial Banks
Total number of FDIC insured Commercial Bank branch offices per every 100,000, 1996 (M\$A)

1	Tampa, FL	533.25
2	St. Louis, MO	491.88
3	Pittsburgh, PA	334.65
4	Wilmington, DE	285.78
5	Salt Lake City, UT	185.21
6	Richmond, VA	179.81
7	Raleigh/Durham, NC	177.25
8	Rochester, NY	151.68
9	Sacramento, CA	149.09
10	Indianapolis, IN	146.66
11	Milwaukee, WI	124.58
12	Trenton, NJ	117.24
13	Louisville, KY	114.68
14	Cincinnati, OH	114.21
15	Providence, RI	97.96
16	Columbus, OH	84.74
17	Omaha, NE	75.61
18	Fort Lauderdale, FL	75.41
19	Fort Worth, TX	72.73
20	Jacksonville, FL	71.45
21	Harrisburg, PA	69.94
22	Charlotte, NC	62.90
23	Sioux Falls, SD	52.34
24	Wichita, KS	39.84
25	Fort Wayne, IN	33.40
26	Portland, ME	31.88
27	Albany, NY	30.24
28	Des Moines, IA	28.15
29	Baton Rouge, LA	23.26
30	Chattanooga, TN	23.01

Source: 1997 FDIC Summary of Deposits, ABA Table (Commercial Banks)

Business Development

Businesses
Total number of business establishments, all sectors 1994 (M\$A)

1	St. Louis, MO	64,108
2	Tampa, FL	57,462
3	Cincinnati, OH	44,532
4	Indianapolis, IN	38,536
5	Pittsburgh, PA	37,536
6	Sacramento, CA	36,643
7	Charlotte, NC	34,997
8	Columbus, OH	34,600
9	Fort Worth, TX	33,716
10	Portland, ME	29,588
11	Milwaukee, WI	28,915
12	Salt Lake City, UT	28,247
13	Jacksonville, FL	25,734
14	Louisville, KY	25,247
15	Richmond, VA	24,744
16	Rochester, NY	23,513
17	Albany, NY	20,098
18	Fort Lauderdale, FL	18,746
19	Raleigh/Durham, NC	18,439
20	Harrisburg, PA	14,551
21	Baton Rouge, LA	13,222
22	Wichita, KS	13,198
23	Providence, RI	13,090
24	Des Moines, IA	12,268
25	Fort Wayne, IN	12,152
26	Omaha, NE	11,630
27	Chattanooga, TN	10,684
28	Wilmington, DE	10,477
29	Trenton, NJ	7,983
30	Sioux Falls, SD	5,118

Source: 1997 County and City Data

Businesses By Population
Business establishments as a percentage of the population, 1994 (M\$A)

1	Jacksonville, FL	0.18
2	Sioux Falls, SD	0.03
2	Des Moines, IA	0.03
2	Charlotte, NC	0.03
2	Richmond, VA	0.03
2	Tampa, FL	0.03
2	Indianapolis, IN	0.03
2	Wichita, KS	0.03
2	Fort Wayne, IN	0.03
2	Louisville, KY	0.03
2	St. Louis, MO	0.03
3	Chattanooga, TN	0.02
3	Columbus, OH	0.02
3	Trenton, NJ	0.02
3	Salt Lake City, UT	0.02
3	Harrisburg, PA	0.02
3	Baton Rouge, LA	0.02
3	Cincinnati, OH	0.02
3	Sacramento, CA	0.02
3	Fort Worth, TX	0.02
3	Albany, NY	0.02
3	Rochester, NY	0.02
3	Wilmington, DE	0.02
3	Raleigh/Durham, NC	0.02
3	Milwaukee, WI	0.02
3	Omaha, NE	0.02
3	Pittsburgh, PA	0.02
4	Providence, RI	0.01
4	Fort Lauderdale, FL	0.01

Source: 1994 County and City Data

Business Development

continued

Employees per Business Establishment

Proportion of employed workers to the number of business establishments, all sectors 1994 (MSA)

Rank	City/County	Ratio
1	Omaha, NE	38.22
2	Fort Lauderdale, FL	37.94
3	Providence, RI	37.16
4	Raleigh/Durham, NC	35.65
5	Pittsburgh, PA	33.71
6	Milwaukee, WI	31.85
7	Wilmington, DE	31.15
8	Trenton, NJ	27.70
9	Harrisburg, PA	27.43
10	Rochester, NY	26.50
11	Columbus, OH	26.27
12	Salt Lake City, UT	25.51
13	Albany, NY	25.40
14	Fort Wayne, IN	25.12
15	Des Moines, IA	24.71
16	Wichita, KS	24.29
17	Indianapolis, IN	24.16
18	Richmond, VA	24.14
19	Baton Rouge, LA	24.09
20	Louisville, KY	24.02
21	Chattanooga, TN	24.00
22	Fort Worth, TX	23.78
23	Tampa, FL	23.67
24	Charlotte, NC	23.13
25	St. Louis, MO	23.10
26	Jacksonville, FL	22.57
27	Sioux Falls, SD	22.22
28	Cincinnati, OH	21.17
29	Sacramento, CA	21.03
30	Tampa, FL	20.22

Source: 1997 County and City Data

Employees per Hispanic Business Establishment

Proportion of employed workers in Hispanic businesses to the number of Hispanic business establishments, all sectors 1992 (MSA)

Rank	City/County	Ratio
1	Trenton, NJ	7.25
2	Charlotte, NC	4.30
3	St. Louis, MO	3.54
4	Louisville, KY	2.00
5	Wilmington, DE	1.92
6	Indianapolis, IN	1.68
7	Columbus, OH	1.59
8	Tampa, FL	1.55
9	Baton Rouge, LA	1.42
10	Jacksonville, FL	1.38
11	Pittsburgh, PA	1.33
12	Des Moines, IA	1.29
13	Richmond, VA	1.11
14	Wichita, KS	1.11
15	Omaha, NE	1.04
16	Fort Wayne, IN	1.02
17	Sacramento, CA	1.01
18	Raleigh/Durham, NC	0.97
19	Salt Lake City, UT	0.89
20	Fort Lauderdale, FL	0.88
21	Chattanooga, TN	0.85
22	Providence, RI	0.79
23	Tampa, FL	0.67
24	Milwaukee, WI	0.66
25	Albany, NY	0.62
26	Fort Worth, TX	0.62
27	Rochester, NY	0.52
28	Harrisburg, PA	0.41
29	Sioux Falls, SD	n/a
30	Cincinnati, OH	n/a

Source: 1992 Economic Census, Survey of Minority-Owned Businesses

Employees per Black Business Establishment

Proportion of employed workers in Black businesses to the number of Black business establishments, all sectors 1992 (MSA)

Rank	City/County	Ratio
1	Wilmington, DE	1.55
2	Fort Wayne, IN	0.92
3	Milwaukee, WI	0.91
4	Salt Lake City, UT	0.86
5	Indianapolis, IN	0.71
6	Jacksonville, FL	0.64
7	Columbus, OH	0.62
8	Louisville, KY	0.54
9	Chattanooga, TN	0.52
10	Richmond, VA	0.52
11	Pittsburgh, PA	0.50
12	Rochester, NY	0.50
13	Tampa, FL	0.49
14	Tampa, FL	0.44
15	Fort Worth, TX	0.42
16	Raleigh/Durham, NC	0.41
17	Fort Lauderdale, FL	0.38
18	Trenton, NJ	0.37
19	Des Moines, IA	0.35
20	St. Louis, MO	0.33
21	Baton Rouge, LA	0.32
22	Charlotte, NC	0.30
23	Albany, NY	0.28
24	Sacramento, CA	0.28
25	Harrisburg, PA	0.27
26	Wichita, KS	0.21
27	Cincinnati, OH	n/a
28	Omaha, NE	n/a
29	Providence, RI	n/a
30	Sioux Falls, SD	n/a

Source: 1992 Economic Census, Survey of Minority-Owned Businesses

Employees per Native American and Asian Business Establishments

Proportion of employed workers in Native American and Asian businesses to the number of Native American and Asian business establishments, all sectors 1992 (MSA)

Rank	City/County	Ratio
1	Des Moines, IA	4.48
2	Louisville, KY	3.00
3	Pittsburgh, PA	2.95
5	Milwaukee, WI	2.81
6	Wilmington, DE	2.54
7	Omaha, NE	2.54
8	St. Louis, MO	2.30
9	Jacksonville, FL	2.25
10	Indianapolis, IN	2.22
11	Richmond, VA	2.22
12	Wichita, KS	2.03
13	Fort Lauderdale, FL	1.99
14	Fort Wayne, IN	1.98
15	Chattanooga, TN	1.81
16	Charlotte, NC	1.71
17	Columbus, OH	1.71
18	Baton Rouge, LA	1.70
19	Rochester, NY	1.67
20	Raleigh/Durham, NC	1.48
21	Providence, RI	1.46
22	Cincinnati, OH	1.40
23	Sacramento, CA	1.37
24	Salt Lake City, UT	1.31
25	Tampa, FL	1.28
26	Harrisburg, PA	0.96
27	Fort Worth, TX	0.68
28	Trenton, NJ	0.67
29	Albany, NY	0.59
30	Sioux Falls, SD	n/a

Source: 1994 Economic Census, Survey of Minority-Owned Businesses

Business Development

continued

Hispanic Businesses

Number of businesses owned by Hispanic persons, 1992 (MSA)

Rank	City/County	Count
1	Fort Lauderdale, FL	9,163
2	Tampa, FL	8,670
3	Fort Worth, TX	5,262
4	Sacramento, CA	5,181
5	Salt Lake City, UT	1,619
6	Providence, RI	1,562
7	Jacksonville, FL	1,362
8	Jacksonville, FL	1,360
9	St. Louis, MO	1,026
10	Milwaukee, WI	835
11	Columbus, OH	708
12	Pittsburgh, PA	690
13	Rochester, NY	681
14	Indianapolis, IN	623
15	Richmond, VA	516
16	Raleigh/Durham, NC	465
17	Trenton, NJ	445
18	Cincinnati, OH	443
19	Omaha, NE	434
20	Baton Rouge, LA	427
21	Albany, NY	420
22	Wilmington, DE	365
23	Charlotte, NC	359
24	Wichita, KS	350
25	Fort Wayne, IN	266
26	Harrisburg, PA	222
27	Louisville, KY	216
28	Des Moines, IA	196
29	Chattanooga, TN	127
30	Sioux Falls, SD	n/a

Source: 1992 Economic Census, Survey of Minority-Owned Businesses

Hispanic Businesses By Total Business Population

Number of Hispanic businesses as a percentage of the total number of area businesses, 1992 (MSA)

Rank	City/County	Percentage
1	Fort Lauderdale, FL	48.88
2	Fort Worth, TX	15.61
3	Tampa, FL	15.09
4	Sacramento, CA	14.14
5	Providence, RI	11.93
6	Salt Lake City, UT	6.73
7	Trenton, NJ	5.57
8	Jacksonville, FL	5.28
9	Jacksonville, FL	4.61
10	Omaha, NE	3.73
11	Wilmington, DE	3.48
12	Baton Rouge, LA	3.23
13	Rochester, NY	2.90
14	Milwaukee, WI	2.89
15	Wichita, KS	2.65
16	Raleigh/Durham, NC	2.52
17	Fort Wayne, IN	2.19
18	Albany, NY	2.09
19	Richmond, VA	2.09
20	Columbus, OH	2.05
21	Pittsburgh, PA	1.84
22	Indianapolis, IN	1.62
23	St. Louis, MO	1.60
24	Des Moines, IA	1.60
25	Harrisburg, PA	1.53
26	Chattanooga, TN	1.19
27	Charlotte, NC	1.03
28	Cincinnati, OH	0.98
29	Louisville, KY	0.86
30	Sioux Falls, SD	n/a

Source: 1992 Economic Census, Survey of Minority-Owned Businesses

Hispanic Businesses By Hispanic Population

Number of businesses owned by Hispanic persons per every 100,000 Hispanic persons, 1992 (MSA)

Rank	City/County	Ratio
1	Fort Lauderdale, FL	72.43
2	Columbus, OH	59.37
3	Tampa, FL	56.23
4	Cincinnati, OH	54.53
5	Baton Rouge, LA	52.85
6	Richmond, VA	49.22
7	Pittsburgh, PA	47.69
8	Chattanooga, TN	46.75
9	Indianapolis, IN	45.76
10	Louisville, KY	36.17
11	St. Louis, MO	36.08
12	Raleigh/Durham, NC	33.89
13	Fort Wayne, IN	32.93
14	Sacramento, CA	31.29
15	Charlotte, NC	29.98
16	Fort Worth, TX	29.86
17	Providence, RI	28.90
18	Albany, NY	27.70
19	Wilmington, DE	27.49
20	Des Moines, IA	26.93
21	Jacksonville, FL	25.10
22	Omaha, NE	24.71
23	Trenton, NJ	22.34
24	Salt Lake City, UT	22.19
25	Harrisburg, PA	20.83
26	Rochester, NY	20.63
27	Wichita, KS	16.47
28	Wichita, KS	15.82
29	Milwaukee, WI	n/a
30	Sioux Falls, SD	n/a

Source: 1992 Economic Census, Survey of Minority-Owned Businesses

Sales and Receipts of Hispanic Businesses

Sales and receipts by Hispanic businesses, in thousands 1992 (MSA)

Rank	City/County	Amount (\$ thousands)
1	Tampa, FL	\$1,072,877
2	Fort Lauderdale, FL	\$1,016,700
3	Trenton, NJ	\$520,903
4	Sacramento, CA	\$419,515
5	Fort Worth, TX	\$345,935
6	Charlotte, NC	\$235,962
7	Cincinnati, OH	\$236,210
8	Jacksonville, FL	\$198,115
9	St. Louis, MO	\$188,433
10	Providence, RI	\$147,723
11	Tampa, FL	\$139,852
12	Milwaukee, WI	\$139,747
13	Salt Lake City, UT	\$120,621
14	Columbus, OH	\$115,285
15	Wilmington, DE	\$96,128
16	Indianapolis, IN	\$92,769
17	Baton Rouge, LA	\$88,015
18	Richmond, VA	\$79,383
19	Pittsburgh, PA	\$78,926
20	Des Moines, IA	\$57,801
21	Raleigh/Durham, NC	\$45,818
22	Rochester, NY	\$39,202
23	Albany, NY	\$37,428
24	Albany, NY	\$31,428
25	Wichita, KS	\$28,542
26	Fort Wayne, IN	\$22,287
27	Omaha, NE	\$21,048
28	Harrisburg, PA	\$21,048
29	Chattanooga, TN	\$10,333
30	Sioux Falls, SD	n/a

Source: 1992 Economic Census, Survey of Minority-Owned Businesses

Business Development

continued

Average Sales and Receipts Per Hispanic Business

Average sales and receipts per Hispanic business, 1992 (M\$A)

1	Trenton, NJ	\$1,170,569	n/a
2	Charlotte, NC	\$712,986	n/a
3	Cincinnati, OH	\$593,205	n/a
4	Des Moines, IA	\$294,903	n/a
5	Wilmington, DE	\$263,364	n/a
6	Baton Rouge, LA	\$206,124	n/a
7	St. Louis, MO	\$183,658	n/a
8	Louisville, KY	\$181,491	n/a
9	Milwaukee, WI	\$167,362	n/a
10	Columbus, OH	\$162,832	n/a
11	Richmond, VA	\$153,843	n/a
12	Indianapolis, IN	\$148,907	n/a
13	Jacksonville, FL	\$145,673	n/a
14	Tampa, FL	\$123,746	n/a
15	Pittsburgh, PA	\$114,386	n/a
16	Fort Lauderdale, FL	\$110,937	n/a
17	Portland, ME	\$108,883	n/a
18	Raleigh/Durham, NC	\$98,533	n/a
19	Harrisburg, PA	\$98,414	n/a
20	Providence, RI	\$94,573	n/a
21	Fort Wayne, IN	\$83,786	n/a
22	Wichita, KS	\$81,549	n/a
23	Chattanooga, TN	\$81,362	n/a
24	Sacramento, CA	\$80,972	n/a
25	Albany, NY	\$74,829	n/a
26	Salt Lake City, UT	\$74,503	n/a
27	Fort Worth, TX	\$65,742	n/a
28	Rochester, NY	\$54,960	n/a
29	Omaha, NE	\$50,700	n/a
30	Sioux Falls, SD	n/a	n/a

Source: 1992 Economic Census, Survey of Minority-Owned Businesses

Sales and Receipts of Hispanic Businesses By Total Personal Income

Sales and receipts by Hispanic business as a percentage of total personal income, 1992 (M\$A)

1	Trenton, NJ	61.72	n/a
2	Fort Lauderdale, FL	36.16	n/a
3	Tampa, FL	28.77	n/a
4	Sacramento, CA	15.98	n/a
5	Fort Worth, TX	13.55	n/a
6	Jacksonville, FL	12.05	n/a
7	Charlotte, NC	11.78	n/a
8	Baton Rouge, LA	10.43	n/a
9	Wilmington, DE	8.78	n/a
10	Providence, RI	8.50	n/a
11	Cincinnati, OH	8.17	n/a
12	Des Moines, IA	7.43	n/a
13	Salt Lake City, UT	7.34	n/a
14	Portland, ME	n/a	n/a
15	Milwaukee, WI	4.89	n/a
16	Columbus, OH	4.67	n/a
17	Richmond, VA	4.28	n/a
18	St. Louis, MO	3.75	n/a
19	Indianapolis, IN	3.48	n/a
20	Wichita, KS	3.16	n/a
21	Raleigh/Durham, NC	2.74	n/a
22	Fort Wayne, IN	2.72	n/a
23	Louisville, KY	2.27	n/a
24	Harrisburg, PA	1.95	n/a
25	Albany, NY	1.87	n/a
26	Omaha, NE	1.86	n/a
27	Rochester, NY	1.76	n/a
28	Pittsburgh, PA	1.74	n/a
29	Chattanooga, TN	1.47	n/a
30	Sioux Falls, SD	n/a	n/a

Source: 1992 Economic Census, Survey of Minority-Owned Businesses

Employees of Hispanic Businesses

Number of persons employed by Hispanic businesses, 1992 (M\$A)

1	Tampa, FL	13,401	n/a
2	Fort Lauderdale, FL	8,105	n/a
3	Sacramento, CA	5,209	n/a
4	St. Louis, MO	3,632	n/a
5	Fort Worth, TX	3,249	n/a
6	Trenton, NJ	3,228	n/a
7	Jacksonville, FL	1,879	n/a
8	Charlotte, NC	1,617	n/a
9	Salt Lake City, UT	1,433	n/a
10	Providence, RI	1,237	n/a
11	Columbus, OH	1,128	n/a
12	Indianapolis, IN	1,049	n/a
13	Portland, ME	918	n/a
14	Pittsburgh, PA	919	n/a
15	Wilmington, DE	701	n/a
16	Baton Rouge, LA	607	n/a
17	Richmond, VA	574	n/a
18	Milwaukee, WI	551	n/a
19	Raleigh/Durham, NC	450	n/a
20	Omaha, NE	441	n/a
21	Louisville, KY	431	n/a
22	Wichita, KS	365	n/a
23	Rochester, NY	353	n/a
24	Fort Wayne, IN	270	n/a
25	Albany, NY	262	n/a
26	Des Moines, IA	252	n/a
27	Chattanooga, TN	108	n/a
28	Harrisburg, PA	92	n/a
29	Sioux Falls, SD	n/a	n/a
30	Cincinnati, OH	n/a	n/a

Source: 1992 Economic Census, Survey of Minority-Owned Businesses

Employees of Hispanic Businesses By Total Area Laborforce

Number of persons employed by Hispanic business per every 100,000 persons in the laborforce, 1992 (M\$A)

1	Trenton, NJ	1,842	n/a
2	Tampa, FL	1,290	n/a
3	Fort Lauderdale, FL	1,178	n/a
4	Sacramento, CA	664	n/a
5	Fort Worth, TX	486	n/a
6	Jacksonville, FL	399	n/a
7	Providence, RI	354	n/a
8	St. Louis, MO	285	n/a
9	Salt Lake City, UT	274	n/a
10	Charlotte, NC	246	n/a
11	Wilmington, DE	222	n/a
12	Baton Rouge, LA	214	n/a
13	Indianapolis, IN	157	n/a
14	Columbus, OH	148	n/a
15	Portland, ME	141	n/a
16	Wichita, KS	138	n/a
17	Fort Wayne, IN	135	n/a
18	Omaha, NE	128	n/a
19	Richmond, VA	120	n/a
20	Des Moines, IA	101	n/a
21	Raleigh/Durham, NC	100	n/a
22	Pittsburgh, PA	89	n/a
23	Louisville, KY	84	n/a
24	Milwaukee, WI	71	n/a
25	Rochester, NY	69	n/a
26	Albany, NY	60	n/a
27	Chattanooga, TN	50	n/a
28	Harrisburg, PA	27	n/a
29	Sioux Falls, SD	n/a	n/a
30	Cincinnati, OH	n/a	n/a

Source: 1992 Economic Census, Survey of Minority-Owned Businesses

Business Development

continued

Black Businesses

Number of businesses owned by Black persons, 1992 (M\$A)

1	St. Louis, MO	7,321	n/a
2	Fort Lauderdale, FL	7,146	n/a
3	Richmond, VA	5,752	n/a
4	Raleigh/Durham, NC	5,601	n/a
5	Charlotte, NC	4,882	n/a
6	Columbus, OH	4,268	n/a
7	Indianapolis, IN	3,990	n/a
8	Tampa, FL	3,943	n/a
9	Cincinnati, OH	3,928	n/a
10	Fort Worth, TX	3,542	n/a
11	Baton Rouge, LA	3,024	n/a
12	Jacksonville, FL	2,863	n/a
13	Sacramento, CA	2,734	n/a
14	Milwaukee, WI	2,684	n/a
15	Pittsburgh, PA	2,678	n/a
16	Louisville, KY	2,509	n/a
17	Portland, ME	1,980	n/a
18	Rochester, NY	1,475	n/a
19	Wilmington, DE	1,348	n/a
20	Omaha, NE	1,173	n/a
21	Chattanooga, TN	957	n/a
22	Trenton, NJ	919	n/a
23	Providence, RI	846	n/a
24	Wichita, KS	835	n/a
25	Harrisburg, PA	819	n/a
26	Albany, NY	646	n/a
27	Fort Wayne, IN	620	n/a
28	Des Moines, IA	427	n/a
29	Salt Lake City, UT	285	n/a
30	Sioux Falls, SD	n/a	n/a

Source: 1992 Economic Census, Survey of Minority-Owned Businesses

Black Businesses By Total Business Population

Number of black businesses as a percentage of the total number of area businesses, 1992 (M\$A)

1	Fort Lauderdale, FL	38.12	n/a
2	Raleigh/Durham, NC	30.38	n/a
3	Richmond, VA	23.25	n/a
4	Baton Rouge, LA	22.87	n/a
5	Charlotte, NC	13.95	n/a
6	Wilmington, DE	12.87	n/a
7	Columbus, OH	12.34	n/a
8	Trenton, NJ	11.51	n/a
9	St. Louis, MO	11.42	n/a
10	Jacksonville, FL	11.13	n/a
11	Fort Worth, TX	10.51	n/a
12	Indianapolis, IN	10.35	n/a
13	Omaha, NE	10.09	n/a
14	Louisville, KY	9.94	n/a
15	Milwaukee, WI	9.28	n/a
16	Chattanooga, TN	8.96	n/a
17	Cincinnati, OH	8.82	n/a
18	Sacramento, CA	7.46	n/a
19	Pittsburgh, PA	7.13	n/a
20	Tampa, FL	6.86	n/a
21	Portland, ME	6.86	n/a
22	Providence, RI	6.46	n/a
23	Wichita, KS	6.33	n/a
24	Rochester, NY	6.27	n/a
25	Harrisburg, PA	5.63	n/a
26	Fort Wayne, IN	5.10	n/a
27	Des Moines, IA	3.48	n/a
28	Albany, NY	3.21	n/a
29	Salt Lake City, UT	1.01	n/a
30	Sioux Falls, SD	n/a	n/a

Source: 1992 Economic Census, Survey of Minority-Owned Businesses

Black Businesses By Black Population

Number of businesses owned by Black persons per every 100,000 Black persons, 1992 (M\$A)

1	Fort Lauderdale, FL	31.55	n/a
2	Des Moines, IA	26.25	n/a
3	Sacramento, CA	24.10	n/a
4	Columbus, OH	23.66	n/a
5	Salt Lake City, UT	22.65	n/a
6	Raleigh/Durham, NC	21.93	n/a
7	Omaha, NE	21.71	n/a
8	Wichita, KS	21.20	n/a
9	Fort Worth, TX	21.05	n/a
10	Richmond, VA	20.67	n/a
11	Indianapolis, IN	19.98	n/a
12	Portland, ME	19.85	n/a
13	Louisville, KY	19.54	n/a
14	Harrisburg, PA	19.50	n/a
15	Fort Wayne, IN	19.47	n/a
16	Cincinnati, OH	19.34	n/a
17	Providence, RI	19.26	n/a
18	Tampa, FL	19.04	n/a
19	Charlotte, NC	18.44	n/a
20	Baton Rouge, LA	17.70	n/a
21	St. Louis, MO	16.66	n/a
22	Wilmington, DE	16.46	n/a
23	Albany, NY	15.75	n/a
24	Chattanooga, TN	15.43	n/a
25	Rochester, NY	15.06	n/a
26	Pittsburgh, PA	14.81	n/a
27	Trenton, NJ	14.65	n/a
28	Jacksonville, FL	14.34	n/a
29	Milwaukee, WI	13.26	n/a
30	Sioux Falls, SD	n/a	n/a

Source: 1992 Economic Census, Survey of Minority-Owned Businesses

Sales and Receipts of Black

Businesses

Sales and receipts by Black business, in thousands, 1992 (M\$A)

1	Indianapolis, IN	\$389,737	n/a
2	Milwaukee, WI	\$293,950	n/a
3	Fort Lauderdale, FL	\$258,934	n/a
4	St. Louis, MO	\$244,615	n/a
5	Columbus, OH	\$228,005	n/a
6	Richmond, VA	\$226,633	n/a
7	Raleigh/Durham, NC	\$174,001	n/a
8	Charlotte, NC	\$168,972	n/a
9	Tampa, FL	\$164,019	n/a
10	Cincinnati, OH	\$155,179	n/a
11	Pittsburgh, PA	\$151,922	n/a
12	Wilmington, DE	\$129,860	n/a
13	Jacksonville, FL	\$123,957	n/a
14	Louisville, KY	\$123,112	n/a
15	Portland, ME	\$117,816	n/a
16	Fort Worth, TX	\$107,529	n/a
17	Baton Rouge, LA	\$100,372	n/a
18	Sacramento, CA	\$87,467	n/a
19	Providence, RI	\$85,260	n/a
20	Rochester, NY	\$46,689	n/a
21	Salt Lake City, UT	\$42,751	n/a
22	Des Moines, IA	\$32,457	n/a
23	Chattanooga, TN	\$27,978	n/a
24	Fort Wayne, IN	\$27,854	n/a
25	Trenton, NJ	\$27,852	n/a
26	Harrisburg, PA	\$25,906	n/a
27	Wichita, KS	\$20,515	n/a
28	Albany, NY	\$19,552	n/a
29	Omaha, NE	n/a	n/a
30	Sioux Falls, SD	n/a	n/a

Source: 1992 Economic Census, Survey of Minority-Owned Businesses

Business Development

continued.

Average Sales and Receipts Per Black Business

Average sales and receipts per Black business, 1992 (MSA)

1 Salt Lake City, UT	\$150,004
2 Milwaukee, WI	\$109,184
3 Providence, RI	\$100,780
4 Indianapolis, IN	\$97,678
5 Wilmington, DE	\$96,335
6 Des Moines, IA	\$76,012
7 Trenton, NJ	\$69,691
8 Pittsburgh, PA	\$56,730
9 Columbus, OH	\$53,422
10 Louisville, KY	\$49,068
11 Fort Wayne, IN	\$44,926
12 Jacksonville, FL	\$43,296
13 Tampa, FL	\$41,598
14 Cincinnati, OH	\$39,506
15 Richmond, VA	\$39,401
16 Fort Lauderdale, FL	\$36,235
17 Charlotte, NC	\$34,611
18 St. Louis, MO	\$33,413
19 Baton Rouge, LA	\$33,192
20 Sacramento, CA	\$31,992
21 Rochester, NY	\$31,654
22 Harrisburg, PA	\$31,631
23 Raleigh/Durham, NC	\$31,066
24 Fort Worth, TX	\$30,358
25 Trenton, NJ	\$30,307
26 Albany, NY	\$30,266
27 Chattanooga, TN	\$29,235
28 Wichita, KS	\$24,569
29 Fort Wayne, IN	n/a
30 Omaha, NE	n/a

Source: 1993 Economic Census, Survey of Minority-Owned Businesses

Sales and Receipts of Black Businesses By Total Personal Income

Sales and receipts by Black businesses as a percentage of total personal income, 1992 (MSA)

1 Indianapolis, IN	14.63
2 Richmond, VA	12.23
3 Baton Rouge, LA	11.90
4 Wilmington, DE	11.87
5 Raleigh/Durham, NC	10.40
6 Milwaukee, WI	10.25
7 Columbus, OH	9.24
8 Fort Lauderdale, FL	9.21
9 Charlotte, NC	7.78
10 Jacksonville, FL	7.54
11 Louisville, KY	7.12
12 Cincinnati, OH	5.37
13 Providence, RI	4.91
14 St. Louis, MO	4.87
15 Tampa, FL	4.40
16 Fort Worth, TX	4.21
17 Des Moines, IA	4.17
18 Harrisburg, PA	4.15
19 Chattanooga, TN	3.97
20 Fort Wayne, IN	3.40
21 Pittsburgh, PA	3.34
22 Sacramento, CA	3.33
23 Trenton, NJ	3.30
24 Salt Lake City, UT	2.60
25 Harrisburg, PA	2.32
26 Wichita, KS	2.27
27 Rochester, NY	2.20
28 Albany, NY	1.16
29 Omaha, NE	n/a
30 Sioux Falls, SD	n/a

Source: 1992 Economic Census, Survey of Minority-Owned Businesses

Employees of Black Businesses

Number of persons employed by Black businesses, 1992 (MSA)

1 Richmond, VA	3,005
2 Indianapolis, IN	2,437
3 Fort Lauderdale, FL	2,728
4 Columbus, OH	2,630
5 Milwaukee, WI	2,439
6 St. Louis, MO	2,399
7 Raleigh/Durham, NC	2,288
8 Wilmington, DE	2,083
9 Jacksonville, FL	1,819
10 Tampa, FL	1,730
11 Fort Worth, TX	1,480
12 Charlotte, NC	1,471
13 Louisville, KY	1,350
14 Pittsburgh, PA	1,334
15 Baton Rouge, LA	982
16 Harrisburg, PA	937
17 Sacramento, CA	760
18 Rochester, NY	731
19 Fort Wayne, IN	573
20 Chattanooga, TN	500
21 Trenton, NJ	336
22 Salt Lake City, UT	244
23 Harrisburg, PA	224
24 Albany, NY	180
25 Wichita, KS	178
26 Des Moines, IA	148
Sioux Falls, SD	n/a
Cincinnati, OH	n/a
Omaha, NE	n/a
Providence, RI	n/a

Source: 1992 Economic Census, Survey of Minority-Owned Businesses

Employees of Black Businesses By Total Area Laborforce

Number of persons employed by Black businesses per every 100,000 persons in the laborforce, 1992 (MSA)

1 Wilmington, DE	659
2 Richmond, VA	629
3 Raleigh/Durham, NC	509
4 Indianapolis, IN	425
5 Fort Lauderdale, FL	396
6 Jacksonville, FL	387
7 Baton Rouge, LA	347
8 Columbus, OH	346
9 Milwaukee, WI	316
10 Fort Wayne, IN	287
11 Louisville, KY	263
12 Chattanooga, TN	234
13 Charlotte, NC	224
14 Fort Worth, TX	198
15 Trenton, NJ	192
16 St. Louis, MO	188
17 Tampa, FL	167
18 Harrisburg, PA	149
19 Rochester, NY	143
20 Pittsburgh, PA	129
21 Sacramento, CA	97
22 Wichita, KS	67
23 Harrisburg, PA	65
24 Des Moines, IA	60
25 Salt Lake City, UT	47
26 Albany, NY	41
Providence, RI	n/a
Cincinnati, OH	n/a
Omaha, NE	n/a
Sioux Falls, SD	n/a

Source: 1992 Economic Census, Survey of Minority-Owned Businesses

Business Development

continued.

Native American and Asian Businesses

Number of businesses owned by Native American and Asian persons, 1992 (MSA)

1 Sacramento, CA	7,103
2 Fort Worth, TX	3,990
3 Tampa, FL	2,557
4 Fort Lauderdale, FL	2,418
5 St. Louis, MO	2,075
6 Pittsburgh, PA	1,704
7 Richmond, VA	1,328
8 Salt Lake City, UT	1,280
9 Charlotte, NC	1,212
10 Columbus, OH	1,201
11 Indianapolis, IN	1,162
12 Fort Worth, TX	1,071
13 Jacksonville, FL	1,128
14 Providence, RI	1,023
15 Milwaukee, WI	999
16 Cincinnati, OH	990
17 Raleigh/Durham, NC	931
18 Rochester, NY	836
19 Albany, NY	741
20 Wilmington, DE	669
21 Trenton, NJ	638
22 Louisville, KY	608
23 Harrisburg, PA	551
24 Baton Rouge, LA	489
25 Wichita, KS	436
26 Chattanooga, TN	316
27 Omaha, NE	313
28 Fort Wayne, IN	288
29 Des Moines, IA	252
30 Sioux Falls, SD	n/a

Source: 1993 Economic Census, Survey of Minority-Owned Businesses

Native American and Asian Businesses By Total Business Population

Number of Native American and Asian businesses as a percentage of the total number of area businesses, 1992 (MSA)

1 Sacramento, CA	19.38
2 Fort Lauderdale, FL	12.90
3 Fort Worth, TX	10.65
4 Trenton, NJ	7.99
5 Providence, RI	7.82
6 Wilmington, DE	6.39
7 Richmond, VA	5.37
8 Raleigh/Durham, NC	5.05
9 Pittsburgh, PA	4.54
10 Salt Lake City, UT	4.53
11 Tampa, FL	4.45
12 Jacksonville, FL	4.38
13 Harrisburg, PA	3.93
14 Harrisburg, PA	3.79
15 Baton Rouge, LA	3.70
16 Albany, NY	3.69
17 Rochester, NY	3.56
18 Columbus, OH	3.47
19 Charlotte, NC	3.46
20 Milwaukee, WI	3.45
21 Wichita, KS	3.30
22 St. Louis, MO	3.24
23 Indianapolis, IN	3.01
24 Chattanooga, TN	2.96
25 Omaha, NE	2.69
26 Louisville, KY	2.41
27 Fort Wayne, IN	2.37
28 Cincinnati, OH	2.22
29 Des Moines, IA	2.05
30 Sioux Falls, SD	n/a

Source: 1992 Economic Census, Survey of Minority-Owned Businesses

Native American and Asian Businesses By Their Population

Number of businesses owned by Native American and Asian persons per every 100,000 Native American and Asian persons, 1992 (MSA)

1 Pittsburgh, PA	70.66
2 Richmond, VA	69.67
3 Chattanooga, TN	63.44
4 Louisville, KY	61.09
5 Indianapolis, IN	59.09
6 Fort Lauderdale, FL	56.68
7 Cincinnati, OH	55.39
8 Charlotte, NC	53.59
9 St. Louis, MO	53.50
10 Baton Rouge, LA	52.96
11 Harrisburg, PA	43.95
12 Wilmington, DE	43.19
13 Albany, NY	41.54
14 Tampa, FL	41.15
15 Columbus, OH	38.36
16 Raleigh/Durham, NC	36.76
17 Sacramento, CA	34.84
18 Fort Wayne, IN	33.67
19 Trenton, NJ	31.51
20 Fort Worth, TX	26.00
21 Rochester, NY	24.50
22 Des Moines, IA	23.54
23 Jacksonville, FL	20.82
24 Chattanooga, TN	19.05
25 Milwaukee, WI	18.92
26 Omaha, NE	18.54
27 Providence, RI	18.17
28 Salt Lake City, UT	17.54
29 Wichita, KS	16.50
30 Sioux Falls, SD	n/a

Source: 1992 Economic Census, Survey of Minority-Owned Businesses

Sales and Receipts of Native American and Asian Businesses

Sales and receipts by Native American and Asian businesses, in thousands 1992 (MSA)

1 Sacramento, CA	\$1,018,380
2 Pittsburgh, PA	\$849,919
3 Fort Lauderdale, FL	\$474,503
4 Des Moines, IA	\$426,163
5 Trenton, NJ	\$377,831
6 St. Louis, MO	\$341,486
7 Tampa, FL	\$320,734
8 Fort Worth, TX	\$292,709
9 Richmond, VA	\$267,133
10 Milwaukee, WI	\$232,302
11 Columbus, OH	\$212,247
12 Indianapolis, IN	\$203,898
13 Cincinnati, OH	\$196,034
14 Jacksonville, FL	\$194,671
15 Charlotte, NC	\$194,622
16 Wilmington, DE	\$152,372
17 Raleigh/Durham, NC	\$148,236
18 Salt Lake City, UT	\$138,148
19 Rochester, NY	\$137,581
20 Providence, RI	\$118,534
21 Louisville, KY	\$107,799
22 Trenton, NJ	\$100,716
23 Wichita, KS	\$66,153
24 Baton Rouge, LA	\$63,445
25 Harrisburg, PA	\$59,660
26 Albany, NY	\$56,181
27 Omaha, NE	\$50,331
28 Chattanooga, TN	\$43,832
29 Fort Wayne, IN	\$33,413
30 Sioux Falls, SD	n/a

Source: 1992 Economic Census, Survey of Minority-Owned Businesses

Business Development

continued

Average Sales and Receipts Per Native American and Asian Business

Average sales and receipts per Native American and Asian business, 1994 (MSA)

Rank	City/State	1994 Sales/Receipts (\$)	1993 Sales/Receipts (\$)
1	Des Moines, IA	\$1,691,123	n/a
2	Pittsburgh, PA	\$498,779	\$398,506
3	Portland, OR	\$398,506	n/a
4	Milwaukee, WI	\$232,535	n/a
5	Wilmington, DE	\$227,761	n/a
6	Richmond, VA	\$201,154	n/a
7	Cincinnati, OH	\$198,014	n/a
8	Fort Lauderdale, FL	\$196,238	n/a
9	Louisville, KY	\$177,301	n/a
10	Columbus, OH	\$176,725	n/a
11	Indianapolis, IN	\$175,472	n/a
12	Jacksonville, FL	\$172,581	n/a
13	St. Louis, MO	\$164,572	n/a
14	Rochester, NY	\$164,371	n/a
15	Omaha, NE	\$160,802	n/a
16	Charlotte, NC	\$160,579	n/a
17	Raleigh/Durham, NC	\$159,222	n/a
18	Trenton, NJ	\$157,862	n/a
19	Wichita, KS	\$151,727	n/a
20	Sacramento, CA	\$143,373	n/a
21	Chattanooga, TN	\$138,709	n/a
22	Baton Rouge, LA	\$129,744	n/a
23	Tampa, FL	\$125,434	n/a
24	Fort Wayne, IN	\$116,024	n/a
25	Providence, RI	\$115,869	n/a
26	Harrisburg, PA	\$108,276	n/a
27	Salt Lake City, UT	\$107,928	n/a
28	Fort Worth, TX	\$81,535	n/a
29	Albany, NY	\$75,818	n/a
30	Sioux Falls, SD	n/a	n/a

Source: 1992 Economic Census: Survey of Minority-Owned Businesses

Sales and Receipts of Native American and Asian Businesses By Total Personal Income

Sales and receipts of Native American and Asian businesses as a percentage of total personal income, 1992 (MSA)

Rank	City/State	1992 %	1991 %
1	Des Moines, IA	54.80	n/a
2	Sacramento, CA	38.79	n/a
3	Pittsburgh, PA	18.71	n/a
4	Fort Lauderdale, FL	16.88	n/a
5	Richmond, VA	14.41	n/a
6	Wilmington, DE	13.92	n/a
7	Portland, OR	12.87	n/a
8	Trenton, NJ	11.93	n/a
9	Jacksonville, FL	11.84	n/a
10	Fort Worth, TX	11.47	n/a
11	Charlotte, NC	8.96	n/a
12	Raleigh/Durham, NC	8.86	n/a
13	Columbus, OH	8.61	n/a
14	Tampa, FL	8.60	n/a
15	Salt Lake City, UT	8.41	n/a
16	Milwaukee, WI	8.13	n/a
17	Indianapolis, IN	7.65	n/a
18	Baton Rouge, LA	7.52	n/a
19	Wichita, KS	7.32	n/a
20	Providence, RI	6.82	n/a
21	St. Louis, MO	6.80	n/a
22	Cincinnati, OH	6.78	n/a
23	Rochester, NY	6.48	n/a
24	Louisville, KY	6.23	n/a
25	Chattanooga, TN	6.23	n/a
26	Harrisburg, PA	5.33	n/a
27	Omaha, NE	4.25	n/a
28	Fort Wayne, IN	4.08	n/a
29	Albany, NY	3.34	n/a
30	Sioux Falls, SD	n/a	n/a

Source: 1992 Economic Census: Survey of Minority-Owned Businesses

Employees of Native American and Asian Businesses

Number of persons employed by Native American and Asian businesses, 1992 (MSA)

Rank	City/State	1992	1991
1	Sacramento, CA	9,760	7,694
2	Portland, OR	5,032	4,816
3	Pittsburgh, PA	4,816	4,765
4	Fort Lauderdale, FL	4,765	3,280
5	St. Louis, MO	3,280	2,949
6	Tampa, FL	2,949	2,808
7	Richmond, VA	2,808	2,583
8	Milwaukee, WI	2,583	2,437
9	Indianapolis, IN	2,437	2,430
10	Jacksonville, FL	2,437	2,075
11	Fort Worth, TX	2,430	1,821
12	Charlotte, NC	2,075	1,698
13	Columbus, OH	2,055	1,682
14	Louisville, KY	1,821	1,496
15	Wilmington, DE	1,698	1,496
16	Salt Lake City, UT	1,682	1,395
17	Providence, RI	1,496	1,381
18	Rochester, NY	1,395	1,129
19	Cincinnati, OH	1,381	885
20	Raleigh/Durham, NC	1,129	885
21	Des Moines, IA	885	833
22	Wichita, KS	833	794
23	Baton Rouge, LA	833	572
24	Omaha, NE	794	572
25	Chattanooga, TN	572	569
26	Fort Wayne, IN	569	529
27	Harrisburg, PA	529	435
28	Albany, NY	435	427
29	Trenton, NJ	427	n/a
30	Sioux Falls, SD	n/a	n/a

Source: 1992 Economic Census: Survey of Minority-Owned Businesses

Employees of Native American and Asian Businesses By Total Area Laborforce

Number of persons employed by Native American and Asian businesses per every 100,000 persons in the laborforce, 1992 (MSA)

Rank	City/State	1992	1991
1	Sacramento, CA	1,244	1,206
2	Portland, OR	700	617
3	Fort Lauderdale, FL	617	539
4	Richmond, VA	539	537
5	Jacksonville, FL	537	487
6	Wilmington, DE	487	455
7	Pittsburgh, PA	455	428
8	Des Moines, IA	428	388
9	Providence, RI	388	374
10	Indianapolis, IN	374	364
11	St. Louis, MO	364	351
12	Milwaukee, WI	351	334
13	Louisville, KY	334	326
14	Wichita, KS	326	321
15	Fort Worth, TX	321	316
16	Salt Lake City, UT	316	307
17	Tampa, FL	316	294
18	Charlotte, NC	307	285
19	Raleigh/Durham, NC	294	273
20	Baton Rouge, LA	285	270
21	Fort Wayne, IN	273	270
22	Rochester, NY	270	267
23	Columbus, OH	270	244
24	Chattanooga, TN	267	244
25	Trenton, NJ	244	230
26	Omaha, NE	230	175
27	Cincinnati, OH	175	154
28	Harrisburg, PA	154	100
29	Albany, NY	100	n/a
30	Sioux Falls, SD	n/a	n/a

Source: 1992 Economic Census: Survey of Minority-Owned Businesses

Facilities Costs and Vacancy Rates

continued

Industrial Vacancy Rates

Central Business Districts, 1997

Rank	City/State	1997	1996
1	Wilmington, DE	34.4%	n/a
2	Pittsburgh, PA	17.2%	n/a
3	Providence, RI	14.5%	n/a
4	Columbus, OH	11.0%	n/a
5	Wichita, KS	10.9%	n/a
6	Richmond, VA	10.1%	n/a
7	Sacramento, CA	8.0%	n/a
8	Indianapolis, IN	6.9%	n/a
9	Fort Worth, TX	5.1%	n/a
10	Omaha, NE	4.9%	n/a
11	Louisville, KY	4.2%	n/a
12	St. Louis, MO	3.5%	n/a
13	Salt Lake City, UT	2.8%	n/a
14	Harrisburg, PA	1.9%	n/a
15	Des Moines, IA	1.8%	n/a
16	Cincinnati, OH	0.7%	n/a
17	Cincinnati, OH	0.6%	n/a
18	Sioux Falls, SD	n/a	n/a
19	Trenton, NJ	n/a	n/a
20	Charlotte, NC	n/a	n/a
21	Tampa, FL	n/a	n/a
22	Portland, OR	n/a	n/a
23	Rochester, NY	n/a	n/a
24	Raleigh/Durham, NC	n/a	n/a
25	Fort Lauderdale, FL	n/a	n/a
26	Fort Wayne, IN	n/a	n/a
27	Milwaukee, WI	n/a	n/a
28	Baton Rouge, LA	n/a	n/a
29	Jacksonville, FL	n/a	n/a
30	Albany, NY	n/a	n/a

Source: The Society of Industrial and Office Realtors, 1997

Comprehensive Statistics of Industrial and Office Real Estate Markets

*Supplement by Urban Land Institute's Market Profiles, 1993

**Source: Realty Watcher Network, Hartford, CT, May 1997

Industrial Vacancy Rates

Outside Central Business Districts, 1997

Rank	City/State	1997	1996
1	Wichita, KS	15.2%	n/a
2	Portland, OR	13.0%	n/a
3	Providence, RI	13.4%	n/a
4	Omaha, NE	13.2%	n/a
5	Charlotte, NC	10.6%	n/a
6	Albany, NY	9.8%	n/a
7	Tampa, FL	6.7%	n/a
8	Columbus, OH	6.4%	n/a
9	Jacksonville, FL	6.1%	n/a
10	Fort Wayne, IN	6.0%	n/a
11	Fort Worth, TX	5.9%	n/a
12	Richmond, VA	5.1%	n/a
13	Salt Lake City, UT	4.6%	n/a
14	Milwaukee, WI	4.0%	n/a
15	Wilmington, DE	3.4%	n/a
16	Cincinnati, OH	3.1%	n/a
17	Baton Rouge, LA	2.9%	n/a
18	St. Louis, MO	2.6%	n/a
19	Chattanooga, TN	2.4%	n/a
20	Raleigh/Durham, NC	2.3%	n/a
21	Louisville, KY	1.8%	n/a
22	Des Moines, IA	0.7%	n/a
23	Rochester, NY	n/a	n/a
24	Sioux Falls, SD	n/a	n/a
25	Fort Lauderdale, FL	n/a	n/a
26	Harrisburg, PA	n/a	n/a
27	Trenton, NJ	n/a	n/a
28	Pittsburgh, PA	n/a	n/a
29	Sacramento, CA	n/a	n/a
30	Indianapolis, IN	n/a	n/a

Source: The Society of Industrial and Office Realtors, 1997

Comprehensive Statistics of Industrial and Office Real Estate Markets

Average Industrial Lease Price

Per Sq. Ft. for 50,000 sq. ft. structures, Central Business Districts, 1997

Rank	City/State	1997	1996
1	Indianapolis, IN	\$3.65	n/a
2	Louisville, KY	\$3.50	n/a
3	Wichita, KS	\$3.50	n/a
4	Cincinnati, OH	\$3.50	n/a
5	Pittsburgh, PA	\$3.50	n/a
6	Portland, OR	\$3.25	n/a
7	Richmond, VA	\$3.25	n/a
8	Albany, NY	\$3.00	n/a
9	Des Moines, IA	\$3.00	n/a
10	Omaha, NE	\$2.90	n/a
11	Sacramento, CA	\$2.88	n/a
12	St. Louis, MO	\$2.80	n/a
13	Chattanooga, TN	\$2.75	n/a
14	Fort Wayne, IN	\$2.50	n/a
15	Harrisburg, PA	\$2.50	n/a
16	Providence, RI	\$2.25	n/a
17	Milwaukee, WI	n/a	n/a
18	Sioux Falls, SD	n/a	n/a
19	Charlotte, NC	n/a	n/a
20	Trenton, NJ	n/a	n/a
21	Tampa, FL	n/a	n/a
22	Fort Lauderdale, FL	n/a	n/a
23	Jacksonville, FL	n/a	n/a
24	Salt Lake City, UT	n/a	n/a
25	Columbus, OH	n/a	n/a
26	Baton Rouge, LA	n/a	n/a
27	Raleigh/Durham, NC	n/a	n/a
28	Fort Worth, TX	n/a	n/a
29	Wilmington, DE	n/a	n/a

Source: The Society of Industrial and Office Realtors, 1997

Comprehensive Statistics of Industrial and Office Real Estate Markets

Average Industrial Lease Price

Per Sq. Ft. for 50,000 sq. ft. structures, 1997 (MSA)

Rank	City/State	1997	1996
1	Fort Lauderdale, FL	\$4.25	n/a
2	Wilmington, DE	\$4.00	n/a
3	Raleigh/Durham, NC	\$4.00	n/a
4	Milwaukee, WI	\$4.00	n/a
5	Richmond, VA	\$4.00	n/a
6	St. Louis, MO	\$4.00	n/a
7	Indianapolis, IN	\$3.65	n/a
8	Pittsburgh, PA	\$3.50	n/a
9	Wichita, KS	\$3.50	n/a
10	Baton Rouge, LA	\$3.50	n/a
11	Louisville, KY	\$3.50	n/a
12	Albany, NY	\$3.50	n/a
13	Harrisburg, PA	\$3.50	n/a
14	Salt Lake City, UT	\$3.27	n/a
15	Des Moines, IA	\$3.25	n/a
16	Tampa, FL	\$3.25	n/a
17	Portland, OR	\$3.25	n/a
18	Fort Worth, TX	\$3.25	n/a
19	Cincinnati, OH	\$3.20	n/a
20	Omaha, NE	\$3.15	n/a
21	Chattanooga, TN	\$3.00	n/a
22	Jacksonville, FL	\$3.00	n/a
23	Columbus, OH	\$3.00	n/a
24	Providence, RI	\$2.75	n/a
25	Fort Wayne, IN	\$2.75	n/a
26	Sacramento, CA	n/a	n/a
27	Rochester, NY	n/a	n/a
28	Trenton, NJ	n/a	n/a
29	Charlotte, NC	n/a	n/a
30	Sioux Falls, SD	n/a	n/a

Source: The Society of Industrial and Office Realtors, 1997

Comprehensive Statistics of Industrial and Office Real Estate Markets

Facilities Costs and Vacancy Rates

continued

Average Industrial Lease Price
Per Sq. Ft. for 50,000 or more square-foot suburban facility,
1997 (MSA)

1 St. Louis, MO	\$9.50
2 Milwaukee, WI	\$8.40
3 Charlotte, NC	\$8.00
3 Jacksonville, FL	\$8.00
4 Albany, NY	\$7.50
4 Cincinnati, OH	\$7.50
5 Raleigh/Durham, NC	\$6.75
6 Pittsburgh, PA	\$6.50
6 Providence, RI	\$6.50
6 Harrisburg, PA	\$6.50
7 Richmond, VA	\$6.00
7 Des Moines, IA	\$6.00
7 Omaha, NE	\$6.00
7 Salt Lake City, UT	\$6.00
8 Fort Wayne, IN	\$5.50
8 Indianapolis, IN	\$5.50
8 Fort Lauderdale, FL	\$5.50
9 Tampa, FL	\$4.75
10 Wilmington, DE	\$4.50
11 Columbus, OH	\$3.50
12 Fort Worth, TX	n/a
12 Baton Rouge, LA	n/a
12 Wichita, KS	n/a
Trenton, NJ	n/a
Sioux Falls, SD	n/a
Chattanooga, TN	n/a
Rochester, NY	n/a
Sacramento, CA	n/a
Louisville, KY	n/a

Source: The Society of Industrial and Office Builders, "1997
Comprehensive Statistics of Industrial and Office Real Estate Markets"
*Appointed by Urban Land Institute's Market Profiles, 1995
**Source: Fidelity White/Farmers, Hartford, CT, May 1997

Cost of Construction
Per Sq. Ft., 1997 (MSA)

1 Wilmington, DE	\$46.00
2 Richmond, VA	\$37.50
3 St. Louis, MO	\$37.00
4 Pittsburgh, PA	\$32.50
5 Indianapolis, IN	\$32.50
6 Fort Lauderdale, FL	\$32.00
7 Tampa, FL	<\$30.00
8 Providence, RI	\$30.00
9 Milwaukee, WI	\$30.00
10 Louisville, KY	\$30.00
11 Des Moines, IA	\$30.00
12 Fort Wayne, IN	\$30.00
13 Cincinnati, OH	\$30.00
14 Columbus, OH	\$26.00
15 Tampa, FL	\$26.00
16 Salt Lake City, UT	\$25.00
17 Baton Rouge, LA	\$25.00
18 Sacramento, CA	\$24.75
19 Raleigh/Durham, NC	\$24.50
20 Omaha, NE	\$24.00
21 Fort Worth, TX	\$24.00
22 Albany, NY	\$23.50
23 Harrisburg, PA	\$23.00
24 Chattanooga, TN	\$22.00
25 Wichita, KS	\$20.00
Rochester, NY	n/a
Sioux Falls, SD	n/a
Charlotte, NC	n/a
Jacksonville, FL	n/a
Trenton, NJ	n/a

Source: The Society of Industrial and Office Builders, "1997
Comprehensive Statistics of Industrial and Office Real Estate
Markets"

Facilities Costs and Vacancy Rates

continued

Inventory of Class A Space
Central Business District, 1997

1 Fort Worth, TX	13.7%
2 Raleigh/Durham, NC	13.2%
3 Indianapolis, IN	12.5%
4 Cincinnati, OH	12.3%
5 Providence, RI	12.2%
6 St. Louis, MO	11.5%
7 Tampa, FL	11.5%
8 Pittsburgh, PA	11.5%
9 Fort Lauderdale, FL	9.9%
10 Louisville, KY	9.5%
11 Wichita, KS	9.2%
12 Milwaukee, WI	9.0%
13 Wilmington, DE	8.7%
14 Jacksonville, FL	7.5%
15 Des Moines, IA	6.4%
16 Sacramento, CA	6.2%
17 Albany, NY	5.8%
18 Richmond, VA	5.4%
19 Baton Rouge, LA	3.5%
20 Fort Wayne, IN	2.8%
21 Columbus, OH	2.6%
22 Charlotte, NC	1.9%
23 Harrisburg, PA	1.5%
24 Salt Lake City, UT	1.3%
25 Chattanooga, TN	0.9%
26 Omaha, NE	0.5%
Sioux Falls, SD	n/a
Cincinnati, OH	n/a
Trenton, NJ	n/a
Rochester, NY	n/a

Source: The Society of Industrial and Office Builders, "1997
Comprehensive Statistics of Industrial and Office Real Estate
Markets"
*Appointed by Urban Land Institute's Market Profiles, 1995
**Source: Fidelity White/Farmers, Hartford, CT, May 1997

Inventory of Class A Space
Outside Central Business District, 1997

1 Providence, RI	18.6%
2 Miami, FL	14.4%
3 Jacksonville, FL	13.9%
4 Pittsburgh, PA	12.9%
5 Fort Wayne, IN	9.3%
6 Fort Lauderdale, FL	9.0%
7 Tampa, FL	8.5%
8 Sacramento, CA	8.1%
9 Charlotte, NC	7.7%
10 Des Moines, IA	7.4%
11 Fort Worth, TX	7.3%
12 Louisville, KY	7.0%
13 Indianapolis, IN	6.9%
14 Raleigh/Durham, NC	6.8%
15 Wilmington, DE	5.3%
16 Milwaukee, WI	5.0%
17 St. Louis, MO	4.9%
18 Baton Rouge, LA	4.5%
19 Columbus, OH	4.4%
20 Richmond, VA	4.0%
21 Salt Lake City, UT	3.4%
22 Albany, NY	2.7%
23 Harrisburg, PA	2.5%
24 Jacksonville, FL	1.8%
25 Chattanooga, TN	1.8%
26 Omaha, NE	0.3%
Rochester, NY	n/a
Cincinnati, OH	n/a
Trenton, NJ	n/a
Sioux Falls, SD	n/a

Source: The Society of Industrial and Office Builders, "1997
Comprehensive Statistics of Industrial and Office Real Estate Markets"
*Appointed by Urban Land Institute's Market Profiles, 1995
**Source: Fidelity White/Farmers, Hartford, CT, May 1997

Inventory of Class B Space
Central Business District, 1997

1 Tampa, FL	40.7%
2 Baton Rouge, LA	30.7%
4 Wilmington, DE	28.7%
5 Indianapolis, IN	26.4%
6 Richmond, VA	26.3%
7 Raleigh/Durham, NC	26.1%
8 St. Louis, MO	25.6%
9 Louisville, KY	23.6%
10 Providence, RI	23.6%
11 Fort Wayne, IN	23.0%
12 Wichita, KS	20.2%
13 Milwaukee, WI	18.2%
14 Omaha, NE	17.1%
15 Fort Worth, TX	16.8%
16 Chattanooga, TN	15.9%
17 Pittsburgh, PA	15.8%
18 Charlotte, NC	13.4%
19 Columbus, OH	12.9%
20 Albany, NY	12.8%
21 Sacramento, CA	12.6%
22 Jacksonville, FL	9.3%
23 Salt Lake City, UT	7.8%
24 Fort Lauderdale, FL	7.4%
25 Des Moines, IA	6.2%
26 Harrisburg, PA	4.0%
Cincinnati, OH	n/a
Trenton, NJ	n/a
Rochester, NY	n/a
Sioux Falls, SD	n/a

Source: The Society of Industrial and Office Builders, "1997
Comprehensive Statistics of Industrial and Office Real Estate
Markets"
*Appointed by Urban Land Institute's Market Profiles, 1995
**Source: Fidelity White/Farmers, Hartford, CT, May 1997

Inventory of Class B Space
Outside Central Business District, 1997

1 Fort Wayne, IN	20.1%
2 Wichita, KS	19.8%
4 Pittsburgh, PA	18.0%
5 Omaha, NE	17.6%
6 Milwaukee, WI	14.9%
7 Fort Worth, TX	14.0%
8 Des Moines, IA	13.6%
9 Fort Lauderdale, FL	12.5%
10 Jacksonville, FL	12.4%
11 St. Louis, MO	11.5%
12 Sacramento, CA	10.9%
13 Tampa, FL	10.7%
14 Charlotte, NC	10.5%
15 Baton Rouge, LA	10.3%
16 Indianapolis, IN	10.2%
17 Louisville, KY	9.3%
18 Richmond, VA	8.8%
19 Albany, NY	8.2%
20 Salt Lake City, UT	6.3%
21 Chattanooga, TN	6.1%
22 Wilmington, DE	5.2%
23 Columbus, OH	4.9%
24 Raleigh/Durham, NC	4.0%
25 Harrisburg, PA	4.0%
Providence, RI	n/a
Cincinnati, OH	n/a
Trenton, NJ	n/a
Rochester, NY	n/a
Sioux Falls, SD	n/a

Source: The Society of Industrial and Office Builders, "1997
Comprehensive Statistics of Industrial and Office Real Estate Markets"
*Appointed by Urban Land Institute's Market Profiles, 1995
**Source: Fidelity White/Farmers, Hartford, CT, May 1997

Facilities Costs and Vacancy Rates

continued

Rental Rates of Class A Space
Central Business District, 1997

1 Sacramento, CA	\$25.60
2 Charlotte, NC	\$25.00
3 Fort Lauderdale, FL	\$24.92
4 Pittsburgh, PA	\$23.00
5 Albany, NY	\$21.50
6 Milwaukee, WI	\$21.00
7 St. Louis, MO	\$20.01
8 Indianapolis, IN	\$19.00
9 Wilmington, DE	\$19.77
10 Salt Lake City, UT	\$19.50
11 Des Moines, IA	\$18.52
12 Harrisburg, PA	\$18.35
13 Baton Rouge, LA	\$17.44
14 Omaha, NE	\$17.00
15 Raleigh/Durham, NC	\$16.25
16 Tampa, FL	\$16.00
17 Louisville, KY	\$15.50
18 Fort Worth, TX	\$15.31
19 Wichita, KS	\$13.46
20 Sioux Falls, SD	n/a
21 Trenton, NJ	n/a
22 Chattanooga, TN	n/a
23 Cincinnati, OH	n/a
24 Indianapolis, IN	n/a
25 Jacksonville, FL	n/a
26 Rochester, NY	n/a
27 Richmond, VA	n/a
28 Columbus, OH	n/a
29 Fort Wayne, IN	n/a

Source: The Society of Industrial and Office Builders, 1997
Comparative Statistics of Industrial and Office Real Estate Markets
*Supplemented by Urban Land Institute's Market Profiles, 1993
**Source: Fidelity White Partners, Hartford, CT, May 1997

Rental Rates of Class A Space
Outside Central Business District, 1997

1 St. Louis, MO	\$21.48
2 Sacramento, CA	\$21.00
3 Fort Lauderdale, FL	\$20.36
4 Indianapolis, IN	\$20.00
4 Salt Lake City, UT	\$20.00
5 Tampa, FL	\$19.00
5 Milwaukee, WI	\$19.00
5 Charlotte, NC	\$19.00
6 Raleigh/Durham, NC	\$18.50
7 Des Moines, IA	\$17.94
8 Wilmington, DE	\$17.71
9 Harrisburg, PA	\$17.50
9 Omaha, NE	\$17.50
10 Pittsburgh, PA	\$16.26
11 Providence, RI	\$16.00
11 Louisville, KY	\$16.00
11 Albany, NY	\$16.00
12 Fort Worth, TX	\$16.00
13 Baton Rouge, LA	\$15.94
14 Richmond, VA	\$15.91
14 Indianapolis, IN	\$15.76
15 Wichita, KS	n/a
16 Trenton, NJ	n/a
17 Chattanooga, TN	n/a
18 Sioux Falls, SD	n/a
19 Cincinnati, OH	n/a
20 Columbus, OH	n/a
21 Jacksonville, FL	n/a
22 Rochester, NY	n/a
23 Fort Wayne, IN	n/a

Source: The Society of Industrial and Office Builders, 1997
Comparative Statistics of Industrial and Office Real Estate Markets
*Supplemented by Urban Land Institute's Market Profiles, 1993
**Source: Fidelity White Partners, Hartford, CT, May 1997

Rental Rates of Class B Space
Central Business District, 1997

1 Sacramento, CA	\$21.40
2 Fort Lauderdale, FL	\$17.45
3 Charlotte, NC	\$17.00
3 Milwaukee, WI	\$17.00
4 Pittsburgh, PA	\$15.56
5 Salt Lake City, UT	\$15.50
5 Providence, RI	\$15.00
5 Harrisburg, PA	\$15.00
6 Wilmington, DE	\$14.88
7 Tampa, FL	\$13.00
8 Des Moines, IA	\$12.17
10 Raleigh/Durham, NC	\$12.00
10 Albany, NY	\$12.00
10 Baton Rouge, LA	\$12.00
11 St. Louis, MO	\$11.79
12 Omaha, NE	\$11.50
13 Fort Worth, TX	\$10.65
14 Wichita, KS	\$10.60
15 Louisville, KY	\$10.25
16 Sioux Falls, SD	n/a
17 Trenton, NJ	n/a
18 Chattanooga, TN	n/a
19 Columbus, OH	n/a
20 Cincinnati, OH	n/a
21 Rochester, NY	n/a
22 Richmond, VA	n/a
23 Fort Wayne, IN	n/a
24 Indianapolis, IN	n/a
25 Jacksonville, FL	n/a
26 Fort Wayne, IN	n/a

Source: The Society of Industrial and Office Builders, 1997
Comparative Statistics of Industrial and Office Real Estate Markets
*Supplemented by Urban Land Institute's Market Profiles, 1993
**Source: Fidelity White Partners, Hartford, CT, May 1997

Rental Rates of Class B Space
Outside Central Business District, 1997

1 Sacramento, CA	\$18.60
2 St. Louis, MO	\$15.91
3 Fort Lauderdale, FL	\$15.62
4 Salt Lake City, UT	\$15.50
5 Charlotte, NC	\$15.00
5 Tampa, FL	\$15.00
5 Raleigh/Durham, NC	\$15.00
6 Wilmington, DE	\$14.59
7 Omaha, NE	\$14.50
8 Pittsburgh, PA	\$14.33
9 Harrisburg, PA	\$14.00
10 Des Moines, IA	\$13.88
11 Baton Rouge, LA	\$13.08
12 Milwaukee, WI	\$13.00
13 Indianapolis, IN	\$13.00
13 Louisville, KY	\$12.50
13 Albany, NY	\$12.50
14 Providence, RI	\$12.00
15 Richmond, VA	\$11.83
16 Fort Worth, TX	\$11.76
17 Cincinnati, OH	n/a
18 Wichita, KS	n/a
19 Trenton, NJ	n/a
20 Chattanooga, TN	n/a
21 Fort Wayne, IN	n/a
22 Sioux Falls, SD	n/a
23 Columbus, OH	n/a
24 Indianapolis, IN	n/a
25 Rochester, NY	n/a
26 Rochester, NY	n/a
27 Jacksonville, FL	n/a

Source: The Society of Industrial and Office Builders, 1997
Comparative Statistics of Industrial and Office Real Estate Markets
*Supplemented by Urban Land Institute's Market Profiles, 1993
**Source: Fidelity White Partners, Hartford, CT, May 1997

Facilities Costs and Vacancy Rates

continued

Value of New Residential
Construction

Value of new residential construction authorized by building permits, in thousands 1995 (USA)

1 Indianapolis, IN	\$1,397,223
2 Raleigh/Durham, NC	\$1,284,920
3 Charlotte, NC	\$1,180,026
4 Tampa, FL	\$1,158,126
5 Fort Lauderdale, FL	\$1,154,801
6 St. Louis, MO	\$1,128,742
7 Sacramento, CA	\$975,041
8 Salt Lake City, UT	\$961,196
9 Columbus, OH	\$959,759
10 Cincinnati, OH	\$898,210
11 Fort Worth, TX	\$898,210
12 Jacksonville, FL	\$792,365
13 Milwaukee, WI	\$723,596
14 Pittsburgh, PA	\$571,599
15 Richmond, VA	\$505,849
16 Louisville, KY	\$488,055
17 Des Moines, IA	\$321,614
18 Fort Wayne, IN	\$304,618
19 Rochester, NY	\$298,503
20 Wichita, KS	\$291,269
21 Omaha, NE	\$275,735
22 Baton Rouge, LA	\$236,527
24 Albany, NY	\$225,604
25 Chattanooga, TN	\$213,748
26 Harrisburg, PA	\$209,845
27 Providence, RI	\$191,591
28 Wilmington, DE	\$187,986
29 Trenton, NJ	\$154,648
30 Sioux Falls, SD	\$99,557

Source: 1997 City and County Data

Value of New Residential Construction

Value of new residential construction authorized by building permits, in thousands 1995 (City)

1 Indianapolis, IN	\$304,600
2 Raleigh/Durham, NC	\$352,793
3 Jacksonville, FL	\$341,533
4 Fort Worth, TX	\$234,691
5 Columbus, OH	\$188,975
6 Wichita, KS	\$158,026
7 Des Moines, IA	\$131,584
8 Tampa, FL	\$101,104
9 Salt Lake City, UT	\$82,275
10 Sioux Falls, SD	\$67,291
11 Chattanooga, TN	\$48,097
12 Sacramento, CA	\$40,491
13 Baton Rouge, LA	\$29,217
14 Milwaukee, WI	\$20,819
15 Louisville, KY	\$19,897
16 Des Moines, IA	\$19,811
17 Fort Wayne, IN	\$19,776
18 Richmond, VA	\$16,739
19 Cincinnati, OH	\$16,088
20 Pittsburgh, PA	\$12,867
21 Fort Lauderdale, FL	\$12,281
22 St. Louis, MO	\$8,955
23 Rochester, NY	\$4,544
24 Wilmington, DE	\$2,890
25 Providence, RI	\$1,809
26 Albany, NY	\$1,678
27 Harrisburg, PA	\$1,244
28 Trenton, NJ	\$549
29 Indianapolis, IN	n/a
30 Charlotte, NC	n/a

Source: 1997 City and County Data

Per Capita Value of New
Residential Construction

Per every 10,000 persons, in thousands 1995 (USA)

1 Raleigh/Durham, NC	\$12,175
2 Indianapolis, IN	\$9,237
3 Charlotte, NC	\$8,870
4 Jacksonville, FL	\$7,898
5 Fort Lauderdale, FL	\$7,851
6 Salt Lake City, UT	\$7,750
7 Des Moines, IA	\$7,512
8 Sacramento, CA	\$6,812
9 Columbus, OH	\$6,448
10 Sioux Falls, SD	\$6,441
11 Fort Wayne, IN	\$6,411
12 Cincinnati, OH	\$5,907
13 Fort Worth, TX	\$5,621
14 Wichita, KS	\$5,308
15 Richmond, VA	\$5,033
16 Tampa, FL	\$4,935
17 Milwaukee, WI	\$4,904
18 Louisville, KY	\$4,904
19 Chattanooga, TN	\$4,721
20 Trenton, NJ	\$4,658
21 St. Louis, MO	\$4,366
22 Baton Rouge, LA	\$4,099
23 Omaha, NE	\$4,083
24 Wilmington, DE	\$3,398
25 Harrisburg, PA	\$3,348
26 Rochester, NY	\$2,712
27 Albany, NY	\$2,529
28 Pittsburgh, PA	\$2,370
29 Indianapolis, IN	n/a
30 Providence, RI	\$1,701

Source: 1997 City and County Data

Per Capita Value of New Residential
Construction

Per every 10,000 persons, in thousands 1995 (City)

1 Raleigh/Durham, NC	\$9,280
2 Sioux Falls, SD	\$6,164
3 Indianapolis, IN	\$5,212
4 Fort Worth, TX	\$5,194
5 Wichita, KS	\$5,094
6 Jacksonville, FL	\$4,873
7 Salt Lake City, UT	\$4,788
8 Omaha, NE	\$3,814
9 Tampa, FL	\$3,541
10 Chattanooga, TN	\$3,159
11 Columbus, OH	\$2,972
12 Baton Rouge, LA	\$1,284
13 Sacramento, CA	\$1,083
14 Fort Wayne, IN	\$1,079
15 Des Moines, IA	\$1,021
16 Richmond, VA	\$832
17 Fort Lauderdale, FL	\$754
18 Louisville, KY	\$736
19 Cincinnati, OH	\$449
20 Wilmington, DE	\$397
21 Pittsburgh, PA	\$359
22 Milwaukee, WI	\$337
23 St. Louis, MO	\$243
24 Harrisburg, PA	\$229
25 Rochester, NY	\$197
26 Albany, NY	\$160
27 Providence, RI	\$120
28 Trenton, NJ	\$65
29 Indianapolis, IN	n/a
30 Charlotte, NC	n/a

Source: 1997 City and County Data

9 Governance and Public Service Indicators

Summary of the Analysis

State and Local Taxes

✓ The amount of state and local taxes paid by Hartford residents was about average when compared with other comparable cities. Sales tax expenditures were slightly lower than average.

Local Government Revenue

✓ Hartford city government gathers more general revenue per capita than any other comparable region in this analysis. As a percentage of the income, Hartford ranks 12th among these regions.

Local Government Debt

While Hartford city government gathers more general revenue than all other regions, it also collects fewer debts than most other regions. In regard to the latter, Hartford city government had \$155 million dollars in debt when compared with Jacksonville, FL, who had the highest level of debt with \$4,653 million dollars in debt.

Local Government Expenditures

✓ Hartford city government ranked 12th in terms of government expenditures overall and 7th in expenditures per capita. Among other regions, Hartford spends a much higher percentage of its general revenue on schools but a much lower percent on health care and hospitals. All other governmental expenditure areas were about average when compared with other regions.

Federal Funds and Grants

While the Hartford region is about average in terms of the level of federal funding and grants it receives, it receives the second lowest share of federal procurements contract awards of any of these comparable regions. Additionally, Hartford's MSA is ranked 11th in terms of the federal defense contracts awarded.

Section V-1

State and Local Taxes

Total Tax Expenditures
1997
State and local income tax, sales tax, and property tax.

1 Rochester, NY	\$10,655
2 Albany, NY	\$10,205
3 Milwaukee, WI	\$9,982
4 Des Moines, IA	\$9,915
5 Pittsburgh, PA	\$9,689
6 Omaha, NE	\$8,659
7 Cincinnati, OH	\$7,886
8 Fort Wayne, IN	\$7,693
9 Columbus, OH	\$7,576
10 Louisville, KY	\$7,281
11 Trenton, NJ	\$6,735
12 Harrisburg, PA	\$6,580
13 Charlotte, NC	\$6,516
14 Salt Lake City, UT	\$6,490
15 Hartford, CT	\$6,295
16 Raleigh/Durham, NC	\$6,291
17 Providence, RI	\$6,105
18 Wilmington, DE	\$5,786
19 Fort Worth, TX	\$5,701
20 Wichita, KS	\$5,597
21 St. Louis, MO	\$5,564
22 Richmond, VA	\$5,340
23 Sacramento, CA	\$5,183
24 Indianapolis, IN	\$5,176
25 Sioux Falls, SD	\$4,872
26 Tampa, FL	\$4,195
27 Fort Lauderdale, FL	\$3,595
28 Baton Rouge, LA	\$3,432
29 Jacksonville, FL	\$3,295
30 Chattanooga, TN	\$3,155

Source: Kiplinger's Personal Finance, June 1997

Figure based on married couple with two kids and annual earnings of \$65,000.

Income Tax Expenditures
State and local income tax, 1997

1 Pittsburgh, PA	\$5,044
2 Louisville, KY	\$4,296
3 Wilmington, DE	\$3,761
4 Cincinnati, OH	\$3,691
5 Columbus, OH	\$3,691
6 Milwaukee, WI	\$3,664
7 Des Moines, IA	\$3,330
8 Rochester, NY	\$3,225
9 Albany, NY	\$3,225
10 Raleigh/Durham, NC	\$2,994
11 Charlotte, NC	\$2,994
12 Salt Lake City, UT	\$2,951
13 St. Louis, MO	\$2,843
14 Richmond, VA	\$2,698
15 Hartford, CT	\$2,688
16 Indianapolis, IN	\$2,501
17 Omaha, NE	\$2,481
18 Harrisburg, PA	\$2,470
19 Fort Wayne, IN	\$2,318
20 Wichita, KS	\$2,088
21 Sacramento, CA	\$1,824
22 Providence, RI	\$1,685
23 Baton Rouge, LA	\$1,211
24 Trenton, NJ	\$1,050
25 Fort Worth, TX	\$0
26 Sioux Falls, SD	\$0
27 Fort Lauderdale, FL	\$0
28 Tampa, FL	\$0
29 Jacksonville, FL	\$0
30 Chattanooga, TN	\$0

Source: Kiplinger's Personal Finance, June 1997

Figure based on married couple with two kids and annual earnings of \$65,000.

Property Tax Expenditures
1997

1 Rochester, NY	\$6,750
2 Albany, NY	\$6,300
3 Des Moines, IA	\$6,095
4 Milwaukee, WI	\$5,850
5 Omaha, NE	\$5,625
6 Trenton, NJ	\$5,175
7 Fort Worth, TX	\$5,000
8 Fort Wayne, IN	\$4,950
9 Pittsburgh, PA	\$4,050
10 Sioux Falls, SD	\$4,050
11 Providence, RI	\$3,825
12 Harrisburg, PA	\$3,600
13 Cincinnati, OH	\$3,600
14 Tampa, FL	\$3,600
15 Columbus, OH	\$3,375
16 Hartford, CT	\$3,150
17 Fort Lauderdale, FL	\$3,000
18 Jacksonville, FL	\$2,700
19 Wichita, KS	\$2,700
20 Sacramento, CA	\$2,700
21 Salt Lake City, UT	\$2,700
22 Charlotte, NC	\$2,700
23 Louisville, KY	\$2,475
24 Raleigh/Durham, NC	\$2,475
25 Indianapolis, IN	\$2,250
26 Richmond, VA	\$2,025
27 Chattanooga, TN	\$2,025
28 Wilmington, DE	\$2,025
29 St. Louis, MO	\$1,800
30 Baton Rouge, LA	\$1,125

Source: Kiplinger's Personal Finance, June 1997

Property tax estimate assumes the family lives in a \$225,000 home.

Sales Tax Expenditures
1997

1 Chattanooga, TN	\$1,130
2 Baton Rouge, LA	\$1,096
3 St. Louis, MO	\$921
4 Salt Lake City, UT	\$839
5 Charlotte, NC	\$822
6 Raleigh/Durham, NC	\$822
7 Sioux Falls, SD	\$822
8 Wichita, KS	\$809
9 Fort Worth, TX	\$701
10 Albany, NY	\$680
11 Rochester, NY	\$680
12 Sacramento, CA	\$659
13 Richmond, VA	\$617
14 Jacksonville, FL	\$595
15 Fort Lauderdale, FL	\$595
16 Pittsburgh, PA	\$595
17 Providence, RI	\$595
18 Cincinnati, OH	\$595
19 Tampa, FL	\$595
20 Omaha, NE	\$553
21 Trenton, NJ	\$510
22 Louisville, KY	\$510
23 Hartford, CT	\$510
24 Harrisburg, PA	\$510
25 Des Moines, IA	\$510
26 Columbus, OH	\$510
27 Milwaukee, WI	\$468
28 Indianapolis, IN	\$425
29 Fort Wayne, IN	\$425
30 Wilmington, DE	\$0

Source: Kiplinger's Personal Finance, June 1997

Section V-1

Local Government Revenue

General Revenue
Total Revenue including Intergovernmental, 1992
(City)

Rank	City	Revenue (\$ millions)
1	Indianapolis, IN	\$933,000,000
2	Jacksonville, FL	\$773,900,000
3	Rochester, NY	\$615,300,000
4	Milwaukee, WI	\$601,000,000
5	Richmond, VA	\$572,300,000
6	Columbus, OH	\$557,900,000
7	Hartford, CT	\$544,000,000
8	Cincinnati, OH	\$523,100,000
9	St. Louis, MO	\$494,500,000
10	Charlotte, NC	\$427,600,000
11	Fort Worth, TX	\$380,700,000
12	Pittsburgh, PA	\$373,200,000
13	Sacramento, CA	\$330,700,000
14	Tampa, FL	\$306,400,000
15	Providence, RI	\$295,200,000
16	Raleigh/Durham, NC	\$281,300,000
17	Louisville, KY	\$254,600,000
18	Wichita, KS	\$246,700,000
19	Omaha, NE	\$227,700,000
20	Chattanooga, TN	\$226,300,000
21	Trenton, NJ	\$221,300,000
22	Des Moines, IA	\$192,700,000
23	Salt Lake City, UT	\$189,200,000
24	Fort Lauderdale, FL	\$178,800,000
25	Albany, NY	\$107,200,000
26	Wilmington, DE	\$106,000,000
27	Sioux Falls, SD	\$77,900,000
28	Harrisburg, PA	\$76,100,000
	Baton Rouge, LA	n/a
	Fort Wayne, IN	n/a

Source: 1996 City and County Survey

Per Capita General Revenue
Total Revenue as a percentage of population, 1992 (City)

Rank	City	Revenue (\$)
1	Hartford, CT	\$824.4
2	Richmond, VA	\$2,818.4
3	Rochester, NY	\$2,656.3
4	Trenton, NJ	\$2,495.6
5	Providence, RI	\$1,882.6
6	Chattanooga, TN	\$1,484.3
7	Wilmington, DE	\$1,481.9
8	Harrisburg, PA	\$1,453.0
9	Cincinnati, OH	\$1,436.9
10	Indianapolis, IN	\$1,257.5
11	St. Louis, MO	\$1,197.0
12	Fort Lauderdale, FL	\$1,197.0
13	Salt Lake City, UT	\$1,183.0
14	Jacksonville, FL	\$1,150.0
15	Tampa, FL	\$1,094.2
16	Charlotte, NC	\$1,080.0
17	Albany, NY	\$1,060.5
18	Pittsburgh, PA	\$1,009.0
19	Des Moines, IA	\$997.5
20	Milwaukee, WI	\$956.9
21	Louisville, KY	\$946.2
22	Sacramento, CA	\$895.3
23	Columbus, OH	\$881.5
24	Fort Worth, TX	\$850.5
25	Raleigh/Durham, NC	\$816.4
26	Wichita, KS	\$811.5
27	Sioux Falls, SD	\$772.7
28	Omaha, NE	\$678.1
	Baton Rouge, LA	n/a
	Fort Wayne, IN	n/a

Source: 1996 City and County Survey

General Revenue as a Percentage of Income
Total Revenue as a percentage of total personal income, 1992 (City)

Rank	City	Percentage (%)
1	Jacksonville, FL	47.1
2	Indianapolis, IN	35.0
3	Chattanooga, TN	32.1
4	Richmond, VA	30.9
5	Sioux Falls, SD	30.9
6	Rochester, NY	29.0
7	Wichita, KS	27.3
8	Trenton, NJ	26.2
9	Des Moines, IA	24.8
10	Columbus, OH	22.6
11	Milwaukee, WI	21.0
12	Hartford, CT	n/a
13	Charlotte, NC	19.7
14	Omaha, NE	19.2
15	Cincinnati, OH	18.1
16	Providence, RI	17.0
17	Raleigh/Durham, NC	16.8
18	Fort Worth, TX	14.9
19	Louisville, KY	14.7
20	Sacramento, CA	12.6
21	Salt Lake City, UT	11.5
22	St. Louis, MO	9.8
23	Wilmington, DE	9.7
24	Tampa, FL	8.2
25	Pittsburgh, PA	8.2
26	Harrisburg, PA	6.8
27	Albany, NY	6.4
28	Fort Lauderdale, FL	6.4
	Baton Rouge, LA	n/a
	Fort Wayne, IN	n/a

Source: 1996 City and County Survey

Local Government Debt

Local Government Outstanding Debt
Total outstanding debt in millions, 1992 (City)

Rank	City	Debt (\$ millions)
1	Sioux Falls, SD	\$69.40
2	Providence, RI	\$108.10
3	Fort Lauderdale, FL	\$111.00
4	Trenton, NJ	\$128.80
5	Hartford, CT	\$155.20
6	Chattanooga, TN	\$194.20
7	Omaha, NE	\$194.80
8	Albany, NY	\$214.60
9	Wilmington, DE	\$255.00
10	Cincinnati, OH	\$259.50
11	Rochester, NY	\$284.40
12	Raleigh/Durham, NC	\$293.90
13	Salt Lake City, UT	\$297.80
14	Des Moines, IA	\$308.70
15	Louisville, KY	\$441.80
16	Sacramento, CA	\$452.10
17	Harrisburg, PA	\$515.00
18	Wichita, KS	\$538.80
19	Milwaukee, WI	\$600.40
20	Pittsburgh, PA	\$660.80
21	Tampa, FL	\$682.80
22	St. Louis, MO	\$766.90
23	Fort Worth, TX	\$934.60
24	Charlotte, NC	\$999.30
25	Richmond, VA	\$1,004.30
26	Indianapolis, IN	\$1,232.40
27	Columbus, OH	\$1,246.80
28	Jacksonville, FL	\$4,653.80
	Fort Wayne, IN	n/a
	Baton Rouge, LA	n/a

Source: 1996 City and County Survey

Per Capita Local Government Outstanding Debt
Total outstanding debt as a percentage of population, 1992 (City)

Rank	City	Debt (\$)
1	Omaha, NE	\$580.1
2	Sioux Falls, SD	\$688.4
3	Providence, RI	\$689.4
4	Cincinnati, OH	\$712.8
5	Fort Lauderdale, FL	\$743.1
6	Raleigh/Durham, NC	\$853.0
7	Milwaukee, WI	\$955.9
8	Hartford, CT	\$1,010.6
9	Sacramento, CA	\$1,224.0
10	Rochester, NY	\$1,227.8
11	Chattanooga, TN	\$1,273.7
12	Trenton, NJ	\$1,452.5
13	Des Moines, IA	\$1,597.9
14	Louisville, KY	\$1,642.0
15	Indianapolis, IN	\$1,661.0
16	Wichita, KS	\$1,772.3
17	Pittsburgh, PA	\$1,786.5
18	Salt Lake City, UT	\$1,862.0
19	St. Louis, MO	\$1,933.3
20	Columbus, OH	\$1,969.9
21	Fort Worth, TX	\$2,087.9
22	Albany, NY	\$2,123.0
23	Tampa, FL	\$2,438.4
24	Charlotte, NC	\$2,523.9
25	Wilmington, DE	\$3,565.0
26	Richmond, VA	\$4,945.9
27	Jacksonville, FL	\$6,915.3
28	Harrisburg, PA	\$9,832.7
	Fort Wayne, IN	n/a
	Baton Rouge, LA	n/a

Source: 1996 City and County Survey

Local Government Outstanding Debt as a Percentage of Income
Outstanding debt as a percentage of total personal income, 1992 (City)

Rank	City	Percentage (%)
1	Fort Lauderdale, FL	3.9
2	Hartford, CT	5.7
3	Providence, RI	6.2
4	Cincinnati, OH	9.0
5	Albany, NY	12.8
6	Rochester, NY	13.4
7	Pittsburgh, PA	14.5
8	Trenton, NJ	15.3
9	St. Louis, MO	15.3
10	Omaha, NE	16.4
11	Sacramento, CA	17.2
12	Raleigh/Durham, NC	17.6
13	Salt Lake City, UT	18.1
14	Tampa, FL	18.3
15	Milwaukee, WI	21.0
16	Wilmington, DE	23.3
17	Louisville, KY	25.5
18	Sioux Falls, SD	27.5
19	Chattanooga, TN	27.6
20	Fort Worth, TX	36.6
21	Des Moines, IA	39.7
22	Charlotte, NC	46.0
23	Harrisburg, PA	46.0
24	Indianapolis, IN	46.3
25	Columbus, OH	50.6
26	Richmond, VA	54.2
27	Wichita, KS	59.7
28	Jacksonville, FL	65.0
	Fort Wayne, IN	n/a
	Baton Rouge, LA	n/a

Source: 1996 City and County Survey

Local Government Expenditures

Local Government Expenditures
Total local government expenditures in millions, 1992
(City)

1 Pittsburgh, PA	\$4,968
2 Milwaukee, WI	\$4,494
3 Tampa, FL	\$4,379
4 St. Louis, MO	\$4,315
5 Sacramento, CA	\$4,138
6 Fort Lauderdale, FL	\$3,674
7 Cincinnati, OH	\$3,526
8 Rochester, NY	\$3,187
9 Columbus, OH	\$2,906
10 Indianapolis, IN	\$2,821
11 Charlotte, NC	\$2,789
12 Fort Worth, TX	\$2,537
13 Fort Worth, TX	\$2,537
14 Albany, NY	\$2,255
15 Richmond, VA	\$1,986
16 Jacksonville, FL	\$1,952
17 Salt Lake City, UT	\$1,732
18 Raleigh/Durham, NC	\$1,704
19 Louisville, KY	\$1,675
20 Providence, RI	\$1,581
21 Omaha, NE	\$1,152
22 Harrisburg, PA	\$1,138
23 Trenton, NJ	\$937
24 Des Moines, IA	\$924
25 Wichita, KS	\$910
26 Chattanooga, TN	\$897
27 Baton Rouge, LA	\$897
28 Wilmington, DE	\$834
29 Fort Wayne, IN	\$765
30 Sioux Falls, SD	\$226

Source: 1996 City and County Data

Per Capita Local Government Expenditures
Total local government expenditures as a percentage of the population, 1992 (City)

1 Rochester, NY	\$2,945
2 Trenton, NJ	\$2,864
3 Fort Lauderdale, FL	\$2,803
4 Milwaukee, WI	\$2,759
5 Sacramento, CA	\$2,650
6 Albany, NY	\$2,585
7 Fort Worth, TX	\$2,569
8 Des Moines, IA	\$2,276
9 Charlotte, NC	\$2,238
10 Richmond, VA	\$2,221
11 Columbus, OH	\$2,089
12 Chattanooga, TN	\$2,084
13 Tampa, FL	\$2,070
14 Pittsburgh, PA	\$2,066
15 Jacksonville, FL	\$2,054
16 Indianapolis, IN	\$1,981
17 Cincinnati, OH	\$1,895
18 Harrisburg, PA	\$1,895
19 Raleigh/Durham, NC	\$1,870
20 Wichita, KS	\$1,823
21 Fort Worth, TX	\$1,788
22 Omaha, NE	\$1,758
23 Louisville, KY	\$1,734
24 Providence, RI	\$1,728
25 St. Louis, MO	\$1,715
26 Fort Wayne, IN	\$1,651
27 Baton Rouge, LA	\$1,642
28 Wilmington, DE	\$1,576
29 Sioux Falls, SD	\$1,546
30 Salt Lake City, UT	\$1,536

Source: 1996 City and County Data

Local Government Expenditures as a Percentage of Income
Local government expenditures as a percentage of total personal income, 1992 (City)

1 Sacramento, CA	\$158
2 Milwaukee, WI	\$157
3 Rochester, NY	\$150
4 Albany, NY	\$134
5 Fort Lauderdale, FL	\$131
6 Chattanooga, TN	\$127
7 Charlotte, NC	\$125
8 Cincinnati, OH	\$122
9 Des Moines, IA	\$119
10 Jacksonville, FL	\$119
11 Columbus, OH	\$118
12 Tampa, FL	\$117
13 Trenton, NJ	\$111
14 Pittsburgh, PA	\$109
15 Richmond, VA	\$107
16 Baton Rouge, LA	\$106
17 Indianapolis, IN	\$106
18 Salt Lake City, UT	\$105
19 Raleigh/Durham, NC	\$102
20 Harrisburg, PA	\$102
21 Wichita, KS	\$101
22 Fort Worth, TX	\$99
23 Fort Worth, TX	\$86
24 Omaha, NE	\$97
25 Louisville, KY	\$97
26 Fort Wayne, IN	\$93
27 Providence, RI	\$91
28 Sioux Falls, SD	\$89
29 St. Louis, MO	\$86
30 Wilmington, DE	\$76

Source: 1996 City and County Data

Local Government Expenditures detailed characteristics

Highways
Percent of total local government expenditures spent on highways, 1992 (MRA)

1 Wichita, KS	11.2
2 Sioux Falls, SD	9.3
3 Des Moines, IA	6.9
4 Albany, NY	6.0
5 Baton Rouge, LA	6.0
6 Omaha, NE	5.9
7 Tampa, FL	5.6
8 St. Louis, MO	5.5
9 Fort Worth, TX	5.3
10 Wilmington, DE	5.2
11 Cincinnati, OH	5.2
12 Fort Wayne, IN	5.2
13 Sacramento, CA	5.0
14 Rochester, NY	5.0
15 Columbus, OH	5.0
16 Milwaukee, WI	4.7
17 Salt Lake City, UT	4.5
18 Fort Worth, TX	4.4
19 Jacksonville, FL	3.8
20 Pittsburgh, PA	3.8
21 Indianapolis, IN	3.7
22 Chattanooga, TN	3.6
23 Richmond, VA	3.4
24 Trenton, NJ	3.3
25 Providence, RI	3.2
26 Harrisburg, PA	3.0
27 Charlotte, NC	2.8
28 Fort Lauderdale, FL	2.7
29 Raleigh/Durham, NC	2.6
30 Louisville, KY	2.5

Source: 1992 Census of Government, Government Organization, vol. 1, No. 1, U.S. Bureau of the Census

Health Care and Hospitals
Percent of total local government expenditures spent on health care and hospitals, 1992 (MRA)

1 Chattanooga, TN	30.3
2 Charlotte, NC	17.7
3 Fort Lauderdale, FL	16.9
4 Indianapolis, IN	12.4
5 Louisville, KY	8.9
6 Des Moines, IA	8.1
7 Milwaukee, WI	7.8
8 Fort Worth, TX	7.3
9 Richmond, VA	7.3
10 Fort Wayne, IN	7.0
11 Raleigh/Durham, NC	6.4
12 Tampa, FL	6.3
13 Cincinnati, OH	5.7
14 Columbus, OH	5.5
15 Pittsburgh, PA	4.9
16 Baton Rouge, LA	4.5
17 Sacramento, CA	3.8
18 Salt Lake City, UT	3.8
19 St. Louis, MO	3.7
20 Rochester, NY	3.5
21 Jacksonville, FL	3.3
22 Harrisburg, PA	3.1
23 Wichita, KS	3.1
24 Omaha, NE	2.4
25 Albany, NY	2.2
26 Sioux Falls, SD	1.5
27 Trenton, NJ	0.9
28 Fort Worth, TX	0.8
29 Wilmington, DE	0.6
30 Providence, RI	0.1

Source: 1992 Census of Government, Government Organization, vol. 1, No. 1, U.S. Bureau of the Census

Police Protection
Percent of total local government expenditures spent on police services, 1992 (MRA)

1 Fort Lauderdale, FL	8.0
2 Providence, RI	7.0
3 Columbus, OH	6.9
4 Tampa, FL	6.9
5 Richmond, VA	6.5
6 St. Louis, MO	6.4
7 Trenton, NJ	6.3
8 Milwaukee, WI	6.2
9 Wilmington, DE	6.2
10 Baton Rouge, LA	5.9
11 Fort Worth, TX	5.8
12 Jacksonville, FL	5.6
13 Salt Lake City, UT	5.5
14 Fort Worth, TX	5.1
15 Cincinnati, OH	5.4
16 Sioux Falls, SD	5.1
17 Des Moines, IA	4.9
18 Omaha, NE	4.9
19 Wichita, KS	4.9
20 Raleigh/Durham, NC	4.8
21 Louisville, KY	4.8
22 Sacramento, CA	4.6
23 Indianapolis, IN	4.6
24 Charlotte, NC	4.6
25 Chattanooga, TN	4.4
26 Pittsburgh, PA	3.7
27 Fort Wayne, IN	3.5
28 Albany, NY	3.5
29 Rochester, NY	3.4
30 Harrisburg, PA	2.7

Source: 1992 Census of Government, Government Organization, vol. 1, No. 1, U.S. Bureau of the Census

Public Welfare
Percent of total local government expenditures spent on public welfare, 1992 (MRA)

1 Sacramento, CA	14.9
2 Rochester, NY	11.3
3 Albany, NY	10.4
4 Trenton, NJ	6.5
5 Columbus, OH	5.3
6 Fort Wayne, IN	5.2
7 Milwaukee, WI	5.1
8 Harrisburg, PA	4.7
9 Richmond, VA	4.6
10 Cincinnati, OH	4.1
11 Charlotte, NC	3.9
12 Indianapolis, IN	3.7
13 Raleigh/Durham, NC	3.5
14 Pittsburgh, PA	3.4
15 Portland, OR	3.3
16 Chattanooga, TN	3.1
17 Des Moines, IA	2.1
18 Louisville, KY	1.8
19 Providence, RI	1.8
20 Sioux Falls, SD	1.5
21 Tampa, FL	1.5
22 Jacksonville, FL	1
23 St. Louis, MO	0.8
24 Wichita, KS	0.7
25 Salt Lake City, UT	0.6
26 Fort Lauderdale, FL	0.4
27 Fort Worth, TX	0.4
28 Omaha, NE	0.3
29 Baton Rouge, LA	0.2
30 Wilmington, DE	0.2

Source: 1992 Census of Government, Government Organization, vol. 1, No. 1, U.S. Bureau of the Census

Local Government Spending

detailed characteristics

Education
Percent of total local government expenditures spent on education, 1992 (MGS)

Rank	City	Percent
1	Harrisburg, PA	55.1
2	Providence, RI	54.6
3	Omaha, NE	54.3
4	Wilmington, DE	54.2
5	Portland, CT	53.9
6	Sioux Falls, SD	51.9
7	Salt Lake City, UT	51.1
8	St. Louis, MO	50.3
9	Fort Wayne, IN	49.4
10	Raleigh/Durham, NC	49.0
11	Albany, NY	48.8
12	Rochester, NY	48.1
13	Trenton, NJ	47.1
14	Des Moines, IA	46.4
15	Wichita, KS	46.2
16	Jacksonville, FL	45.3
17	Baton Rouge, LA	44.8
18	Pittsburgh, PA	44.8
19	Indianapolis, IN	44.7
20	Fort Worth, TX	44.3
21	Columbus, OH	43.9
22	Cincinnati, OH	43.1
23	Richmond, VA	42.4
24	Milwaukee, WI	38.9
25	Louisville, KY	38.4
26	Charlotte, NC	37.9
27	Sacramento, CA	36.8
28	Tampa, FL	36.7
29	Fort Lauderdale, FL	33.8
30	Chattanooga, TN	28.9

Source: 1992 Census of Government: Government Organizations, vol. I, No. 1, U.S. Bureau of the Census

Per Pupil Expenditures
Expenditures per student, fiscal 1991 (City)

Rank	City	\$1,000
1	Trenton, NJ	\$7,505
2	Rochester, NY	\$7,301
3	Portland, CT	\$6,955
4	Albany, NY	\$6,928
5	Milwaukee, WI	\$6,919
6	Pittsburgh, PA	\$6,914
7	Providence, RI	\$5,791
8	Wilmington, DE	\$5,603
9	Fort Wayne, IN	\$5,440
10	Raleigh/Durham, FL	\$5,239
11	Harrisburg, PA	\$4,924
12	Tampa, FL	\$4,893
13	Columbus, OH	\$4,754
14	Omaha, NE	\$4,676
15	St. Louis, MO	\$4,653
16	Indianapolis, IN	\$4,594
17	Cincinnati, OH	\$4,532
18	Jacksonville, FL	\$4,477
19	Fort Wayne, IN	\$4,446
20	Des Moines, IA	\$4,441
21	Sioux Falls, SD	\$4,430
22	Raleigh/Durham, NC	\$4,401
23	Sacramento, CA	\$4,358
24	Charlotte, NC	\$4,300
25	Wichita, KS	\$4,232
26	Louisville, KY	\$4,093
27	Baton Rouge, LA	\$3,823
28	Fort Worth, TX	\$3,466
29	Salt Lake City, UT	\$2,757
	Chattanooga, TN	n/a

Source: 1995 County and City Data

*Fiscal year begins July 1, 1990 and June 30, 1991

Per Pupil Expenditures
Expenditures per student, fiscal 1992 (City)

Rank	City	\$1,000
1	Rochester, NY	\$8,688
2	Pittsburgh, PA	\$8,402
3	Richmond, VA	\$7,035
4	Cincinnati, OH	\$6,873
5	Milwaukee, WI	\$6,706
6	St. Louis, MO	\$6,444
7	Cincinnati, OH	\$6,182
8	Columbus, OH	\$5,852
9	Indianapolis, IN	\$5,785
10	Providence, RI	\$5,334
11	Des Moines, IA	\$5,290
12	Wichita, KS	\$5,228
13	Fort Lauderdale, FL	\$4,981
14	Tampa, FL	\$4,972
15	Omaha, NE	\$4,906
16	Fort Wayne, IN	\$4,779
17	Charlotte, NC	\$4,600
18	Sacramento, CA	\$4,465
19	Raleigh, KY	\$4,354
20	Louisville, KY	\$4,286
21	Baton Rouge, LA	\$4,263
22	Fort Worth, TX	\$4,214
23	Jacksonville, FL	\$4,186
24	Chattanooga, TN	\$3,930
25	Salt Lake City, UT	n/a
	Trenton, NJ	n/a
	Albany, NY	n/a
	Sioux Falls, SD	n/a
	Harrisburg, PA	n/a
	Wilmington, DE	n/a

Source: The Digest of Education Statistics, 1996

Change in Per Pupil Expenditures
Change in Expenditures per student, 1991-1992 (City)

Rank	City	Percent
1	St. Louis, MO	44.1%
2	Salt Lake City, UT	43.6%
3	Richmond, VA	42.9%
4	Cincinnati, OH	42.2%
5	Pittsburgh, PA	41.2%
6	Columbus, OH	30.0%
7	Indianapolis, IN	27.4%
8	Wichita, KS	25.0%
9	Fort Worth, TX	23.0%
10	Portland, CT	21.1%
11	Des Moines, IA	20.1%
12	Rochester, NY	19.0%
13	Baton Rouge, LA	12.1%
14	Charlotte, NC	11.1%
15	Fort Wayne, IN	10.3%
16	Milwaukee, WI	6.9%
17	Louisville, KY	6.4%
18	Omaha, NE	6.3%
19	Sacramento, CA	5.6%
20	Tampa, FL	1.8%
21	Raleigh, NC	1.5%
22	Providence, RI	-0.1%
23	Fort Lauderdale, FL	-3.9%
24	Jacksonville, FL	-5.9%
	Trenton, NJ	n/a
	Albany, NY	n/a
	Sioux Falls, SD	n/a
	Harrisburg, PA	n/a
	Chattanooga, TN	n/a
	Wilmington, DE	n/a

Source: The Digest of Education Statistics, 1996

Governance Structure

Total Local Governments
Units of local government, 1992 (County)

Rank	City	Count
1	Pittsburgh, PA	296
2	Milwaukee, WI	151
3	Louisville, KY	126
4	Fort Worth, TX	125
5	Sacramento, CA	118
6	Omaha, NE	114
7	Columbus, OH	111
8	Harrisburg, PA	94
9	Wichita, KS	93
10	Sioux Falls, SD	86
11	Cincinnati, OH	83
12	Portland, CT	80
13	Rochester, NY	77
14	Fort Lauderdale, FL	64
15	Indianapolis, IN	58
16	Salt Lake City, UT	57
17	Albany, NY	55
18	Des Moines, IA	55
19	Providence, RI	54
20	Fort Wayne, IN	51
21	Wilmington, DE	43
22	Trenton, NJ	38
23	Raleigh/Durham, NC	33
24	Chattanooga, TN	33
25	Tampa, FL	18
26	Charlotte, NC	12
27	Jacksonville, FL	9
28	St. Louis, MO	8
29	Baton Rouge, LA	6
30	Richmond, VA	4

Source: 1992 Census of Government: Government Organizations, vol. I, No. 1, U.S. Bureau of the Census
*The table counts governments and intercounty units who headquarters are located in the county.

Government Units with Taxing Power
Number of governments with taxing powers, 1992 (County)

Rank	City	Count
1	Sacramento, CA	69
2	Omaha, NE	67
3	Raleigh/Durham, NC	43
4	St. Louis, MO	31
5	Salt Lake City, UT	29
6	Rochester, NY	24
7	Portland, CT	23
8	Louisville, KY	21
9	Albany, NY	20
10	Providence, RI	19
11	Wichita, KS	18
12	Fort Worth, TX	14
13	Milwaukee, WI	13
14	Fort Lauderdale, FL	12
15	Cincinnati, OH	7
16	Columbus, OH	7
17	Trenton, NJ	6
18	Sioux Falls, SD	6
19	Des Moines, IA	6
20	Indianapolis, IN	4
21	Fort Wayne, IN	3
22	Tampa, FL	3
23	Jacksonville, FL	3
24	Charlotte, NC	1
25	Wilmington, DE	1
26	Baton Rouge, LA	1
	Richmond, VA	na
	Chattanooga, TN	na
	Pittsburgh, PA	na
	Harrisburg, PA	na

Source: 1992 Census of Government: Government Organizations, vol. I, No. 1, U.S. Bureau of the Census

Government Units with Taxing Power
Number of government units with taxing powers per every 100,000 persons, 1992 (County)

Rank	City	Rate
1	Omaha, NE	9.92
2	Sacramento, CA	4.50
3	Raleigh/Durham, NC	4.07
4	Sioux Falls, SD	3.88
5	Wichita, KS	3.47
6	Salt Lake City, UT	2.31
7	Albany, NY	2.24
8	Rochester, NY	2.18
9	Louisville, KY	2.11
10	Portland, CT	2.00
11	Trenton, NJ	1.81
12	Providence, RI	1.69
13	Des Moines, IA	1.40
14	St. Louis, MO	1.20
15	Milwaukee, WI	0.89
16	Fort Worth, TX	0.88
17	Fort Lauderdale, FL	0.82
18	Fort Wayne, IN	0.63
19	Columbus, OH	0.47
20	Cincinnati, OH	0.26
21	Indianapolis, IN	0.18
22	Wilmington, DE	0.17
23	Baton Rouge, LA	0.13
24	Tampa, FL	0.10
25	Jacksonville, FL	0.08
26	Charlotte, NC	na
	Richmond, VA	na
	Chattanooga, TN	na
	Harrisburg, PA	na
	Pittsburgh, PA	na

Federal Funding and Grant Awards

Per Capita Federal Funds and Grants

Total federal funds and grants as a percentage of population, 1995 (MISA)

1	Jacksonville, FL	\$35.63
2	Trenton, NJ	\$8.24
3	Albany, NY	\$7.95
4	Sacramento, CA	\$7.87
5	Harrisburg, PA	\$7.26
6	St. Louis, MO	\$6.60
7	Des Moines, IA	\$5.80
8	Pittsburgh, PA	\$5.51
9	Fort Worth, TX	\$5.51
10	Chattanooga, TN	\$5.38
11	Tampa, FL	\$5.22
12	Wichita, KS	\$5.06
13	Richmond, VA	\$5.06
14	Baton Rouge, LA	\$4.92
15	Providence, RI	\$4.88
16	Omaha, NE	\$4.71
17	Portland, ME	\$4.69
18	Raleigh/Durham, NC	\$4.69
19	Columbus, OH	\$4.65
20	Cincinnati, OH	\$4.32
21	Indianapolis, IN	\$4.26
22	Salt Lake City, UT	\$4.19
23	Fort Lauderdale, FL	\$4.17
24	Louisville, KY	\$4.00
25	St. Louis, MO	\$3.97
26	Wilmington, DE	\$3.96
27	Milwaukee, WI	\$3.83
28	Fort Wayne, IN	\$3.80
29	Rochester, NY	\$3.76
30	Charlotte, NC	\$2.99

Source: 1993 Census of Government, Government Organization, vol. 1, No. 1, U.S. Bureau of the Census
* Including Social Security, Medicare, Food Stamps, School Lunch, and other Social Security Administration programs
** Including Procurement Contracts, Health, Human Services, and Educational Grants

Federal Funds and Grants

Federal funds and grants* to local governments, fiscal 1995**, in thousands (MISA)

1	St. Louis, MO	\$16,735,172
2	Pittsburgh, PA	\$13,244,739
3	Sacramento, CA	\$12,495,755
4	Tampa, FL	\$11,254,769
5	Cincinnati, OH	\$8,190,705
6	Fort Worth, TX	\$8,062,387
7	Albany, NY	\$6,957,646
8	Columbus, OH	\$6,618,802
9	Milwaukee, WI	\$6,265,837
10	Indianapolis, IN	\$6,222,517
11	Portland, ME	\$5,767,233
12	Hartford, CT	\$5,366,301
13	Jacksonville, FL	\$5,213,815
14	Salt Lake City, UT	\$4,937,107
15	Richmond, VA	\$4,639,496
16	Raleigh/Durham, NC	\$4,524,337
17	Providence, RI	\$4,448,279
18	Harrisburg, PA	\$4,428,067
19	Rochester, NY	\$4,104,590
20	Louisville, KY	\$3,924,512
21	Charlotte, NC	\$3,774,764
22	Omaha, NE	\$3,118,547
23	Baton Rouge, LA	\$2,746,448
24	Trenton, NJ	\$2,713,121
25	Wichita, KS	\$2,566,693
26	Des Moines, IA	\$2,416,436
27	Chattanooga, TN	\$2,362,292
28	Wilmington, DE	\$2,141,247
29	Fort Wayne, IN	\$1,783,316
30	St. Louis, MO	\$601,305

Source: 1997 County and City Estimates
* Including Social Security, Medicare, Food Stamps, Subsidy and Rental Assistance, and other Social Security Administration programs
** October 1, 1994 to September 30, 1995

Federal Procurement Contracts

Total federal procurement contracts awards in thousands, fiscal 1995 (MISA)

1	Pittsburgh, PA	\$785,100
2	St. Louis, MO	\$490,754
3	Cincinnati, OH	\$466,552
4	Chattanooga, TN	\$371,588
5	Albany, NY	\$362,975
6	Trenton, NJ	\$314,656
7	Sacramento, CA	\$311,628
8	Tampa, FL	\$287,855
9	Raleigh/Durham, NC	\$261,915
10	Salt Lake City, UT	\$189,396
11	Milwaukee, WI	\$186,204
12	Fort Worth, TX	\$179,966
13	Columbus, OH	\$173,478
14	Richmond, VA	\$150,325
15	Hartford, CT	\$132,696
16	Indianapolis, IN	\$132,696
17	Omaha, NE	\$107,987
18	Jacksonville, FL	\$90,599
19	Fort Lauderdale, FL	\$89,576
20	Charlotte, NC	\$88,933
21	Providence, RI	\$81,796
22	Harrisburg, PA	\$79,972
23	Rochester, NY	\$77,404
24	Wichita, KS	\$74,551
25	Louisville, KY	\$73,784
26	Wilmington, DE	\$68,165
27	Des Moines, IA	\$65,622
28	Fort Wayne, IN	\$40,060
29	St. Louis, MO	\$39,927
30	Baton Rouge, LA	\$37,083

Source: 1992 Census of Government, Government Organization, vol. 1, No. 1, U.S. Bureau of the Census

Federal Procurement Contracts

Total federal procurement contracts awards in thousands, fiscal 1995 (MISA)

1	Chattanooga, TN	\$318,086
2	Pittsburgh, PA	\$295,062
3	St. Louis, MO	\$271,229
4	Sacramento, CA	\$192,584
5	Columbus, OH	\$118,061
6	Richmond, VA	\$103,827
7	Salt Lake City, UT	\$82,808
8	Cincinnati, OH	\$80,238
9	Tampa, FL	\$79,987
10	Fort Worth, TX	\$79,801
11	Omaha, NE	\$79,000
12	Indianapolis, IN	\$57,585
13	Wichita, KS	\$55,283
14	Raleigh/Durham, NC	\$42,607
15	Charlotte, NC	\$40,531
16	Louisville, KY	\$39,168
17	Harrisburg, PA	\$38,891
18	Fort Lauderdale, FL	\$35,612
19	St. Louis, MO	\$32,482
20	Des Moines, IA	\$26,130
21	Rochester, NY	\$24,037
22	Jacksonville, FL	\$22,081
23	Fort Wayne, IN	\$21,339
24	Wilmington, DE	\$18,674
25	Providence, RI	\$14,971
26	Albany, NY	\$14,964
27	Baton Rouge, LA	\$14,040
28	Trenton, NJ	\$5,870
29	Hartford, CT	\$3,899
30	Milwaukee, WI	\$0

Source: 1992 Census of Government, Government Organization, vol. 1, No. 1, U.S. Bureau of the Census

Federal Procurement Contract Awards

Total federal procurement contract awards in thousands, fiscal 1995 (City)

1	Chattanooga, TN	\$318,086
2	Pittsburgh, PA	\$295,062
3	St. Louis, MO	\$271,229
4	Sacramento, CA	\$192,584
5	Columbus, OH	\$118,061
6	Richmond, VA	\$103,827
7	Salt Lake City, UT	\$82,808
8	Cincinnati, OH	\$80,238
9	Tampa, FL	\$79,987
10	Fort Worth, TX	\$79,801
11	Omaha, NE	\$79,000
12	Indianapolis, IN	\$57,585
13	Wichita, KS	\$55,283
14	Raleigh/Durham, NC	\$42,607
15	Charlotte, NC	\$40,531
16	Louisville, KY	\$39,168
17	Harrisburg, PA	\$38,891
18	Fort Lauderdale, FL	\$35,612
19	St. Louis, MO	\$32,482
20	Des Moines, IA	\$26,130
21	Rochester, NY	\$24,037
22	Jacksonville, FL	\$22,081
23	Fort Wayne, IN	\$21,339
24	Wilmington, DE	\$18,674
25	Providence, RI	\$14,971
26	Albany, NY	\$14,964
27	Baton Rouge, LA	\$14,040
28	Trenton, NJ	\$5,870
29	Hartford, CT	\$3,899
30	Milwaukee, WI	\$0

Source: 1997 County and City Estimates

Federal Funding and Grant Awards

Federal Defense Contracts Awarded

Total federal defense contract awards in thousands, fiscal 1995 (City)

1	St. Louis, MO	\$5,376,118
2	Fort Worth, TX	\$3,386,645
3	Cincinnati, OH	\$910,632
4	Wichita, KS	\$600,492
5	Sacramento, CA	\$585,132
6	Fort Wayne, IN	\$351,838
7	Indianapolis, IN	\$282,732
8	Jacksonville, FL	\$247,033
9	Pittsburgh, PA	\$204,469
10	Columbus, OH	\$192,358
11	Baton Rouge, LA	\$178,393
12	Salt Lake City, UT	\$115,078
13	Tampa, FL	\$114,691
14	Raleigh/Durham, NC	\$91,581
15	Rochester, NY	\$60,395
16	Fort Lauderdale, FL	\$50,539
17	Louisville, KY	\$42,760
18	Omaha, NE	\$42,705
19	Richmond, VA	\$37,969
20	Charlotte, NC	\$25,883
21	Wilmington, DE	\$24,738
22	Harrisburg, PA	\$18,956
23	Des Moines, IA	\$15,105
24	Chattanooga, TN	\$15,075
25	Trenton, NJ	\$12,835
26	Hartford, CT	\$11,430
27	St. Louis, MO	\$5,160
28	Albany, NY	\$2,767
29	Providence, RI	\$2,691
30	Milwaukee, WI	\$0

Source: 1993 Census of Government, Government Organization, vol. 1, No. 1, U.S. Bureau of the Census
** October 1, 1994 to September 30, 1995

Central City Share of Defense Contracts

Central city defense contract awards as a percent of the total MSA defense contract awards, 1994

1	Baton Rouge, LA	98.04%
2	St. Louis, MO	96.58%
3	Fort Worth, TX	94.61%
4	Chattanooga, TN	93.98%
5	Wichita, KS	93.89%
6	Cincinnati, OH	92.44%
7	Indianapolis, IN	89.73%
8	Fort Wayne, IN	88.19%
9	Columbus, OH	86.27%
10	Raleigh/Durham, NC	80.66%
11	Sacramento, CA	80.64%
12	Rochester, NY	73.89%
13	Fort Lauderdale, FL	68.41%
14	Charlotte, NC	67.21%
15	Jacksonville, FL	63.33%
16	Des Moines, IA	43.84%
17	St. Louis, MO	41.90%
18	Salt Lake City, UT	41.30%
19	Wilmington, DE	39.13%
20	Pittsburgh, PA	37.17%
21	Louisville, KY	24.66%
22	Omaha, NE	23.16%
23	Harrisburg, PA	22.52%
24	Richmond, VA	20.43%
25	Tampa, FL	15.64%
26	Trenton, NJ	13.69%
27	Providence, RI	4.40%
28	Hartford, CT	3.86%
29	Albany, NY	1.02%
30	Milwaukee, WI	0.00%

Source: 1992 Census of Government, Government Organization, vol. 1, No. 1, U.S. Bureau of the Census

Federal Defense Contracts Awarded

Total federal defense contract awards in thousands, fiscal 1995 (MSA)

1	St. Louis, MO	\$5,566,439
2	Fort Worth, TX	\$3,579,399
3	Cincinnati, OH	\$983,075
4	Tampa, FL	\$733,255
5	Sacramento, CA	\$725,599
6	Wichita, KS	\$639,595
7	Pittsburgh, PA	\$550,022
8	Fort Wayne, IN	\$398,960
9	Jacksonville, FL	\$390,061
10	Indianapolis, IN	\$315,081
11	Hartford, CT	\$293,691
12	Salt Lake City, UT	\$278,656
13	Albany, NY	\$271,147
14	Columbus, OH	\$222,966
15	Richmond, VA	\$185,516
16	Omaha, NE	\$184,424
17	Baton Rouge, LA	\$181,952
18	Louisville, KY	\$173,414
19	Raleigh/Durham, NC	\$113,555
20	Trenton, NJ	\$93,767
21	Harrisburg, PA	\$84,178
22	Rochester, NY	\$81,740
23	Milwaukee, WI	\$74,728
24	Fort Lauderdale, FL	\$73,873
25	Wilmington, DE	\$63,198
26	Providence, RI	\$61,218
27	Charlotte, NC	\$38,508
28	Des Moines, IA	\$34,457
29	Chattanooga, TN	\$16,041
30	St. Louis, MO	\$12,315

Source: 1997 County and City Estimates
** October 1, 1994 to September 30, 1995

Summary of the Analysis

Secondary School Enrollments

✓ Public school enrollment in the Hartford region is relatively high compared with other regions, with 91.4% of Hartford students enrolled in public schools. Hartford ranks 8th in terms of the percentage of students who are enrolled in secondary public schools. When compared to other regions, Hartford has the highest percent of minority students (Black, Hispanic, Native American, and Asian) attending public school in the city.

✓ When compared to other regions, Hartford has the highest percent of minority students (Black, Hispanic, Native American, and Asian) attending public school in the city.

✓ Hartford county has more school districts and more dependent public school systems than any other comparable regions in this analysis.

✓ Hartford public schools have one of the lowest student/teacher ratios among other comparable regions.

Educational Institutions

✓ The Hartford region has a wide variety of higher educational institutions and is ranked 4th in terms of the number of colleges and universities in the region.

✓ Although Hartford is fairly average in terms of the number of baccalaureate colleges and doctoral level colleges in the region, Hartford has a significant number of community colleges and master's level colleges.

Educational Enrollments

✓ Although the Hartford MSA has a fairly high percentage of college graduates compared to other regions, the percent of persons currently enrolled in colleges and universities in the Hartford MSA is fairly low. In this regard, Hartford ranked 26 out of 30 in terms of the total number of students enrolled in a college or university.

✓ Although the Hartford MSA has a fairly high percentage of college graduates compared to other regions, the percent of persons currently enrolled in colleges and universities in the Hartford MSA is fairly low. In this regard, Hartford ranked 26 out of 30 in terms of the total number of students enrolled in a college or university.

✓ The majority of higher education enrollments in the Hartford MSA come from colleges that where the highest degree granted is the Associate of Arts and Hartford ranks about average in terms of the percentage of persons enrolled in these institutions. Similarly the percentage of persons enrolled in graduate schools was about average for the Hartford region when compared to others.

Summary 1.1

Secondary School Enrollment

Public School Enrollment
Percent of students enrolled in public school grade K-12, 1990 (MSA)

1	Salt Lake City, UT	97.7
2	Fort Worth, TX	95.3
3	Richmond, VA	92.9
4	Raleigh/Durham, NC	92.7
5	Des Moines, IA	92.5
6	Sacramento, CA	92.5
7	Charlotte, NC	92.1
8	Hartford, CT	91.4
9	Columbus, OH	90.9
10	Rochester, NY	90.2
11	Wichita, KS	90.1
12	Indianapolis, IN	89.2
13	Harrisburg, PA	89.1
14	Albany, NY	88.9
15	Jacksonville, FL	88.7
16	Chattanooga, TN	87.0
17	Tampa, FL	87.0
18	Providence, RI	86.9
19	Omaha, NE	86.1
20	Pittsburgh, PA	85.4
21	Fort Wayne, IN	84.2
22	Louisville, KY	84.2
23	Fort Lauderdale, FL	83.8
24	Sioux Falls, SD	82.9
25	Baton Rouge, LA	82.8
26	Cincinnati, OH	82.3
27	St. Louis, MO	82.3
28	Milwaukee, WI	80.9
29	Trenton, NJ	77.9
30	Wilmington, DE	76.4

Source: *Flower-Retired Almanac, 1997*

Private School Enrollment
Percent of students enrolled in private school grade K-12, 1990 (MSA)

1	Wilmington, DE	23.6
2	Trenton, NJ	22.1
3	Milwaukee, WI	19.1
4	St. Louis, MO	17.7
5	Cincinnati, OH	17.7
6	Baton Rouge, LA	17.2
7	Sioux Falls, SD	17.1
8	Fort Lauderdale, FL	16.2
9	Louisville, KY	15.8
10	Fort Wayne, IN	15.8
11	Pittsburgh, PA	14.6
12	Omaha, NE	13.9
13	Providence, RI	13.1
14	Chattanooga, TN	13.0
15	Tampa, FL	13.0
16	Jacksonville, FL	11.4
17	Albany, NY	11.1
18	Harrisburg, PA	10.9
19	Indianapolis, IN	10.8
20	Wichita, KS	9.9
21	Rochester, NY	9.8
22	Columbus, OH	9.1
23	Hartford, CT	8.6
24	Charlotte, NC	7.9
25	Sacramento, CA	7.6
26	Des Moines, IA	7.5
27	Raleigh/Durham, NC	7.4
28	Richmond, VA	7.1
29	Fort Worth, TX	4.7
30	Salt Lake City, UT	2.3

Source: *Flower-Retired Almanac, 1997*

Minority Student Enrollment
Percent of minority students enrolled in public school grades K-12, 1990 (City)

1	Hartford, CT	90.8
2	Richmond, VA	80.7
3	St. Louis, MO	76.9
4	Rochester, NY	73.0
5	Milwaukee, WI	70.6
6	Providence, RI	69.6
7	Fort Worth, TX	69.0
8	Sacramento, CA	65.9
9	Cincinnati, OH	62.2
10	Chattanooga, TN	60.7
11	Baton Rouge, LA	56.1
12	Indianapolis, IN	55.1
13	Pittsburgh, PA	53.9
14	Columbus, OH	47.5
15	Fort Lauderdale, FL	45.0
16	Charlotte, NC	42.9
17	Jacksonville, FL	40.0
18	Tampa, FL	36.7
19	Wichita, KS	36.6
20	Omaha, NE	32.3
21	Louisville, KY	31.0
22	Raleigh, NC	28.2
23	Salt Lake City, UT	27.9
24	Fort Wayne, IN	21.6
25	Des Moines, IA	n/a
	Trenton, NJ	n/a
	Albany, NY	n/a
	Sioux Falls, SD	n/a
	Harrisburg, PA	n/a
	Wilmington, DE	n/a

Source: *The Digest of Education Statistics, 1996*

Summary 1.2

Educational Institutions

School Districts
Number of School Districts, 1992 (County)

1	Illinois, IL	50
2	Mississippi, MS	47
3	Pittsburgh, PA	43
4	Fort Worth, TX	29
5	Columbus, OH	25
6	Cincinnati, OH	23
7	Rochester, NY	17
8	Sacramento, CA	17
9	Omaha, NE	14
10	Albany, NY	13
11	Harrisburg, PA	12
12	Indianapolis, IN	11
13	Des Moines, IA	10
14	Wichita, KS	10
15	Sioux Falls, SD	10
16	Trenton, NJ	8
17	Wilmington, DE	6
18	Salt Lake City, UT	4
19	Fort Wayne, IN	4
20	Tampa, FL	2
21	St. Louis, MO	2
22	Fort Lauderdale, FL	2
23	Louisville, KY	2
24	Jacksonville, FL	2
25	Providence, RI	1
26	Baton Rouge, LA	1
	Richmond, VA	n/a
	Raleigh/Durham, NC	n/a
	Charlottesville, VA	n/a
	Charlotte, NC	n/a

Source: 1993 Census of Government, Government Organization, vol. 1, No. 1, U.S. Bureau of the Census

Dependent Public School Systems
Number of Dependent School Systems, 1992 (County)

1	Illinois, IL	38
2	Providence, RI	16
3	Raleigh/Durham, NC	7
4	Trenton, NJ	4
5	Charlotte, NC	2
5	Charlottesville, VA	2
7	Rochester, NY	2
8	Sacramento, CA	2
8	Richmond, VA	1
9	St. Louis, MO	1
9	Salt Lake City, UT	0
9	Sioux Falls, SD	0
9	Pittsburgh, PA	0
9	Tampa, FL	0
9	Wichita, KS	0
9	Albany, NY	0
9	Louisville, KY	0
9	Omaha, NE	0
9	Fort Wayne, IN	0
9	Cincinnati, OH	0
9	Columbus, OH	0
9	Des Moines, IA	0
9	Fort Lauderdale, FL	0
9	Fort Worth, TX	0
9	Milwaukee, WI	0
9	Harrisburg, PA	0
9	Indianapolis, IN	0
9	Jacksonville, FL	0
9	Baton Rouge, LA	0
9	Wilmington, DE	0

Source: 1992 Census of Government, Government Organization, vol. 1, No. 1, U.S. Bureau of the Census
Figures reported as a part of a state, county, municipal, or county government are not included here.

Outstanding Secondary Schools
Number of Outstanding Secondary Schools (MSA)

1	St. Louis, MO	15
2	Pittsburgh, PA	13
3	Milwaukee, WI	9
3	Fort Lauderdale, FL	9
5	Columbus, OH	8
5	Cincinnati, OH	8
7	Omaha, NE	6
9	Providence, RI	5
9	Louisville, KY	5
11	Richmond, VA	4
11	Albany, NY	4
11	Harrisburg, PA	4
11	Fort Worth, TX	4
15	Indianapolis, IN	3
15	Charlotte, NC	3
15	Tampa, FL	3
15	Chattanooga, TN	3
15	Baton Rouge, LA	3
20	Salt Lake City, UT	2
20	Wilmington, DE	2
20	Rochester, NY	2
23	Sacramento, CA	1
23	Jacksonville, FL	1
23	Trenton, NJ	1
26	Raleigh/Durham, NC	0
26	Sioux Falls, SD	0
26	Fort Wayne, IN	0
26	Wichita, KS	0
26	Des Moines, IA	0

Source: Places Rated Almanac, 1997
Department of Education. In 1996, there were just 715 schools nationwide selected with 648 of them in metropolitan areas.

Student/Teacher Ratio
Student/Teacher Ratio in Local Public Schools (City)

1	Des Moines, IA	12.1
2	St. Louis, MO	13.3
3	Portland, OR	14.1
4	Rochester, NY	14.5
5	Raleigh, NC	15.4
6	Columbus, OH	15.6
7	Baton Rouge, LA	16.4
8	Pittsburgh, PA	16.4
9	Omaha, NE	16.4
10	Wichita, KS	16.7
11	Tampa, FL	16.9
12	Chattanooga, TN	17.1
13	Charlotte, NC	17.1
14	Cincinnati, OH	17.1
15	Louisville, KY	17.4
16	Indianapolis, IN	17.5
17	Fort Worth, TX	17.7
18	Fort Wayne, IN	18.3
19	Milwaukee, WI	19.3
20	Fort Lauderdale, FL	19.9
21	Jacksonville, FL	20.2
22	Salt Lake City, UT	22.5
23	Sacramento, CA	25.4
	Trenton, NJ	n/a
	Albany, NY	n/a
	Sioux Falls, SD	n/a
	Richmond, VA	n/a
	Providence, RI	n/a
	Harrisburg, PA	n/a
	Wilmington, DE	n/a

Source: The Digest of Education Statistics, 1996

Educational Institutions

Associate of Arts Colleges
Number of colleges and universities where highest degree is an Associate of Arts, 1997 (MSA)

1	Pittsburgh, PA	18
2	St. Louis, MO	14
3	Sacramento, CA	10
4	Portland, OR	9
5	Cincinnati, OH	8
6	Albany, NY	6
6	Raleigh/Durham, NC	6
6	Louisville, KY	6
6	Des Moines, IA	5
9	Tampa, FL	5
9	Harrisburg, PA	5
9	Richmond, VA	5
9	Charlotte, NC	5
9	Rochester, NY	5
15	Milwaukee, WI	4
15	Fort Worth, TX	4
15	Fort Lauderdale, FL	4
18	Chattanooga, TN	3
18	Providence, RI	3
18	Columbus, OH	3
18	Omaha, NE	3
18	Salt Lake City, UT	3
23	Trenton, NJ	2
23	Wichita, KS	2
23	Fort Wayne, IN	2
23	Jacksonville, FL	2
23	Indianapolis, IN	2
23	Wilmington, DE	2
29	Sioux Falls, SD	1
30	Baton Rouge, LA	0

Source: Places Rated Almanac, 1997

Baccalaureate Colleges
Number of colleges and universities where highest degree is a Baccalaureate degree, 1997 (MSA)

1	Pittsburgh, PA	5
1	St. Louis, MO	5
1	Columbus, OH	5
4	Tampa, FL	4
5	Fort Wayne, IN	3
5	Indianapolis, IN	3
5	Albany, NY	3
5	Charlottesville, VA	3
5	Fort Lauderdale, FL	2
9	Omaha, NE	2
9	Raleigh/Durham, NC	2
9	Harrisburg, PA	2
9	Des Moines, IA	2
9	Jacksonville, FL	2
15	Wichita, KS	1
15	Rochester, NY	1
15	Salt Lake City, UT	1
15	Trenton, NJ	1
15	Richmond, VA	1
15	Louisville, KY	1
15	Providence, RI	1
15	Portland, OR	1
15	Chattanooga, TN	1
15	Cincinnati, OH	1
15	Wilmington, DE	1
15	Milwaukee, WI	1
27	Fort Worth, TX	0
28	Baton Rouge, LA	0
28	Sacramento, CA	0
28	Sioux Falls, SD	0

Source: Places Rated Almanac, 1997

Masters Colleges
Number of colleges and universities where highest degree is a Masters degree, 1997 (MSA)

1	Pittsburgh, PA	11
2	Charlotte, NC	7
3	St. Louis, MO	6
4	Columbus, OH	5
4	Milwaukee, WI	5
6	Albany, NY	4
6	Indianapolis, IN	4
6	Providence, RI	4
6	Tampa, FL	4
10	Portland, OR	4
10	Harrisburg, PA	3
10	Rochester, NY	3
10	Fort Wayne, IN	3
14	Chattanooga, TN	2
14	Richmond, VA	2
14	Raleigh/Durham, NC	2
14	Wichita, KS	2
14	Cincinnati, OH	2
14	Salt Lake City, UT	2
14	Trenton, NJ	2
14	Jacksonville, FL	2
14	Fort Worth, TX	2
14	Sioux Falls, SD	2
24	Louisville, KY	1
24	Sacramento, CA	1
24	Omaha, NE	1
24	Fort Lauderdale, FL	1
24	Des Moines, IA	1
24	Wilmington, DE	1
30	Baton Rouge, LA	0

Source: Places Rated Almanac, 1997

Doctoral Level Colleges
Number of colleges and universities where highest degree is a Doctoral degree, 1997 (MSA)

1	St. Louis, MO	6
2	Albany, NY	4
2	Raleigh/Durham, NC	4
3	Fort Worth, TX	3
3	Providence, RI	3
3	Pittsburgh, PA	3
3	Omaha, NE	3
3	Milwaukee, WI	3
3	Louisville, KY	3
10	Wilmington, DE	2
10	Baton Rouge, LA	2
10	Rochester, NY	2
10	Trenton, NJ	2
10	Richmond, VA	2
10	Portland, OR	2
10	Cincinnati, OH	2
11	Wichita, KS	1
11	Tampa, FL	1
11	Salt Lake City, UT	1
11	Chattanooga, TN	1
11	Harrisburg, PA	1
11	Fort Lauderdale, FL	1
11	Indianapolis, IN	1
11	Des Moines, IA	1
11	Columbus, OH	1
11	Jacksonville, FL	1
27	Sioux Falls, SD	0
27	Charlotte, NC	0
27	Sacramento, CA	0
27	Fort Wayne, IN	0

Source: Places Rated Almanac, 1997

Educational Institutions

(continued)

Colleges and Universities Enrollments
Total number of colleges and universities, 1997 (MSA)

1	Pittsburgh, PA	37
2	St. Louis, MO	31
3	Albany, NY	17
4	Harrisburg, PA	16
5	Charlotte, NC	15
6	Columbus, OH	14
6	Tampa, FL	14
6	Raleigh/Durham, NC	14
9	Milwaukee, WI	14
10	Indianapolis, IN	13
10	Omaha, NE	13
11	Cincinnati, OH	11
11	Rochester, NY	11
11	Providence, RI	11
11	Sacramento, CA	11
11	Louisville, KY	11
11	Harrisburg, PA	11
16	Richmond, VA	10
16	Indianapolis, IN	10
18	Omaha, NE	9
18	Fort Worth, TX	9
18	Des Moines, IA	9
19	Fort Lauderdale, FL	9
19	Fort Wayne, IN	8
23	Jacksonville, FL	8
23	Salt Lake City, UT	7
23	Trenton, NJ	7
23	Chattanooga, TN	7
27	Wichita, KS	6
27	Wilmington, DE	6
29	Sioux Falls, SD	3
30	Baton Rouge, LA	2

Colleges and Universities
Total number of colleges and universities per every 100,000 persons, 1997 (MSA)

1	Trenton, NJ	2.11
2	Des Moines, IA	2.10
3	Stout Falls, SD	1.94
4	Albany, NY	1.91
5	Harrisburg, PA	1.75
6	Fort Wayne, IN	1.68
7	Chattanooga, TN	1.55
8	Pittsburgh, PA	1.53
9	Harrisburg, PA	1.39
10	Omaha, NE	1.33
11	Raleigh/Durham, NC	1.33
12	St. Louis, MO	1.20
13	Wichita, KS	1.16
14	Charlotte, NC	1.13
15	Louisville, KY	1.11
16	Wilmington, DE	1.08
17	Richmond, VA	1.05
18	Rochester, NY	1.00
19	Providence, RI	0.98
20	Columbus, OH	0.94
21	Milwaukee, WI	0.89
22	Cincinnati, OH	0.80
23	Sacramento, CA	0.72
24	Jacksonville, FL	0.70
25	Indianapolis, IN	0.66
26	Tampa, FL	0.61
27	Fort Worth, TX	0.57
28	Salt Lake City, UT	0.56
29	Fort Lauderdale, FL	0.54
30	Baton Rouge, LA	0.35

Source: Places Rated Almanac, 1997

Source: Places Rated Almanac, 1997

Colleges and University Enrollments

Percent of persons enrolled in a college or university, 1997 (MSA)

1	Trenton, NJ	12.82%
2	Des Moines, IA	11.79%
3	Raleigh/Durham, NC	10.90%
4	Milwaukee, WI	10.07%
5	Albany, NY	9.69%
6	Baton Rouge, LA	9.68%
7	Omaha, NE	9.60%
8	Charlotte, NC	9.11%
9	Providence, RI	9.07%
10	St. Louis, MO	8.44%
11	Rochester, NY	8.40%
12	Columbus, OH	8.38%
13	Wilmington, DE	8.25%
14	Sacramento, CA	7.84%
15	Richmond, VA	7.78%
16	Wichita, KS	7.39%
17	Salt Lake City, UT	6.95%
18	Louisville, KY	6.70%
19	Chattanooga, TN	6.60%
20	Pittsburgh, PA	6.54%
21	Fort Wayne, IN	6.18%
22	Tampa, FL	6.18%
23	Harrisburg, PA	6.12%
24	Fort Worth, TX	5.70%
25	Fort Lauderdale, FL	5.29%
26	Harrisburg, PA	4.85%
27	Cincinnati, OH	4.87%
28	Jacksonville, FL	4.60%
29	Indianapolis, IN	4.37%
30	Sioux Falls, SD	2.52%

Source: Places Rated Almanac, 1997

Associate of Arts College Enrollments

Percent of persons enrolled in an Associate of Arts degree program, 1997 (MSA)

1	Charlotte, NC	6.29%
2	Sacramento, CA	6.03%
3	Milwaukee, WI	5.38%
4	Des Moines, IA	4.82%
5	Omaha, NE	4.41%
6	St. Louis, MO	4.36%
7	Trenton, NJ	3.86%
8	Fort Lauderdale, FL	3.73%
9	Richmond, VA	3.51%
10	Chattanooga, TN	3.50%
11	Tampa, FL	3.40%
12	Rochester, NY	3.34%
13	Providence, RI	3.29%
14	Fort Worth, TX	3.17%
15	Harrisburg, PA	2.74%
16	Harrisburg, PA	2.70%
17	Jacksonville, FL	2.62%
18	Albany, NY	2.57%
19	Pittsburgh, PA	2.56%
20	Salt Lake City, UT	2.50%
21	Raleigh/Durham, NC	2.46%
22	Wichita, KS	2.43%
23	Wilmington, DE	2.27%
24	Louisville, KY	2.24%
25	Columbus, OH	2.03%
26	Fort Wayne, IN	1.53%
27	Cincinnati, OH	1.33%
28	Indianapolis, IN	1.07%
29	Sioux Falls, SD	0.28%
30	Baton Rouge, LA	0.00%

Source: Places Rated Almanac, 1997

Baccalaureate College Enrollments

Percent of persons enrolled in a Baccalaureate degree program, 1997 (MSA)

1	Baton Rouge, LA	7.80%
2	Trenton, NJ	7.36%
3	Raleigh/Durham, NC	6.12%
4	Albany, NY	5.38%
5	Columbus, OH	4.98%
6	Wilmington, DE	4.90%
7	Providence, RI	4.69%
8	Fort Wayne, IN	4.28%
9	Omaha, NE	4.17%
10	Wichita, KS	3.99%
11	Salt Lake City, UT	3.98%
12	Rochester, NY	3.79%
13	Milwaukee, WI	3.44%
14	Louisville, KY	3.43%
15	Richmond, VA	3.22%
16	Pittsburgh, PA	2.94%
17	Cincinnati, OH	2.88%
18	Indianapolis, IN	2.86%
19	Chattanooga, TN	2.72%
20	St. Louis, MO	2.56%
21	Harrisburg, PA	2.47%
22	Tampa, FL	2.39%
23	Charlotte, NC	2.32%
24	Des Moines, IA	2.31%
25	Sioux Falls, SD	2.13%
26	Fort Worth, TX	1.91%
27	Jacksonville, FL	1.64%
28	Indianapolis, IN	1.45%
29	Sacramento, CA	1.42%
30	Fort Lauderdale, FL	0.71%

Source: Places Rated Almanac, 1997

Educational Enrollments By Type of Institution

Percent of persons enrolled in an Master's or Doctoral degree program, 1997 (MSA)

1	Des Moines, IA	4.66%
2	Raleigh/Durham, NC	2.32%
3	Baton Rouge, LA	1.88%
4	Albany, NY	1.74%
5	Trenton, NJ	1.60%
6	St. Louis, MO	1.52%
7	Columbus, OH	1.37%
8	Rochester, NY	1.27%
9	Milwaukee, WI	1.25%
10	Providence, RI	1.08%
11	Wilmington, DE	1.08%
12	Richmond, VA	1.06%
13	Pittsburgh, PA	1.04%
14	Louisville, KY	1.04%
15	Omaha, NE	1.03%
16	Wichita, KS	0.97%
17	Harrisburg, PA	0.91%
18	Harrisburg, PA	0.90%
19	Cincinnati, OH	0.86%
20	Fort Lauderdale, FL	0.85%
21	Indianapolis, IN	0.81%
22	Fort Worth, TX	0.62%
23	Charlotte, NC	0.50%
24	Salt Lake City, UT	0.46%
25	Sacramento, CA	0.40%
26	Tampa, FL	0.39%
27	Chattanooga, TN	0.38%
28	Fort Wayne, IN	0.37%
29	Jacksonville, FL	0.34%
30	Sioux Falls, SD	0.11%

Source: Places Rated Almanac, 1997

Summary of the Analysis

Rent and Mortgage Costs

✓ In the early 1990's Hartford had the highest housing costs for both renters and homeowners. Although much as changed in the Hartford housing market including a major increase in affordable housing, Hartford has continued to see high housing costs. In 1995, Hartford ranks first among these 30 regions in terms of the median price of a single family home. Consistent with these findings, Hartford has had the one of the lowest increases in the cost of single family homes in recent years.

Quality of Housing

✓ Although the housing stock in Hartford's MSA as a whole ranks fairly well among the 30 regions, the amount of substandard housing in Hartford's central city region is higher than any of these regions.

✓ Hartford MSA ranks 6th among these regions in terms of its share of affordable housing.

New Housing

✓ Although the number of new housing permits issued was lowest among 25 other comparable regions in this analysis, Hartford experienced a healthy 34% growth in new housing permits issues between 1996 and 1997 per every 10,000 persons.

Housing Expenditures

Rent Costs as a Percentage of Household Income
 Median Rent as a percentage of household income, 1996 (MSA)

Rank	City/State	Percentage
1	Hartford, CT	35.9
2	Sacramento, CA	30.4
3	Fort Lauderdale, FL	29.3
4	Wilmington, DE	27.9
5	Trenton, NJ	27.2
6	Raleigh/Durham, NC	27.0
7	Providence, RI	26.8
8	Pittsburgh, PA	26.6
9	Baton Rouge, LA	26.5
10	Harrisburg, PA	26.5
11	Milwaukee, WI	25.9
12	St. Louis, MO	25.7
13	Jacksonville, FL	25.6
14	Jacksonville, FL	25.5
15	Albany, NY	25.2
16	Wichita, KS	24.8
17	Chattanooga, TN	24.8
18	Des Moines, IA	24.7
19	Raleigh/Durham, NC	24.7
20	Cincinnati, OH	24.6
21	Columbus, OH	24.6
22	Louisville, KY	24.6
23	Omaha, NE	24.5
24	Sioux Falls, SD	24.5
25	Fort Worth, TX	24.2
26	Indianapolis, IN	24.0
27	Salt Lake City, UT	23.7
28	Charlotte, NC	23.6
29	Fort Wayne, IN	23.5
30	Harrisburg, PA	23.3

Source: U.S. Bureau of the Census, 1998 Census

Single Family Home Price
 Median price of single family home, 1995 (MSA)

Rank	City/State	Price
1	Trenton, NJ	\$129,000
2	Raleigh/Durham, NC	\$125,900
3	Sacramento, CA	\$120,200
4	Providence, RI	\$115,600
5	Wilmington, DE	\$114,700
6	Milwaukee, WI	\$113,700
7	Salt Lake City, UT	\$110,000
8	Wilmington, DE	\$107,200
9	Charlotte, NC	\$105,900
10	Fort Lauderdale, FL	\$105,900
11	Baton Rouge, LA	\$103,100
12	Richmond, VA	\$103,100
13	Cincinnati, OH	\$100,400
14	Columbus, OH	\$99,100
15	Harrisburg, PA	\$97,000
16	Indianapolis, IN	\$94,600
17	Fort Wayne, IN	\$94,000
18	Albany, NY	\$92,100
19	St. Louis, MO	\$87,700
20	Des Moines, IA	\$87,000
21	Louisville, KY	\$86,400
22	Rochester, NY	\$85,000
23	Sioux Falls, SD	\$84,200
24	Fort Worth, TX	\$83,700
25	Jacksonville, FL	\$83,100
26	Omaha, NE	\$83,000
27	Chattanooga, TN	\$82,800
28	Pittsburgh, PA	\$82,100
29	Tampa, FL	\$78,300
30	Wichita, KS	\$76,500

Source: National Bureau of Real Estate Markets, 1996

Single Family Home Price Growth
 Percent change in the price of single family home, 1994-1995 (MSA)

Rank	City/State	Growth
1	Salt Lake City, UT	16.0
2	Omaha, NE	10.0
3	Raleigh/Durham, NC	9.0
4	Albany, NY	8.0
5	Richmond, VA	8.0
6	Louisville, KY	8.0
7	Chattanooga, TN	7.0
8	Des Moines, IA	6.0
9	Milwaukee, WI	5.0
10	Columbus, OH	5.0
11	Sioux Falls, SD	5.0
12	Indianapolis, IN	4.0
13	Wichita, KS	4.0
14	Cincinnati, OH	4.0
15	Tampa, FL	3.0
16	Fort Lauderdale, FL	3.0
17	St. Louis, MO	3.0
18	Charlotte, NC	1.0
19	Jacksonville, FL	1.0
20	Fort Worth, TX	1.0
21	Providence, RI	(1.0)
22	Rochester, NY	(1.0)
23	Trenton, NJ	(2.0)
24	Pittsburgh, PA	(3.0)
25	Sacramento, CA	(3.0)
26	Harrisburg, PA	(3.0)
27	Baton Rouge, LA	(5.0)
28	Harrisburg, PA	n/a
29	Fort Wayne, IN	n/a
30	Wilmington, DE	n/a

Source: National Association of Home Builders, 1997

Housing Expenditures

continued

Monthly Homeowners Costs (with Mortgage)

Median monthly homeowner costs for homeowners with mortgages (MSA)

Rank	MSA	City	Cost (\$)
1	Hartford, CT	Hartford, CT	\$906
2	Sacramento, CA	Sacramento, CA	\$896
3	Providence, RI	Providence, RI	\$883
4	Raleigh/Durham, NC	Raleigh/Durham, NC	\$867
5	Fort Worth, TX	Fort Worth, TX	\$848
6	Wilmington, DE	Wilmington, DE	\$846
7	Trenton, NJ	Trenton, NJ	\$822
8	Fort Lauderdale, FL	Fort Lauderdale, FL	\$818
9	Rochester, NY	Rochester, NY	\$809
10	Albany, NY	Albany, NY	\$777
11	Milwaukee, WI	Milwaukee, WI	\$777
12	Richmond, VA	Richmond, VA	\$746
13	Charlotte, NC	Charlotte, NC	\$706
14	Columbus, OH	Columbus, OH	\$691
15	Salt Lake City, UT	Salt Lake City, UT	\$688
16	Jacksonville, FL	Jacksonville, FL	\$687
17	Omaha, NE	Omaha, NE	\$687
18	Tampa, FL	Tampa, FL	\$685
19	Cincinnati, OH	Cincinnati, OH	\$685
20	Harrisburg, PA	Harrisburg, PA	\$684
21	St. Louis, MO	St. Louis, MO	\$681
22	Des Moines, IA	Des Moines, IA	\$673
23	Wichita, KS	Wichita, KS	\$669
24	Indianapolis, IN	Indianapolis, IN	\$650
25	Pittsburgh, PA	Pittsburgh, PA	\$643
26	Sioux Falls, SD	Sioux Falls, SD	\$634
27	Baton Rouge, LA	Baton Rouge, LA	\$633
28	Fort Wayne, IN	Fort Wayne, IN	\$633
29	Chattanooga, TN	Chattanooga, TN	\$575
30	Louisville, KY	Louisville, KY	\$574
			\$561

Source: U.S. Bureau of the Census, 1990 Census

Monthly Homeowners Costs (without Mortgage)

Median monthly homeowner costs for homeowners without mortgages (MSA)

Rank	MSA	City	Cost (\$)
1	Hartford, CT	Hartford, CT	\$297
2	Milwaukee, WI	Milwaukee, WI	\$291
3	Rochester, NY	Rochester, NY	\$291
4	Wilmington, DE	Wilmington, DE	\$282
5	Trenton, NJ	Trenton, NJ	\$282
6	Providence, RI	Providence, RI	\$282
7	Albany, NY	Albany, NY	\$276
8	Fort Lauderdale, FL	Fort Lauderdale, FL	\$235
9	Des Moines, IA	Des Moines, IA	\$234
10	Raleigh/Durham, NC	Raleigh/Durham, NC	\$232
11	Fort Worth, TX	Fort Worth, TX	\$229
12	Pittsburgh, PA	Pittsburgh, PA	\$226
13	Omaha, NE	Omaha, NE	\$223
14	Richmond, VA	Richmond, VA	\$223
15	Sioux Falls, SD	Sioux Falls, SD	\$217
16	Cincinnati, OH	Cincinnati, OH	\$211
17	St. Louis, MO	St. Louis, MO	\$210
18	Harrisburg, PA	Harrisburg, PA	\$209
19	Wichita, KS	Wichita, KS	\$206
20	Columbus, OH	Columbus, OH	\$203
21	Salt Lake City, UT	Salt Lake City, UT	\$194
22	Sacramento, CA	Sacramento, CA	\$192
23	Indianapolis, IN	Indianapolis, IN	\$192
24	Charlotte, NC	Charlotte, NC	\$187
25	Fort Wayne, IN	Fort Wayne, IN	\$187
26	Louisville, KY	Louisville, KY	\$182
27	Jacksonville, FL	Jacksonville, FL	\$179
28	Tampa, FL	Tampa, FL	\$178
29	Chattanooga, TN	Chattanooga, TN	\$176
30	Baton Rouge, LA	Baton Rouge, LA	\$175
			\$172

Source: U.S. Bureau of the Census, 1990 Census

Section VII, B

Housing Indicators

Housing Conditions

Substandard Housing

Percent of housing that is overcrowded and/or lacks plumbing facilities, 1990 (MSA)

Rank	MSA	City	Percent (%)
1	Sacramento, CA	Sacramento, CA	5.90
2	Fort Worth, TX	Fort Worth, TX	5.30
3	Fort Lauderdale, FL	Fort Lauderdale, FL	5.20
4	Baton Rouge, LA	Baton Rouge, LA	5.00
5	Salt Lake City, UT	Salt Lake City, UT	4.40
6	Jacksonville, FL	Jacksonville, FL	4.10
7	Wichita, KS	Wichita, KS	3.40
8	Charlotte, NC	Charlotte, NC	3.30
9	Tampa, FL	Tampa, FL	3.10
10	Trenton, NJ	Trenton, NJ	3.10
11	Chattanooga, TN	Chattanooga, TN	3.00
12	Raleigh/Durham, NC	Raleigh/Durham, NC	3.00
13	St. Louis, MO	St. Louis, MO	3.00
14	Milwaukee, WI	Milwaukee, WI	2.90
15	Cincinnati, OH	Cincinnati, OH	2.80
16	Providence, RI	Providence, RI	2.70
17	Louisville, KY	Louisville, KY	2.60
18	Richmond, VA	Richmond, VA	2.50
19	Louisville, KY	Louisville, KY	2.40
20	Des Moines, IA	Des Moines, IA	2.30
21	Fort Wayne, IN	Fort Wayne, IN	2.30
22	Indianapolis, IN	Indianapolis, IN	2.20
23	Wilmington, DE	Wilmington, DE	2.10
24	Omaha, NE	Omaha, NE	2.10
25	Columbus, OH	Columbus, OH	2.10
26	Harrisburg, PA	Harrisburg, PA	1.90
27	Sioux Falls, SD	Sioux Falls, SD	1.80
28	Albany, NY	Albany, NY	1.80
29	Rochester, NY	Rochester, NY	1.70
30	Pittsburgh, PA	Pittsburgh, PA	1.50

Source: 1997 County and City Data

Substandard Housing

Percent of housing that is overcrowded and/or lacks plumbing facilities, 1990 (City)

Rank	MSA	City	Percent (%)
2	Sacramento, CA	Sacramento, CA	8.30
3	Trenton, NJ	Trenton, NJ	8.00
4	Fort Lauderdale, FL	Fort Lauderdale, FL	7.80
5	Fort Worth, TX	Fort Worth, TX	7.80
6	Providence, RI	Providence, RI	6.50
7	Tampa, FL	Tampa, FL	6.00
8	St. Louis, MO	St. Louis, MO	5.80
9	Harrisburg, PA	Harrisburg, PA	5.50
10	Baton Rouge, LA	Baton Rouge, LA	5.30
11	Milwaukee, WI	Milwaukee, WI	4.80
12	Jacksonville, FL	Jacksonville, FL	4.40
13	Salt Lake City, UT	Salt Lake City, UT	4.30
14	Cincinnati, OH	Cincinnati, OH	4.30
15	Wilmington, DE	Wilmington, DE	4.10
16	Wichita, KS	Wichita, KS	3.70
17	Louisville, KY	Louisville, KY	3.60
18	Charlotte, NC	Charlotte, NC	3.40
19	Richmond, VA	Richmond, VA	3.20
20	Chattanooga, TN	Chattanooga, TN	3.20
21	Rochester, NY	Rochester, NY	3.10
22	Des Moines, IA	Des Moines, IA	3.00
23	Raleigh/Durham, NC	Raleigh/Durham, NC	2.90
24	Albany, NY	Albany, NY	2.60
25	Indianapolis, IN	Indianapolis, IN	2.60
26	Columbus, OH	Columbus, OH	2.50
27	Fort Wayne, IN	Fort Wayne, IN	2.50
28	Pittsburgh, PA	Pittsburgh, PA	2.30
29	Omaha, NE	Omaha, NE	2.30
30	Sioux Falls, SD	Sioux Falls, SD	1.70

Source: 1997 County and City Data

Share of Affordable Housing

Percent of affordable housing for median income families, 1996 (MSA)

Rank	MSA	City	Percent (%)
1	Wilmington, DE	Wilmington, DE	89.1
2	Wichita, KS	Wichita, KS	85.4
3	Baton Rouge, LA	Baton Rouge, LA	81.7
4	Des Moines, IA	Des Moines, IA	81.4
5	Fort Wayne, IN	Fort Wayne, IN	78.5
6	Louisville, KY	Louisville, KY	76.5
7	Jacksonville, FL	Jacksonville, FL	75.1
8	Tampa, FL	Tampa, FL	74.6
9	Providence, RI	Providence, RI	74.6
10	Rochester, NY	Rochester, NY	74.6
11	Albany, NY	Albany, NY	74.3
12	Richmond, VA	Richmond, VA	73.6
13	Harrisburg, PA	Harrisburg, PA	73.4
14	Chattanooga, TN	Chattanooga, TN	72.8
15	Milwaukee, WI	Milwaukee, WI	72.5
16	Cincinnati, OH	Cincinnati, OH	71.5
17	Fort Worth, TX	Fort Worth, TX	70.9
18	Fort Lauderdale, FL	Fort Lauderdale, FL	70.8
19	St. Louis, MO	St. Louis, MO	70.2
20	Columbus, OH	Columbus, OH	69.7
21	Omaha, NE	Omaha, NE	68.6
22	Louisville, KY	Louisville, KY	65.8
23	Indianapolis, IN	Indianapolis, IN	65
24	Trenton, NJ	Trenton, NJ	64
25	Sacramento, CA	Sacramento, CA	61.2
26	Pittsburgh, PA	Pittsburgh, PA	61.1
27	Charlotte, NC	Charlotte, NC	59.8
28	Raleigh/Durham, NC	Raleigh/Durham, NC	59.8
29	Salt Lake City, UT	Salt Lake City, UT	46.5
	Sioux Falls, SD	Sioux Falls, SD	n/a

Source: National Association of Home Builders, 1997
 *Housing Opportunity Index for the 4th Quarter, 1996

Foreclosure Risk

Foreclosure Risk Ratings for New Mortgages (MSA)

Rank	MSA	City	Risk Rating
1	Baton Rouge, LA	Baton Rouge, LA	Low
1	Cincinnati, OH	Cincinnati, OH	Low
1	Fort Lauderdale, FL	Fort Lauderdale, FL	Low
1	Fort Worth, TX	Fort Worth, TX	Low
1	Harrisburg, PA	Harrisburg, PA	Low
1	Louisville, KY	Louisville, KY	Low
1	Raleigh/Durham, NC	Raleigh/Durham, NC	Low
1	Sacramento, CA	Sacramento, CA	Low
1	Salt Lake City, UT	Salt Lake City, UT	Low
1	Sioux Falls, SD	Sioux Falls, SD	Low
1	Tampa, FL	Tampa, FL	Low
1	Wichita, KS	Wichita, KS	Low
2	Charlotte, NC	Charlotte, NC	Medium
2	Chattanooga, TN	Chattanooga, TN	Medium
2	Columbus, OH	Columbus, OH	Medium
2	Des Moines, IA	Des Moines, IA	Medium
2	Fort Wayne, IN	Fort Wayne, IN	Medium
2	Louisville, KY	Louisville, KY	Medium
2	Indianapolis, IN	Indianapolis, IN	Medium
2	Jacksonville, FL	Jacksonville, FL	Medium
2	Milwaukee, WI	Milwaukee, WI	Medium
2	Omaha, NE	Omaha, NE	Medium
2	Pittsburgh, PA	Pittsburgh, PA	Medium
2	Providence, RI	Providence, RI	Medium
2	Richmond, VA	Richmond, VA	Medium
2	Rochester, NY	Rochester, NY	Medium
2	St. Louis, MO	St. Louis, MO	Medium
2	Wilmington, DE	Wilmington, DE	Medium
3	Albany, NY	Albany, NY	High
3	Trenton	Trenton	High

Source: 1997 County and City Data

Section VII, B

New Housing

New Housing Permits Issued
 Number of new housing permits per every 10,000 persons, 1995 (USA)

1	Raleigh/Durham, NC	130.56
2	Charlotte, NC	103.56
3	Fort Lauderdale, FL	89.49
4	Indianapolis, IN	89.37
5	Salt Lake City, UT	84.42
6	Jacksonville, FL	84.01
7	Sioux Falls, SD	83.27
8	Des Moines, IA	79.39
9	Columbus, OH	72.03
10	Fort Wayne, IN	62.29
11	Richmond, VA	62.25
12	Tampa, FL	59.63
13	Fort Worth, TX	57.89
14	Louisville, KY	57.09
15	Omaha, NE	56.19
16	Cincinnati, OH	55.67
17	Wilmington, DE	54.63
18	Pittsburgh, PA	54.62
19	Wichita, KS	53.88
20	Sacramento, CA	48.24
21	Baton Rouge, LA	44.34
22	St. Louis, MO	43.85
23	Milwaukee, WI	42.86
24	Trenton, NJ	25.51
1995 (USA)		13.89
	Rochester, NY	n/a
	Harrisburg, PA	n/a
	Charlottesville, TN	n/a
	Providence, RI	n/a
	Albany, NY	n/a

Source: National Association of Home Builders, 1997

Growth in New Housing Permits Issued
 Percent of new housing permits per every 10,000 persons, 1990-1997 (USA)

1	Baton Rouge, LA	326.07
2	Salt Lake City, UT	232.80
3	Rochester, NY	155.89
4	Sioux Falls, SD	123.55
5	Raleigh/Durham, NC	115.09
6	Fort Worth, TX	100.22
7	Charlottesville, TN	77.46
8	Charlotte, NC	71.67
9	Omaha, NE	65.93
10	Indianapolis, IN	62.05
11	St. Louis, MO	51.87
12	Fort Wayne, IN	43.45
13	Jacksonville, FL	38.39
14	Louisville, KY	35.47
15	Cincinnati, OH	35.22
16	Fort Lauderdale, FL	34.14
1990-1997 (USA)		33.50
18	Columbus, OH	28.91
19	Wichita, KS	28.78
20	Des Moines, IA	27.20
21	Pittsburgh, PA	15.04
22	Tampa, FL	12.02
23	Harrisburg, PA	(4.92)
24	Richmond, VA	(9.12)
25	Albany, NY	(9.68)
26	Providence, RI	(13.84)
27	Milwaukee, WI	(18.33)
28	Trenton, NJ	(20.12)
29	Wilmington, DE	(22.47)
30	Sacramento, CA	(45.10)

Source: National Association of Home Builders, 1997

Summary of the Analysis

Medical Care

✓ Although Hartford ranks fairly low in terms of the number of local hospitals and hospital beds, it ranks very high in terms of the number of physicians who work in the Hartford region. Additionally, Hartford also has a high number of nursing home patients.

Crime

✓ Crime in the Hartford region is about average when compared to other regions. Property crime in the city of Hartford was slightly lower than in other regions.

Libraries

✓ Although Hartford is about average in terms of the number of public library branches, Hartford ranks high in terms of the number of library books in the public library system and in book circulation.

Local News

✓ Hartford has a healthy circulation of local newspapers and newspaper subscription. When compared with other regions, Hartford's newspaper subscription was about average. Additionally, the cost of advertising in local newspapers was moderate when compared to other regions.

Cultural Arts

✓ Hartford ranks very high in terms of cultural arts in all indicators including Museums, Art Galleries, Touring Artist Shows, Artist Ensembles, and Ensemble Play Dates. In other forms of entertainment such as the number of movie screens, aquariums and zoos, Hartford was not as highly ranked among these regions.

Sports and Recreation

✓ With the exception of professional sports teams, Hartford is fairly average in the number of sporting events, teams, and recreation opportunities available to local residents.

Transportation

✓ Although the majority of Hartford workers drive alone to work, Hartford has one of the lowest percentages of those who do so. At the same time, Hartford workers have a higher preference for car pooling and public transportation than do many other regions. Hartford drivers have a 22.2 minute one-way commute to work which is about average compared to other regions.

Medical Care

General Hospitals
Number of general hospitals per every 100,000 persons, 1997 (MSA)

1	Columbus, OH	5.02
2	Sioux Falls, SD	3.23
3	Chattanooga, TN	2.43
4	Fort Wayne, IN	2.10
5	Des Moines, IA	1.87
6	Omaha, NE	1.78
7	Wichita, KS	1.74
8	Louisville, KY	1.61
9	Pittsburgh, PA	1.58
10	Richmond, VA	1.57
11	Tampa, FL	1.56
12	Rochester, NY	1.54
13	Trenton, NJ	1.51
14	Albany, NY	1.46
15	Milwaukee, WI	1.43
16	Baton Rouge, LA	1.39
17	Indianapolis, IN	1.39
18	Fort Lauderdale, FL	1.29
19	Harrisburg, PA	1.28
20	Fort Worth, TX	1.26
21	Jacksonville, FL	1.20
22	Cincinnati, OH	1.17
23	Salt Lake City, UT	1.11
24	Hartford, CT	1.08
25	Raleigh/Durham, NC	0.95
26	Providence, RI	0.89
27	St. Louis, MO	0.85
28	Sacramento, CA	0.85
29	Charlotte, NC	0.75
30	Wilmington, DE	0.72

Source: Place Rated/Places, 1997

Hospital Beds
Number of hospital beds per every 100,000 persons, 1997 (MSA)

1	Columbus, OH	15.28
2	Sioux Falls, SD	7.72
3	Pittsburgh, PA	5.66
4	Omaha, NE	5.16
5	Des Moines, IA	4.98
6	Trenton, NJ	4.90
7	Wichita, KS	4.70
8	Richmond, VA	4.58
9	Louisville, KY	4.53
10	Tampa, FL	4.29
11	Chattanooga, TN	4.12
12	Albany, NY	4.05
13	Indianapolis, IN	4.02
14	Fort Wayne, IN	4.00
15	Rochester, NY	3.74
16	Raleigh/Durham, NC	3.71
17	Fort Lauderdale, FL	3.60
18	Harrisburg, PA	3.59
19	Milwaukee, WI	3.54
20	Cincinnati, OH	3.39
21	Baton Rouge, LA	3.16
22	Jacksonville, FL	3.10
23	Hartford, CT	2.84
24	Providence, RI	2.50
25	Charlotte, NC	2.45
26	Fort Worth, TX	2.27
27	Salt Lake City, UT	2.22
28	Sacramento, CA	2.18
29	St. Louis, MO	1.66
30	Wilmington, DE	1.23

Source: Places Rated/Places, 1997

Physicians
Number of physicians per every 100,000 persons, 1997 (MSA)

1	Raleigh/Durham, NC	469
2	Sioux Falls, SD	323
3	Hartford, CT	310
4	Trenton, NJ	313
5	Omaha, NE	299
6	Richmond, VA	297
7	Pittsburgh, PA	293
8	Indianapolis, IN	289
9	Rochester, NY	282
10	Providence, RI	282
11	St. Louis, MO	271
12	Louisville, KY	270
13	Harrisburg, PA	260
14	Milwaukee, WI	256
15	Albany, NY	241
16	Salt Lake City, UT	236
17	Cincinnati, OH	233
18	Sacramento, CA	230
19	Columbus, OH	225
20	Wilmington, DE	220
21	Jacksonville, FL	216
22	Wichita, KS	213
23	Tampa, FL	208
24	Fort Lauderdale, FL	204
25	Chattanooga, TN	174
26	Des Moines, IA	170
27	Baton Rouge, LA	163
28	Charlotte, NC	157
29	Fort Wayne, IN	136
30	Fort Worth, TX	136

Source: 1997 County and City Data

Source: Places Rated/Places, 1997

Source: Places Rated/Places, 1997

Nursing Home Patients
Number of persons in nursing homes per every 100,000 persons, 1997 (MSA)

1	Harrisburg, PA	1.04
2	Hartford, CT	1.03
3	Milwaukee, WI	1.01
4	Sioux Falls, SD	0.99
5	Cincinnati, OH	0.98
6	Fort Wayne, IN	0.93
7	Providence, RI	0.85
8	Tampa, FL	0.84
9	St. Louis, MO	0.83
10	Pittsburgh, PA	0.83
11	Albany, NY	0.82
12	Des Moines, IA	0.80
13	Indianapolis, IN	0.77
14	Rochester, NY	0.76
15	Omaha, NE	0.76
16	Louisville, KY	0.75
17	Wichita, KS	0.74
18	Richmond, VA	0.67
19	Chattanooga, TN	0.66
20	Columbus, OH	0.59
21	Charlotte, NC	0.57
22	Wilmington, DE	0.53
23	Trenton, NJ	0.53
24	Baton Rouge, LA	0.51
25	Jacksonville, FL	0.51
26	Fort Worth, TX	0.51
27	Raleigh/Durham, NC	0.47
28	Sacramento, CA	0.46
29	Fort Lauderdale, FL	0.41
30	Salt Lake City, UT	0.31

Source: 1997 County and City Data

Source: 1997 County and City Data

Source: 1997 County and City Data

Medical Care
continued

Infant Mortality Rates
Average deaths of infants less than 1 yrs. old per 1,000 live births, between 1992-1994 (MSA)

1	Baton Rouge, LA	10.60
2	Wichita, KS	10.30
3	Richmond, VA	9.90
4	Fort Lauderdale, FL	9.70
5	Charlotte, NC	9.50
6	Indianapolis, IN	9.50
7	Raleigh/Durham, NC	9.30
8	Louisville, KY	9.20
9	Tampa, FL	9.10
10	Jacksonville, FL	9.00
11	Cincinnati, OH	8.90
12	Milwaukee, WI	8.90
13	Trenton, NJ	8.90
14	Pittsburgh, PA	8.80
15	Fort Wayne, IN	8.70
16	Omaha, NE	8.60
17	Des Moines, IA	8.40
18	Columbus, OH	8.40
19	St. Louis, MO	8.40
20	Hartford, CT	8.30
21	Wilmington, DE	8.20
22	Chattanooga, TN	8.10
23	Fort Worth, TX	8.00
24	Rochester, NY	7.70
25	Harrisburg, PA	7.70
26	Sioux Falls, SD	7.40
27	Sacramento, CA	7.20
28	Albany, NY	7.00
29	Providence, RI	6.50
30	Salt Lake City, UT	6.10

Source: 1997 County and City Data

Crime

Violent Crime*
Number of violent crimes, 1996 (MISA)

1 Tampa, FL (dp)	24,503
2 St. Louis, MO (dp)	19,367
3 Charlotte, NC (dp)	13,342
4 Sacramento, CA (dp)	12,996
5 Fort Lauderdale, FL (dp)	11,819
6 Jacksonville, FL (dp)	11,447
7 Fort Worth, TX (dp)	10,286
8 Cincinnati, OH (dp)	9,761
9 Columbus, OH (dp)	8,684
10 Milwaukee, WI	8,680
11 Baton Rouge, LA (dp)	7,680
12 Pittsburgh, PA (dp)	6,922
13 Louisville, KY (dp)	6,602
14 Raleigh/Durham, NC (dp)	5,894
15 Richmond, VA (dp)	5,498
16 Unlabeled City	5,214
17 Salt Lake City, UT (dp)	4,789
18 Omaha, NE (dp)	4,172
19 Rochester, NY (dp)	3,692
20 Providence, RI	3,321
21 Albany, NY (dp)	3,272
22 Chattanooga, TN (dp)	2,762
23 Harrisburg, PA (dp)	1,912
24 Des Moines, IA	1,448
25 Fort Wayne, IN (dp)	1,389
26 Trenton, NJ (dp)	937
27 Wilmington, DE (dp)	834
28 Sioux Falls, SD (dp)	511
Indianapolis, IN (dp)	n/a
Wichita, KS (dp)	n/a

Source: 1997 County and City Extra
*Murder, rape, robbery, and assault crimes
(dp) Death Penalty State

Violent Crime*
Number of violent crimes, 1995 (City)

1 St. Louis, MO (dp)	12,452
2 Jacksonville, FL (dp)	10,423
3 Charlotte, NC (dp)	9,223
4 Tampa, FL (dp)	8,735
5 Milwaukee, WI	6,737
6 Columbus, OH (dp)	6,624
7 Baton Rouge, LA (dp)	6,551
8 Fort Worth, TX (dp)	5,344
9 Cincinnati, OH (dp)	4,640
10 Sacramento, CA (dp)	4,280
11 Omaha, NE (dp)	3,930
12 Richmond, VA (dp)	3,500
13 Pittsburgh, PA (dp)	3,474
14 Louisville, KY (dp)	3,260
15 Unlabeled City	2,807
16 Rochester, NY (dp)	2,550
17 Fort Lauderdale, FL (dp)	2,293
18 Wichita, KS (dp)	2,185
19 Raleigh/Durham, NC (dp)	2,009
20 Chattanooga, TN (dp)	1,922
21 Salt Lake City, UT (dp)	1,375
22 Trenton, NJ (dp)	1,330
23 Albany, NY (dp)	1,227
24 Providence, RI	1,222
25 Des Moines, IA	1,005
26 Fort Wayne, IN (dp)	931
27 Harrisburg, PA (dp)	861
28 Wilmington, DE (dp)	520
29 Sioux Falls, SD (dp)	501
Indianapolis, IN (dp)	n/a

Source: 1997 County and City Extra
*Murder, rape, robbery, and assault crimes
(dp) Death Penalty State

Property Crime*
Number of property crimes, 1995 (MISA)

1 Tampa, FL (dp)	131,272
2 St. Louis, MO (dp)	124,850
3 Fort Lauderdale, FL (dp)	101,710
4 Cincinnati, OH (dp)	83,394
5 Milwaukee, WI	79,436
6 Salt Lake City, UT (dp)	79,055
7 Fort Worth, TX (dp)	77,820
8 Columbus, OH (dp)	76,924
9 Charlotte, NC (dp)	72,634
10 Jacksonville, FL (dp)	62,489
11 Raleigh/Durham, NC (dp)	53,297
12 Sacramento, CA (dp)	49,871
13 Unlabeled City	49,304
14 Pittsburgh, PA (dp)	47,839
15 Rochester, NY (dp)	45,014
16 Louisville, KY (dp)	44,263
17 Richmond, VA (dp)	42,136
18 Baton Rouge, LA (dp)	40,144
19 Providence, RI	35,143
20 Omaha, NE (dp)	33,601
21 Albany, NY (dp)	30,123
22 Des Moines, IA	23,040
23 Chattanooga, TN (dp)	19,355
24 Fort Wayne, IN (dp)	17,186
25 Harrisburg, PA (dp)	16,804
26 Sioux Falls, SD (dp)	5,784
27 Trenton, NJ (dp)	2,864
28 Wilmington, DE (dp)	1,576
Indianapolis, IN (dp)	n/a
Wichita, KS (dp)	n/a

Source: 1997 County and City Extra
*Murder, rape, and auto theft
(dp) Death Penalty State

Property Crime*
Number of property crimes, 1995 (City)

1 Jacksonville, FL (dp)	55,569
2 Columbus, OH (dp)	52,091
3 St. Louis, MO (dp)	47,284
4 Milwaukee, WI	45,042
5 Charlotte, NC (dp)	42,882
6 Sacramento, CA (dp)	34,523
7 Fort Worth, TX (dp)	34,323
8 Tampa, FL (dp)	32,377
9 Baton Rouge, LA (dp)	24,243
10 Omaha, NE (dp)	23,611
11 Wichita, KS (dp)	22,743
12 Fort Lauderdale, FL (dp)	22,291
13 Cincinnati, OH (dp)	20,740
14 Salt Lake City, UT (dp)	20,169
15 Rochester, NY (dp)	18,274
16 Pittsburgh, PA (dp)	17,484
17 Richmond, VA (dp)	16,231
18 Louisville, KY (dp)	15,104
19 Des Moines, IA	14,757
20 Raleigh/Durham, NC (dp)	13,974
21 Unlabeled City	12,776
22 Providence, RI	12,317
23 Chattanooga, TN (dp)	11,834
24 Fort Wayne, IN (dp)	7,102
25 Albany, NY (dp)	5,265
26 Sioux Falls, SD (dp)	5,041
27 Trenton, NJ (dp)	4,074
28 Harrisburg, PA (dp)	2,812
29 Wilmington, DE (dp)	n/a
Indianapolis, IN (dp)	n/a

Source: 1997 County and City Extra
*Murder, rape, and auto theft
(dp) Death Penalty State

Libraries and Local News Sources

Public Library Branches
Number of public library branches per every 100,000 persons, 1997 (MISA)

1 Sioux Falls, SD	5.18
2 Richmond, VA	3.99
3 Trenton, NJ	3.61
4 Cincinnati, OH	3.45
5 Raleigh/Durham, NC	3.41
6 Fort Wayne, IN	3.16
7 Charlotte, NC	3.16
8 Louisville, KY	2.61
9 Sacramento, CA	2.41
10 Columbus, OH	2.28
11 Baton Rouge, LA	2.25
12 Providence, RI	2.22
13 Fort Lauderdale, FL	2.18
14 Indianapolis, IN	2.12
15 Wichita, KS	2.18
16 Jacksonville, FL	2.09
17 Salt Lake City, UT	2.07
18 St. Louis, MO	2.01
19 Unlabeled City	2.00
20 Harrisburg, PA	1.91
21 Albany, NY	1.68
22 Tampa, FL	1.56
23 Chattanooga, TN	1.55
24 Rochester, NY	1.45
25 Wilmington, DE	1.45
26 Omaha, NE	1.33
27 Pittsburgh, PA	1.20
28 Des Moines, IA	1.17
29 Milwaukee, WI	0.82
30 Fort Worth, TX	0.82

Source: Public Book Almanac, 1997

Library Books
Number of books in the public library system per every 100,000 persons, 1997 (MISA)

1 Fort Wayne, IN	650,489
2 Unlabeled City	417,859
3 Trenton, NJ	397,060
4 Cincinnati, OH	386,122
5 St. Louis, MO	382,993
6 Providence, RI	365,842
7 Milwaukee, WI	341,770
8 Columbus, OH	322,842
9 Rochester, NY	317,886
10 Richmond, VA	281,101
11 Des Moines, IA	279,652
12 Albany, NY	272,565
13 Wichita, KS	268,000
14 Sioux Falls, SD	258,409
15 Indianapolis, IN	246,412
16 Jacksonville, FL	241,979
17 Pittsburgh, PA	229,022
18 Baton Rouge, LA	219,685
19 Salt Lake City, UT	211,408
20 Omaha, NE	201,664
21 Charlotte, NC	191,742
22 Wilmington, DE	185,887
23 Raleigh/Durham, NC	182,836
24 Louisville, KY	154,706
25 Sacramento, CA	148,849
26 Fort Worth, TX	148,393
27 Fort Lauderdale, FL	142,794
28 Chattanooga, TN	141,434
29 Harrisburg, PA	134,701
30 Tampa, FL	127,409

Source: Public Book Almanac, 1997

Book Circulation at the Public Library Branches
Number of books circulated from the public library system per every 100,000 persons, 1997 (MISA)

1 Columbus, OH	1,397,933
2 Fort Wayne, IN	1,110,687
3 Cincinnati, OH	996,156
4 Indianapolis, IN	880,686
5 Rochester, NY	823,650
6 Sioux Falls, SD	821,858
7 Milwaukee, WI	819,670
8 Unlabeled City	783,744
9 Salt Lake City, UT	751,068
10 St. Louis, MO	729,853
11 Raleigh/Durham, NC	703,032
12 Des Moines, IA	678,371
13 Richmond, VA	672,075
14 Trenton, NJ	644,212
15 Charlotte, NC	564,266
16 Harrisburg, PA	511,421
17 Providence, RI	497,376
18 Wichita, KS	481,854
19 Baton Rouge, LA	468,398
20 Omaha, NE	460,822
21 Wilmington, DE	438,968
22 Tampa, FL	436,373
23 Fort Lauderdale, FL	430,576
24 Fort Worth, TX	430,560
25 Louisville, KY	429,687
26 Jacksonville, FL	332,468
27 Pittsburgh, PA	265,551
28 Sacramento, CA	70,876
29 Chattanooga, TN	
30 Albany, NY	

Source: 1997 County and City Extra

Libraries and Local News Sources

continued

Newspaper Daily Circulation

Daily circulation for the largest local newspaper per every 100,000 persons, 1997 (MISA)

1	Des Moines, IA	39,685
2	Omaha, NE	33,716
3	Sioux Falls, SD	32,484
4	Trenton, NJ	25,373
5	Fort Wayne, IN	23,547
6	Louisville, KY	23,364
7	Wilmington, DE	22,711
8	Richmond, VA	22,244
9	Milwaukee, WI	19,619
10	Indianapolis, IN	18,816
11	Portland, ME	18,042
12	Chattanooga, TN	18,108
13	Sacramento, CA	18,054
14	Charlotte, NC	17,978
15	Wichita, KS	17,743
16	Jacksonville, FL	17,613
17	Columbus, OH	17,211
18	Rochester, NY	17,093
19	Baton Rouge, LA	16,368
20	Fort Lauderdale, FL	16,169
21	Harrisburg, PA	15,534
22	Providence, RI	15,258
23	Salt Lake City, UT	15,028
24	Raleigh/Durham, NC	14,323
25	Fort Worth, TX	13,977
26	Cincinnati, OH	12,631
27	St. Louis, MO	12,433
28	Albany, NY	11,885
29	Tampa, FL	10,470
30	Pittsburgh, PA	9,994

Source: Standard Rate and Data Service, 1997

Newspaper Sunday Circulation

Sunday circulation for the largest local newspaper per every 100,000 persons, 1997 (MISA)

1	Des Moines, IA	67,502
2	Sioux Falls, SD	46,866
3	Omaha, NE	42,992
4	Wichita, KS	32,608
5	Louisville, KY	32,062
6	Milwaukee, WI	31,488
7	Fort Wayne, IN	29,042
8	Trenton, NJ	28,113
9	Wilmington, DE	27,175
10	Harrisburg, PA	26,849
11	Indianapolis, IN	26,705
12	Portland, ME	26,339
13	Columbus, OH	26,250
14	Richmond, VA	26,221
15	Chattanooga, TN	24,349
16	Jacksonville, FL	23,865
17	Fort Lauderdale, FL	23,792
18	Charlotte, NC	22,928
19	Baton Rouge, LA	22,686
20	Rochester, NY	22,588
21	Sacramento, CA	22,003
22	Providence, RI	21,312
23	Cincinnati, OH	21,312
24	Fort Worth, TX	21,263
25	St. Louis, MO	20,837
26	Raleigh/Durham, NC	19,080
27	Salt Lake City, UT	18,023
28	Albany, NY	17,939
29	Pittsburgh, PA	17,461
30	Tampa, FL	14,585

Source: Standard Rate and Data Service, 1997

Annual Subscription Rate

Annual subscription rate for the largest local newspaper for daily local delivery, 1997 (MISA)

1	Fort Lauderdale, FL	\$416.00
2	Charlotte, NC	\$349.80
3	Salt Lake City, UT	\$335.40
4	Albany, NY	\$314.08
5	Rochester, NY	\$280.00
6	Sacramento, CA	\$276.00
7	Wichita, KS	\$242.88
8	Des Moines, IA	\$234.00
9	Indianapolis, IN	\$234.00
10	Cincinnati, OH	\$221.00
11	St. Louis, MO	\$221.00
12	Omaha, NE	\$215.80
13	Portland, ME	\$202.50
14	Providence, RI	\$201.60
15	Sioux Falls, SD	\$177.11
16	Pittsburgh, PA	\$175.00
17	Louisville, KY	\$174.00
18	Wilmington, DE	\$171.60
19	Harrisburg, PA	\$171.60
20	Richmond, VA	\$166.20
21	Fort Wayne, IN	\$163.80
22	Raleigh/Durham, NC	\$163.50
23	Columbus, OH	\$156.00
24	Milwaukee, WI	\$153.60
25	Tampa, FL	\$138.45
26	Chattanooga, TN	\$135.80
27	Fort Worth, TX	\$131.40
28	Jacksonville, FL	\$124.80
29	Trenton, NJ	\$119.60
30	Baton Rouge, LA	\$107.52

Source: Standard Rate and Data Service, 1997

Ad Rate

Cost of one Standard Advertising Unit (SAU)* in the largest local daily newspaper, 1997 (MISA)

1	Fort Lauderdale, FL	\$234.40
2	Milwaukee, WI	\$217.99
3	Rochester, NY	\$191.50
4	Fort Worth, TX	\$172.80
5	Tampa, FL	\$170.00
6	Louisville, KY	\$165.52
7	Indianapolis, IN	\$164.00
8	Portland, ME	\$153.17
9	Pittsburgh, PA	\$151.70
10	Providence, RI	\$145.86
11	Des Moines, IA	\$145.11
12	Jacksonville, FL	\$133.15
13	St. Louis, MO	\$132.50
14	Cincinnati, OH	\$130.71
15	Charlotte, NC	\$126.98
16	Sacramento, CA	\$118.59
17	Columbus, OH	\$113.35
18	Richmond, VA	\$113.00
19	Wilmington, DE	\$95.63
20	Omaha, NE	\$86.54
21	Wichita, KS	\$86.26
22	Fort Wayne, IN	\$65.26
23	Albany, NY	\$55.60
24	Raleigh/Durham, NC	\$48.50
25	Baton Rouge, LA	\$48.45
26	Harrisburg, PA	\$44.50
27	Trenton, NJ	\$43.21
28	Salt Lake City, UT	\$40.10
29	Sioux Falls, SD	\$38.48
30	Chattanooga, TN	\$22.38

Source: Standard Rate and Data Service, 1997

*Standard Advertising Unit is equivalent to one column inch of one page.

Cultural Arts

continued

Museums and Art Galleries

Number of major museums and art galleries per every 100,000 persons, 1997 (MISA)

1	Wichita, KS	0.77
2	Sioux Falls, SD	0.65
3	Trenton, NJ	0.60
4	Des Moines, IA	0.47
5	Albany, NY	0.45
6	Portland, ME	0.44
7	Chattanooga, TN	0.44
8	Raleigh/Durham, NC	0.38
9	Wilmington, DE	0.36
10	Baton Rouge, LA	0.35
11	Milwaukee, WI	0.34
12	Columbus, OH	0.34
13	Salt Lake City, UT	0.32
14	Tampa, FL	0.30
15	Cincinnati, OH	0.25
16	Charlotte, NC	0.23
17	Fort Wayne, IN	0.21
18	Richmond, VA	0.21
19	Pittsburgh, PA	0.21
20	Indianapolis, IN	0.20
21	Jacksonville, FL	0.20
22	Louisville, KY	0.20
23	Fort Worth, TX	0.19
24	Rochester, NY	0.18
25	Providence, RI	0.18
26	St. Louis, MO	0.15
27	Omaha, NE	0.15
28	Fort Lauderdale, FL	0.14
29	Sacramento, CA	0.07
30	Harrisburg, PA	0.00

Source: Places Rated Almanac, 1997

*Either accredited by American Association of Museums, or received more than 15,000 annual visitors and have some form of curatorial, publications program and a research library.

Tourist Artist Bookings

Number of touring artist bookings per every 100,000 persons, 1997 (MISA)

1	Portland, ME	111.98
2	Fort Lauderdale, FL	59.15
3	Trenton, NJ	40.06
4	Louisville, KY	31.25
5	Salt Lake City, UT	28.22
6	Raleigh/Durham, NC	24.16
7	Albany, NY	22.87
8	Tampa, FL	21.94
9	Wilmington, DE	18.80
10	Columbus, OH	18.51
11	Harrisburg, PA	18.35
12	St. Louis, MO	17.40
13	Milwaukee, WI	12.21
14	Charlotte, NC	11.95
15	Rochester, NY	11.54
16	Fort Wayne, IN	9.26
17	Jacksonville, FL	8.57
18	Pittsburgh, PA	7.30
19	Des Moines, IA	5.84
20	Omaha, NE	5.63
21	Chattanooga, TN	4.20
22	Sioux Falls, SD	3.88
23	Wichita, KS	3.86
24	Providence, RI	3.64
25	Cincinnati, OH	3.14
26	Richmond, VA	3.04
27	Indianapolis, IN	2.18
28	Baton Rouge, LA	1.73
29	Fort Worth, TX	1.20
30	Sacramento, CA	0.85

Source: Places Rated Almanac, 1997

Resident Ensembles

Number of resident ensembles per every 100,000 persons, 1997 (MISA)

1	Trenton, NJ	1.20
2	Omaha, NE	1.18
3	Des Moines, IA	1.17
4	Milwaukee, WI	0.82
5	Portland, ME	0.75
6	Salt Lake City, UT	0.72
7	Albany, NY	0.67
8	Chattanooga, TN	0.66
9	Sioux Falls, SD	0.63
10	Richmond, VA	0.63
11	Cincinnati, OH	0.62
12	Columbus, OH	0.60
13	Indianapolis, IN	0.59
14	Pittsburgh, PA	0.58
15	Raleigh/Durham, NC	0.57
16	Wilmington, DE	0.54
17	Charlotte, NC	0.53
18	Baton Rouge, LA	0.52
19	Louisville, KY	0.50
20	St. Louis, MO	0.46
21	Rochester, NY	0.45
22	Fort Wayne, IN	0.42
23	Sacramento, CA	0.39
24	Providence, RI	0.36
25	Harrisburg, PA	0.32
26	Fort Worth, TX	0.31
27	Tampa, FL	0.26
28	Jacksonville, FL	0.20
29	Wichita, KS	0.19
30	Fort Lauderdale, FL	0.14

Source: Places Rated Almanac, 1997

*Book on the geography, sports, health, stage company, or film/musical production

Resident Ensemble Play Dates

Number of resident ensemble play dates per every 100,000 persons, 1997 (MISA)

1	Omaha, NE	79.80
2	Portland, ME	51.04
3	Trenton, NJ	48.20
4	Richmond, VA	42.18
5	Milwaukee, WI	38.67
6	Salt Lake City, UT	36.80
7	Raleigh/Durham, NC	32.31
8	Indianapolis, IN	28.76
9	Louisville, KY	28.03
10	Charlotte, NC	26.76
11	Pittsburgh, PA	24.67
12	Cincinnati, OH	23.76
13	Rochester, NY	22.17
14	Fort Wayne, IN	21.05
15	Jacksonville, FL	20.03
16	St. Louis, MO	18.49
17	Chattanooga, TN	18.33
18	Fort Worth, TX	18.02
19	Wilmington, DE	16.09
20	Columbus, OH	15.70
21	Des Moines, IA	15.65
22	Sacramento, CA	13.37
23	Albany, NY	13.01
24	Fort Lauderdale, FL	11.96
25	Wichita, KS	11.58
26	Baton Rouge, LA	10.57
27	Tampa, FL	8.39
28	Providence, RI	6.75
29	Harrisburg, PA	5.90
30	Sioux Falls, SD	5.18

Source: Places Rated Almanac, 1997

*Standard Advertising Unit is equivalent to one column inch of one page.

Cultural Arts
continued

Movie Screens*
Number of major museums and art galleries per
every 100,000 persons, 1997 (MSA)

1	Trenton, NJ	15.10
2	Fort Lauderdale, FL	14.30
3	Sioux Falls, SD	13.60
4	Milwaukee, WI	12.20
5	Des Moines, IA	11.90
6	Salt Lake City, UT	11.40
7	Charlotte, NC	11.40
8	Fort Worth, TX	11.00
9	Omaha, NE	11.00
10	Columbus, OH	10.40
11	Jacksonville, FL	10.00
12	Rochester, NY	9.60
13	Indianapolis, IN	9.60
14	Fort Wayne, IN	9.30
15	Tampa, FL	8.70
16	Raleigh/Durham, NC	8.30
17	Cincinnati, OH	8.10
18	Louisville, KY	7.90
19	Pittsburgh, PA	7.70
20	Wichita, KS	7.70
21	Chattanooga, TN	7.70
22	Hartford, CT	7.70
23	Richmond, VA	7.30
24	Providence, RI	6.40
25	Baton Rouge, LA	6.10
26	Harrisburg, PA	5.70
27	Sacramento, CA	5.30
28	Albany, NY	5.00
29	Wilmington, DE	3.60
30	St. Louis, MO	3.10

Source: Places Rated Almanac, 1997
*This count includes both independently-owned theaters and
city-subsidized theaters.

Aquariums and Zoos
Number of aquariums and zoos per every 100,000
persons, 1997 (MSA)

1	Sioux Falls, SD	0.65
2	Chattanooga, TN	0.44
3	Providence, RI	0.27
4	Des Moines, IA	0.23
5	Fort Wayne, IN	0.21
6	Sacramento, CA	0.20
7	Wichita, KS	0.19
8	Wilmington, DE	0.18
9	Baton Rouge, LA	0.17
10	Harrisburg, PA	0.16
11	Omaha, NE	0.15
12	Tampa, FL	0.13
13	Richmond, VA	0.10
14	Louisville, KY	0.10
15	Jacksonville, FL	0.10
16	Hartford, CT	0.09
17	Rochester, NY	0.09
18	Pittsburgh, PA	0.08
19	Charlotte, NC	0.08
20	Salt Lake City, UT	0.08
21	Columbus, OH	0.07
22	Milwaukee, WI	0.07
23	Indianapolis, IN	0.07
24	Cincinnati, OH	0.06
25	Fort Worth, TX	0.06
26	St. Louis, MO	0.06
27	Fort Lauderdale, FL	0.04
28	Trenton, NJ	0.00
29	Raleigh/Durham, NC	0.00
30	Albany, NY	0.00

Source: Places Rated Almanac, 1997
*Either accredited by American Association of Aquariums or raised
more than 15,000 annual visitors and have more than 5 tanks, a
publications program and a research library.

Sports and Recreation

Recreation Areas
Number of state and federal recreation areas per
every 100,000 persons, 1997 (MSA)

1	Sacramento, CA	1,389.20
2	Salt Lake City, UT	362.40
3	St. Louis, MO	88.60
4	Pittsburgh, PA	87.80
5	Chattanooga, TN	57.00
6	Rochester, NY	41.30
7	Cincinnati, OH	31.20
8	Jacksonville, FL	30.00
9	Columbus, OH	29.90
10	Tampa, FL	25.80
11	Richmond, VA	24.30
12	Wilmington, DE	22.60
13	Albany, NY	17.60
14	Charlotte, NC	16.60
15	Hartford, CT	15.70
16	Raleigh/Durham, NC	15.40
17	Providence, RI	9.50
18	Louisville, KY	8.80
19	Harrisburg, PA	7.20
20	Omaha, NE	7.10
21	Fort Worth, TX	6.80
22	Wichita, KS	6.30
23	Des Moines, IA	4.30
24	Trenton, NJ	3.30
25	Baton Rouge, LA	3.20
26	Sioux Falls, SD	2.60
27	Milwaukee, WI	2.60
28	Fort Wayne, IN	1.70
29	Indianapolis, IN	1.70
30	Fort Lauderdale, FL	0.70

Source: Places Rated Almanac, 1997

**Miles of Federal Protected and
State Recreation Areas**
Miles of federal protected and state recreation areas
per every 100,000 persons, 1997 (MSA)

1	Sioux Falls, SD	2.59
2	Providence, RI	1.78
3	Trenton, NJ	1.51
4	Chattanooga, TN	1.33
5	Albany, NY	1.23
6	Jacksonville, FL	1.20
7	Omaha, NE	1.18
8	Harrisburg, PA	1.12
9	Des Moines, IA	0.93
10	Sacramento, CA	0.91
11	Rochester, NY	0.82
12	Columbus, OH	0.74
13	Hartford, CT	0.61
14	Salt Lake City, UT	0.56
15	St. Louis, MO	0.54
16	Richmond, VA	0.52
17	Pittsburgh, PA	0.50
18	Cincinnati, OH	0.49
19	Louisville, KY	0.40
20	Wichita, KS	0.39
21	Raleigh/Durham, NC	0.38
22	Tampa, FL	0.35
23	Baton Rouge, LA	0.35
24	Fort Worth, TX	0.25
25	Charlotte, NC	0.23
26	Fort Wayne, IN	0.21
27	Milwaukee, WI	0.20
28	Wilmington, DE	0.18
29	Fort Lauderdale, FL	0.14
30	Indianapolis, IN	0.13

Source: Places Rated Almanac, 1997

NCAA Sports Teams
Number of NCAA Sports Teams per every 100,000
persons, 1997 (MSA)

1	Trenton, NJ	0.60
2	Baton Rouge, LA	0.35
3	Raleigh/Durham, NC	0.28
4	Providence, RI	0.27
5	Des Moines, IA	0.23
6	Albany, NY	0.22
7	Chattanooga, TN	0.22
8	Richmond, VA	0.21
9	Wichita, KS	0.19
10	Wilmington, DE	0.18
11	Salt Lake City, UT	0.16
12	Omaha, NE	0.15
13	Charlotte, NC	0.15
14	Milwaukee, WI	0.14
15	Fort Worth, TX	0.13
16	Pittsburgh, PA	0.12
17	Cincinnati, OH	0.12
18	Louisville, KY	0.10
19	Jacksonville, FL	0.10
20	Indianapolis, IN	0.07
21	Columbus, OH	0.07
22	Tampa, FL	0.04
23	St. Louis, MO	0.04
24	Fort Lauderdale, FL	0.00
25	Sioux Falls, SD	0.00
26	Sacramento, CA	0.00
27	Hartford, CT	0.00
28	Rochester, NY	0.00
29	Fort Wayne, IN	0.00
30	Harrisburg, PA	0.00

Source: Places Rated Almanac, 1997

Professional Sports Teams
Number of professional sports teams per 100,000
persons, 1997 (MSA)

1	Sioux Falls, SD	0.65
2	Fort Wayne, IN	0.63
3	Jacksonville, FL	0.40
4	Charlotte, NC	0.38
5	Tampa, FL	0.35
6	Harrisburg, PA	0.32
7	Trenton, NJ	0.30
8	Omaha, NE	0.30
9	Raleigh/Durham, NC	0.28
10	Milwaukee, WI	0.27
11	Rochester, NY	0.27
12	Indianapolis, IN	0.26
13	Salt Lake City, UT	0.24
14	Des Moines, IA	0.23
15	Chattanooga, TN	0.22
16	Richmond, VA	0.21
17	Columbus, OH	0.20
18	Louisville, KY	0.20
19	Wichita, KS	0.19
20	Wilmington, DE	0.18
21	Providence, RI	0.18
22	Baton Rouge, LA	0.17
23	Hartford, CT	0.17
24	Pittsburgh, PA	0.12
25	St. Louis, MO	0.12
26	Cincinnati, OH	0.12
27	Albany, NY	0.11
28	Sacramento, CA	0.07
29	Fort Lauderdale, FL	0.07
30	Fort Worth, TX	0.06

Source: Places Rated Almanac, 1997

Sports and Recreation

Golf Courses
Number of golf courses per every 100,000 persons, 1997 (GASA)

1	Sioux Falls, SD	9.06
2	Rochester, NY	7.00
3	Fort Wayne, IN	6.52
4	Wilmington, DE	6.33
5	Des Moines, IA	6.31
6	Pittsburgh, PA	5.93
7	Omaha, NE	5.77
8	Indianapolis, IN	5.75
9	Columbus, OH	5.63
10	Louisville, KY	5.33
11	Wichita, KS	5.21
12	Albany, NY	5.16
13	Cincinnati, OH	5.11
14	Jacksonville, FL	4.98
15	Tampa, FL	4.65
16	St. Louis, MO	4.64
17	Chattanooga, TN	4.64
18	Harrisburg, PA	4.63
19	Raleigh/Durham, NC	4.55
20	Charlotte, NC	4.43
21	Providence, RI	4.17
22	Milwaukee, WI	4.16
23	Fort Lauderdale, FL	3.67
24	Richmond, VA	3.36
25	Trenton, NJ	3.31
26	Baton Rouge, LA	3.12
27	Salt Lake City, UT	2.94
28	Fort Worth, TX	2.77
29	Hartford, CT	2.53
30	Sacramento, CA	2.22

Source: *1997 Index of Leading Indicators, 1997*

Section VIII, 10

Transportation

Drive Alone
Percent of workers who drive alone to work, 1990 (City)

1	Wichita, KS	82.60
2	Sioux Falls, SD	82.30
3	Fort Wayne, IN	79.90
4	Omaha, NE	78.00
5	Indianapolis, IN	78.00
6	Chattanooga, TN	77.60
7	Baton Rouge, LA	77.20
8	Charlotte, NC	76.70
9	Fort Worth, TX	76.50
10	Columbus, OH	75.50
11	Jacksonville, FL	75.00
12	Raleigh/Durham, NC	74.80
13	Tampa, FL	74.40
14	Des Moines, IA	73.60
15	Fort Lauderdale, FL	72.00
16	Louisville, KY	71.70
17	Sacramento, CA	69.60
18	Salt Lake City, UT	67.40
19	Cincinnati, OH	67.20
20	Milwaukee, WI	66.50
21	St. Louis, MO	65.40
22	Rochester, NY	64.50
23	Richmond, VA	62.20
24	Providence, RI	60.90
25	Trenton, NJ	59.70
26	Wilmington, DE	56.40
27	Albany, NY	54.80
28	Hartford, CT	53.10
29	Harrisburg, PA	53.10
30	Pittsburgh, PA	48.90

Source: 1994 County and City Data Book

Car Pools
Percent of workers who traveled in car pools to get to work, 1990 (City)

1	Harrisburg, PA	19.20
2	Trenton, NJ	18.70
3	Fort Worth, TX	16.30
4	Providence, RI	16.10
5	Sacramento, CA	15.50
6	Hartford, CT	15.30
7	Des Moines, IA	15.10
8	Wilmington, DE	14.70
9	Tampa, FL	14.30
10	Jacksonville, FL	14.20
11	St. Louis, MO	14.10
12	Richmond, VA	13.80
13	Pittsburgh, PA	13.50
14	Raleigh/Durham, NC	13.50
15	Indianapolis, IN	13.40
16	Chattanooga, TN	13.40
17	Salt Lake City, UT	13.40
18	Rochester, NY	13.30
19	Louisville, KY	13.30
20	Fort Lauderdale, FL	13.20
21	Milwaukee, WI	13.20
22	Charlotte, NC	12.90
23	Cincinnati, OH	12.60
24	Omaha, NE	12.20
25	Baton Rouge, LA	12.10
26	Fort Wayne, IN	12.10
27	Columbus, OH	11.50
28	Albany, NY	11.80
29	Wichita, KS	10.60
30	Sioux Falls, SD	9.30

Source: 1994 County and City Data Book

Public Transportation
Percent of workers who used public transportation to get to work, 1990 (City)

1	Pittsburgh, PA	22.20
2	Hartford, CT	15.10
3	Albany, NY	15.10
4	Harrisburg, PA	12.90
5	Richmond, VA	12.60
6	St. Louis, MO	12.20
7	Cincinnati, OH	11.20
8	Milwaukee, WI	11.00
9	Rochester, NY	10.70
10	Trenton, NJ	10.20
11	Wilmington, DE	9.60
12	Louisville, KY	8.50
13	Providence, RI	7.40
14	Salt Lake City, UT	5.70
15	Fort Lauderdale, FL	4.80
16	Columbus, OH	4.70
17	Charlotte, NC	4.50
18	Sacramento, CA	4.00
19	Des Moines, IA	3.60
20	Fort Wayne, IN	3.50
21	Tampa, FL	3.40
22	Indianapolis, IN	3.30
23	Omaha, NE	3.20
24	Raleigh/Durham, NC	3.10
25	Jacksonville, FL	2.70
26	Fort Wayne, IN	2.20
27	Baton Rouge, LA	1.90
28	Fort Worth, TX	1.70
29	Wichita, KS	1.20
30	Sioux Falls, SD	0.70

Source: 1994 County and City Data Book

Home-Based Workers
Percent of workers who used no transportation and worked at home, 1990 (City)

1	Salt Lake City, UT	2.80
2	Jacksonville, FL	2.70
3	Fort Lauderdale, FL	2.60
4	Omaha, NE	2.50
5	Sioux Falls, SD	2.50
6	Des Moines, IA	2.50
7	Sacramento, CA	2.40
8	Wilmington, DE	2.20
9	Wichita, KS	2.20
10	Charlotte, NC	2.20
11	Harrisburg, PA	2.10
12	Cincinnati, OH	2.00
13	Indianapolis, IN	2.00
14	Providence, RI	2.00
15	Raleigh/Durham, NC	1.95
16	Tampa, FL	1.90
17	Albany, NY	1.90
18	Baton Rouge, LA	1.90
19	Pittsburgh, PA	1.80
20	Fort Wayne, IN	1.80
21	Columbus, OH	1.80
22	Fort Worth, TX	1.80
23	Rochester, NY	1.80
24	St. Louis, MO	1.70
25	Richmond, VA	1.70
26	Chattanooga, TN	1.70
27	Milwaukee, WI	1.60
28	Louisville, KY	1.60
29	Hartford, CT	1.50
30	Trenton, NJ	1.10

Source: 1994 County and City Data Book

Section VIII, 11

Transportation

Daily Commute

Average Daily Commute to Work, 1990 (MSA)

1	St. Louis, MO	49.9
2	Fort Worth, TX	49.7
3	Fort Lauderdale, FL	49.5
4	Baton Rouge, LA	48.9
5	Cincinnati, OH	48.9
6	Jacksonville, FL	48.4
7	Pittsburgh, PA	48.4
8	Sacramento, CA	47.3
9	Trenton, NJ	47.3
10	Richmond, VA	46.9
11	Tampa, FL	46.8
12	Indianapolis, IN	46.8
13	Charlotte, NC	46.7
14	Chattanooga, TN	46.6
15	Louisville, KY	46.0
16	Columbus, OH	45.6
17	Wilmington, DE	44.8
18	Hartford, CT	44.4
19	Albany, NY	43.9
20	Raleigh/Durham, NC	43.3
21	Milwaukee, WI	43.3
22	Rochester, NY	42.5
23	Salt Lake City, UT	42.2
24	Providence, RI	41.9
25	Harrisburg, PA	41.7
26	Fort Wayne, IN	40.9
27	Omaha, NE	38.8
28	Wichita, KS	38.7
29	Des Moines, IA	38.0
30	Sioux Falls, SD	32.5

Source: Pierce, Fenel & Smersh, 1997

Buses At Rushhour

Number of buses on the street during rushhour per every 100,000 persons, 1997 (MSA)

1	Trenton, NJ	70.5
2	Pittsburgh, PA	32.6
3	Milwaukee, WI	32.3
4	Salt Lake City, UT	31.7
5	Louisville, KY	25.1
6	Cincinnati, OH	25.1
7	Albany, NY	23.0
8	St. Louis, MO	22.8
9	Wilmington, DE	22.8
10	Providence, RI	19.4
11	Hartford, CT	18.9
12	Omaha, NE	18.7
13	Des Moines, IA	17.8
14	Columbus, OH	17.7
15	Rochester, NY	16.2
16	Richmond, VA	14.5
17	Jacksonville, FL	13.7
18	Sioux Falls, SD	13.6
19	Fort Lauderdale, FL	13.0
20	Chattanooga, TN	11.5
21	Sacramento, CA	10.6
22	Tampa, FL	10.4
23	Raleigh/Durham, NC	10.0
24	Charlotte, NC	9.8
25	Indianapolis, IN	9.1
26	Wichita, KS	8.3
27	Harrisburg, PA	8.0
28	Fort Worth, TX	6.9
29	Baton Rouge, LA	6.4
30	Fort Wayne, IN	4.2

Source: Pierce, Fenel & Smersh, 1997

Major Interstate Highways

Number of highways in the Metropolitan Region per 1,000,000 persons

1	Sioux Falls, SD	12.9
2	Harrisburg, PA	4.8
3	Des Moines, IA	4.7
4	Chattanooga, TN	4.4
5	Baton Rouge, LA	3.5
6	Albany, NY	3.4
7	Richmond, VA	3.1
9	Trenton, NJ	3.0
10	Indianapolis, IN	2.6
11	Salt Lake City, UT	2.4
12	Fort Wayne, IN	2.1
13	Jacksonville, FL	2.0
14	Wichita, KS	1.9
15	Raleigh/Durham, NC	1.9
16	Cincinnati, OH	1.8
17	Wilmington, DE	1.8
18	Hartford, CT	1.8
19	St. Louis, MO	1.5
20	Charlotte, NC	1.5
21	Omaha, NE	1.5
22	Milwaukee, WI	1.4
23	Columbus, OH	1.3
24	Sacramento, CA	1.3
25	Fort Worth, TX	1.3
26	Pittsburgh, PA	1.2
27	Rochester, NY	0.9
28	Providence, RI	0.9
29	Tampa, FL	0.9
30	Fort Lauderdale, FL	0.7

Source: Pierce, Fenel & Smersh, 1997

Weekly Antrak Departures

Number of Weekly Antrak Departures, 1997 (MSA)

1	Wilmington, DE	447
2	Trenton, NJ	324
3	Providence, RI	120
4	Hartford, CT	104
5	Albany, NY	99
6	Richmond, VA	64
7	Harrisburg, PA	57
8	Rochester, NY	49
9	Milwaukee, WI	49
10	Sacramento, CA	45
11	St. Louis, MO	41
11	Jacksonville, FL	41
13	Raleigh/Durham, NC	35
14	Fort Lauderdale, FL	31
15	Pittsburgh, PA	28
15	Fort Wayne, IN	28
15	Charlotte, NC	28
18	Omaha, NE	18
19	Wichita, KS	14
19	Salt Lake City, UT	14
21	Tampa, FL	7
22	Indianapolis, IN	6
22	Cincinnati, OH	6
22	Fort Worth, TX	6
25	Columbus, OH	0
25	Sioux Falls, SD	0
25	Chattanooga, TN	0
25	Des Moines, IA	0
25	Baton Rouge, LA	0
25	Louisville, KY	0

Source: Pierce, Fenel & Smersh, 1997

Domestic Airline Service

FAA Hub Classifications, 1997 (MSA)

1	Salt Lake City, UT	Large hub
1	Raleigh/Durham, NC	Large hub
1	Pittsburgh, PA	Large hub
1	Charlotte, NC	Large hub
1	Tampa, FL	Large hub
1	St. Louis, MO	Large hub
1	Cincinnati, OH	Large hub
2	Fort Worth, TX	Large hub, subsidiary*
2	Wilmington, DE	Large hub, subsidiary*
2	Fort Lauderdale, FL	Large hub, subsidiary*
3	Indianapolis, IN	Medium hub
3	Sacramento, CA	Medium hub
3	Columbus, OH	Medium hub
3	Hartford, CT	Medium hub
4	Milwaukee, WI	Medium hub
4	Jacksonville, FL	Medium hub
5	Omaha, NE	Small hub
5	Louisville, KY	Small hub
5	Baton Rouge, LA	Small hub
5	Des Moines, IA	Small hub
5	Harrisburg, PA	Small hub
5	Rochester, NY	Small hub
5	Providence, RI	Small hub
5	Richmond, VA	Small hub
5	Sioux Falls, SD	Small hub
5	Trenton, NJ	Small hub
5	Wichita, KS	Small hub
5	Albany, NY	Small hub
6	Chattanooga, TN	Nonhub
6	Fort Wayne, IN	Nonhub

Source: Pierce, Fenel & Smersh, 1997

*FAA Classification of city pair. **Large hub, subsidiary classification. Enter city destination in master city with a large hub airport for its base.

Transportation

Airline Commuter Destinations

Number of non-stop commuter destinations, 1997 (MSA)

1	Cincinnati, OH	60
2	Pittsburgh, PA	36
3	Charlotte, NC	34
4	Wilmington, DE	30
5	Fort Worth, TX	28
6	Salt Lake City, UT	24
7	Milwaukee, WI	19
7	Indianapolis, IN	14
9	Fort Lauderdale, FL	12
10	Tampa, FL	11
11	Columbus, OH	10
12	Albany, NY	9
13	Harrisburg, PA	8
14	Hartford, CT	7
14	Rochester, NY	7
14	Sacramento, CA	7
17	Des Moines, IA	5
17	Providence, RI	5
17	Raleigh/Durham, NC	5
17	Jacksonville, FL	5
21	Chattanooga, TN	4
21	Louisville, KY	4
21	Fort Wayne, IN	4
24	Omaha, NE	3
24	Sioux Falls, SD	3
24	St. Louis, MO	3
24	Wichita, KS	3
24	Richmond, VA	3
29	Baton Rouge, LA	1
30	Trenton, NJ	0

Source: Pierce, Fenel & Smersh, 1997

Airline Jet Destinations

Number of non-stop jet destinations, 1997 (MSA)

1	Fort Worth, TX	130
2	Pittsburgh, PA	99
3	St. Louis, MO	99
4	Charlotte, NC	85
5	Cincinnati, OH	74
6	Wilmington, DE	71
7	Salt Lake City, UT	56
8	Tampa, FL	49
9	Fort Lauderdale, FL	39
10	Indianapolis, IN	36
11	Milwaukee, WI	34
11	Raleigh/Durham, NC	34
13	Columbus, OH	31
14	Hartford, CT	27
15	Jacksonville, FL	25
16	Louisville, KY	22
17	Sacramento, CA	20
18	Omaha, NE	18
19	Albany, NY	16
19	Rochester, NY	16
21	Providence, RI	14
21	Richmond, VA	14
23	Wichita, KS	10
24	Des Moines, IA	8
25	Harrisburg, PA	7
26	Fort Wayne, IN	6
27	Baton Rouge, LA	4
27	Sioux Falls, SD	4
29	Chattanooga, TN	2
29	Trenton, NJ	2

Source: Pierce, Fenel & Smersh, 1997

APPENDIX D:

OVERVIEW OF HARTFORD'S BUSINESS SUPPORT SYSTEM

Many organizations throughout the Hartford Metropolitan region provide support to emerging and developing businesses. These organizations provide a wide range of services, mediate important linkages within the Hartford business community, and monitor much of the progress of businesses in the region. This part of the report provides a general assessment of Hartford's business support system. At the outset it is clear that at least two groups of business support organizations exist in Hartford. The first group, referred to in this analysis as the "core" group, provide general services, some technical assistance, and serve as important centers of information in the business community. In many respects, this core groups functions as a gateway to the myriad of organizations in the secondary group. The secondary group of business support organizations are more narrowly focused and provide more intensive technical assistance and overall business support services.

- ▶ A core group of business support organizations function as a gateway to other organizations and provide general business support services some of which includes regularly held seminars, counseling, technical assistance, and financing information.

The core group includes the Small Business Development Center (SBDC), The Connecticut Economic Resource Center (CERC), the Entrepreneurial Center at the Hartford College for Women, Service Corps of Retired Executives (SCORE), People's Bank Women's Business Center (PBWBC), and the SBA's Business Information Center (BIC). These organizations provide extensive and on-going business support. SCORE is a prime example of these core support organizations. SCORE facilitates a business workshop every third Wednesday of every month at a public library for Hartford entrepreneurs. Additionally, SCORE assembles a panel of executives to consult with entrepreneurs every Thursday each week from 9:00 am to noon.

Both CERC and the SBA use the counseling and training capacity of other core organizations to counsel interested entrepreneurs one-on-one and to staff regular workshops in Hartford. Additionally, many of these organizations and the events that they sponsor are partially funded through the SBA. (A brief description of the core group providers and their contact information is provided in the Profiles of Core Business Support Organizations section of this report.)

- ▶ Additionally, a core group of private funders often provides resources and sponsorship of the activities of core business support organizations.

Several private funders have been sponsored local workshops, fairs, and other public events held by core business support organizations. These private funders frequently

include: Bank of Boston, Aetna, SNET, Nynex, Community Economic Development Fund, and Hitachi. Financial support for CERC is provided through a consortium of utilities and telecommunications companies (Northeast Utilities, SNET, CNG, Southern Connecticut Gas, Connecticut-American Water Company, Yankee Gas, Connecticut Municipal Electric Energy Cooperative, UI, BHC, Nynex, and the Connecticut Water Company).

- ▶ Much of the assistance provided by core group organizations is conducted over the phone.

Many of the core groups organizations report very high telephone usage in terms of handling business support needs. Of the business support organizations that use the phone, CERC appears to be used most heavily. CERC for example, handles about 100 calls a week while the BIC handles approximately 45 new and returning clients per month.

Although most core organizations report high telephone usage, a few of the core group organizations offer in-person interviews and some limited direct counseling. Organizations that handle clients via in-person interview meetings such as the CSBDC report that they average from 15 to 25 appointments in a week from new and returning clients. Additionally SCORE, whose mission and purpose is to provide counseling, has much more in-person contact with entrepreneurs.

- ▶ Beyond the core group, there is a secondary group of business support organizations that serves the needs of the Hartford business community. This secondary group of technical assistance providers are primarily accessed through referrals from core business support organizations.

Examples of secondary group business support organizations include: (1) The Connecticut State Technical Extension Program (CONN/STEP) which provides direct technical assistance to small and mid-sized manufacturing firms; and (2) The Connecticut Procurement Technical Assistance Program which provides marketing and technical assistance to Connecticut businesses that sell- or wish to sell their products/services to federal, state, or local government agencies. Secondary organizations also include financing entities and loan programs.

- ▶ This secondary group of business support providers are typically more narrowly focused than the core group and often industry specific. In addition, this secondary group of providers far outnumber the core group providers.

While core business support organizations provide more general business information and counseling, the secondary group of providers tend to provide more of the "nuts-and-bolts" counseling and information to interested businesses. As a result, their focus is much more specific and they focus more heavily on providing either: (1) specific kinds of technical assistance (geared toward helping a business develop a

particular skill such as human resources development); (2) address specific kinds of business or businesses in specific industries; and/or (3) providing training to businesses and their employees.

Additional examples of this secondary group include: (1) The Flexible Networks Center which offers services for organizational synergies; (2) Manufacturing Applications Center - which helps manufacturing companies develop more effective business systems; and/or (3) Human Resource Development Center which helps companies with overall organizational development. (A brief description of the secondary group providers and their contact information is provided in the Profiles of Secondary Business Support Organizations section of this report.)

- ▶ As would be expected, core and secondary business support organizations serve entrepreneurs and businesses at different stages of development and in different industries.

Because core business support organizations offer more general assistance, their clients are overwhelmingly new startup businesses or businesses that have been established for less than 1 year. Most core organizations reported that startups, microenterprises and homebased business made up about half of their clientele. Clients in need of more intensive business support or are at later stages of development are most often referred to secondary support business organizations. Thus, secondary business support organizations are work most frequently with small business owners who have been in businesses at least 1-3 years.

In terms of the specific industries served by core and secondary business support organization, the majority of businesses assisted by core business support organizations are in retail or service industries. Although secondary business support organizations also serve these businesses, many more of these organizations are targeted at businesses in technology and manufacturing firms.

- ▶ The lack of information about and access to business financing and venture capital is an important gap in Hartford's business support system.

Most business support organizations provide technical assistance, make referrals to other business support organizations where appropriate, and provide training. While the core group provides more general assistance than secondary business support organizations, neither group concentrates significant resources to assisting business in acquiring development capital. These organizations do however, make referrals of some business clients to local banks and selected revolving loan offices for loan packaging assistance.

There is an even greater gap in Hartford's business support system in terms of assisting businesses and business owners who cannot qualify for conventional financing. Few of the business support organizations, either in the core or the secondary group had specialized services or resources dedicated to this latter clientele. The Entrepreneurial Center at Hartford College is one of the only exceptions in this regard. The

Entrepreneurial Center specifically works with low-income entrepreneurs and helps viable businesses acquire financing.

- ▶ The resources, technical assistance, and counseling provided to local entrepreneurs (whether through the core group or the secondary group) are provided at no cost to the entrepreneur. If any fee is charged, it is almost always nominal.

A variety of resources can be accessed through business support organizations at no cost or very low cost. Through core group organizations the variety of resources includes the use of computer facilities, up-to-date software packages, video sessions on a multitude of business topics, economic and market data, workshops, and one-on-one counseling. Secondary support organizations also provide these kinds of resources but they are more narrowly focused. Secondary support organizations provide more opportunities for networking and collaborations across similar firms or firms in similar industries.

- ▶ There is a high degree of cooperation between business support organizations in both the core and secondary support groups in terms of cross-listing of resources, co-sponsorship of events, and referrals to other organizations.

In the core support group, a great deal of cooperation exists in terms of co-sponsorship of events such as workshops, fairs, and training. For example, a recent business seminar was sponsored by SCORE, People's Bank, Women's Business Center, Connecticut Small Business Development Center, Entrepreneurial Center at the Hartford College for women (all in cooperation with the U.S. Small Business Administration). This event was an all-day workshop and presentations (which ranged from developing business plans, to financing, managing, and marketing businesses) were made by staff members of several core organizations.

Cooperation in Hartford's business support system is also exhibited in terms of the referral system (from the core organizations to the secondary organizations), cross-listing of resources, and the cooperative forms of monitoring the progress of individual business. Businesses that request information from one of the core organizations often receives information both the information that they requests and information about the services and programs of other business support organizations in Hartford. If more specific information is requested by the entrepreneur, he or she is likely to also receive information about a secondary business support organization specifically geared toward their needs. Finally, some of the core organizations have developed significant relationships with other support organizations that allow them to monitor the progress of entrepreneurs they have referred. For example, some of these organizations use the reports generated by SCORE to track and monitor the progress of clients.

- ▶ Business support organizations reach their client base in a wide variety of ways, the most frequent of which is word of mouth.

In our survey of business support organizations, most reported that their clients most learned of the services they offer through word of mouth. Beyond word of mouth, business support organizations reported that their clients were either referred to them by other professional organizations or associations or learned about their services through the local newspapers. The most frequent source of referrals is the Connecticut Economic Resource Center (CERC).

Business support organizations also reported that their clients also learned about their services through local newspapers. Most publicize their seminars, workshops, training programs and other local events by sending press releases to local newspapers. The Hartford Courant was cited most frequently as a source of publicity but other targeted business support organizations such as the People's Bank and the Entrepreneurial Center at Hartford College advertise in community newspapers, women specific news sources, and the newsletters of community based organizations in Hartford. In addition to their own advertisement of their services, programs, and events, they also reported receiving a significant amount of local press coverage of their events and services which continue to spark renewed interest in their services.

Other outreach methods include internet web pages, newsletters, radio and television coverage of events, trade shows, and cross listing upcoming events with other professional and business associations.

- ▶ Both core and secondary business support organizations are fairly accessible and visible, and the outreach efforts of these organizations appears to be broad.

All core and secondary support organizations are accessible in the most traditional ways such as the telephone or mail. In addition, three of the six core organizations have telephone office hours during which counselors are available to answer questions and direct inquiries for more in-depth counseling. Additionally, almost all of the core group members either have email addresses or web pages that can be readily accessed. Secondary support organizations are somewhat more restrictive in that most do not have their own web pages and most do not advertise office hours during which counselors are available to take inquiry calls directly. Callers to secondary support organizations are mailed information and/or asked to make an appointment (depending on the organization).

When we requested information, most organizations sent the information immediately and we received it within a day or so. After our initial requests for information, notices of upcoming business development seminars came with additional information about other core organizations. Also, two of the core business support organizations have continued to send notices about other upcoming business development workshops.

In terms of location, many of the core business support organizations have multiple offices not only around the State but in and around Hartford. Moreover, seminars and training programs cooperatively organized by the core group are rotated to various public and private locations in and around Hartford such as public libraries. (Locations

and contact information for both core and secondary business support organizations appears in the Profiles of Business Support Organizations.)

- ▶ Few business support organizations offer services that can be accessed without consultation from the staff and there is significant variety among these organizations in their capacity to track, monitor, and/or follow up with entrepreneurs that contact them for assistance.

With the exception of the SBA's Business Information Center, business support organizations do not offer resources, facilities, or services that can be assessed without some consultation from staff persons. After a brief consultation, these support organizations vary greatly in their approach toward helping businesses according to how they see their role or particular niche in providing business development. While some business support organizations see themselves as hands-on, other see their role as providing counseling and information. While organizations such as CERC and the Business Information Center provide referral and counseling services, they do not track, monitor, or follow up on entrepreneurs who contact them for business assistance.

- ▶ Most general business information is available through the on-line resources of CERC and the Connecticut Department of Labor.

CERC provides the most comprehensive on-line information at its web site: <http://www.cerc.com>. At this web site, CERC has reproduced its written guides on how to access business development information and resources. The first guide, *A Guide to Programs and Services that can Help Your Business Grow*, has information about:

- Licensing and Permits
- Financing Programs (CSA, Regional, and Federal)
- Help to Support and Expand Your Business
- Assistance for Manufacturers
- Quality Standards in Connecticut
- Technology Development
- Export Help
- Utilities
- Work Force Training
- Employee Productivity
- CDA Participating Banks
- Regional Economic Development Organizations

The second, *Programs and Services To Set Up Or Expand Your Business*, details information on:

- Types of Business Ownership

- Checklist for Starting a Business in Connecticut
- "How To" Workshops and Consulting Services
- State and Federal (SBA) Financing Programs
- Regional Financing Programs
- Technology Financing Programs
- Manufacturing and Technical Assistance
- Getting Through the System
- Programs for Minority Businesses
- Employee Training and Services
- Sample Business Plan Outline
- Key Agencies for Licenses and Permit
- Taxes
- Labor Laws

Both of these guides are meant to provide general information and also to be referral guides which direct entrepreneurs to appropriate offices and organizational resources. These guides can also be obtained in hard-copy by requesting information from CERC.

The Connecticut Department of Labor's web site is dedicated to attracting businesses to Connecticut and retaining existing businesses. Under *Programs for Services for Businesses* at their web site (<http://www.ctdol.state.ct.us.us/employer>), on-line users can find information regarding: (1) new recruitment services; (2) training services; (3) financial and tax incentives; (4) consulting services for existing businesses; (5) downsizing support; (6) Directory of Business Services Units.

- ▶ Additionally, CERC operates a database that provides comprehensive information about business support organizations and business resources within the state and local governments. Access to this database however, is limited to CERC, Regional Economic Development Organizations, the Department of Economic and Community Development, and other designated agencies.

CERC operates an important resource for businesses in the state. CERC uses this database to help refer callers to the appropriate administrative offices and to direct them other appropriate government resources. The database system is a key word system that displays all information where the search words appear. The database defines what resources are available (with information about user requirements, eligibility, contact information, and availability) and what agencies where they can be obtained (with contact names, addresses, offices, and telephone numbers). Resources can be both services and written materials. The database is only accessible however to a limited number of offices and non-State organizations.

- From the materials we have received, there seems to be a significant level of support for women entrepreneurs, although services specifically geared toward other MBE's was not as apparent.

Several organizations in both the core and secondary groups circulate information, provide networking opportunities, training, and technical assistance to women entrepreneurs. The Permanent Commission on the Status of Women for example, regularly sponsors events and conferences in this regard and the Entrepreneurial Center at the Hartford College for women provides (by all accounts) outstanding training, technical assistance and networking opportunities for women. Additionally, a quick glance at lists of workshop presenters, guest speakers and technical assistance coordinators of core activities reveals that women are represented among them with much regularity (which provides another source of mentoring and support for women entrepreneurs).

Funding for business support initiatives for women are also apparent. The annual conference (Women in the Trades and Nontraditional Occupations) for example, is funded by a host of government agencies and private donations from business, industry, and private philanthropists. Funding for other business support initiatives for women entrepreneurs is provided by the Connecticut Department of Labor, and the Women's Bureau of the U.S. Department of Labor.

Business support and networking opportunities were not as apparent for other MBE's. The Connecticut Minority Business Center Development Center is the exception in this regard.

Profiles of Core Business Support Organizations

Note: Core business support organizations have multiple offices in and around the Hartford area.

Connecticut Economic Resource Center, Incorporated (CERC)
805 Brook Street, Building 4
Rocky Hill, CT 06-67-3405

The Connecticut Economic Resource Center is a private, nonprofit organizations formed and managed through a partnership between utility/telecommunications companies and state government. It markets Connecticut's economic development programs and services for businesses, promotes the state's locational advantage, develops strategies to attract new businesses into the state and offers direct information services through its 800 number. CERC particularly prides itself on being the "one-stop" gateway to Connecticut's economic development agencies and business development programs. As a result, most of its literature and information is geared toward referrals to other organizations.

The CERC office handles over 90% of its inquiries over the telephone. The CERC office has five full-time Business Information Specialists which provide business information and make referrals over the phone. Since opening in 1992, CERC has received and handled more than 55,000 calls. Contact CERC at 1-800-392-2122; (860) 571-7136; fax: (860)571-7150 or web address: <http://www.cerc.com>.

The Entrepreneurial Center at Hartford College for Women
50 Elizabeth Street
Hartford, CT 06105

The Entrepreneurial Center helps nontraditional students achieve financial independence through self-employment. The training program develops the business owner along with the business, leading to a high rate of successful business start-ups. Contact: (860)768-5681.

People's Bank Women's Business Center (PBWBC)
850 Main Street
Bridgeport, CT 06604-4913

People's Bank Women's Business Center is a full service resource center offering the full spectrum of business development services to women interested in starting and/or growing their own businesses. Contact: (208)338-4770.

University of Connecticut Small Business Development Center (CSBDC)
1800 Asylum Avenue
West Hartford, CT 06117

The Connecticut Small Business Development Center provides free professional counseling to the small and medium-sized business community. Assistance is

available for business planning, financial analysis, marketing and loan packaging assistance. Service for those with disabilities are available by calling the CSBDC at (860)486-4135. Others contact: (860)570-9109; (860)570-9107 (fax); email: WestHartford@ct.sbdc.uconn.edu.

Service Corps of Retired Executives (SCORE)
10 Middle Street
Bridgeport, CT 06604

The Service Corps of Retired Executives is a volunteer nonprofit organization of active and retired executives. SCORE provides no fee counseling and low cost workshops. Any business can obtain free help from SCORE by calling (860)251-7000.

SBA Business Information Center (BIC)
One Civic Center Plaza, Ste. 301, Third Floor
Hartford Civic Center
Hartford, CT 06103

The Small Business Information Center is a public/private partnership between the United States Small Business Administration and several local area organizations. The center offers state-of-the-art personal computers, graphic work stations, CD-Rom technology and interactive videos, a reference library, and on-going small business workshops. Topics for the workshops run the gamut from basic business planning to advanced industry-specific training sessions. Software, CD-Roms, and videotapes available for use at the center includes both general communications media (such as Microsoft Office and Telex Communications Software) and business development software (such as Dun & Bradstreet Norms and Ratios, National Business Association First Step Series, BIZ Forms, the SBA/Bell Atlantic Success Series, etc.).

The BIC also provides one-on-one confidential business counseling in all aspects of starting and operating a small business. An assessment and referral system is used to provide the counseling. All counseling services are referred to business technical assistance providers in Hartford and are provided at no cost. Contact: 1-800-697-4636; 1-900-463-4636; (202)401-9600; Internet: <http://www.sbaonline.sba.gov>; gopher://gopher.sbaonline.sba.gov; file transfer protocol: <ftp://ftp.sbaonline.sba.gov>. The office is open for walk-in inquiries during normal business hours.

List of Selected Secondary Business Support Organizations

Business and Industry Services Network

Non-profit consulting group that provides counseling and referral services to Hartford area businesses. Any business can obtain free help by calling their offices in Hartford at (860)725-6619.

Community Accounting Aid & Services, Inc. (CAAS)

The CAAS is a private not-for-profit corporation whose purpose is to provide free accounting and financial counseling to economically disadvantaged businesses and individuals in Connecticut. Any business can obtain free help from CAAS by calling their offices in Hartford at (860)570-9113.

Connecticut Environmental Entrepreneurial Center (CEEC)

CEEC is an information source and advocate for Connecticut's environmental industry. The center offers an in-depth understanding of the environmental market and awareness of technologies needed by business, and a knowledge of the resources needed to bring new technologies and services to the marketplace. Interested parties can contact Dean Nichols at 860-280-9411.

Connecticut Procurement Technical Assistance Program (CT-PTA)

The CT-PTA Program provides marketing and technical assistance to Connecticut companies to win and perform on federal, state, and local government contracts. Contact CT-PTA at (860)449-8777.

Connecticut State Technology Extension Program

The CONN/STEP provides direct technical assistance to small and mid-sized manufacturing firms. Its field agents support best-practice manufacturing and offer expertise in manufacturing materials and process technologies. CONN/STEP can be contacted at (860)832-4600.

Institute of Management Consultants
521 Fifth Avenue, 35 Floor
New York, NY 10175-3598

Non-profit consulting group that refers you to Connecticut consulting firms. provides counseling and referral services to Hartford area businesses. Any business can obtain free help by calling their offices in Hartford at (212)697-8262.

Institute for Industrial and Engineering Technology

The Institute for Industrial and Engineering Technology offers the following services:

Flexible Networks Center offers services for Organizational Synergies that facilitate collaborative relationships among Connecticut companies. The network center can be reached at (860)827-4471.

Technical Training Center offers organizational training in the following: CIM, CAD, CAM, SPC, TQM, Quality, Graphics, ISO 9000, Primavera, Expedition, Automation, Unigraphics, Pro/Engineer, Manufacturing, Needs Analysis, Fluid Dynamics, Taguchi Methods, Quality Assurance, Leadership Training, and Boeing AQS Program. The training center can be reached at (860)827-7966.

Manufacturing Application Center for help with process improvement including: practical research and development service, technical problem service, engineering drawing and solid modeling, product prototyping and test analysis, manufacturing management, technology transfer, equipment installation/modification support, and incubator space for start-up companies. To contact the application center call (860)827-4488.

Human Resource Development Center for help with organization development including: personal computer software training, desktop publishing and pre-press training, leadership/supervision, time management, problem solving/decision-making, written/verbal communication, workplace literacy, graduate/professional test preparation and conference services. Contact the human resource center at (860)827-4409.

Manufacturing Assistance Fund

The Department of Economic and Community Development (DECD) administers the Manufacturing Assistance Fund, for business retention and expansion. The program includes: financial counseling, loans and loan guarantees, defense diversification project funding, funding and tax credit for new machinery and equipment. Businesses should contact DECD for more information.

Science Park, New Haven

This 80-acre R&D center, complete with research labs and incubator buildings, was created through a partnership among Yale University, Olin Corporation, the City of New Haven, and the State DECD. It provides fledgling companies with opportunities to develop partnerships with leading-edge research centers and private industry as well as a wide range of other technology related business development services that are tailored to each company's unique requirement. Technology assistance can be obtained by calling (203) 786-5035.

Southeast Area Technology Development Center (SEATECH)

SEATECH is a small business outreach center and business incubator. It provides technical assistance, manages state-wide Procurement Technical Assistance, and operates a revolving loan fund. Contact SEATECH at (860)449-8777.

Technology Assistance Center (TAC)

Classes/Certificate Programs/Degrees in Business Development

Manchester Community-Technical College Small Business Certificate

The MCTC Small Business Certificate can be obtained by taking at least eight classes from several general areas which are Small Business, Business, Computer, Retail, and other MCTC Credit-Free courses. At least five must be specifically Small Business classes and computer classes are strongly recommended. Topics of the classes within these general areas range from entrepreneurship, accounting, taxes, legal issues, developing business and marketing plans, and home-based businesses. Related classes in general workplace skills are offered to students who need to develop additional workplace skills such as Telephone Etiquette for Excellence, Grammar Excellence for Business, and Communications Excellence. Classes are open to all who are interested however, individuals who are not already business-owners must take some prerequisite classes such as Introduction to Entrepreneurship before being admitted to the certificate granting program. Classes are offered during weekends and evenings to accommodate business-owners/working students. Contact: 647-6242.

The Entrepreneurial Center at Hartford College for Women

The Entrepreneurial Center helps nontraditional students achieve financial independence through self-employment. The training program develops the business owner along with the business, leading to a high rate of successful business start-ups. Contact: (860)768-5681.

APPENDIX E:
TASK FORCE REPORTS AND ATTACHMENTS

Community/Neighborhood Task Force

Land Use/Transportation and Infrastructure Task Force

Public Policy/Federal Issues Task Force

Small Business and Entrepreneurship Task Force

Tourism & Entertainment Task Force

Workforce Development Task Force

Community/Neighborhood Task Force

Mustafa Abdul-Salaam
Upper Albany Neighborhood Collaborative

George Bahamonde
United Way

Jeff Carter
NRZ N/E

Larry Charles
One Chane

Anthony J. Gray
Capital Community/Technical College

Gwendolyn Smith-Iloani
Smith Whiteley & Co.

Frank Lord
Capitol Improvements Neighborhood Association

Alfred Rogers
Urban League of Greater Hartford

Steven Smith
Asylum Hill Operating Project

Richard Weaver-Bey
Greater Hartford Realty Management Corp.

Lois Stevenson
Hill Housing

John Hartgering
Hartford Area Habitat for Humanity

Glenn E. Geathers
Hartford Tenants Rights Fed Inc.

Gerald Thorpe
NRZ C/A

Bob Kantor
Fannie Mae

METROHARTFORD MILLENNIUM NEIGHBORHOOD TASK FORCE: RECOMMENDATIONS TO THE STEERING COMMITTEE

The Task Force offers the following recommendations for inclusion in the MetroHartford Millennium Strategic Plan. We believe that implementation of these recommendations are essential to creating a positive development climate in Hartford's neighborhoods and creating a high quality of life for neighborhood residents.

1. Reorganize city economic development management

The city's process of reviewing, approving, and supporting neighborhood development projects can be administratively burdensome, time-consuming, and inconsistent. This has often hindered potentially beneficial development projects proposed by both community-based and private developers. There is also a lack of communication and coordination among city, regional, and state economic development organizations. This spring's efforts to secure Urban Act funding from the State of Connecticut provides a good example of how these disconnects in communications thwart action in the neighborhoods.

Specific initiatives should include:

- *Fill the position of Director of Economic Development immediately*
 - ☑ Should be a seasoned and experienced professional
 - ☑ Needs to have adequate authority to effectively perform job.
- *Create a Public/Private Advisory Board to advise the Director*
- *Recommend to the Mayor and City Council that the City establish an independent (and dedicated) Planning and Zoning Board and that it provide funding for staffing*
- *Make the City and Connecticut an attractive option for developers and business through effective coordination between city and state economic development agencies*

Land Use/Transportation and Infrastructure Task Force

Dean Amadon
Amadon & Associates

Elizabeth C. Barton
Updike, Kelly & Spellacy, P.C.

Robert Jurasin, Chairman
Regional Planning Commission

Jon Colman
Rideshare Company

Richard Newton
Metropolitan District Commission

Mark Pellegrini
Director of Planning, Manchester Town Hall

Art Hardman
Greater Hartford Transit District

Brian Emerick
Connecticut Department of Environmental Protection

Joel Mandell, Attorney
Levy & Dronney, P.C.

Joseph Spragg
Connecticut Department of Transportation

Mary Ellen Kowalewski
Capitol Region Council of Governments

Fran McMahon
Capitol Region Council of Governments

Tom Maziarz
Capitol Region Council of Governments

John Shemo
Connecticut Capitol Region Growth Council

Rick Proth
Capitol Region Council of Governments

**METROHARTFORD MILLENNIUM PROJECT
LAND USE, TRANSPORTATION AND INFRASTRUCTURE**

TASK FORCE REPORT

JUNE 16, 1997

AS AMENDED SEPTEMBER 15, 1997

AND

NOVEMBER 3, 1997

**REGIONAL POLICIES REGARDING COORDINATION OF
LAND USE AND INFRASTRUCTURE DEVELOPMENT DECISIONS**

TO: The MetroHartford Millennium Steering Committee
FROM: Richard J. Porth
RE: Report of the Land Use, Transportation and Infrastructure Task Force
DATE: June 16, 1997

I am pleased to submit to you a summary of the work of the Land Use, Transportation and Infrastructure Task Force. This report is the product of many hours of work and research by a diverse and talented group of people. The membership roster for this task force is attached to the report.

Our Task Force reviewed numerous maps and many reports and data sources in our effort to examine major infrastructure and land use issues in the region. However, no one should construe this as a comprehensive or exhaustive assessment of the region's transportation, telecommunications, and energy infrastructure and key development sites. It is our best effort to frame these broad issues for the Steering Committee in a useful package for its deliberation and to make recommendations for additional research should the Steering Committee decide to pursue it further.

This package includes a summary of broad regional policy recommendations for the coordination of land use and infrastructure development decisions. Many of the most important recommendations are predicated on fundamental reform in the way we raise public revenue in the State of Connecticut, and specifically our over reliance on the local property tax. The second piece in this package is a report of our utility subcommittee which summarizes observations and recommends additional research that will be required to fully assess the region's utility infrastructure. Finally, it includes a brief report by our transportation subcommittee which assesses the existing infrastructure and provides some broad proposals for improvements aimed at economic growth.

The most compelling part of our work effort is provided in a series of overhead transparencies which will be reviewed at the June 24th Steering Committee meeting. These transparencies provide a visual image on maps of the region showing how development is taking place currently and how the task force recommends it should take place for sustainable and vibrant economic growth in the future. Because these maps are very preliminary and will require refinement based on your review, they are not included in this package.

The members of our task force are pleased to be part of this important effort to promote economic growth in the Capitol Region. It is our hope that this report will be useful in your deliberations. Thank you.

INTRODUCTION

The Land Use Task Force supports and encourages the citizens and municipalities of the region to support the following goals and policies in order to promote responsible and sustainable economic development. These goals and policies establish a development framework which:

- 1) Helps re-establish the City of Hartford as our economic, cultural, entertainment and sports center.
- 2) Builds on previous infrastructure investments in the established industrial and commercial areas of the inner ring suburbs, around Bradley International Airport and along the major transportation corridors which the region has previously earmarked for development. Infrastructure includes roads, public transportation, airports, public water and sewer service, electrical service, natural gas service and other utilities needed to support residential, commercial and industrial development.
- 3) Encourages that future infrastructure investment be focused in these same areas to ensure their continued vitality, support redevelopment efforts, discourage further suburban sprawl and save tax dollars.
- 4) Encourages the protection of critical natural resources which provide many benefits to the region, including a safe drinking water supply and recreational opportunities for current and future residents. These natural resources provide contrast to the built environment and are essential elements of the unique character of the Capitol Region.

The Land Use Task Force acknowledges that implementation of these goals and policies would limit the opportunities for new economic development in some areas of the region. In order for these goals and policies to be supportable and equitable, changes in our tax structure will be necessary. At a minimum, there is need for some form of revenue sharing so that every community in the region can pursue an economic growth plan consistent with their own goals and those of the region, and not driven by the need for local tax revenues. We should look to good models elsewhere in the country for sharing the benefits of economic growth among municipalities and generating funds for regional infrastructure.

REGIONAL DEVELOPMENT PATTERN

Encourage high density development in the core areas of the region, particularly Hartford, along developing corridors and along corridors that lend themselves to growth in order to maximize energy conservation, provide public services most cost-effectively, minimize sprawl and balance the region's environmental and economic needs.

Policies include:

1. Maximizing highway, rail, public water and sewer networks to support existing and future employment centers.
2. Encouraging concentrated centers of mixed use development in the City of Hartford and along major transportation corridors.
3. Encouraging land use patterns and transportation systems aimed at revitalization of the City of Hartford, central business districts and town centers, while acknowledging suburbanization which has already occurred.
4. Discouraging high density land uses in rural areas where existing or proposed infrastructure is not adequate. Promote planning and zoning practices which protect existing and proposed water supply sources, are consistent with existing and planned transportation infrastructure, and do not lead to unplanned extensions of sewer systems, water systems and roadways.
5. Encouraging low density land use development pattern in rural areas which is consistent with the natural capacity of the land to provide on-site water and septic systems needed to support growth.
6. Encouraging compatible land uses along town lines.
7. Supporting regional economic development strategies and the coordination of economic development/transportation improvements within specific corridors.

8. Minimizing adverse effects on environmentally sensitive areas and scarce natural resources. Development in these areas should be restricted or prohibited based on significance of the resource and the ability of the land to support the development without adversely impacting the resource.

GUIDING, PLANNING AND COORDINATING ECONOMIC DEVELOPMENT

Promote a strong and diverse economy through comprehensive economic development planning and coordination of development activities throughout the region (i.e. MetroHartford Millennium).

Policies include:

1. Actively engage in planning to guide economic development rather than allowing it to be controlled solely by market forces.
2. Promote cooperation between municipalities which are competing for regionally significant commercial and/or industrial development.
3. Encourage intermunicipal sharing of costs and benefits associated with regionally-significant commercial and/or industrial projects.
4. Support the retention, growth and expansion of existing businesses, including small businesses.
5. Increase efforts to market the region to new or expanding businesses.
6. Identify the most promising growth sectors which build on the region's strategic strengths. Use this information to build an effective marketing program.
7. Encourage coordination of the activities of the region's tourism districts.

COORDINATION OF TRANSPORTATION/LAND USE POLICY

Encourage the development of a multi-modal regional transportation system which provides for the efficient movement of goods and people.

Transportation Planning Process

1. Do not make major transportation improvements in areas where development is undesirable. Each major alternative should be evaluated subjectively as to its potential development impacts.
2. Encourage use of transit, fixed guideway and non-auto modes in areas where higher density development is desirable and where local land use policies support higher density development.
3. In corridors where the Region is proposing a light rail system or busway system, major highway improvements should be discouraged.
4. Require consideration of land use/transportation issues during the environmental review and design phases of individual projects. The potential development impacts should be addressed in the environmental review phase of the project. Adequacy of existing zoning should be assessed to assure that new development does not result in future traffic and driveway problems.
5. Promote use of planning and zoning techniques, such as access management, which minimize adverse impacts of development along major roadways.

Transportation Strategies to Reduce Sprawl

1. Roadway investments should be dedicated to areas where we want to encourage development.
2. Roadway investments in areas in which development is unwanted should be restricted to necessary safety and structural improvements so as not to stimulate development.
3. Improve transit service to areas where we want to encourage higher density development.

Sources: The Plan of Development for the Capitol Region of Connecticut including revisions proposed by CROCOG Regional Planning Commission; CROCOG Long Range Transportation Plan; and CROCOG Policy Paper, "Coordinating Transportation and Land Use Planning".

Transportation Subcommittee General Observations and Recommendations (AMENDED SEPTEMBER 15, 1997)

Transportation investments are powerful tools which shape and support a region's form, economic vitality and quality of life.

Land Use

The tie between transportation policy and land use policy is fundamental. Transportation policies affect land use decisions and land use policies affect transportation decisions. It is essential as we move into the next century that we recognize this principal and establish processes and support capital investment projects which coordinate land use and transportation decisions.

- Focus development along major existing transportation corridors, particularly I-84, I-91, and I-291 and new fixed guideway/transit corridors.
- Further refine this development to concentrate on established industrial and commercial areas such as the City of Hartford, East Hartford, West Hartford, Manchester, Rockville, Thompsonville, etc., where transportation and utility infrastructure are already in place.
- Encourage towns to work together in the preparation of plans of development to ensure that town boundaries are not the deciding factor in ultimate decision making vis-à-vis development location.
- Establish intergovernmental decision processes which encourage local land use decisions to protect and enhance the efficiency of regional transportation investments and which enable regional transportation investment decisions to respect and foster municipal and regional land use goals.

Highway Network

The highway network of the region and country is the backbone of the transportation system. Because major expansion of this system is not likely to occur in the near term, maintenance of the safety and capacity of the existing system is paramount.

- Provide sufficient funds to maintain the existing Interstate and National Highway System.
- Provide sufficient funds to ensure safety of these systems.
- Provide sufficient funds to maintain and ensure safety on locally owned and maintained arterial and collector systems.
- The region should continue to encourage and fund the development and provision of programs and services which effectively compete with the attractions and conveniences of driving alone.
- Encourage municipalities to make land use decisions which protect the safety and capacity of the existing highway network and which facilitate and encourage the use of transportation modes other than the single occupancy vehicle.

Public Transportation

A viable and comprehensive public transportation system is absolutely essential to foster the region's economic development, to ensure access to the region's job and retail markets by city residents and people dependent on transit, to support livable communities throughout the region and to protect the capacity of the region's existing highway network.

- Fixed guideway/rail transit investments can provide access to jobs for both urban and suburban residents, establish points of commerce, provide an infrastructure for sustainable development and rational land use patterns, spur economic development in desired locations; connect existing economic drivers along employment corridors and reduce highway congestion.
- The region should vigorously pursue its long-standing vision to establish fixed guideway transit service. The Region's Long Range Transportation Plan identifies three transit ways to be considered: Hartford West (I-84), Hartford South (I-91) and the Griffin Line, which would connect downtown Hartford with Bradley Airport via a light rail line. In addition, a downtown light rail loop should be considered as a part of any recommendation for light rail in the region and it has been suggested that a light rail line emanating from Hartford and serving East Hartford, Manchester and Vernon be considered.
- The region should identify and implement cost-effective transit investments which would facilitate access to its high density activity centers and which link and support high density activity centers as economic clusters. We should move quickly on any transit project which has been determined to be feasible and for which capital and operating funds have been identified.
- The region should continue to work with ConnDOT and Connecticut Transit to revise and refine existing and future bus service to meet current and changing travel patterns, especially for reverse commuting. This is a particular challenge in light of the dispersed patterns of land use development that have already taken place in the region. The more dispersed the jobs locations, the more difficult it is to rely on traditional modes of mass transit. We should respond by encouraging the development of new jobs in more concentrated locations along existing transportation corridors and, when necessary, by utilizing smaller vehicles such as mini-buses and vans to transport people to certain job locations.
- Welfare to Work Transportation Access is a specific goal of both the state and federal governments. It is essential that public funds be used to help underwrite the cost of a coordinated transportation system that provides access to suburban and second and third shift jobs for people who are moving from welfare into work and for others who rely on public transit.
- The region must develop appropriate financing and operating mechanisms to realize comprehensive public transportation goals and policies.
- The region should encourage its municipalities to make land use decisions which facilitate and encourage the use of transit.

Air Service

Bradley International Airport (BIA) should remain the focus of the region's air travel system with the following major enhancements.

- Replace the existing Murphy Terminal with a modern up-to-date facility that accommodates existing and future passenger needs.
- Seek to add direct service from BIA to major European and Canadian destinations to provide increased economic opportunities to world wide markets.
- Develop support warehousing and distribution facilities, terminals, customs cargo facilities, etc., geared to building the volume of freight traffic through BIA.
- Continue to market BIA as a more convenient, less expensive alternative for both passenger and freight, compared to other northeast airports (i.e. Logan, JFK, Newark etc.).
- Provide rail freight connections on the "west side" of BIA to facilitate Intermodal connections.

- Maintain and upgrade general aviation airports such as Brainard Airport for corporate and private use to complement services provided at Bradley, thereby preserving capacity at Bradley.

Intermodal Connections

We must recognize the importance of intermodal connections, both passenger and freight, to the economic vitality of the region and the State.

- Continue to develop intermodal centers, such as Union Station in Hartford where rail, inter-city bus, local bus, taxi service etc., all focus on a single point to provide a variety of transportation options to systems users.
- Develop intermodal connections at locations such as Bradley International Airport for both passenger and freight interchanges.
- Develop the Hartford rail yards as an important intermodal transfer center between rail, truck, water, etc.

Communications Corridors

- Facilitate development of major communication corridors (i.e. fiber optics) within existing transportation corridors including highway, rail, pipeline and waterways.

Pedestrian and Bicycle Facilities

The state and region is in the process of developing and implementing an extensive system of pedestrian and bicycle improvements that offer transportation, recreation and environmental benefits.

- The region should continue to develop a complete system of pedestrian and bicycle facilities as an alternative means of transportation.

Future Research and Implementation

The region and state are currently conducting seven major corridor studies emanating from the Capitol Region Council of Governments' Long Range Transportation Plan. More are anticipated in the future. These studies provide a unique opportunity to implement many of the above stated goals. This vision must be incorporated and implemented in all transportation improvements undertaken in the region.

UTILITY SUBCOMMITTEE
SUMMARY OF OBSERVATIONS, DATA COLLECTED AND
ADDITIONAL RESEARCH REQUIRED

OBSERVATIONS

- It is very difficult to obtain ultimate capacity data for all utilities. Timing and level of use by new developments impacts ultimate capacity. Another important factor is public and private funds available to expand capacity. Best approximate measure may be service areas defined by various utilities.
- Data we collected is in paper format and presented at various map scales. Some of data may be available in digital format. There is a need to summarize this data in a digital format to enable analysis of how utility service areas overlap.
- Competition between utilities may make them reluctant to share information on future expansion plans, if such data is not public information.
- Needs of prospective industries should be considered when identifying deficiencies in existing and planned utilities. Need input of subcommittee charged with identifying industries most likely to expand or locate within the region to accurately define deficiencies.
- Existing and proposed zoning should be considered when identifying deficiencies in existing and planned utilities.
- Sewer and water map attached to these notes is a general representation of levels of sewer and water service in the Capitol Region. In communities with less than 50% water/sewer coverage, service tends to be located in most highly developed portions of communities, in town and village centers and along major transportation routes.
- In certain communities, high amounts of environmentally sensitive lands, such as flood plains, and preserved lands limit water and sewer service areas.

ADDITIONAL RESEARCH REQUIRED

- As noted below under each category.
- Information on needs of prospective industries, existing and proposed zoning and existing land use.
- CRCOG is preparing a regional zoning and land use map as part of its GIS development project. Target date for project completion is fall of 1997. Other data layers will include sewer service, water service and natural resource characteristics which pose constraints to development.

DATA COLLECTED

Development Potential Based on Existing Zoning and Utilities

- CRCOG Regional Plan of Development
- Upper Connecticut River Water Utility Coordinating Committee (WUCC) Development Potential--generalized zoning categories (land use compatibility map). Need WUCC plans covering communities in easternmost part of Capitol Region.

Water Service

- Detailed maps--MDC service area
- WUCC Existing Service Areas
- WUCC Exclusive Service Areas--would include potential service areas

Sewer Service

- MDC service area
- must be supplemented with individual municipal maps

Gas Service

- Key map showing major natural gas providers' service areas
- Yankee Gas Service area map for Capitol Region Communities

Electricity

- Maps of three-phase power for selected communities in Capitol Region. Important for certain businesses.

Telecommunications

- No data yet
- Contact: Paul Minor, SNET, 947-7080
- All major types of telecommunications available in area and covered by different companies. Existing network in place, expansions added at companies requests. Are constraints on how much service can be provided, mostly related to switching.

RURAL STATEMENT FOR CAPITOL REGION'S MILLENNIUM PLAN

While the image of the Capitol Region may be of a metropolitan, urbanized area, there are a number of communities that are rural in character, where agriculture is an important part of the local economy and character of the town.

Because of their proximity to the Hartford employment center, attractive land values and property tax rates, these communities are extremely vulnerable to development pressures of subdivisions and large-scale retail stores, etc.- in short to the dangers of urban and suburban sprawl. On average, eighty percent of farmland in the agricultural communities of the Connecticut River Valley is classified as prime and important farmland soils (i.e. the most suitable for producing food and fiber agricultural crops). This compares to a 40-45% statewide average. Moreover, the American Farmland Trust has identified the Connecticut River Valley as one of the 20 "Most Threatened Regions of Major Land Resource Areas" in the country. Areas mapped in that study include portions of northern Hartford County which have a greater percentage of high quality farmland than the average unit within the state, a rate of development higher than the average mapping unit and more that 1000 acres developed in the 10 years since 1983.

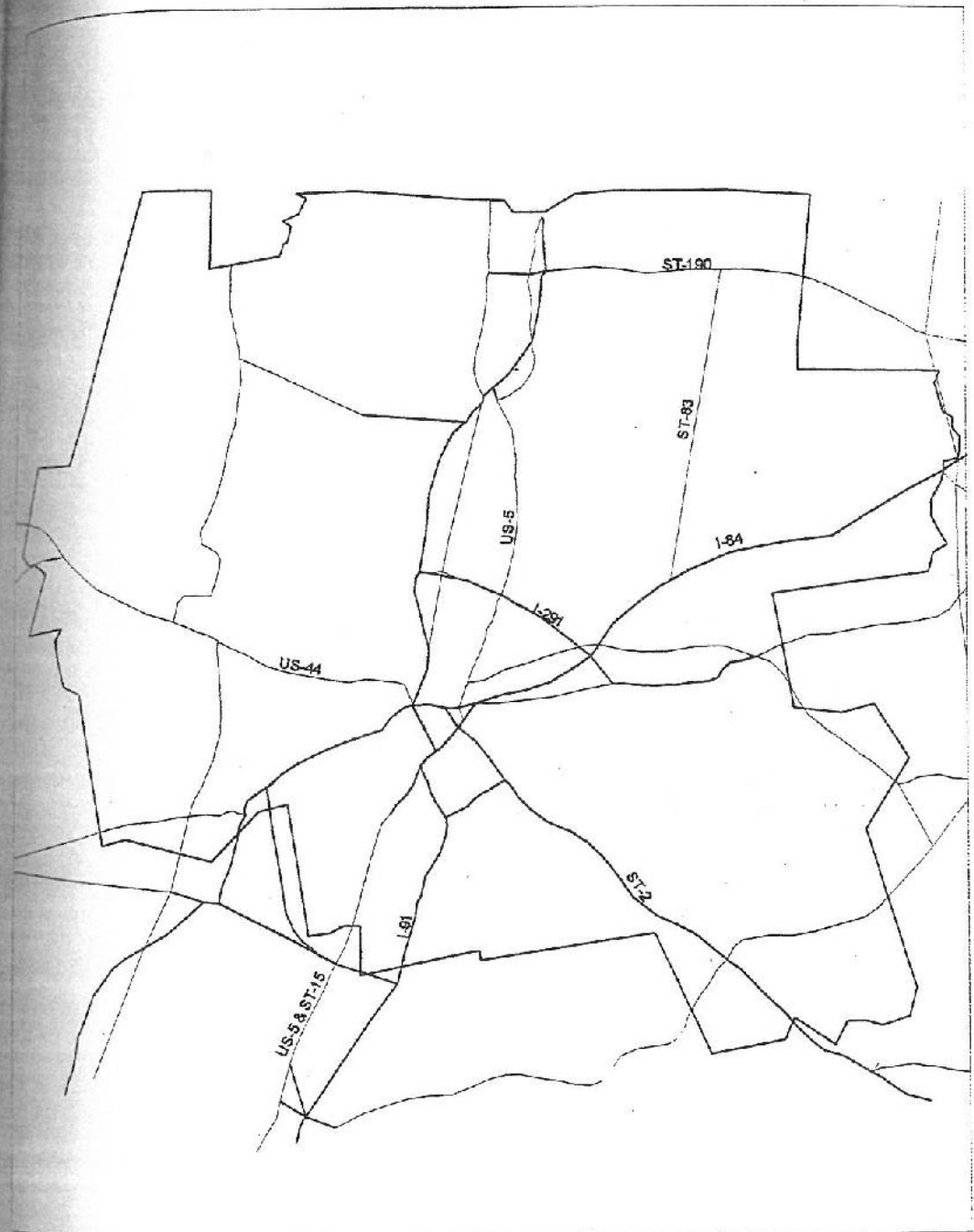
The State's goal (in the Plan of Conservation & Development) is to maintain an agricultural land base to ensure the availability of fresh foods for the citizens in the future. Additional benefits of retaining the agricultural land use include the preservation of open space, protection of the environment and the support of agricultural businesses which employ thousands of people in this region and throughout the State.

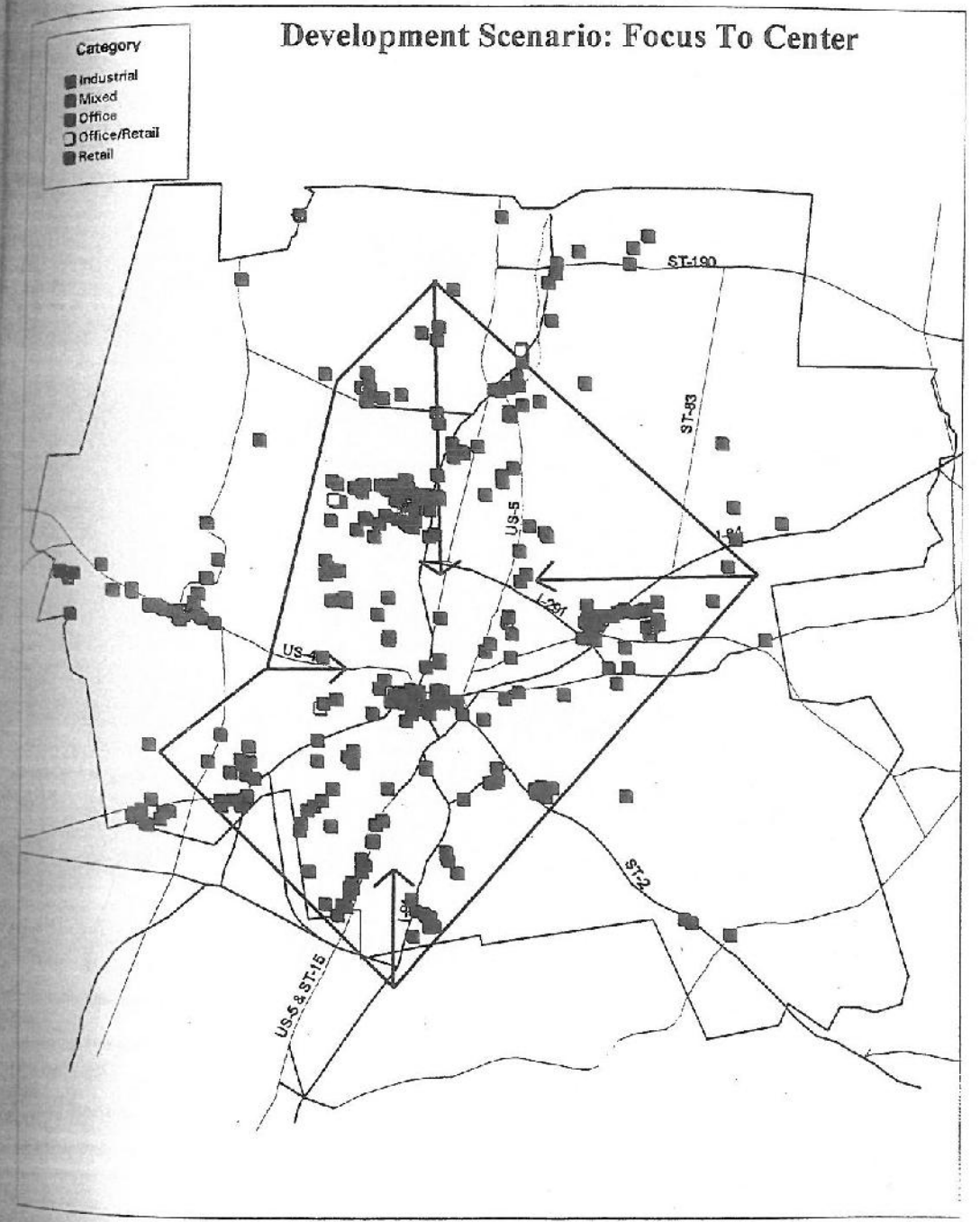
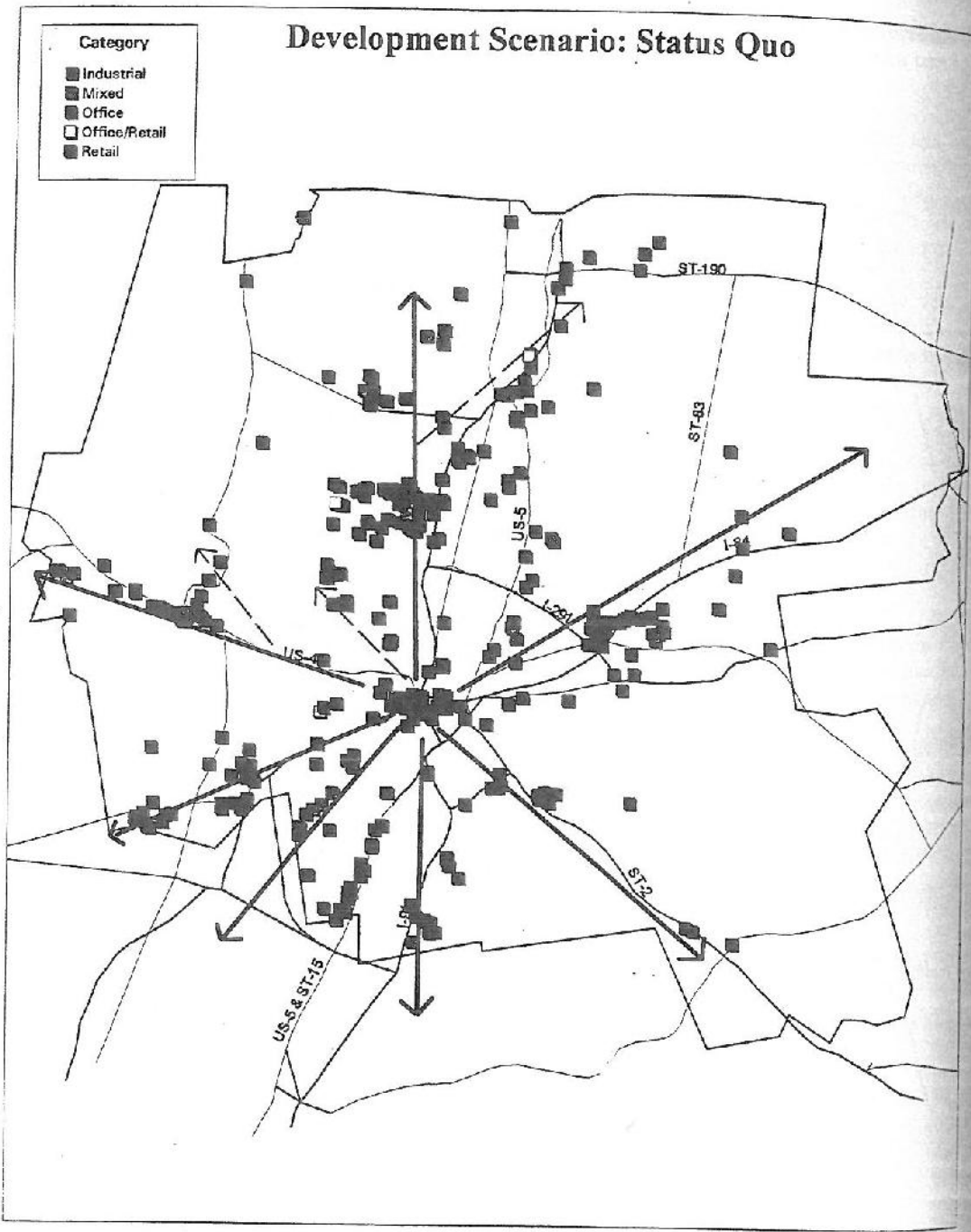
The Millennium Plan should acknowledge and support town planning efforts to maintain their rural character for several reasons: 1) food production; 2) to maintain and grow the **Agricultural Business Cluster** in the Greater Hartford Region; 3) to maintain and enhance the tourism that is attracted by scenic New England villages, working farms and rural landscapes; and 4) to promote conservation in the Connecticut River Valley with its array of natural features, wildlife habitat and cultural resources that has justified the call for designation as a National Heritage Corridor.

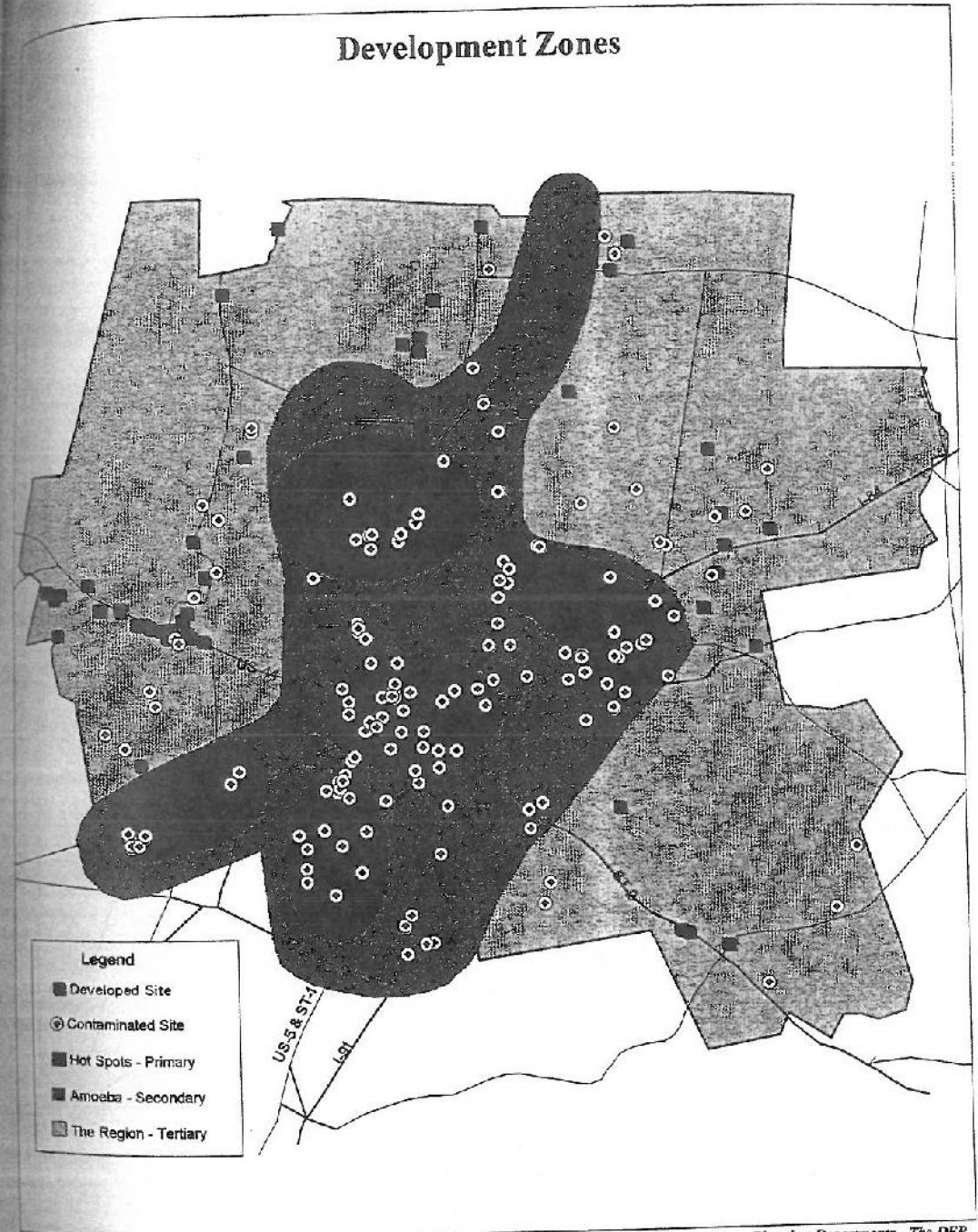
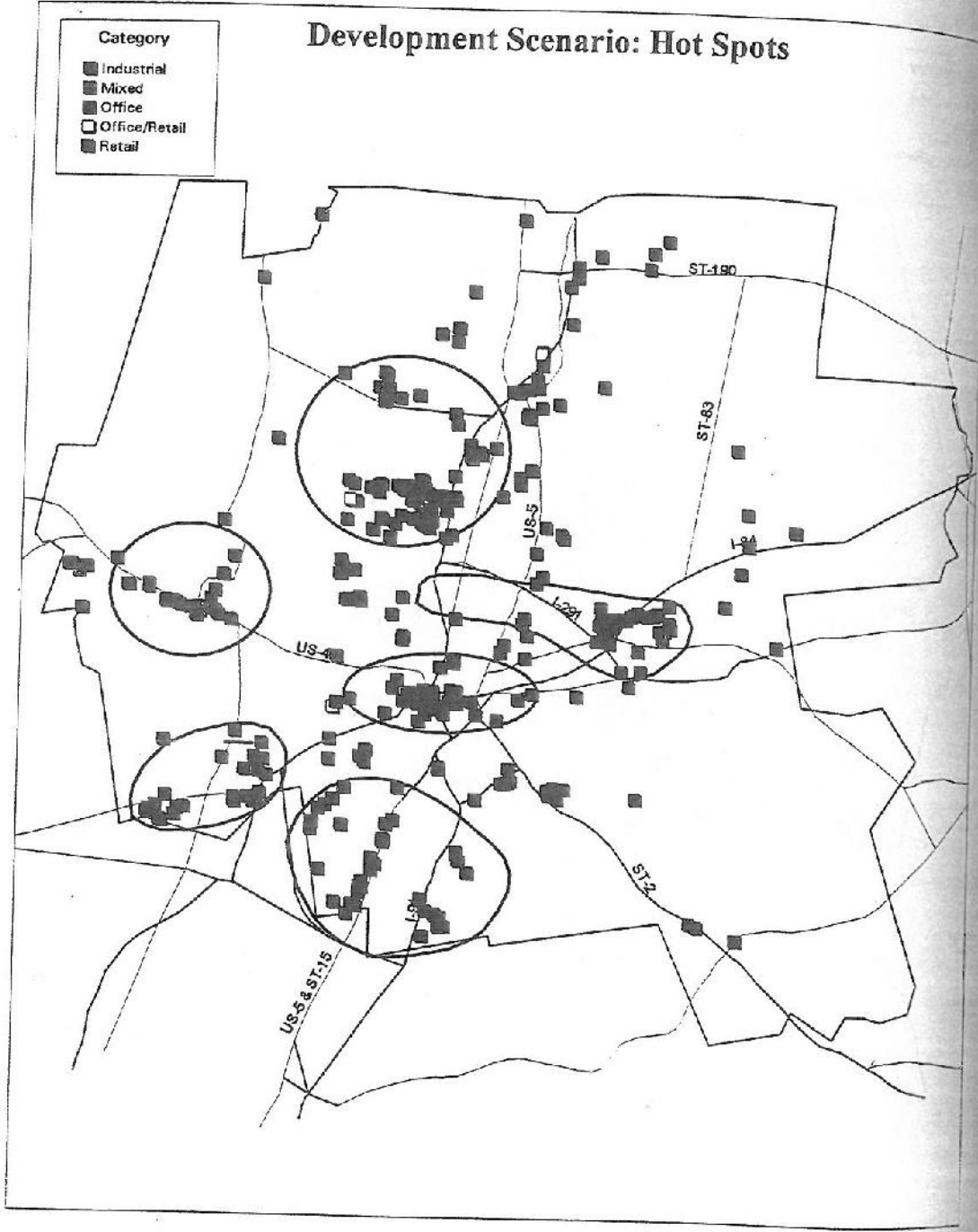
Economic growth in the cities and towns within the region that want it need not be at the expense of agricultural, forested and open land, or wetlands. The region's economic development action agenda should include incentives to develop in areas which have infrastructure in place, incentives to rural communities to provide infrastructure for appropriately scaled centers of economic activity away from prime agricultural areas, and incentives to avoid conversion of farmland and other rural open areas.

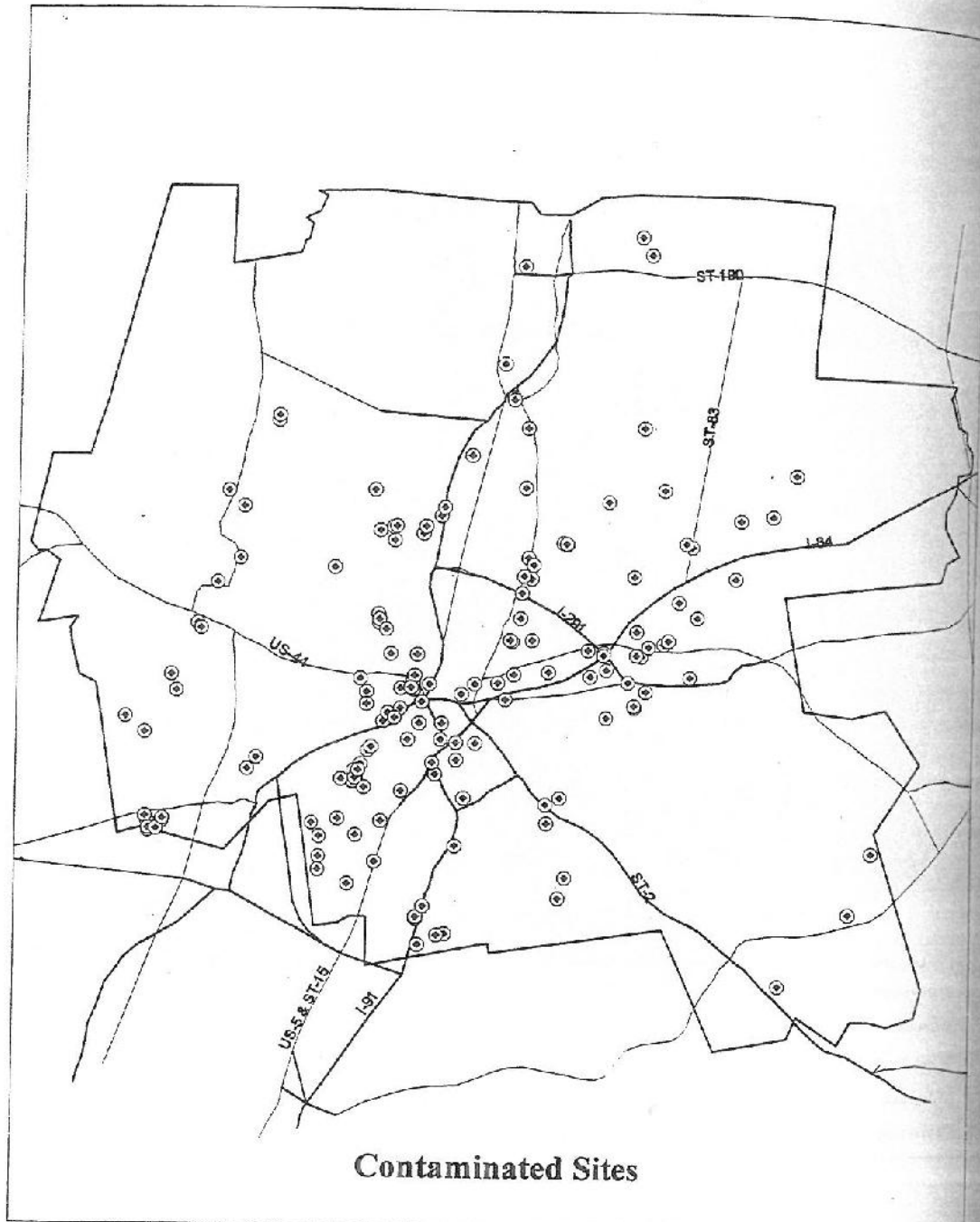
AMENDMENT: NOVEMBER 3, 1997
 (NEW)

The Capitol Region

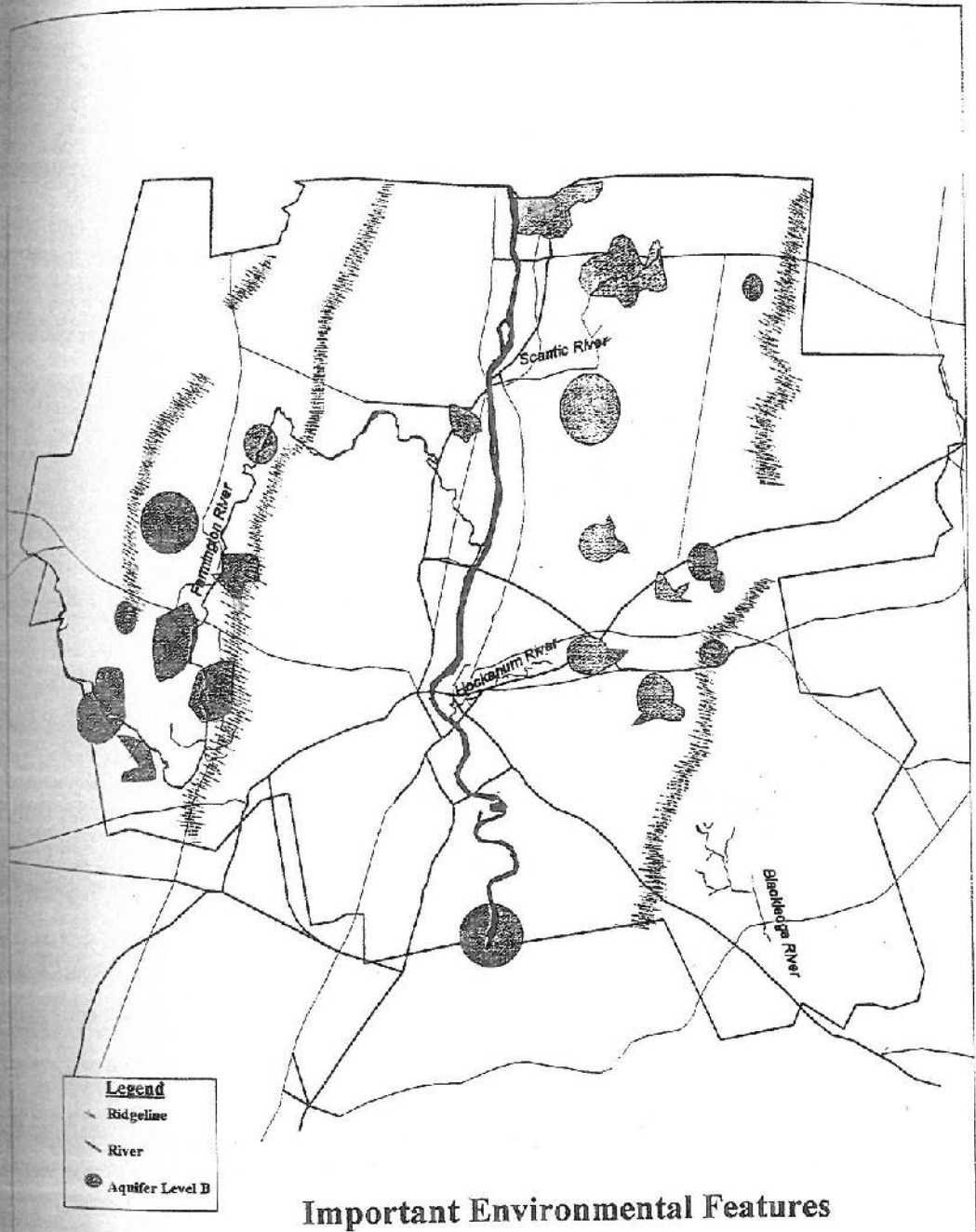




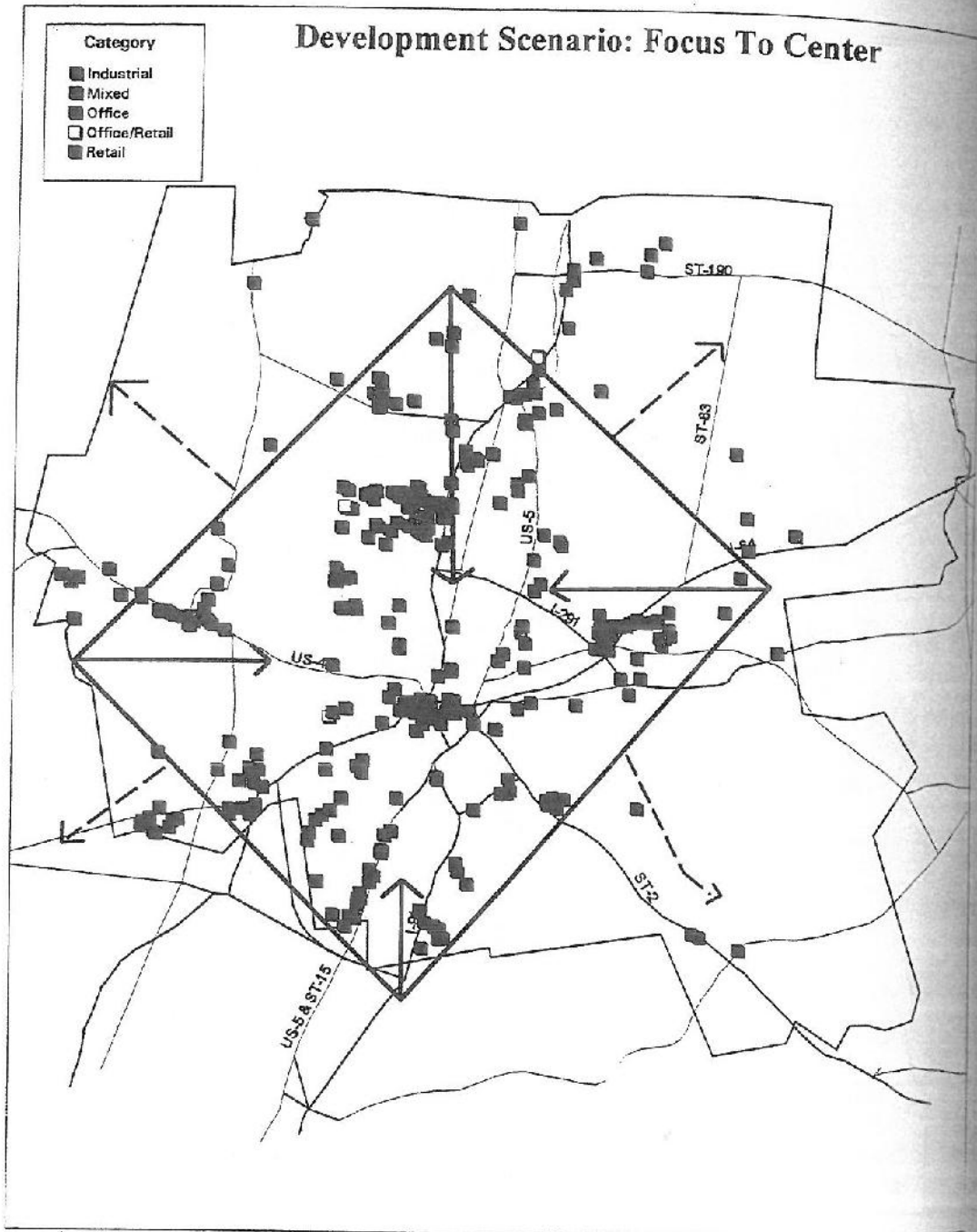




Contaminated Sites



Important Environmental Features



Public Policy/Fiscal Issues Task Force

The Honorable Robert M. DeCrescenzo
Mayor, Town of East Hartford

Susan Grandpierre
The Futures Group

Doug Fisher
Economic & Community Development
Northeast Utilities

Bob Kantor
Fannie Mae

Peter Goldfarb
Ernst & Young

Michael P. Meotti
Connecticut Policy & Economics Council

Richard Sugarman
Smith Barney

September 10, 1997

Public Policy and Fiscal Issues Task Force

The Public Policy and Fiscal Issues Task Force has prepared the following recommendations and short-term actions for consideration by the Steering Committee.

Introduction:

The global economy is increasingly characterized by economic competition at the regional level. A region's success depends on its ability to recruit and retain the companies, scholars and workers that will contribute to its global competitive strength. It also requires the projection and promotion of an image that properly reflects the competitive strengths and unique characteristics of the region and that is understood and supported by its people. In addition, the region must acquire and maintain a complement of assets and infrastructure in order to keep pace with growth and change. It also needs its institutions to be responsive to the need for opportunity and qualified workers.

For many reasons, cooperative economic development is difficult in MetroHartford today. The Millennium Project will identify new initiatives that will require new approaches to develop the potential of the region. We can use this opportunity to examine ways to promote regional development without disturbing our long-standing principles of home rule and to find ways to maintain the unique character of our towns and cities. We can identify those issues and opportunities that are best addressed at a regional level and reserve other more local issues for the towns.

We need the capability to fund the region's growth without adding to property tax burdens. In fact, we need to find ways to alleviate the fiscal disparities among towns and reduce the incentives that reliance on the property tax creates, namely grand list growth to provide municipal operating revenues. We need to create an environment that encourages regional economic decisionmaking within a broader regional strategic plan. Other regions have done it successfully. MetroHartford can apply some of the same principles to its regional economic development needs.

Recommendations:

1. We need to enhance the image of MetroHartford both inside and outside the region.

Discussion: We need to start thinking regionally. This requires a shift in the way residents of the region perceive the central city and the services it provides as well as the strengths which the suburbs bring. An internal marketing strategy would promote a collective sense of identity, increase the likelihood of success for regional cooperative efforts, and make each resident a potential salesperson for MetroHartford in his or her business and personal contacts with people outside the region.

Suggested Action Step: The Millennium Project should initiate a comprehensive campaign to market the MetroHartford region to area residents and outsiders. This campaign should focus on promoting the region's strengths and unique characteristics as a great place to live, work and play.

2. We should create new mechanisms to better manage regional assets.

Discussion: There are many resources in the MetroHartford area which are used by the public at large such as the Connecticut riverfront, arts and entertainment sites, parks and sports facilities. However, the responsibility for maintaining, enhancing, promoting and preserving these resources is not fairly distributed among the people and towns of the area and the MetroHartford region lacks an entity to develop and manage new, large capital projects of regional economic significance.

We should consider the creation of a Regional Assets District for the MetroHartford area to manage these assets for the common good of all residents in the region. This concept is not new and has been adopted by other metropolitan areas around the country. The Capitol Region Council of Governments (CRCOG) has prepared a proposal outlining the key elements of a regional assets district program (see Appendix I).

Other cooperative approaches to development should also be encouraged. For example, in the southwest sector of Hartford the Charter Oak Terrace housing development is being demolished. A 25 to 50 acre commercial and industrial park is being proposed in its place. To ensure that such a development does not create an adverse impact, an intertown economic development zone has also been proposed.

Suggested Action Steps:

- a. Evaluate the CRCOG regional assets district proposal and other similar models and modify as appropriate for introduction to the legislature in the 1998 session. Pursue adoption through advocacy during the legislative session.

- b. Pursue the collaborative project between West Hartford and Hartford for joint development of the Charter Oak industrial and commercial area using an inter-town economic development zone mechanism.

3. We need to create a more regional approach to economic development.

Discussion: There are a number of organizations that currently function at a regional level to address specific economic, social and cultural activities and needs of the MetroHartford area. These organizations include the Capital Region Council of Governments, the Metropolitan District Commission, the Capital Region Education Council, the Connecticut Capital Region Growth Council, the Greater Hartford Arts Council, the United Way of the Capital Area and others. While cooperative regional efforts are to be encouraged and commended, they do not go far enough. The task force wants to encourage greater collaborative endeavors while preserving the unique character of Metropolitan Hartford communities. Considering that the Millennium Project is an economic development strategy, a good place to encourage greater collaboration is in the design and delivery of economic development programs and services.

Municipalities are reluctant to share the responsibility for economic development because, among other reasons, they are heavily dependent on maintaining and growing their own grand lists and collecting the related property taxes which fund municipal operations.

Currently, economic development functions are primarily carried out at the state and municipal levels. However, we believe that some of these functions such as marketing, strategic planning and business recruitment should be performed at the regional level, coincident with economic activity. Savings could be realized if state, regional and municipal activities were better aligned.

Suggested Action Steps:

- a. Convene a working group to review current issues which create barriers to regional development and prepare more in-depth recommendations for change to help align municipal and regional initiatives. This group should include representatives of municipalities, regional entities and state economic development organizations and should report its recommendations to the Steering Committee of the MetroHartford Project within six months of formation. Examples of issues to be addressed include alternative revenue options for municipalities, potential regional economic development and marketing programs, business recruitment, expansion and retention strategies, and alternatives to the current allocation process for state bonding authority.

- b. Prepare an analysis of the current cost of providing economic development in the 29 town MetroHartford area and compare to that of a "world class" regional entity to assess potential savings and benefits. This analysis would be conducted by the task force noted in a. above.
- c. Encourage CRCOG to summarize and share with municipal leaders its best practices regarding such activities as information services and planning and zoning regulation. Consider ways in which those successful practices could be applied to such regional sectors as utilities, transportation, telecommunications, etc.

4. We support the Land Use Task Force recommendations regarding development.

Discussion: The Land Use Task Force of the Millennium Project has made some important recommendations with regard to development patterns in the Metropolitan Hartford region. They recommend that we encourage high density development in the core areas of the region, particularly Hartford, in order to maximize energy conservation, provide public services in a cost effective way, minimize sprawl and balance the region's environmental and economic needs. Their recommendations would limit the opportunities for new economic development in some areas of the region.

Suggested Action Step: Adopt the Land Use Task Force recommendations regarding economic development.

5. We need to reduce the unreasonable regulatory burden on development.

Discussion: Land use development especially in regard to brownfield sites is hindered by complex regulations at the state and municipal level. Redevelopment of abandoned sites is often less attractive as an economic investment because of the constraints imposed by a broad range of regulatory requirements particularly those of environmental nature. While regulation does play an important role in protecting the safety, health and welfare of the public including the environment at large, we need to challenge the value of many regulations and ensure there is an appropriate balance.

Suggested Action Steps:

- a. Convene a public/private blue ribbon group to evaluate the current regulatory requirements relating to development and recommend ways to reduce or modify those regulations.
- b. Request that the state legislature increase funding for existing programs that

encourage the re-use of brownfield sites (e.g. the Urban Sites Remediation Program).

- c. Encourage the harmonization of municipal regulations which have multi-town impacts and continue to disseminate information on best practices.

Small Business and Entrepreneurship Task Force

John Anderson
Manchester Chamber of Commerce

Joe Harpie
First City Bank

Bonnie Mallon
Department of Economic & Community Development

Bob Molchan
R.C. Knox and Company, Inc.

Marge Morrissey
Business for Downtown Hartford

Gail O'Keefe
Economic Development, City of New Britain

Lisa Kolodziej
Director of Business Recruitment
Growth Council

METRO-HARTFORD MILLENNIUM
SMALL BUSINESS AND ENTREPRENEURSHIP
TASK FORCE

FINAL RECOMMENDATIONS
SEPTEMBER 3, 1997

COMMITTEE MEMBERS:

JOHN ANDERSON	Manchester Chamber of Commerce
JOE HARPIE	First City Bank
BONNIE MALLON	Department of Economic & Community Development
BOBI MOLCHAN,	R.C. Knox and Company, Inc.
MARGE MORRISSEY	Business for Downtown Hartford
GAIL O'KEEFE	Economic Development, City of New Britain

GROWTH COUNCIL REPRESENTATIVES:

LISA KOLODZIEJ	Director of Business Recruitment
BOB SANTY	Millenium Project Manager

MT. AUBURN ASSOCIATES REPRESENTATIVE:

PETER KWASS	Principal
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- SECTION V: ACKNOWLEDGEMENTS

METRO-HARTFORD MILLENNIUM SMALL BUSINESS AND ENTREPRENEURSHIP TASK FORCE RECOMMENDATIONS

INFORMATION/INTERNET

PURPOSE:

To provide input for the Connecticut Economic Resource Center's (CERC's) Internet site, as it develops further its Internet site, specifically for small business and economic development.

ACTION ITEM:

Since CERC is reviewing the architectural structure of its Web Site (www.cerc.com), the Small Business Task Force submitted the full account of the findings and recommendations as listed in Internet Notes to Jeff Blodgett of CERC on July 15.

A. Assumption:

There is no need to recreate the wheel, but rather to link existing sites that complement the mission of the CERC site - i.e. economic development for Connecticut.

Recommendations:

1. Provide a well-designed consistent web site that acts as an economic development umbrella to tie multiple sites together. It should provide business people in and out of the state, along with economic development people, access to information that will help the growth of business in CT and in the Capitol Region. The Small Business Task Force recommends that CERC be that unifying information source and that it actively seek out other sites that are complimentary to economic development.
2. Provide information from the "Comparable City Study" conducted by Mount Auburn Associates, and present that information honestly and a format that portrays our capitol region favorably. That information should be available on the Internet site for economic development and growth of business in CT.
3. Present a list of economic development successes, and show how the state is willing to make deals to bring business in. Include information on: successful bond issues, highlight areas of growth, a list of the new businesses that have moved to the state, explain how the state participated in bringing money to the table and what other typical state-oriented incentives that can be provided to make the deal work.

4. Provide a list of the things the state would provide to a business interested in relocating to CT, include a list of where businesses can go for help - DED, CERC, etc.

B. Assumption:

Economic development efforts can be broken down into three areas - Creation of Small Business, Creation of Big Business and Business Retention - three different focuses, three different programs.

Recommendations:

1. List services/information available for existing businesses in the state. List incentives or packages which might be available to them. Query: Are we working with existing businesses to be sure other states are not soliciting them out of CT.
2. Consolidate services/information available for existing businesses on the Internet with contact names and responsibilities so businesses will know where to go to secure information. This should be done for the state, the region, the city of Hartford and other cities and towns.
3. The Small Business Task Force feels that this type of information should be available at no charge to enhance the perception that we are interested in business coming to this state.

C. Assumption:

We have 169 towns in CT and each should have a profile to attract new business and the growth of existing business, along with reference information to support economic development.

Recommendations:

1. We need to promote the area in regions, not just individual towns or counties. The region has a lot to offer and provides a more thorough look at the area. Provide the information by towns and then by regions. For example, when economic development people were asked which town should get the business: "We don't care which town you come to, just as long as you come", was the reply from one state. This is the attitude we need to cultivate in our state and our Web site needs to leave that impression too.
2. We need to create an economic development plan and theme and then actively promote that plan for the State of CT. For example: Colorado wants to attract insurance companies, therefore it reduces the 10% corporate tax rate to only 1% for incoming insurance companies. We need a focused plan that can be marketed and available on the Internet to bring in prospective businesses and retain the business we have here.
3. Connecticut should be selling Connecticut and the capitol region to Forbes rating and other "Best Places to Live, Work and Play" rankings. Sometimes we get penalized when surveys just

look at the demographics of Hartford and not the region. We need to take a proactive approach to why businesses should locate, remain and grow in this state.

4. The Internet site should provide demographics, census information, locations as rated by the Almanac - population over 100,000, over 200,000, etc., educational information - what percentage of the population is over 25 years old (potential employees) and the five factors that are used to measure the educational system for that location.

5. Once the web site is completed - consider a printed companion piece that can be mailed out to prospective businesses. It should contain good census data and important information needed when businesses are looking for places to relocate to or to grow existing businesses. This information should be easily available to all business people in the state on the Internet, it is complete and provides most if not all of the information economic development consultants or businesses need to gather data about a community.

6. Review other successful economic development sites such as: Colorado Springs, Tucson (futurewest.com), Albuquerque, Little Rock (cvbalb.com.) for the "must include" economic factors for the CERC site.

D. Assumption:

MAINTENANCE OF THE SITE IS VERY IMPORTANT - The one area that was deemed the most important in developing a Web site to assist businesses and economic development is the maintenance of the Web site.

Recommendations:

1. At a minimum, a full time person should be included in the plan and budget to maintain the CERC Web site so the information remains current and valuable. (Suggestion: use long-term internships.)
2. Require other Web sites to sign an agreement to maintain information as a requisite to being linked with the CERC Web site. The agreement would explain the importance of current and accurate information and expect them to keep the Web site current within a reasonable time frame for the services/information they provide. The Small Business Task Force feels so strongly that the information needs to be updated regularly that linked sites should feel some obligation to that as well. If the information is not current and accurate people will not use the Web site and cannot rely on the information provided. Perhaps you can automatically notify linked sites of the need to update information and if it is not done - drop the link.

E. Assumption:

SEARCH CAPABILITIES ARE VERY IMPORTANT - Searching for information about the State of Connecticut is not easy on the Internet. The obvious key word searches do not produce

meaningful results. There's too much duplicity. There are too many sites trying to do similar things. And, there's a lack of coordination.

Recommendations:

1. There should be a simplification of the key words that are used to find information. The site needs to be very user-friendly and sites must come up quickly and be rich with content.
2. We need to be sure that as CERC develops its Internet site that the information, while it may be linked to several other web pages, can be found with a search engine that would pull from every linked Web page to be sure complete information was available to the user about any town or service.
3. Also, there are too many redundant sites, i.e.: there is Hickory Hill's site for towns and then there is a municipal series sponsored by either the Federal or State government. But if you search on a town and get Hickory Hill's four towns you think that you're done . . . BUT you're not because there are 165 more towns in Connecticut.
4. Time is an issue. People don't have time to spend hours looking for information. The information has to be easy for everyone to use and the links need to be straight forward. People need to be able to find information using logic they understand. You would never think to go to the CERC Web site for Connecticut information.

F. Assumption:

We need to build traffic and visits to the CERC site.

Recommendations:

1. Good key words plus heavy traffic allows the CERC site to be one of the top ten matches.

G. Assumption:

There are specific types of information that should be accessible on the internet to enhance the opportunity to do business or to support tourism in the State.

Recommendations:

1. Key information that should be available on the Web site: Jobs and list the largest employers in towns and the region. The largest employers provides information regarding the diversification of the economy. The Web site should also provide demographic information, tax rates, etc. for towns AND regions.
2. The information on a Web site must be ACCESSIBLE and CORRECT.

3. Information about the State from the DECD statistic book should be on the Web site.

4. All town profiles should be on the Internet. It should not have to be mandatory participation for a certain template or vendor, but the links to every town should be on the site and towns should be made aware of the information that would be useful for economic development so they maintain the information.

H. Assumption:

Financing information is critical.

Recommendations:

1. Financing options need to be provided on the Internet: federal, state and local level (from the town to the neighborhood, if available). The information needs to be complete with contact information and phone numbers.
2. Tax information should be available on the Web site.
3. Compliance issues should be addressed at the Web site. Issues that relate to EPA, OSHA, handicap requirements, permits, regulations, etc. CBIA does a lot in this area, they should be a linked site.
4. Information for businesses that are starting new in CT should have information relating to licensing and permits, information about business structure ("S" and "C" corporations, LLC's, etc., defining what the basic structure is and the benefits/issues with each).
5. Information regarding business plans should be linked to this site. Perhaps a basic outline of why businesses should have business plans, what the benefits are and a sample of the type of information that is needed to develop a business plan.
6. Government issues need to be on the Web site. Issues that affect businesses - what's going on with legislative issues that relate to small business, and/or business in general. The information is here on the web, but it is tough to find. This should be available as a link to the CERC site, so people can search for business related legislative issues, and provide input.
7. A list of local representatives should also be available, easily available, so people know who to contact on particular legislative issues.
8. Government Agencies should be listed and linked to. How they can assist people and the services they provide should be highlighted.
9. Real Estate should be listed so businesses looking to move into the State or expand within the State can browse the Internet to determine the types of properties that are available and the cost to purchase/lease. CERC is already in pilot for a phase of the real estate listings from brokers

and it seems to be very successful. Properties that are sold by owners, including the State and Towns should also be included to provide the most complete listing of properties available in the State.

10. There should be an area on the Web site that provides a list of important phone numbers for contacts for businesses. Perhaps a list of most frequently called numbers. An easy directory that people could go to first that might eliminate the need to search beyond that initial screen.
11. A List of Economic Development Agencies/Contacts for the State, Regions and Towns should be in a directory so people know who to contact to discuss economic development plans. Names of agencies, contact names and telephone numbers should be included, along with a list of abatements and incentives that are provided by each.
12. Perhaps a section "Where Do I Go For Help", could be created that would be a search or query that enable the person to enter information on what they are looking for and the program is designed to pull up programs, agencies or contacts that directly relate to that topic.
13. Business related educational seminars could be listed with the institutions or agencies (SBA, SCORE, State university system, etc.) who are providing the seminars and a calendar that would reflect current classes that include course announcements and locations.
14. There should be information for non-profits. At times they are struggling and may have trouble meeting their capital campaign goals and need working capital or growth capital. Programs available to assist them should also be available at this site.
15. A list of professional organizations help interested businesses know the organizations that are within the state, plus it can be a place to go for additional information.
16. Research and Development information should also be available, particularly for manufacturers. A link to Connecticut Innovations would be helpful. What services, programs and institutions can provide assistance with research and development.
17. Marketing information should also be available for businesses, both start-ups and existing businesses. Where can they go to secure information and how do they analyze their competition.
18. Technology information should also be included, perhaps a list of equipment they might need to get started.

I. Assumption:

Links to other meaningful web sites will add great value.

Recommendations:

1. Link to a job bank, with salary information, in the state, employees that are looking for work, and what training programs are available for students and adults. The site should list all the schools, colleges, training programs and seminars that are available for people to increase their skills. It should also indicate where there are jobs so people can target the training to where the jobs are in the State.
2. Link to the US Job Bank, where available jobs are posted and salary ranges can be obtained. This site gets 2,000,000 hits a month. (Or Department of Labor also has a job bank on the Internet).
3. Link to the Events Calendar maintained by Business for Downtown Hartford and to Chamber of Commerce's and other towns that have Web sites. CERC should not be expected to maintain the information for these sites, but its site should be linked so that ALL INFORMATION CAN BE OBTAINED FROM ONE SITE.
4. Since tourism is one of our largest industries, we should be able to link all calendars to one area of the Web site and be able to search on dates, types of entertainment, towns or the entire state to bring up from different web sites for people to use for reference.
5. Link to the web page for Home businesses.
6. The Library Resource Centers should be linked to this site, so people have access to their public libraries for additional research capability and assistance.
7. Link to all the educational institutions in the State to list classes and educational programs, including technical and training programs, with descriptions to enhance the use of our educational facilities and train people for jobs that exist in the State.

EDUCATION

PURPOSE:

To have an excellent workforce we need to remember that work experience helps define a student's interest and provides invaluable training for a future of "full time" work. All students should be "career" bound (as in the Town of Manchester) rather than only "college" bound. Small business needs to play a part in developing students to work in small businesses or to start their own business, as an option in their careers.

A. Assumption:

Small business lacks the time to provide internships to students - even if the interns are at no cost.

Recommendations:

1. Consider Tax Credits for small business to accept interns to assist with the work experience of students.
2. Research what the exact liability exposure is for small businesses when they have interns. One major concern for not accepting interns is the fear of injury on the job or other liability exposures. Is there a way to mitigate the exposure? Can the State or the School system pick up the exposure? We need to reduce the liability exposure to small businesses.

B. Assumption:

Small businesses need interns that can adapt to the small business environment with the flexibility and training that is needed for day to day operations. (Small businesses need employees that are willing to handle many responsibilities.)

Recommendations:

1. Small business needs to assist in the design of a model for small business and entrepreneurship curriculums that the schools could incorporate. The curriculum needs to provide a broad exposure to business to strengthen internships at small businesses.
2. Provide "Job Shadowing" - allow students to spend time with small business people to see exactly what their job responsibilities are. Since the student basically follows the person around for 1/2 or full day and asks questions, it is a quick way to get a good idea of what the job entails.
3. Have small business people speak for 45 minutes to classrooms either in conjunction with school to career programs or Junior Achievement.
4. Small businesses could participate in professional development for teachers. Possibly host teachers at their site - like an externship - where teachers work in the workplace during the summer for a week or two. Instead of a cost to small business, provide continuing education units (CEU's) to the teachers. They gain business experience to incorporate into their curriculum.
5. Put Junior Achievement into each school in the state and have small businesses become an active participant in the program. It is a great organization and gives students from kindergarten up through high school an exposure to business and the organization already exists - use it to its fullest extent.

C. Assumption:

Small Businesses find it difficult to commit to intern programs and provide students with a meaningful work experience. They tend to leave students alone or have them do tasks that don't provide insight into the "career".

Recommendations:

1. Create a "Training Course for Mentors" to train employers as to exactly what the responsibilities are when they have an intern. They need to make the work experience beneficial to the intern. The employer and the employee should both gain from the internship.
2. The process needs to be very easy and efficient for small businesses to participate in. We need to seek out ways to simplify the process.
3. Require a minimum of a one semester commitment from interns; for technical careers - such as investments, a two semester commitment should be required. (It may take one semester to adequately train the individual on financial instruments/markets).
4. Allow college credit to be given for college-level interns.
5. Allow for minimal student compensation (travel, meals) to be provided by the college or university.

D. Assumption:

The process needs to be efficient for students and small business in order for small business to have an impact on internships and the quality of the workforce.

Recommendations:

1. Use what we already have. Eliminate duplicity. Support the existing CBIA and state programs and Junior Achievement and the progress that the Town of Manchester has already made. We need to consolidate internship programs together in one place so that we are not duplicating efforts of big business and the school system.
2. Use the Department of Labor's job bank for interns and internships along with applicants and job opportunities in the state, towns and businesses. Information is power. Advertise and get the information to the public - that (a) there is a place to go to find possible internships and jobs and (b) there is a place for businesses to go and find interns and applicants. This needs to be a simple process for the information to be posted by the parties involved and provide ready access to search the database for individual needs. Have it available on the internet as a centralized clearinghouse for these items.

The DOL seems to already have the technology to do this and we would only need to add the internship programs. We need to research more about the job bank and incorporating the internship programs and students into it.

RISK FINANCING

PURPOSE:

To determine the goals for the small business task force as it relates to the possible gaps in risk financing for small businesses.

A. Assumption:

There is a tremendous shortage of capital for small businesses, including retail operations, under \$5,000,000. More than one Venture Capitalist used to participate in a \$5,000,000 deal, now it is often taken by one person/organization. The most significant area of need is between \$100,000 and \$1,000,000/\$1,500,000.

Recommendations:

1. Establish a "Connecticut Innovations, Inc. II" for non-technology emerging companies, fully self supporting.
2. Establish a fund for "micro enterprise" startups. Possibly expand the CDA's Entrepreneurial Loan Program.
3. Encourage interest in the small business loans for startup and growth. Small loans from CII are usually used for prototypes, or developing business plans, they have 55,000 left in the fund. Can get pure startup capital at about 100,000 but not what investors are looking for. This area really needs some attention.
4. Mentoring program done in another state - they have three similar entrepreneurs. One gets the first loan and their success is determinate if the others get loans. The other two entrepreneurs work with the first to be successful, in order to secure loans for themselves.

B. Assumption:

There are areas that could be addressed to enhance economic development and growth in the region and encourage capital investment.

Recommendations:

1. Expand the Enterprise Zone abatements for plant and equipment investments. Recommend that the 80% tax abatement for 5 years be extended to 80% for 10 years.
2. Raze old urban facilities and prepare them for development. Prepare properties so they are ready for development and take that burden off new businesses looking to build.
3. Biotechnology facilities are needed and more financing needs to be available. It costs \$200-\$300 per square foot for development. Banks are not interested in the investment without some third party guarantees. CII is setting aside \$30,000,000 as guarantees for lenders to provide development money. We need to increase that guarantee fund for lenders to finance these facilities.
4. Establish a low-cost home mortgage program for first-time buyers in any income bracket. Companies are bringing people into communities due to growth and they can't purchase homes. We need to provide comparable housing opportunities for people to move into this state.
5. The companies and state agencies etc. that provide money to businesses or developments need to have a stake in their success. Sometimes state agencies can be working on a project that does not meet the needs of the city/towns overall plan. Some rehabilitation projects do not meet the needs of the town's overall plan - state agencies should work closely with town governments to be sure that overall success is a factor in the project.

C. Assumption:

Banks have difficulty in lending money for "soft" collateral (intellectual property), where venture capitalists use it as an asset. In addition, banks have difficulty in evaluating the risk since it is not something they do on a regular basis.

Recommendations:

1. Change regulations to allow banks to invest in "soft" collateral.
2. Encourage banks to invest with venture capitalists who have the expertise to evaluate the risk. Have them enter into a relationship to invest in the fund as a limited partner and remove concern for the regulatory requirements.

INTERNET/INFORMATION NOTES - SMALL BUSINESS AND ENTREPRENEURIAL
TASK FORCE

JULY 14, 1997 - MEETING REGARDING THE INTERNET FOR
ECONOMIC DEVELOPMENT AND SMALL BUSINESS NEEDS.

PURPOSE : The purpose of our meeting was to provide input for the Connecticut Economic Resource Center's Internet site, as they develop internet access, specifically for small business and economic development. While they are addressing many areas, our interest and concerns are focused on small business and economic development for Connecticut.

Jeff Blodgett from CERC is having an all day planning meeting on July 16th to review the architectural structure of the Web Site and we will be submitting this information to him for that meeting.

IN ATTENDANCE: Lisa Kolodziej - Director of Business Recruitment, Growth Council; Marge Morrissey - Executive Director, Business for Downtown Hartford; Suzanne Hopgood - President, Hopgood Group; John Anderson - President, Greater Manchester Chamber of Commerce; Sam Hamilton - Executive Director, HEDCO; Maura Cochran - Principal, Bartram & Cochran; Dennis Gruell - Regional Director, Connecticut Small Business Development Center; Bobi Molchan - Vice President, R.C. Knox and Company, Inc.; Bonnie Mallon - Economic Development Agent, Department of Economic & Community Development, New Britain; Gail O'Keefe - Director of Marketing, New Britain Chamber of Commerce.

GENERAL

Our basic assumption is not to recreate the wheel, but to link to sites maintained by others where possible (the key word here is "maintained") where information is current, organized and easy to access.

There is a need to have a consistent umbrella to tie all the sites together. It should provide business people in and out of the state, along with economic development people, access to information that will help the growth of business in CT.

A City of Hartford study is being done by Mount Auburn comparing Hartford to other cities like Tucson AZ, Wilmington DE, etc. Wilmington DE was the closest city to Hartford with industry etc. The study is not complete yet and Bob Santy will provide us with a copy. It is the type of information that should be available on the Internet site for economic development and growth of business in CT.

One thing that other cities and states do on their web pages is to present their successes. If there is a list of successes, it shows that the state is willing to make deals to bring business in. It should provide bond issues, reflect the growth of the area if a positive, list the new businesses that have been attracted to the state, explain how the state participated in bringing money to the table and what other incentives were provided to make the deal work. Provide a list of the things the state would provide to ANYONE interested in relocating here. Where businesses can go for help - DED, CERC, etc.

One city has their economic development department broken down into three areas - Creation of Small Business, Creation of Big Business and Business Retention - three different focuses, three different programs. They started with the Business Retention. What is available for existing businesses in the state - what incentives or packages might be available to them? Are we working with existing businesses to be sure other states are not soliciting them out of CT. Do we know who is responsible for this in the City of Hartford? We need to consolidate this type of information on the internet with contact names and responsibilities so businesses will know where to go to secure information.

We also need to determine what we charge for when it comes to information needed for economic development. The task force feels that this type of information should be available at no charge to provide the perception that we are interested in business coming to this state. The internet could provide this vehicle with information at businesses and developers finger tips.

We have 169 towns in CT and each should have a profile. We need to promote the area in regions also, not just individual towns or counties. The region has a lot to offer and provides a more thorough look at the area. There is a report SMSA, Statistical Metropolitan, that provides this type of information. Provide the information by towns and then by regions. One economic development agency, when asked about two towns indicated "We don't care where you come, just as long as you come". This is the attitude we need to cultivate and our Web site needs to leave that impression too.

We need to create a plan and then promote the plan for the State of CT. Colorado has a 10% corporate tax for businesses. Colorado wanted to attract the insurance industry to their state and reduced the corporate tax to 1% for the insurance industry. We needs focused plans like this that can be marketed and available on the internet to bring in prospective businesses and retain the business we have here.

Another suggestion - outside of the Internet, was that Connecticut should be selling Connecticut to Forbes rating and other "Best Places to Live, Work and Play" rankings. We need to take a proactive approach to why businesses should locate, remain and grow in this state.

EXAMPLES

Expansion Magazine had an article that provided the web sites for all 50 states along with other information that consultants would be interested when investigating potential sites for new business. There is a need for the internet site to provide demographics, census information, locations as rated by the Almanac - population over 100,000, over 200,000, etc., educational information - what percentage of the population is over 25 years old (potential employees) and the 5 factors that are used to measure the educational system for that location.

Tucson has a Web Page and once it was completed they created a brochure that outlines the information on their Web Page. A sample of this brochure is attached for reference. It contains good census data and important information needed when businesses are looking for places to relocate to or to grow existing businesses. This is the type of information that should be easily available to all business people in the state on the Internet, it is complete and provides most if not all of the information economic development consultants or businesses need to gather data about a community.

Some Web pages that are successful from an economic development standpoint are: Colorado Springs, Tucson (futurewest.com), Albuquerque, Little Rock and one other site was mentioned cvbalb.com. Copies of the Little Rock site are attached for reference. The other cities are recommended sites to view.

MAINTENANCE OF THE SITE - VERY IMPORTANT

The one area that was deemed the most important in developing a Web site to assist businesses and economic development is the maintenance of the system. It was discussed throughout our discussion and we offer the following suggestions/ideas on this topic:

We strongly feel that at minimum a full time person should be included in the plan to maintain the Web site so the information remains current and valuable. I know that CERC updates the information in their database each year and the same has to hold true for the internet site, or its value becomes negligible.

Perhaps some type of cooperative education program could be used to help in maintaining the site. It could a commitment for at least two years and the programs are usually longer than internships to provide some continuity. This might provide individuals that could help to make the changes, researched by CERC, to the Web site.

Perhaps there could be an agreement that other Web sites would sign when linking with the CERC Web site, that would explain the importance of current and accurate information and expect them to keep the account current within a reasonable time frame for the services/information they provide. IE: Calendar programs could be monthly or less, others may

be quarterly or semi-annually. Perhaps there could be a way to set up a query that could monitor the site that are linked to CERC to determine when they were last updated to automatically email a reminder to the linked site to update their information. We feel so strongly that the information needs to be updated regularly that linked sites should feel some obligation to that as well. If the query could be built into the design of the Web site from the start, perhaps it would not be a cumbersome program to maintain, yet it would let sites know the expectation for current and accurate information. Perhaps, after a certain amount of time, the link is discontinued if the page has not been updated.

Maintenance is the KEY ISSUE. The project has to provide maintenance so the information remains current and valuable. The Hartford Downtown Council Web site has events that date back to Dec. 1996. This cannot happen. For people to think we are a vibrant area, our web pages need to reflect that.

The most important issue regarding a Web site - VERY, VERY IMPORTANT - is keeping the information updated. If the information is not current and accurate people will not use the Web site and cannot rely on the information provided. When creating a plan for this Web site, maintenance and upkeep to keep the information current is as important as developing the site itself. The maintenance aspect can be enormous and needs to be built into the project. A full time person(s) should be considered because the site is only as valuable as the information it provides.

SEARCH CAPABILITIES - VERY IMPORTANT

There should be a simplification of the keys words that are used to find information. The site needs to be very user friendly and key words are most important so that the sites comes up quickly and with content. People looking for information on CT, would not know to look up CERC.COM to find it. We need to be sure if people are looking for information, they can find it.

Searching for information about the State of Connecticut is not easy on the Internet - one significant issue is the search engines and the key words used to find information. If you type in Connecticut, not a lot of pertinent information comes up. However if you search on demographics and then Connecticut, you can find some demographic information. The Hickory Hills site came up, but only with 4 towns - near the shore and the Connecticut River (Essex, Old Saybrook and two others). The problem is twofold, the information is difficult to find and it is not complete. We need to be sure as we develop an Internet site that the information, while it may be linked to several other web pages, can be found with a search engine that would pull from every linked Web page to be sure complete information was available to the user.

Also, there are too many redundant sites, ie: there is Hickory Hill's site for towns and then there is a municipal series sponsored by either the Federal or State government.

Time is an issue. People don't have time to spend hours looking for information. The information has to be easy for everyone to use and the links need to be straight forward.

The search engines should be able to pull from every linked page, anything that involves that town. If someone puts in Manchester, CT - the Chamber's page should come up, the town page should come up, the demographic information should come up, etc., regardless of who is providing the information - ie: some towns do their own pages, while others have consultants provide them.

Search engines are the next most important issue. People need to be able to find information using logic they understand. It needs to be simple, not cute or entertaining, just simple. People don't have a great deal of time to search for information. If they want financing, they should be able to enter financing and a few other pertinent facts - self employed, working capital and perhaps the amount, to secure a list of the programs available to them from the state, region, town or neighborhood. Not only do the search engines need to be easy to use, but they need to bring up a complete list of the information that is available.

We need to build traffic and visits to the CERC site. Because a key word plus heavy traffic allows the CERC site to be one of the top ten matches.

TYPES OF INFORMATION THAT SHOULD BE ACCESSIBLE

Key information that should be available on the Web site is - JOBS, who are the largest employers in town and region. Currently this information is not available in Hartford or it is available and it is inaccurate. The information on a Web site must be ACCESSIBLE and CORRECT. The largest employers provides information regarding the diversification of the economy. The Web site should also provide demographic information, tax rates, etc. for towns AND regions.

State data from the statistic book that is published by the DECD (?) should be on the Web site. All town profiles should be on the internet. It should not have to be mandatory participation for a certain template or vendor, but the links to every town should be on the site and towns should be made aware of the information that would be useful for economic development so they maintain the information. While it would be helpful if there were a template that everyone was willing to use, this seems difficult to achieve. If, however, the information is standardized and CONSOLIDATED, so that all information can be found with the search engines that relate to any town, statistics, demographics, activity, training, etc., the usefulness of the site is magnified.

The Hartford Courant does a good job providing information for ERCCA (East of the River Chamber of Commerces). We have enclosed a copy of this report because it reflects the type of data that should be available on the Web site for towns, regions and nationally.

Financing information is critical. Financing options need to be provided on the internet. People need to be able to search and find out what is available on a federal, state and local level (from

the town to the neighborhood if available). The information needs to be complete with contact information and phone numbers. The search needs to narrow down the available programs that the business qualifies for to reduce the time it take to find financing. Are there any financial packages available, by region or town?

HEDCO handling a number of revolving loans - this needs to be on the Web site with the contact person and a screening process that would let the business know if they qualify or not.

Tax information should be available on the Web site. These are areas that people are concerned with - especially in Hartford, where people feel they are overtaxed, that properties cannot be sold because of it and contact information should be made available as to who these businesses can talk to about taxes and the structure that is in place.

Compliance issues should be addressed at the Web site. Issues that relate to EPA, OSHA, handicap requirements, permits, regulations, etc. CBIA does a lot in this area, they should be a linked site.

Information for businesses that are starting new in CT should have information relating to licensing and permits, information about business structure ("S" and "C" corporations, LLC's, etc., defining what the basic structure is and the benefits/issues with each). Information regarding business plans should be linked to this site. Perhaps a basic outline of why businesses should have business plans, what the benefits are and a sample of the type of information that is needed to develop a business plan.

Government issues need to be on the Web site. Issues that affect businesses - what's going on with legislative issues that relate to small business, and/or business in general. The information is there on the web, but it is tough to find. It's needs to be easy to access. You can tap into the state now and review the current legislative issues and provide your comments. This should be available as a link to the CERC site, so people can search for business related legislative issues, and provide input. A list of local representatives should also be available, easily available, so people know who to contact on particular legislative issues.

Government Agencies should be listed and linked to. How they can assist people and the services they provide should be highlighted.

Real Estate should be listed so businesses looking to move into the State or expand within the State can browse the internet to determine the types of properties that are available and the cost to purchase/lease. CERC is already in pilot for a phase of the real estate listings from brokers and it seems to be very successful. Properties that are sold by owners, including the State and Towns should also be included to provide the most complete listing of properties available in the State.

There should be an area on the Web site that provides a list of important phone numbers for contacts for businesses. Perhaps a list of most called numbers. An easy directory that people could go to first that might eliminate the need to search beyond that initial screen.

Economic Development Agencies/Contacts for the State, Regions and Towns should be listed in a directory so people know who to contact to discuss economic development plans. Names of agencies, contact names and telephone numbers should be included, along with a list of abatements and incentives that are provided by each.

Perhaps a section "Where Do I Go For Help", could be created that would be a search or query that enable the person to enter information on what they are looking for and the program is designed to pull up programs, agencies or contacts that directly relate to that topic. For example, companies that want to do bonding, where do they need to go, what do they need to do.

Business related educational seminars could be listed with the institutions or agencies (SBA, SCORE, State university system, etc.) who are providing the seminars and a calendar that would reflect current classes that include course announcements and locations. The SBA BIC center has a brochure they already publish that would be perfect to put on line that outlines the courses they provide. They could almost include registration for the classes on line.

There should be information for non-profits. At times they are struggling and may have trouble meeting their capital campaign goals and need working capital or growth capital. Programs available to assist them should also be available at this site.

A list of professional organizations would be helpful at this Web site. Very helpful for people to know the organizations that are within the state, plus it can be a place to go for additional information.

Research and Development information should also be available, particularly for manufacturers. A link to CII (?) would be helpful. What services, programs and institutions can provide assistance with research and development.

Marketing information should also be available for businesses, both start ups and existing businesses. Where can they go to secure information and how do they analyze their competition.

Technology information should also be included, perhaps a list of equipment they might need to get started. Equipment that would save them time, provide efficiencies needed when starting a business, how to use it for marketing and provide access to the internet. Programs or services that would help analyze their needs and provide some direction. (SBA BIC center, SCORE possibly, etc., not vendors or paid consultants).

POTENTIAL LINKS TO OTHER WEB SITES

There should be links to jobs that are available, with salary information, in the state, employees that are looking for work, and what training programs are available for students and adults. The site should list all the schools, colleges, training programs and seminars that are available for

people to increase their skills. It should also indicate where there are jobs so people can target the training to where the jobs are in the State.

There is a site called the US Job Bank, where available jobs are posted and salary ranges can be obtained. This site gets 2,000,000 hits a month. This is the type of site we should link to so if this information is needed it is easy to access. I believe the Department of Labor also has a job bank on the Internet and we need to secure information about the site and it should also be linked to the CERC Internet site.

This site should have links to the Events Calendar maintained by Marge Morrissey at Business for Downtown Hartford. It is maintained and why reinvent the wheel. We need to have information from surrounding towns for entertainment and activities that they might be sponsoring. There should be links to Chamber of Commerces and other towns that have Web sites. CERC should not be expected to maintain the information for these sites, but it's site should be linked so that ALL INFORMATION CAN BE OBTAINED FROM ONE SITE.

Since tourism is one of our largest industries, we should be able to link all calendars to one area of the Web site and be able to search on dates, types of entertainment, towns or the entire state to bring up from different web sites for people to use for reference. For example - if someone is planning a vacation here because of family or friends, if they could call up Connecticut on the internet - go to the calendar section and search on interests - theater, gambling, aquariums, etc. and reflect activities that are on each different calendar - Business for downtown Hartford, the Casinos, Towns or Businesses that choose to put their calendar of events on the internet. If it can be provided by linking sites, so the sites are maintained by people who have a true interest in keeping the information current - we win on all counts. The information is available in one place and it is kept current because it benefits the specific entity involved.

There is an individual who supports Home businesses, he has a web page and a TV program that focuses on home businesses. These are the type of sights that could be linked to CERC's database that provide small business with access to information with ease - one location - that CERC is not responsible to update.

The Library Resource Centers should be linked to this site, so people have access to their public libraries for additional research capability and assistance.

There should be a link to all the educational institutions in the State to list classes and educational programs, including technical and training programs, with descriptions to enhance the use of our educational facilities and train people for jobs that exist in the State.

While there may be many links - there needs to be an consistent umbrella that takes in all the links for easy access and one stop shopping for information.

For additional information or clarification please contact: Bobi Molchan, R.C. Knox and Company, Inc. Phone: 524-7619, Fax: 240-1592.

EDUCATION NOTES - SMALL BUSINESS AND ENTREPRENEURIAL TASK FORCE

- ** It is difficult for small business to commit to intern programs and provide students with a meaningful work experience. They tend to leave the students alone or have them do tasks that don't provide insight into the "career".
- ** Perhaps small business could help design a model for small business and entrepreneurship curriculum for schools to use.
- ** Consider some kind of clearinghouse for interns and businesses, centrally located with access by all.
- ** Need to provide a broad exposure to business to be able to intern at a small business. place students in that program.
- ** Training Course for Mentors
- ** Develop a Model for Students and Business
- ** Train Employers as to their responsibility when they have interns.
- ** Check into the liability small businesses have for interns and see if there is a way to mitigate the exposure. Can the state pick up? the school system, etc. Need to reduce exposure for small businesses. What exactly is the exposure for small business, and define how to mitigate and make it part of the program.
- ** What in school curriculum needs to be addressed for students to adapt to small business?
- ** Schools have been successful in sending kids to college, not so much in preparing them for work. Need to educate the public.
- ** Need adult programs and adult education opportunities to let adults know where the jobs are and what training is needed. (The school to career books may very well be helpful to them.)
- ** All kids are "career bound" in Manchester. Should be that way around the state.
- ** Life experiences make the single most important decisions regarding a career.
- ** Job shadowing - you could tie it to credits, maybe part of workstudy program.

- ** Perhaps small businesses could talk for 45 minutes to a class to describe what they do and the opportunities that exist.
- ** Perhaps small businesses could participate in professional development for teachers, possibly host teachers at their work site.
- ** Do externships, where teachers go and work in the workplace. They probably require less training. They could do for CEU.
- ** They receive limited help from small business, time is a critical issue. Tax incentives??
- ** Claudia would like to see small businesses come in for one presentation. JA is in 45 towns, she is in the north central district. There are also JA's in Bridgeport, Stamford and New Haven.
- ** JA is not in every school now, they need to be. There volunteers are coming from big business, not from small business - needs to change. They do need representatives from small business.
- ** They are looking at a new component that would incorporate internships. Could tie in with the other schools internship programs - job bank from the DOL.
- ** Contact both ways - interns and businesses who want interns.
- ** Do up a small business menu of what small businesses could do.
- ** Need guidelines - need to make it easy for small business. What are expectations? How do we centralize job sharing/shadowing.
- ** One Stop - have the technology be both the intern bank and job bank for the state, towns and businesses. We need to understand how this program works.
- ** Need to consolidate internship programs together on one place so that we are not duplicating efforts of big business and the school system. Have one place to go where students can have a better idea of the internship programs available. Try to coordinate with everyone so we have a stronger system.

Meeting Notes for Small Business Task Force - Millenium Project 7/23/97

In attendance: Carlos Figueroa - Workforce Development Board; Tom Terrall - Growth Council; Claudia Barret - Junior Achievement; Mindy Vasquez - Workforce Development Board (School To Career, business side); Richard Gagliardi - Manchester School System; Ann Raymond - CREC (School to Career, workforce side); Ann Parkhurst - Consultant, Pathways; Lauren Kaufman - CBIA; Bob Santy - Growth Council; Lisa Kolodziej - Growth Council; Marge Morrissey - Business for Downtown Hartford; Gail O'Keefe - Director of Economic Development, City of New Britain; Bobi Molchan - R.C. Knox and Company, Inc.

PURPOSE: To determine the goals for the small business task force as it relates to education of the workforce to partner education and small business to create an outstanding workforce in the State.

Lauren Kaufman, CBIA:

School to Career - Large issue for workforce development prior to task force involvement
Welfare reform Press conference today, 7/23/97

Workforce Development - Where the State of Connecticut is:

There was a federal initiative to provide a better high school experience and a better education to students. Basically "do it right the first time". Reduce the need for remedial training after high school. Let students know what careers are available in the State and what education they need. The counselors in schools need to have a better understanding of the job opportunities in the State to better direct students (beyond just going to college).

State Department of Education/AFL-CIO/CBIA are working together to design a model for the State to present to the Federal Government. We did receive a grant, \$20,000,000 over a 5 year period, for an implementation grant. School districts will soon be implementing school to work if they haven't already. Manchester has been doing this for the past few years, ahead of the federal model project.

CBIA wrote up booklets to provide students with an idea of what courses and skills they need to get the jobs they might be interested in. They officially enroll students in the school to career program. At this point they start with students in 10th grade, and 11th and 12th graders combine school based experience with work based experience. CBIA is working on a certificate that would follow the student as a portfolio. The teachers and the employers would be expected to complete the forms to provide two perspectives that would give the student something to take to job interviews to demonstrate experience and skills.

They will be enrolling 4,000 students in this region alone for school to career. They will pilot the program over the next 3 years statewide with 10-12th graders so in three years the certificates will be completed for the first group of students to help measure the progress of the program.

The State Department in conjunction with higher education institutions are developing a higher education model. Technical schools have done more with this than other schools. Pratt and Whitney supports Tech preparation more than others. The program hasn't connected with 4 year colleges yet.

They would like to have the certificate recognized throughout New England to make them a requirement for school admission. Make it a consistent standard for all students.

ITT is involved in a "Technologies Academy" (one of the career academies). Pratt and Whitney has a technical preparation program and CBIA found that Hartford children weren't performing at the grade level of others and they wanted to be sure that Hartford children were as competitive as other students and thus the development of their programs.

Stanford Baine (?) test was administered to 9th graders - and alot of the children had 6th grade level skills. They did the test in May of 1997 and the students at minimum moved up 2 grade levels or moved up to their appropriate school level.

They have remedial software to help students reach their grade level, so they do not have a competitive disadvantage. They are working on a coordinated curriculum with teachers, so teachers can work together to present school subjects, track students progress (if student has trouble in one class with a subject - the next teacher can assist so the student doesn't feel lost. Students need to sign in each class and it provides a lot more accountability - stops the "no one cares attitude and doesn't let students drop through the cracks".

** It is difficult for small business to commit to intern programs and provide students with a meaningful work experience. The tend to leave the students alone or have them do tasks that don't provide insight into the "career".

"Academy of Finance is at Weaver High School, sponsored by the Travelers.

They are looking to work through Chamber of Commerces/or CBIA to provides contacts of where you can go to get interns. Hartford is putting all of the cluster businesses into the high schools.

There's a donut shop in Mystic, his employees have to show him their report card, if grades fall below a C, they are put on probation with him, if the grades go up, that is what raises are based on.

** Perhaps small business could help design a model for small business and entrepreneurship curriculum for schools to use.

** Consider some kind of clearinghouse for interns and businesses, centrally located with access by all.

CBIA feels they would do well to provide a database as to who the contact person is at the schools and make sure they will not drop the ball. Also working on a volunteer position that would coordinate corporate involvement. They expect to have an internship coordinator in each region.

** Need to provide a broad exposure to business to be able to intern at a small business.

Small business needs to get more involved and more committed to education and training students in business experience. Need to find ways to get small business more involved. make it work for them too. CBIA needs a perspective from small business, preparing students for and accepting them as interns in small business.

Richard Gagliardi, Town of Manchester School System

They can't do without the business partnership. They are comprised of small and medium sized businesses. Last few years they are working on involvement of these businesses. Need a paradigm shift. Internships need to be called Mentored Workplace experience. They have always places students in jobs, they are making a more concerted effort with small businesses. Schools and businesses need to work together to build the workforce. Need to educate both students and businesses. Communities overall benefit with a trained workforce.

They have a "Biz" or "Bus" Camp for kids, working to teach them the basic skills - a short course for defining an internship. They are getting businesses involved in that. Possibly define requirements of employer/employee relationship and offer opportunity to place students in that program.

** Training Course for Mentors

** Develop a Model for Students and Business

** Train Employers as to their responsibility when they have interns.

** Check into the liability small businesses have for interns and see if there is a way to mitigate the exposure. Can the state pick up? the school system, etc. Need to reduce exposure for small businesses. What exactly is the exposure for small business, and define how to mitigate and make it part of the program.

NAFTE (?) - National Entrepreneurial..... from New York City, sponsored this year by Aetna. It's a two week course and the interns are matched with business based on interest. Had interns for companies at no charge - but small businesses did not want to take on the exposure. Have interns that did not get jobs.

Some suburban communities want to get involved. Perhaps we (as a state) need to go out into the suburbs and organize the smaller communities. Somers might want to develop a relationship with surrounding towns to get program off the ground. Need an interdistrict collaboration for smaller towns.

** What in school curriculum needs to be addressed for students to adapt to small business?

Teachers spent 3 days at business sites to get experience, to show them what has changed in the workforce. They then adopted the curriculum to teach the students the tools they needed to succeed in business.

** Schools have been successful in sending kids to college, not so much in preparing them for work. Need to educate the public.

Alot of people with 4 year degrees are going back to school to learn specific skills to improve their job skills (specialized training).

** Need adult programs and adult education opportunities to let adults know where the jobs are and what training is needed. (The school to career books may very well be helpful to them.)

** All kids are "career bound" in Manchester. Should be that way around the state.

Technical schools need to update their equipment to give students a better idea of skills needed and current machinery that is used in business. (Prince Tech could use updated equipment. Capital Community Tech has CNC machines and so does Cheney.) Training has to come up to speed.

** Life experiences make the single most important decisions regarding a career.

Need to have 8th graders thinking about careers so they can go out and intern and learn what they are good at and what they want to do.

Farmington has more concentrated manufacturing than the rest of the state. FIP (Farmington Industrial Park). No manufacturers were at the job fair. Many degreed individuals, doctors, etc., but no manufacturers. This needs to change. Give the kids the exposure of what is out there and the availability of jobs.

Ann Parkhurst - Pathways

Job shadowing - Hosting a student for 3 hours to a full day to ask questions and observe what a day is like. The school instructs the student to be on time and to come prepared with questions to ask. Students are sometimes given hands on experience too. Still small business can't get away from the time commitment - you need to give the day and some time to prepare to make the experience worthwhile for the student. Employers could consider it an exposure as a way to screen employees. Some students went in for 1/2 day informational interviews. Teaches them interviewing skills.

** Job shadowing - you could tie it to credits, maybe part of workstudy program.

**Perhaps small businesses could talk for 45 minutes to a class to describe what they do and the opportunities that exist.

**Perhaps small businesses could participate in professional development for teachers, possibly host teachers at their work site.

**Do externships, where teachers go and work in the workplace. They probably require less training. They could do for CEU.

NEED TO BE ABLE TO MAKE A DIFFERENCE. 1 out of 100 doesn't do it, 35 out of 100 might. (one teacher out of a 100 may not be able to make the difference.

Opportunities need to be funded. \$30,000 grants for doing this. Needs to be fundamental requirement. Need to educate kids, motivate kids for school to career. Economic Self Sufficiency - what you spend for college should increase the earnings of your child.

Claudia Barret, Junior Achievement

They are the flip side. Business people visit the classroom and they have a structured curriculum from kindergarten to 12th grade. They try to partner a person to a class room to use the curriculum from JA, but they are able to tailor it to their specific talents.

**They receive limited help from small business, time is a critical issue. Tax incentives??

Business and Economics are themes. Having own business. They also provide high school programs. Their curriculum provides information on Our Nation, What's necessary to start a business, sales presentations, by the fifth grade, kids know what's necessary.

**Claudia would like to see small businesses come in for one presentation. JA is in 45 towns, she is in the north central district. There are also JA's in Bridgeport, Stamford and New Haven.

**JA is not in every school now, they need to be. There volunteers are coming from big business, not from small business - needs to change. They do need representatives from small business.

**They are looking at a new component that would incorporate internships. Could tie in with the other schools internship programs - job bank from the DOL.

**Contact both ways - interns and businesses who want interns.

Need ties from economic development people involved. Need people to match small businesses to JA and other school to work programs. JA needs a commitment for 5 hours - 1 hour each. less time that we spent at this one meeting.

**Do up a small business menu of what small businesses could do.

**Need guidelines - need to make it easy for small business. What are expectations? How do we centralize job sharing/shadowing.

**One Stop - have the technology be both the intern bank and job bank for the state, towns and businesses. We need to understand how this program works.

Teachers need to know what the education base is. Curriculum development, to increase the relevance of what's going on in the classroom. They need real workplace problems to work on. Get the students involved. Tie Teacher externships to CEU so they don't need to be paid.

NEXT MEETING - Wednesday, August 20, 1997 at the Growth Council 8:00-10:00AM. Sept. Meeting has been changed to September 3, 1997 at 5:00PM to review final rec's and give to Bob Santy.

RISK FINANCING NOTES - SMALL BUSINESS AND ENTREPRENEURIAL TASK FORCE

Meeting Notes for Small Business Task Force - Millenium Project 8/20/97

In attendance: Russ Tweeddale, Managing Director - Investments and Pam Hartley, Director - Connecticut Technology Partnership from CII (Connecticut Innovations Incorporated); Gwen Iloani, President and CEO - Smith Whiley & Company; Bob Santy - Growth Council; Lisa Kolodziej - Growth Council; Marge Morrissey - Business for Downtown Hartford; Joe Harpie - First City Bank; Bobi Molchan - R.C. Knox and Company, Inc.

PURPOSE: To determine the goals for the small business task force as it relates to the possible gaps in risk financing for small businesses.

RUSS TWEEDDALE AND PAM HARTLEY, CII (Connecticut Innovations Incorporated)

Some Venture Financing Resources:

1. Venture Capital - typically in the millions, usually established companies with excellent growth potential.
2. Connecticut Innovations, Inc. (CII) - \$50,000 to \$1,000,000 per round (have invested multiple rounds with the same company). Cost of capital, 25-40% compounded in 3-5 years. Look for high-tech businesses that have been established for at least one year with a prototype, well rounded management team, straight equity, debt convertible to equity, royalty structures, they don't take a major role in the company operations.
They handle a limited number of high potential startups.
3. Access Connecticut, L.P. - part of a partnership that has national funds. 4,000,000 seeded by CII in 1996, affiliated with Prince Ventures in Westport. Invest in technology that is transferred from universities. They scour the halls for commercialized technology and put a management team together. Put small amounts of money in to keep professor going and get an entrepreneur to run the business. Look at medical/life technology, environmental technology and information technology.
4. Entrepreneurial Loan Program (at CDA) - Coursework necessary from University of Hartford for entrepreneurial program. Any company, any area. 11 deals so far for \$470,000. Start up loans of up to 50,000 may be obtained through People's Bank. These loans are guaranteed by CDA.

5. Federal SBIR and ATP - Multi-million dollar federal program for small business. Under SBIR, a small high-tech business can secure up to \$850,000 in grant monies for research and development. It is a grant program set up to fulfill the government agencies research missions. Under the ATP Program, sponsored by the U.S. Department of Commerce, small and large businesses may secure multi-million dollar grants for high-risk research with strong commercial potential.

6. Technology Capital Network (TCN) - Run by the MIT Enterprise Forum. TCN has a database of individual ("angel") investors and venture capital resources. This is a matchmaking service linking investors with companies seeking funding. Investors are seeking high-growth seed companies. Investments generally range from \$50,000 to \$1,000,000. The likelihood of securing funding is about 10%.

The SBA (?) has a program for dislocated workers - grant for up to \$50,000 for training on how to run your own business. CII won't go behind the SBA in a financing deal, too difficult to work negotiate your way out if a problem.

Potential Gaps in risk financing:

1. Biotechnology facilities are needed and more financing needs to be available. It costs \$200-\$300 per square foot for development. Institutional investors are not interested without a guarantee. CII is setting aside \$30,000,000 as guarantees for lenders to provide development money.

**We need to increase that guarantee funds for facilities.

2. Raze old urban facilities/prepare for development. Prepare properties so they are ready for development, take that burden off new businesses looking to build. We need to have towns cooperating to share benefits of development, Hartford and East Hartford, Hartford and West Hartford, etc., based on income levels of the community (?).

3. Expand Enterprise Zone tax abatements for plant and equipment investments. Recommended that the 80% tax abatement for 5 years be extended to 80% for 10 years.

4. Establish a CII-type fund for non-technology emerging companies. Fully self supporting. (standard venture capital funds, take 1-2% of fund to manage the fund. CII has to make money in the current year the moment they make the loan. Totally self supporting.)

5. Establish a fund for "micro-enterprise" start-ups (expand CDA's Entrepreneurial Loan Program).

6. Establish a low-cost home mortgage program for first-time buyers in any income bracket. Companies are bringing people into communities due to growth and they can't even purchase homes. We need to provide financially attractive housing opportunities for people who want to move into this state.

Tourism, Arts & Entertainment Task Force

Claudia Bell
Guakia, Inc.

John Boyer
Mark Twain House

Anthony S. Keller
Charter Oak Cultural Center

Betty Friedman
Farmington Valley Arts Center

Meg Malmborg
Town of Marlborough

Kerry Arnold
Hartford Ballet Company

Sia Bauer
Hartford Ballet Company

Shirley A. Furry
Hartford Symphony Orchestra

Wilson Faude
Old State House

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Barbara Ally
Little Theatre of Manchester

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Real Art Ways

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Greater Hartford Convention & Visitors
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Eileen Sweeney
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Cathy Perkins
Central Connecticut Tourism District

Stephen Albert
Hartford Stage Company

Sally Whipple
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Final Recommendations
Arts, Culture and Tourism Task Force

1. A new collaboration of community leaders should be established to develop the priorities of:
 - increasing spending and participation on arts, culture, sports and tourism activities amongst residents and students within the region
 - increasing weekend overnight stays
 - creating a more hospitable climate to visitors
 - improving coordination of activities that focus on arts, culture and tourism
 - enhancing the product through investments in projects that will create more "destination" potential within the region
2. The evaluation of capital projects should lend weight to those projects which further the development of a vibrant metro region with a downtown that serves as its arts, cultural, sports and entertainment center.
3. In order for this strategic direction to be fully realized, the arts, culture, sports, entertainment and tourism sector needs to be represented on the Leadership groups established to implement the Millennium project.

APPENDIX A - Culture 2000 Executive Summary

Image and Marketing

Assumption: While business recovery remains a primary goal, arts and entertainment can play a critical role in taking our 21st century image beyond some current negative perceptions—i.e., hard economic times, school problems, little to do, unsafe and parking problems.

Strategies:

1. Combine concepts of: a) Connecticut's Capital City, b) historic region and c) international cultures and d) lots of activities year-round—into a unique image.
2. Create a marketing service that creates 50,000 new ticket buyers over 5 years by: a) emphasizing the promotion of major activities; b) creating new programs that focus on low-cost family activities; c) providing technical assistance for medium and small organizations; d) establishing a live information-line and box office, and e) encouraging companies to help employees attend cultural events for the first time and subsidize their continued attendance.

Design and Facilities

Assumption: A better design and use of arts & entertainment facilities can help revitalize downtown Hartford, as well as the neighborhoods and towns of the Capital Region.

Strategies:

1. Use existing and new facilities to revitalize and promote neighborhoods and towns.
2. Create a shared service network to link similar facilities together across the region (museums, theaters, historic sites, etc.).
3. Improve downtown Hartford by a) providing better signage, parking and navigation information; b) improving public transportation for visitors to arts facilities; c) attract 3,500 residents downtown over next 5 years; d) creating a core attraction street that brings people downtown year-round.

Arts Education

Assumption: Although most arts organizations offer "art enrichment" or "arts for learning" programs, many students in the Capital Region receive little exposure to the arts.

Strategy:

1. Set up local agency to a) act as clearinghouse for tracking programs and exchanging information; b) establish a working group of teachers and administrators; c) emphasize programs that promote learning enhancement; and d) recognize outstanding programs.

Funding the Arts

Assumption: Over the next 5 years, ongoing corporate restructuring, declining national arts support, and the lack of a strong advocacy effort will result in decreased funding, while current operational deficits will grow from \$2.5 to \$4 million.

Strategies:

1. Use financial technical assistance to attempt to decrease projected deficits by 30%.
2. Over next 5 years, increase giving from individuals and companies through annual United Arts Campaign by \$2 million, and support from the towns, city and state by \$2 million.

Important Note to Summary Recommendations: Without greater collaboration between arts, history, sports and tourism activities, and the creation of a "leadership group" determined to keep regional agendas moving forward, no lasting progress will be possible.

Workforce Development Task Force

John Allison
Capital Region Education Council

Frank Chiamonte
Capital Region Workforce Development Board

Elsie Kelly
The Options Group

Lauren Kaufman
CBIA

Judy Resnick
Community & Technical College System

Val Lewis
Department of Higher Education

Bob Rath
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Adrianna Falcon-Trafford
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Donna Taglianetti
Community Renewal Team

Judy Gardner
SAND/NHI

Jim Boucher
Hartford Areas Rally Together

Jon Swift
Capital Region Workforce Development Board

WORKFORCE DEVELOPMENT TASK FORCE: EDUCATION AND TRAINING SYSTEM INTEGRATION

CHALLENGES

- *Creating a more integrated and employer-responsive E&T system.*
- *Developing a better alignment between youth and adult-centered programs.*
- *Improving the quality of workforce training programs throughout the system.*
- *Helping the schools implement school-to-career through more workplace-oriented curriculum.*
- *Involving substantial numbers of employers in school-to-career programs in the region.*

GIVENS

- *True systems change is a long-term effort.*
- *An integrated system will have employer-driven needs as the starting point.*
- *A "new system" will be innovative as well as comprehensive.*
- *While there are a number of existing E&T programs in the region (school-to-career, CRWDB programs, Jobs First, Hartford High School Technologies Academy, Weaver High School Academy of Finance, Tech Prep, BISON), there is no integrated or coordinated approach.*

SUMMER WORKPLAN

- *"Mapping" and assessment of current E&T system.*
- *Identification of successful employer training programs.*
- *Examples of other relevant state and regional E&T systems.*
- *Impact of current federal and state funding and E&T programs.*
- *Integration of employer, cluster, and demographic information.*

KEY PARTICIPANTS

- *Capitol Region Workforce Development Board*
- *Business & Industry Services Network, Community Colleges*
- *Southend Community Services*
- *Advest*
- *Pratt & Whitney*
- *Connecticut Department of Labor*
- *CBLA*

OUTCOMES

- *Brief overview of existing E&T system.*
- *Strengths, weaknesses, gaps, and opportunities.*
- *Examples of successful employer-related training programs in the region.*
- *Relevant state and regional models that could be adapted for Capitol Region.*
- *Recommendations for true systems integration.*

WORKFORCE DEVELOPMENT TASK FORCE WELFARE - TO- WORK

Challenges

- ▶ Help welfare recipients become part of skilled labor pool
- ▶ Develop training programs and good jobs for hard-to-employ
- ▶ Overcome some of the barriers in current welfare reform system

Givens

- ▶ The full impact of welfare reform is yet to be felt in the City and the region
- ▶ Residents with less than a 6th education present the biggest challenge
- ▶ There are a number of welfare-to-work initiatives occurring in the region
- ▶ Successful models for welfare-to-work can be adapted for the region
- ▶ A better understanding of the current system is needed before improving it

Summer Workplan

- ▶ Interviews with area employers already involved in welfare-to-work
- ▶ Identify major employers in the region who would commit to participating
- ▶ Identify the strengths, weaknesses and gaps in existing provider system
- ▶ Assess implications of the transition of welfare-to-work from DSS to DOL
- ▶ Identify and select state models that can be adapted for the City and region

Key Participants

HART
Capital Region Workforce development Board
CBIA
SAND Corporation
DSS senior staff

Outcomes

- ▶ Better understanding of state and regional forces impacting welfare-to-work
- ▶ Description and assessment of current provider system
- ▶ Set of operating principles for improved system operation
- ▶ Best practices of state model programs from around the country
- ▶ Recommendations for system improvements, particularly for residents at the bottom of the skills and education ladder

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Welfare To Work Final Report

A System Targeting Recipients With Less Than A 6th Grade Education

September 12, 1997

1.0 INTRODUCTION

The Capitol Region's current welfare to work system is relatively effective in terms of placing welfare recipients with higher levels of education (high school diplomas and more) into jobs. There has been a reduction in welfare caseloads overall and an increase in the number of recipients with earnings in the region. *The system is not as effective, however, in moving residents with lower levels of education out of the welfare system.* Communities across the country are struggling to deal effectively with this problem -- and very few have found effective solutions.

Attention to this issue is all the more critical as the federal government is set to appropriate \$3 billion in funds to target the "hardest-to-serve" welfare population across the country. The Capitol Region stands to gain a substantial portion of the state's \$11.7 million in funds targeted for this program.

This study was undertaken by Mt. Auburn Associates to provide a common framework for discussion among those involved in welfare to work efforts in the region. It emanated from the work of the MetroHartford Millennium Project's Workforce Development Task Force and the Welfare to Work Subcommittee. This latter committee identified welfare recipients with less than a 6th grade level of educational attainment as a critical population in need of a focused and targeted welfare to work intervention in the region. Mt. Auburn Associates' work examines the major programs or institutions in the region that deal with welfare recipients in a "welfare to work" capacity. It is not confined to publicly funded programs such as the Department of Social Service's welfare services or Capitol Region Workforce Development Board's Job Training Partnership Act (JTPA) programs, but also includes industry training, private educational institutions, non-JTPA funded non-profit training providers, and other relevant welfare to work programs.

It was concluded that an *integrated and mixed system* of employment, training, education, support services, and industry involvement is the best strategy for successful welfare to work efforts with this target population. This system combines integration of assessment methods, support services, employer needs, and job retention efforts with a mixed strategy that links vocational education with industry specific skills training and on-the-job experience. The mixed, integrated model moves with the client along a pathway to employment, first, by addressing individualized needs, then building self-esteem and motivation, teaching education basics in the context of a marketable skill, linking the individual to a job, and, finally, retaining the job and improving skills to move within an industry to more family supporting wages.

In many aspects, the Hartford region is well positioned to develop such a system. The region already possesses many of the leaders, organizations, and key ingredients able to build a mixed, integrated model. The following report is a flexible document, meant to serve as a common framework from which the region can proceed.

2.0 METHODOLOGY

Mt. Auburn Associates used its experience in the field of economic development and, in particular, current knowledge of and research on welfare reform, workforce development systems, industry trends, labor force profiling, and program evaluation as a context for its work with this plan. Current welfare to work models and studies were catalogued and analyzed in order to learn from best practices across the country and to keep up with the rapid changes occurring in the system.

Part of Mt. Auburn's research included interviews, meetings, and focus groups with many of the principal players in the Hartford region's welfare reform and welfare to work system. These conversations included relevant state and regional officials, employers and industry leaders, education and training providers, community-based organizations, and welfare recipients. Below is a list of some of these meetings and interviews:

- **Public and quasi/public organizations.** Department of Social Services, Capitol Region Workforce Development Board.
- **Industry.** J.C. Penney, St. Francis Hospital, Hartford Hospital, Sheraton Hartford, Marriott, Connecticut Business and Industry Association, Mt. Auburn Associates Hartford Region Business Survey (over 200 establishments surveyed).
- **Community-based organizations and providers.** Hartford Areas Rally Together, CT Puerto Rican Forum, Data Institute, Community Renewal Team, Capitol Region Education Center, South Arsenal Neighborhood Development, Co-Opportunity/Youth Build, Hartford Area Training Center, Urban League/Church Academy, Center for Professional Advancement, Hartford College for Women/Counseling Center, Trust House, HOME/House of Bread, Greater Hartford Insurance and Banking Partnership.

One notable exception to our research is CBIA's welfare to work pilot projects and written report. The Executive Summary is the only available portion of the study to date. The complete report will have important implications for future efforts in regard to welfare to work in the region. The findings should be incorporated into future meetings and plans that grow out of the work in this document.

3.0 WELFARE REFORM IN CONNECTICUT

3.1 OVERVIEW OF WELFARE POLICY

In December of 1995, Connecticut received approval from the federal government to operate its state welfare program under waivers of the laws and regulations governing the Aid to Families with Dependent Children (AFDC) program. Connecticut's waiver program, called Jobs First, transformed the system from a human resource approach with a strong emphasis on education and training to a labor attachment model that emphasizes moving into employment and off welfare as quickly as possible. In August of 1996, Congress enacted the Personal Responsibility and Work Opportunity Reconciliation Act (PRA) eliminating the federal AFDC program, and providing states with funds through the Temporary Assistance to Needy Families (TANF) block grant. TANF gave the states broad latitude in designing its welfare programs and allocating funds, including the option of continuing components of the existing waiver program that were inconsistent with the PRA. At the present time, Connecticut's TANF program is essentially the same as the Jobs First waiver program.

Highlights of current welfare reform in Connecticut include:

- Temporary Family Assistance (TFA) replaces Aid to Families with Dependent Children (AFDC) in Connecticut.
- Connecticut has one of the strictest time limits on cash benefits in the country, employable recipients are limited to 21 months.
- Families can keep all earnings up to the federal poverty level with no reduction in benefits.
- Connecticut's plan includes \$321/month per child for child care costs (child care assistance continues after leaving welfare for work as long as household income is below 75 percent of state median income).
- Medicaid continues for up to two years after leaving welfare to work and families can receive up to \$3,000 in savings or other assets, and may own a car.
- The program includes a work requirement. Recipients must participate in at least 20 hours of work activity with a focus on unsubsidized work, internships, or on-the-job training.
- The PRA definition of "acceptable" work activities does not include job skills training, education directly related to employment, and GED preparation. In addition, there are limits on the number of individuals allowed to participate in vocational education.
- Connecticut is still determining how the PRA restrictions on education and training impact current policy.
- The Department of Social Services (DSS) and Department of Labor (DOL) are discussing the transfer of DSS employment services to DOL beginning July 1998.

- State law requires extensions granted to families that follow the rules and are earning less than the welfare grant. In addition, DSS is required to provide safety net services to persons who do not qualify for extensions.

3.2 CURRENT TRENDS IN CONNECTICUT

Measuring reform efforts over a period of time is the only reliable way to assess the long-term effects of welfare reform. As of April 1, 1997, there were more than 21,000 TFA cases in the Hartford Labor Market Area and more than 18,000 in the Capitol Region.¹ A few basic measures can be used, however, to assess current trends in the system. These measures act as a benchmark from which to begin an assessment.

➤ *By looking at these measures it is clear that there are disproportionate effects in the Hartford region in terms of concentrations and numbers of welfare cases.*

- There is a higher concentration of TFA cases in the Hartford region than the state overall. There are 19.6 TFA cases for every 1,000 residents in the Hartford region. The state ratio is less at 17.3 cases per 1,000 residents.²
- The total number of cases in the City of Hartford in March of 1997 represents approximately 40 percent of the caseload in the region. And, in 1995, the City of Hartford had the highest ratio of TFA recipients per 1,000 residents in the region. There were 86.5 TFA cases per 1,000 residents in the city.
- The only other cities/towns that had ratios above the region's average were New Britain (40.2 cases/1000), Windham (36.3 cases/1000), and East Hartford (25.5 cases/1000).

5 Towns with Largest Ratios		5 Towns with Smallest Ratios	
Town	Cases/1,000	Town	Cases/1,000
Hartford	86.5	Avon	0.9
New Britain	40.2	Stamford	1.1
West Hartford	36.3	New Hartford	1.5
East Hartford	25.5	Hartford	1.5
East Windsor	14.3	Granby	1.7

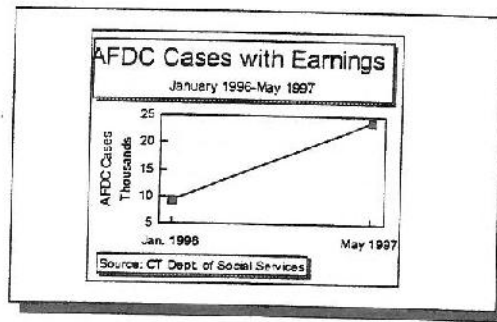
Source: CT Department of Labor and CT Department of Social Services

¹ See attachment for definitions of the Capitol Region and the Hartford Labor Market Area.
² These figures are derived from Department of Labor population estimates and Department of Social Services welfare statistics for 1995. The last town-by-town population estimates are for 1995 and, therefore, ratios cannot be determined using 1997 welfare data. See attached spreadsheet for town-by-town data.

- In the region, New Britain, Bristol, West Hartford, East Hartford, Enfield, and Middletown, all experienced increases in aggregate cases. East Hartford experienced the largest increase in its caseload with an additional 323 cases between 1993 and 1997, followed by New Britain (194 new cases at a 7.6 percent rate of increase), and Bristol (140 new cases at an 18.7 percent rate of increase).³

➤ *Despite these negative trends, some measures point to a reversal of negative consequences in Connecticut, the Hartford region, and the City of Hartford.*

- There is an increase in the number of people receiving TFA with earnings from work. From January 1996 to May 1997, the number of TFA recipients with additional job earnings has increased by 14,539 people to a total of 23,784 statewide. Of these, 52.2 percent work more than 20 hours per week and 18.5 percent work more than 35 hours per week.



- The caseload in the region has stabilized as the number of TFA cases in the Hartford region virtually remained the same from 1993 to 1997. Since 1993, the number of TFA cases rose slightly by 11 to a total of 21,140 cases in 1997, an increase of .1 percent.
- The City of Hartford's TFA caseload dropped between 1993 and 1997, opposite all other major cities in the region. Between these years, Hartford's caseload decreased by 1,364 cases, or at a rate of 11.8 percent.

³ Connecticut Department of Labor and Department of Social Services.

4.0 FINDINGS FROM INTERVIEWS, MEETINGS, FOCUS GROUP AND CURRENT RESEARCH AND STUDIES

4.1 THERE ARE SOME GENERAL CHARACTERISTICS THAT DEFINE THE WELFARE POPULATION AS A WHOLE AND THREE TIERS THAT FURTHER DEFINE THE TARGET POPULATION

- *A recent study by The Welfare Research Group defined Connecticut's welfare population as:* with an average age of 31.5 years, ranging from 20 to 50; with an average educational level of 11.4 years; 35 percent with less than a high school diploma; with an average 2.5 children per family; and categorized racially as 34 percent white, 39 percent Puerto Rican, and 24 percent African-American.
- *Of the 18,000 cases in the Capitol Region, the TFA population has been classified by providers and advocates into three tiers.* Many providers, advocates, and community organizations anecdotally classify the general welfare population into three tiers. Tier I (approximately 10 percent of the population) includes those ready to work with a minimum amount of training; Tier II (approximately 70 percent) are those in need of intensive training including ESL, GED, ABE, and other skills training; and Tier III (approximately 20 percent) are those unemployable with substance abuse or chronic health/disability issues.⁴
- *Although individuals in each tier can be classified uniformly by their generic needs for training, further generalizations become difficult.* Within each tier there is a broad range of populations, each presenting unique needs for education and training. Some people will require intensive case management and support, while others will thrive in a more regimented environment.
- *This report focuses on individuals within Tier II with less than a 6th grade educational equivalency.* The definition of a 6th grade educational equivalency remains fluid. The understanding among providers, community organizations, and officials is that the definition translates to a low educational achievement and competency in basic math and reading -- most often below a 6th grade standard testing level. There is no scientific quantification of this group among the welfare population, yet strong anecdotal and sample evidence supports the assumption that this group is in critical need of new welfare to work solutions differing from the standard population.
- *The range of age, race, education, barriers, and skills within this group varies greatly.* Anecdotal information from local providers suggests that there are critical subcategories of this population including teen parents, victims of family violence, formerly incarcerated individuals, those with low or no English skills, and individuals with physical, mental health, and/or substance abuse issues. In addition, Trinity College's Center for Neighborhood Studies classifies this population as primarily living in urban areas of high unemployment, of Latino or African-American descent, and in

⁴ These percentages are largely anecdotal but used as a common reference among providers.

need of English as a Second Language, Adult Basic Education, and General Equivalency Degree preparation and/or High School Diploma Credit instruction. The Center for Neighborhood Studies identifies the Frog Hollow neighborhood of Hartford, for example, as possessing a population with many of these demographics.

- *The low level of educational attainment among Tier II recipients is often a symptom of extenuating circumstances.* Education and training providers and literature suggest that the target population has significant barriers that prevent entrance into the workforce. Their low level of education is often only a symptom of other extenuating circumstances. Additional personal, cultural, and family issues only exacerbate the barrier of low educational attainment.

4.2 THERE ARE NUMEROUS YET FAMILIAR BARRIERS TO THE TARGET POPULATION

- *Some of the barriers documented in literature and mentioned among providers are:* lack of work history, substance abuse, low self-esteem, history of personal failure, domestic violence, past sexual abuse, parenting skills, mental health issues, criminal history, learning disability, low or no language and math skills, and demanding family responsibilities.⁵ Poor listening, speaking, problem solving and decision making skills are also cited as barriers to job attainment and retention.⁶
- *The target population often suffers from the stigma of receiving welfare.* In our focus group, several welfare recipients reported experiences of negative employer interaction due to the stigma of welfare. For example, recipients report experiences of employers discarding job applications once it is discovered that the applicant is a welfare recipient. The danger is that this experience only leads to reinforcement of inadequacy and failure. Employers also report skepticism in hiring and successfully dealing with problems associated with under trained and under educated workers. National research indicates that employers are hesitant to be pressured into hiring commitments with welfare to work graduates.⁷ One area provider distinguished the need to "sell skilled, quality employees to employers rather than selling welfare" to employers.
- *Fear and confusion about welfare reform overwhelms many recipients.* In our focus group, many recipients expressed a paralysis and uncertainty of how to react to the constant changes with the system's new time limits, requirements, and sanctions. This fear and confusion is a barrier to action. A feeling of helplessness and a lack of ability to plan ahead render some recipients willing to wait for the impending sanctions and

⁵ Olson, Krista; and Pavetti, LaDonna. Personal and Family Challenges to the Successful Transition from Welfare to Work. The Urban Institute Press, Washington D.C. 1996.

⁶ Isaacs, Julie. Designing Welfare-to-Work Programs for Families Facing Personal or Family Challenges: Lessons from the Field. The Urban Institute Press, Washington D.C. December, 1996, p. 1-8.

⁷ Orfield, Gary. "Urban Schooling and the Perpetuation of Job Inequality." Urban Labor Markets and Job Opportunity. The Urban Institute Press, 1992. p.175-180.

termination from benefits. Some report their actions have focused on "how to get an extension" rather than how to navigate the system to secure employment.

- *Providers, recipients, and regional officials cite transportation as a major barrier to obtaining both training and employment.* Well-recognized and documented in the Hartford region is the spatial mismatch between an underemployed labor force in urban areas and employment opportunities in the suburbs. Welfare recipients living in the city or suburbs typically do not own cars and frequently do not have access to locations beyond the reach of public transit. In addition, the spatial mismatch problem is not only one of access; even with available transit lines, transportation costs alone can be prohibitive on a very limited budget.⁸ Available transit lines for second and third shift hours as well as weekend hours are also an issue.
- *These same organizations and leaders cite access to and additional costs of child care as a major barrier to employment.* Single mothers, the largest percentage of welfare recipients, have the highest number of child care concerns. Even with access to an extended family system of care available, circumstances often intervene to interrupt child care, making it more difficult for the parent to retain perfect attendance. Enrollment in a formal child care program is expensive, yet the most stable environment with which the parent is able to plan. While in training, funds are available to disadvantaged workers to help cover child care costs, however the support levels are low (\$321 per month), restricting the number of sites available from which to choose.
- *Completion of education and training programs suffers from low retention rates among welfare recipients.* Providers report many recipients "dropping out" of programs before completion. One provider estimated that only 50 percent of referrals to his program actually show up to participate. This evidence matches nationwide data that estimates 36 percent of adults entering basic education and secondary programs leave before completing 12 hours of instruction.

4.3 THERE ARE SOME NOTABLE STRENGTHS IN THE HARTFORD REGION'S CURRENT SYSTEM

- *There are many organizations in the region that provide elements of education and training that are critical to a successful welfare to work model.* Many providers integrate elements of workplace learning and education, internships and mentoring, support services, applicable skills training, and employer connections within their programs. A breadth of opportunities is available to train a participant for entry-level jobs in industry clusters such as retail, health care, child care, insurance, financial services, social services, and manufacturing. Section 5.0, "Examples of Current Initiatives in the Hartford Region," highlights many of these programs.

⁸ Chisman, Forrest. "An Effective Employment Policy: the Missing Middle." Rethinking Employment Policy. Washington D.C., Urban Institute Press, 1989.

- *Education and training providers in the region are familiar with the target population.* Almost all organizations have an eligibility criteria of an 8th grade level of educational attainment or higher for students entering their skills training programs. However, most still work with a population with a 6th grade or lower educational attainment. Interaction with this target population arrives through the non-skills training programs that education and training organizations offer such as ESL, ABE, or GED preparation.
- *Most providers are beginning to recognize the importance of meeting the needs of employers and the marketplace in order to secure job placements.* Some providers tailor programs to meet immediate needs of industry. Others have job developers or placement staff that search for job opportunities with employers. And there are a few organizations that include business and industry involvement in curriculum development and program evaluation. Overall, providers are moving to more employer focused strategies.
- *There is an opportunity for change among education and training providers as most are adjusting to policy shifts in local workforce development and welfare legislation.* Education and training providers are responding to demands in policy that encourage shorter skills training, performance requirements, voucher dependency, and responsiveness to employer needs. Most are exploring ways to respond creatively to these changes and are open to meeting these new demands. In this context, many providers also are open to meeting the new demands of the targeted welfare population and claim to have some sort of capacity to do so. Providers have a range of capacity to meet new demand in their current programs -- some from capacity of an additional 15 welfare recipients to others with capacity of more than 60.

4.4 THE SYSTEM ALSO ENCOUNTERS SOME CHALLENGES AND CAPACITY ISSUES

- *All programs need additional financial and staff resources if they are to take additional TFA recipients in their current programs.* New support and additional layers of programming require additional resources for education and training providers. Only a few programs indicate that they lack capacity to take individuals with less than an 8th grade level of education or below their current standards of eligibility.
- *Although not drastically different from the programming currently performed by each organization, many providers lack the complete technical resources for a mixed, integrated system.* Providers need to tailor each program to the highest level of needs in an integrated welfare to work system. In particular, curriculum that deals with self-esteem, motivation, and workplace learning needs upgrading. Job development and retention programming is also in need of further development. Resources lack, especially among nonprofits, to invest in such programming and, thus, reduces the region's capacity to deal proactively with each change.

- *A welfare to work system needs to cement and establish connections to industry on an ongoing basis.* Only a few organizations have current relationships and capacity to develop and nurture employer relationships on a high level. Not enough programs provide industry involvement in curriculum development. Providers need to become more market responsive to meet the demands of employers and ultimately train relevant and marketable trainees.
- *Job retention is a critical issue overlooked in past welfare reform measures across the country as well as in the Hartford region.* Almost all organizations in the region are struggling with how to provide job retention support for placed trainees. Welfare recipients with little or no job experience rely on job retention efforts more than others. Job retention efforts include mentoring, employee support groups, visitation programs, education of employers, crisis intervention services, continued personal support, and career enhancement opportunities.
- *Career enhancement needs more attention in the region's welfare system.* Most trainees are expected to upgrade their skills on their own -- not as a continuation of their programming -- and, therefore, remain in entry-level jobs with low wages. Only a few providers have career enhancement opportunities for their trainees as part of their regular programming. Credentialing of continuing education and professional work experience is a method used in models elsewhere.
- *There is significant disagreement among education and skills training providers and public welfare officials over the time needed to properly prepare recipients for work.* Many of the education and training providers are struggling with providing services and then graduating students prepared for the workplace in the 8- to 12-week time period encouraged by welfare policy. Welfare officials favor the "jobs first" model of quick attachment to the labor force. Proponents of this group believe education and skills training should be an addition to a work experience rather than a substitute. Opinion among providers suggests a minimum 16 weeks to a more generous six months of skills training to properly prepare welfare recipients. Many providers even suggest a one year or more program as an ideal situation. Research of national models does not definitively prove, however, that there is a set correlation between placement success and the length of education and training.
- *The system seems overloaded with TFA recipients with ESL needs -- a subgroup of the welfare population that most recognize as falling through the cracks.* The obvious issues of deficient English literacy exacerbate the training, employment, and career ladder possibilities for ESL participants. Most vocational ESL programs that currently operate do not broach specific skills training but rather concentrate on "world of work" or basic English. There is a lack of direction as to how to proceed during and after this "first stage" of ESL.
- *Policy, performance incentives, and success rates serve to "weed out" those recipients with a 6th grade or less educational equivalency.* Almost all education and training providers have eligibility requirements of an 8th grade equivalency or above. In effect, the eligibility standards deter the 6th grade or less population from entering

the same skill training and employment programs offered to others. Providers adopt the eligibility criteria to conform to contract policy, meet performance incentives, and increase success rates.

4.5 EMPLOYERS HAVE A MIX OF REACTIONS TO AND PERCEPTIONS OF THE WELFARE POPULATION

- *In general, employers are willing to seek out qualified employees who are welfare recipients, yet a mismatch of expectations can provide a formidable barrier.* The State of Connecticut's welfare employer hotline generated enormous response. The hotline is an 800 number set up to receive calls of interest from employers in regard to hiring welfare recipients. The level of interest, however, often does not move beyond the initial contact. Often a mismatch occurred as either the employer had different expectations of the type of employee available or the pool of welfare recipients did not possess the appropriate skills. Corporate leaders in the national welfare reform scene also are experiencing this mismatch of expectations. Corporations highlighted in President Clinton's reform efforts have had difficulty in moving forward with welfare to work efforts. Notably, Sprint and Marriott corporations have had mixed results or pulled back their efforts despite strong initial commitments.⁹
- *Understanding of expectations between the employer and welfare recipient is critical in promoting job retention.* Case study research suggests that employee turnover problems arise less from problems of "hard" skills than problems dealing with "relational" skills. Relational skills include interaction with customers, dealing with co-workers, and relating to the authority of a supervisor.¹⁰ Not only do welfare recipients need to learn the soft skills to relate effectively in the workplace, but employers need to view the long-term benefits of reduced turnover with an approach that understands the complexities of the welfare population.
- *A challenge for those transitioning from welfare to work is that many employers consider new hires probationary.* Such a policy for new hires often is the precursor to an employer more likely to dismiss a working recipient for early missteps. This type of employer also is willing to accept a higher rate of turnover among employees. A large supply of applicants is available with the modest skills required for most of these jobs -- although availability is changing with the tightening labor market in recent years.¹¹

⁹ Farney, Dennis. "Sprint Gets Ambitious On Welfare Reform, With Mixed Results." The Wall Street Journal, July 28, 1997. Milbank, Dana. "Marriott Tightens Job Program Screening." The Wall Street Journal, July 15, 1997.

¹⁰ Bartik, Timothy, et al. "Short-Run Employment Persistence for Welfare Recipients: The 'Effects' of Wages, Industry, Occupation, and Firm Size." W.E. Upjohn Institute for Employment Research, Kalamazoo, MI, April 1997.

¹¹ Rangarajan, Anu, et al. "Post-employment Services to Promote Job Retention Among Welfare Recipients." Mathematica Policy Research Inc., Princeton, NJ, February 1996.

- *Employers report that soft skills are most sought after when hiring new employees and question whether welfare recipients possess these skills.* Rating as the most important skills for employees to possess in Mt. Auburn Associates' business survey of over 200 companies in the region are teamwork and customer service followed by skills such as (in order of importance) math, problem solving, communication, and reading. Mt. Auburn Associates' interviews among employers and review of literature also confirm the growing importance of soft skills among employees. Feedback from providers is that employers believe hiring welfare recipients can be a risk as they express skepticism that welfare recipients possess such skills.

5.0 EXAMPLES OF CURRENT INITIATIVES IN THE HARTFORD REGION

The following is a small sample of education and training initiatives with *relevant elements* of a mixed and integrated strategy. The list does not suggest an exhaustive inventory, rather a sampling of only a few program elements from which to draw examples.

5.1 CAREER ENHANCEMENT AND SKILLS UPGRADING (DATA INSTITUTE)

- *The Data Institute is a private company that offers various education and training programs throughout Connecticut.* The company contracts with DSS (through CRT) to train approximately 100 TFA recipients in each of its three welfare to work programs in the Hartford area. The programs run in eight-week cycles with curriculum in CNA, retail, and child care. Each program has a "two-pronged" approach. The first approach is intensive skills training with job placement at the end of the program. The second approach is a career enhancement program offered voluntarily to participants. Continuing students can update their skills and earn further certification in their occupational area. These career enhancement programs are offered one to two nights per week for 24 weeks as a way to accommodate work schedules. The three programs and the career enhancement components are: an entry-level retail clerk training program with a career enhancement opportunity offered in retail supervisory and management skills; a CNA program that trains participants as homemakers and certified nurses assistants with career enhancement opportunities as a patient care specialist; and a child care program with career enhancement opportunities earning a certificate as a CDA (child development assistant). Program participants can use Pell Grants, a once a year grant program administered by the U.S. Department of Education,¹² to finance their continuing education.

5.2 ESL VOCATIONAL TRAINING (CHURCH ACADEMY/URBAN LEAGUE)

- *The Urban League's Church Academy created a customized vocational ESL program to fill a need in the field of food services.* The program was developed in a quick turnaround fashion to respond to a need expressed by Hartford Hospital. More than 30 ESL clients deemed "difficult to place" by CRT (most from the Park Street area of Hartford) were referred to the Urban League's Church Academy in the Winter/Spring of 1997. The 18-week program combined vocational ESL with a 20 hour per week workplace internship and worksite support from the provider. Administrative staff at Hartford Hospital monitored and closely supported the program. The opportunity allowed trainees not only to develop skills and basic workplace

¹² There is a fair amount of controversy surrounding the use of Pell Grants in this situation. Pell Grants, unlike a loan, do not have to be repaid and are awarded only to income eligible undergraduate students who have not earned a bachelor's or professional degree. In general, welfare recipients are eligible. Awards range up to \$2,700 per one calendar year, can be obtained each succeeding year, but cannot be accessed again once a bachelor's or professional degree is obtained.

English but also to establish work experience and demonstrate dependability. Twenty-two participants found jobs in the industry (11 with Hartford Hospital) immediately following completion of the program.

5.3 TRACKING DATABASE (COMMUNITY RENEWAL TEAM)

- *The Community Renewal Team (CRT) provides job readiness and job search services on contract with DSS to all non-exempt TFA recipients in the 32-town MetroHartford region.* CRT's contract for these services began October 1995 and coincides with DSS's 21-month time limit for welfare benefits. As part of its services, CRT created a database to track the progress of clients. The database allows CRT staff to communicate back and forth with DSS staff regarding each client's individualized action plan, their steps toward meeting goals, expectations, and requirements, and any deviations or sanctions imposed. CRT also uses the database as a labor exchange by entering each participant's level of skill and education into the system. The database serves to match employment opportunities with skill levels, certification, and experience of the client. It has also been used to be demand responsive. Employers have requested lists of all candidates based on qualification criteria and occupational category. Computer consultants created the framework for the database.

5.4 JOB DEVELOPMENT (CRT AND DATA INSTITUTE)

- *Community Renewal Team employs full-time job developers to recruit employment opportunities for its clients.* In the first year, many of the employment opportunities were secured by active recruitment of companies in need of employees. Most of these companies were in the service sector, related to distribution, or small businesses. The job developers also gathered opportunities by making contacts with corporate headquarters of large national companies. Most of these corporations expressed commitment or interest publicly regarding welfare reform. A more recent source of employment opportunities was through an "800" hotline number set up by the state of Connecticut. Interested employers contact the number and job developers follow-up with return calls to gauge needs and expectations. When the number was first listed, as many as 60 to 70 calls came into the hotline a day. CRT's job developers also provide on-site support to employed recipients. Much of this support is informal and responds to the needs or requests from an employer.
- *Data Institute also employs a job development staff of two to work with graduates to find employment.* Job developers at Data Institute engage students in three job placement-related activities. The first is an eight-week job skills program integrated into each student's course of study. The second is an unpaid work cooperative program required for most students upon completion of study. Job developers secure coop placement opportunities with students for up to 270 hours of experience. The third function of the job developers is the actual placement activities. The job

development staff maintains contact with approximately 20 employment sites and utilizes classified ads and word of mouth referrals for placement. Placement rates vary depending on the program, but for those completing coop hours the placement rate is estimated to be close to 85 percent. This rate does not include welfare to work programs as they are too new to measure. The job developers work on a commission basis as Data Institute desires to create an incentive for job developers to be creative and entrepreneurial in searching for a placement.

5.5 INDUSTRY FOCUS (THE GREATER HARTFORD PARTNERSHIP/CRWDB)

- *The Greater Hartford Partnership Program began through an initiative of Connecticut's Commissioner of Insurance and is administered by the Capitol Region Workforce Development Board.* It has developed a strong partnership among employers in the insurance and banking industry. The partnership began in 1996 and extended to include state agencies and education and training providers. In its first year, the program placed 25 clients in either the insurance or banking industries. The program continues with four cycles each year (two in insurance and two in banking) with an average of eight to nine students participating in each cycle. A major component leading to the success of the program is the continued and intimate involvement of employers. Employer involvement begins with participation on advisory committees charged with program oversight. Involvement also extends to more "hands on" endeavors. These activities include providing on-site internship slots to welfare recipients as well as teaching classes, providing facilities and start-up materials, mentoring, and attending graduations. An example of industry involvement includes representatives from insurance companies that give an industry overview, talk about career opportunities, lead tours of company departments, provide information on industry products, and guide self-study on insurance policies. The Greater Hartford Partnership is discussing expanding its program into the health care industry.

5.6 ADULT LITERACY/LIFETIME LEARNING (COMMUNITY RENEWAL TEAM)

- *The Community Renewal Team (CRT) began an adult literacy pilot program with sponsorship from the Educational Testing Service in Princeton, New Jersey.* The program, Prose, Document, and Quantitative, or PDQ, is a computer delivered multimedia instructional system for teaching adult learners applied skills in the areas of prose, document, and quantitative literacy. Recipients appropriate for the current curriculum must have a level of functioning between a 9th and 12th grade equivalency. CRT's utilization of the program aims to teach adult learners practical problem solving skills, competencies in the three areas, and a baseline to increase future literacy. This last issue is of extreme interest to CRT in the context of welfare reform's "jobs first" emphasis. Quick attachment to the labor force and short training programs necessitate an acquired desire to learn so that students can continue to increase literacy outside the classroom and through everyday events. Of the 40 students who have completed the 16 hours per week/eight-week literacy program, 33 have shown significant increases in

competency areas. CRT has not measured employment or long-term outcomes due to the relatively short period of time the program has been implemented.

5.7 COMMUNITY-BASED PARTNERSHIPS (PROGRAM FOR ECONOMIC SELF-SUFFICIENCY)

- *PROGRESS (Program for Economic Self-Sufficiency) is a joint effort to pool the assets of each community organization in carrying forth employment-related services.* The partnership includes the Connecticut Puerto Rican Forum, Southend Community Services, Urban League of Greater Hartford, and The Community Job Center. These partners have built a strong public relations campaign around their efforts to respond to welfare reform in creative ways. The partners pool resources and expertise to meet the recipients at a "neighborhood entry point" and move them through to secure employment. One of their first goals is to market their "return to work" model as a service to employers. In addition, the partnership aims not only to respond to employers but to its neighborhoods. PROGRESS' strength is its focus on employment in the context of issues of neighborhood revitalization.

5.7 COLLABORATIVE APPROACHES WITH EMPLOYERS (CONNECTICUT WORKS ONE-STOP CAREER CENTERS/DEPARTMENT OF LABOR & CRWDB)

- *The region's One-Stop Career Centers (in Hartford, Enfield, and Manchester) offer extensive job development, job placement, and other employer services through a partnership between the Capitol Region Workforce Development Board and the state Department of Labor.* The CRWDB operates an Employer Services Unit as part of the Capitol Region Career Services operation at the One-Stops. That unit offers job development, job placement, and other services to both businesses and residents of the region in an effort to find or develop jobs, and to match people with them. In addition to individual contacts with employers, services include applications of current technology, including electronic job matching through America's Job Bank (job listing) and Talent Bank (resume listing). These services have become a popular and frequently utilized resource by the business community partly because of its ease of access. Staff of the Employer Services Unit are currently involved in coordinating the job development function in the region, and are schedule to meet with job developers for other organizations in early October. The goal is to plan collaborative strategies that will avoid contacts with employers.

6.0 SYSTEM PRINCIPLES

The following principles guide the suggestions outlined in Section 7.0. Mt. Auburn Associates derived the list from participation in the MetroHartford Millennium's Workforce Development Task Force and Welfare to Work Subcommittee.

1. Focus will be on low-income, public assistance recipients with less than 6th grade equivalency.
2. Neighborhood-based models will be the point of initial contact with recipients.
3. A comprehensive orientation based on self-esteem and motivational tools will address social skills and cultural norms.
4. Employers will be closely connected and their needs will drive the training curriculum.
5. A mix of workplace curriculum and skills development will be the primary method of training.
6. Training will include an on-the-job or internship component with qualified interns able to pursue full-time positions.
7. Competencies and credentialing will provide incentive for retention and opportunities for career enhancement.
8. Emerging and critical regional industry sectors will be examined and their needs quantified on an ongoing basis.
9. Special accessed resources available to the target population will address barriers such as child care and transportation.
10. Support services will be closely linked and provided as a continuum of care from orientation to after employment.
11. Policy implications will be addressed so as to allow flexibility with participants' benefits.
12. Sustainable jobs with livable wages will be sought.

7.0 SUGGESTIONS TO ENHANCE WELFARE TO WORK IN THE HARTFORD REGION

7.1 ESTABLISH AN INTEGRATED AND MIXED STRATEGY OF EDUCATION AND TRAINING

Many programs are now beginning to offer concurrent remedial and ESL education classes with a skills training and career/industry-oriented emphasis. The advent of such a model has come about with the reported success of San Jose's Center for Employment and Training -- an approach that combines work and educational materials. The key to the success of this model is a tightening of all activities leading an individual to the path of sustained employment. The approach mixes job search activities with industry career possibilities, motivational curriculum with industry familiarity, skills training with basic education, and on-the-job training with workplace learning. Programs that previously offered these activities in isolation now offer them concurrently -- creating an integrated and seamless system of welfare to work. The integrated part of the system also links partners in the region's education and training system such as providers, employers, community-based organizations, and public agencies to perform complementary functions.

➤ *SUGGESTION #1: FORM AN ALLIANCE OF TRAINING PROVIDERS COMMITTED TO AN INTEGRATED AND MIXED STRATEGY OF WELFARE TO WORK*

- *Providers in the region recognize the changing nature of education and training and welfare policy.* As mentioned earlier, providers want to adapt to changes but do not have the tools and stability to do so. An Alliance of Training Providers will bring leaders together to share strategies that work, to problem solve together, and to adapt to the changes in the system through cooperation. The core of the Alliance should emanate from the Welfare to Work Subcommittee with an Alliance chairperson selected from this group. The Alliance should expand to include relevant training providers and community based organizations in the area.
- *Formation of the system to conform to the requirements of public policy is critical.* One of the issues of prominence in creating any welfare to work system is the components of education, training, internships, etc. that are considered "work activities" under new welfare reform. Allowable work activities under new welfare policy include restrictions on job skills training, education directly related to employment, and GED preparation. In addition, there are limits on the number of individuals allowed to participate in vocational education. These regulations severely impact the type and amount of training allowed. Participation, therefore, should consist of officials from the Department of Social Services, Capitol Region Workforce Development Board, Department of Labor, and Department of Higher Education.
- *Education of the providers will be integral to the success of the alliance.* The mixed strategy is a relatively new method in which to address welfare to work. Changes

among providers will need to occur. Each provider will need to be educated to the merits of such a system and what role his organization can and should undertake.

- *The Alliance can be used to determine who will carry out different functions focusing on industry sectors.* One of the first functions of the alliance should be to inventory all programs with activities catalogued and capacity assessed. Programs also should be categorized by industry. The Systems Reform Subcommittee of the MetroHartford Millennium's Workforce Development Task Force has already begun this task. The process should be promoted and carried forth as a regional priority that influences effective welfare reform strategies.

➤ **SUGGESTION #2: IDENTIFY STAFF FROM EXISTING ORGANIZATIONS OR HIRE A NEW TRAINING AND CURRICULUM CONSULTANT TO DEVELOP THE SYSTEM.**

- *As with any new model, there is a gap of knowledge and capacity among some providers to make appropriate curriculum changes to a mixed and integrated strategy.* Not only do many providers lack the resources to spend additional time and money on curriculum development, many do not have the in-house knowledge of curriculum that is workplace focused. It is critical that curriculum be consistent and reflect workplace and industry needs. A consultant should be hired to integrate world of work and vocational basics into each education and training activity in the welfare to work system.
- *A consultant shared by all alliance providers will reduce unnecessary duplication and overhead costs for already stretched nonprofit programs.* One consultant for the system will also ensure consistent methods of teaching -- enabling quality assurance across the system. Alliance members should share the in-kind or direct costs through establishment of a consulting fund -- either funded by each alliance member or outside sources of revenue such as industry, foundations, or other public agencies.

7.2 CREATE AN EMPLOYER-BASED AND FOCUSED SYSTEM

The success of any large scale welfare to work system is dependent on the ability of recipients to secure stable jobs with good pay. To achieve that, it is necessary to meet the needs of employers by providing workers who can contribute to the "bottom-line" economic success of the business community. Therefore, the practical needs of business become the linchpin from which the system should operate. The Alliance of Training Providers still serve to balance these needs by offering pragmatic insights into how to deal with the realities of welfare recipients' life situations, but an employer-based and focused system now creates future demand for qualified, well trained employees exiting welfare.

➤ **SUGGESTION #3: ESTABLISH A WELFARE TO WORK ADVISORY COMMITTEE OF INDUSTRY REPRESENTATIVES**

- *It is critical that business leaders oversee and be closely involved in the process that trains welfare recipients to become potential employees.* To enable employers to be involved in tracking information on industry and occupational trends, as well as in curriculum formation and teaching, a Welfare to Work Advisory Committee should be established, as an adjunct to the existing Employer Relations Committee of the Capitol Region Workforce Development Board. In addition to the state's mandate of private-sector membership, the Employer Relations Committee is responsible for linking industry with the Capitol Region's overall employment and training activities. The Welfare to Work Advisory Committee should serve to ensure that special attention is given to employer involvement in the development and success of a welfare to work system.
- *The One-Stop Career Centers should be the single point of contact for solicitation of jobs and further industry involvement.* Already serving this function for the region, the One-Stop Career Centers has the responsibility for initiating, receiving, and managing employer contacts for education and training activities. The CRWDB's Employer Services Unit could dedicate staff to act as the liaison with the employer based Welfare to Work Advisory Committee, thus forming a conduit for all business involvement in welfare to work efforts. The single point of access strategy avoids duplication and multiple organizations requesting employer assistance.

➤ **SUGGESTION #4: EDUCATION AND TRAINING CURRICULUM SHOULD BE SECTOR-BASED AND INVOLVE INDUSTRY REPRESENTATIVES TEACHING CONTENT**

- *Content of education and training should link to the needs of industry sector employment.* There is a wide range of models within the region that already practices this approach. The curriculum consultant along with the employer's Welfare to Work Advisory Committee should replicate these best practices for each industry.
- *The Advisory Committee should recruit participation for curriculum development and teaching.* One of the hallmarks of industry relevant curriculum is industry representatives actually participating in teaching education and training content. The industry specialist will use contacts and suggestions from the Advisory Committee as a source of potential teachers and curriculum developers.
- *A sector-based curriculum with industry representatives as teachers may also allow welfare recipients engage in vocational education and skills training longer than otherwise allowed by new welfare policy.* PRA policy establishes limits on "acceptable work activities" that include traditional ABE, ESL, and skills training. Intimate involvement with industry may qualify these ESL, ABE, and skills training programs as "work experience" or "on-the-job training" -- both acceptable work activities.
- *To qualify under PRA limitations, curriculum content would need to utilize intimate involvement of industry representatives.* This kind of focus would need to involve participation by industry representatives in content such as introduction to the industry, an exploration of industry career opportunities, relevant skills training, and industry competencies.

➤ **SUGGESTION #5: DEVELOP CLEAR INDUSTRY TRACKS FOR WELFARE RECIPIENTS**

- *Recipients should be prepared to enter a specific industry track.* This emphasis differs from past skills training tracks that prepared clients to obtain a skill rather than industry knowledge combined with a skill. An industry targeted approach produces a more valuable product for the business as well as the employee. Industry interest and knowledge should be established with the recipient during the initial assessment and orientation part of the system (to be discussed in Suggestion #10).
- *Employer involvement in curriculum design and teaching ensures relevance to industry.* The number of employees and different skills within an industry will change over time. An employer focused system enables providers to adapt proactively to changes within industries, still producing recipients who are needed as employees.
- *Conducting ongoing studies of occupational trends and industry cluster analyses will maintain a benchmark perspective.* Occupational data collected by the Department of Labor and the initial industry cluster studies completed by Mt. Auburn Associates for the MetroHartford Millennium Project are good benchmark sources.

7.3 **FOCUS INTENSELY ON JOB RETENTION EFFORTS**

Meaningful employment moves beyond just "attachment" to the labor force. It involves securing stable employment over a sustained period of time. Job retention efforts, often neglected among past welfare to work initiatives, are critical to a successful movement from welfare to long-term work. A series of steps that do not end the first day on the job increases the likelihood of long-term success -- and ultimately a gain for the employer, recipient, and public tax dollar. Perhaps the most important issue in today's welfare to work efforts is job retention.

➤ **SUGGESTION #6: REWARD PROVIDERS FOR LONG-TERM PLACEMENT**

- *The system needs to restructure its current performance based formula and give increasing financial rewards to providers that succeed with long-term placement -- not just initial attachment to the labor force.* The current system gives incentives to education and training providers for job placement regardless of how long the recipient stays employed. An issue to note is the significant resistance that many providers already possess toward performance based contracts.
- *A scale of financial incentives should be given to providers at interim levels -- increasing financial rewards for placement, retention after six months, and retention after one year.*
- *Tracking of recipients from participation to placement to retention will be necessary.* A new system should develop that tracks recipients after placement. One method in which to accomplish this is matching a system-wide database of all participants with the Department of Labor's Wage and Occupation database. A software consultant can link the two systems to interchange information and track retention and long-term success. More information on the database system is in Suggestion #13.

➤ **SUGGESTION #7: CREATE OPPORTUNITIES FOR CAREER ENHANCEMENT AND CREDENTIALING**

- *Develop a system of career ladders that boosts an entry-level job to higher earnings and professional responsibility.* Career ladders also provide incentive and motivation for retention. Each industry focused strategy needs to have these opportunities available to participants; even after he/she secures employment.
- *Alliance providers should work with appropriate industry representatives to develop key competencies that credential work experience and further education in a skill area.* Providers should also work with the Department of Higher Education for acceptance of credits to be earned with completion of each area of competence.
- *Organizers need to create opportunities for child care and transportation during off-hours.* Offering career enhancement opportunities at non-traditional hours (weekends and evenings) allows employees to advance themselves while working.

Hours should be flexible and meet the demands of working individuals with the desire to earn further education and skill competency.

- *Scholarship funds should be available to interested participants.* The Alliance either should use Pell Grants (a grant available to income eligible students every 12 months) or create a scholarship fund to reduce affordability as a barrier. Most employees in entry-level jobs will not be able to participate unless costs are reduced or deferred.

➤ **SUGGESTION #8: INVEST IN TRAINING EMPLOYERS AND FRONT-LINE SUPERVISORS**

- *Education efforts among employers need attention.* Understanding and flexibility among employers are important to deal with new employees in transition from welfare to work. The workplace not only offers unsubsidized employment, it also offers a new social environment from which to reinforce the positive habits of work. An environment that is safe and understanding becomes more conducive to maintaining employment.
- *Front line supervisors need more intensive training.* The quality of a new employee's job is deeply affected by interaction with one's supervisor on a day-to-day basis. It is especially important to train supervisors to understand the complexities of transitioning from welfare to work while also maintaining industry standards. The balance of these two goals will lead to greater retention and less employee turnover -- benefiting the employer and recipient.
- *Approaches to employer education need to pay attention to confidentiality issues.* Programs that target and separate TFA recipients as "different" or needing special attention can reinforce negative stereotypes or unnecessary stigma. One approach to address the issue is to frame the employer education or supervisory training in general terms and not just focus on welfare participants.
- *Mentoring opportunities can play important support roles for employed participants.* Mentors can become less of an "authority" and more of a third person supporter -- answering questions about work, guiding through workplace protocol, and encouraging in times of doubt or transition.

7.4 IMPROVE PARTICIPANT MOTIVATION AND RETENTION

➤ **SUGGESTION #9: STRIVE TO SECURE GOOD PAYING JOBS WITH BENEFITS THROUGH MARKETING**

- *The biggest motivation to change one's entire way of life and participation in a welfare to work effort is a decent paying job.* CBLA's welfare to work project states that "there are many entry-level jobs with career potential available in Connecticut. Some of these jobs can pay as much as \$10 an hour."¹³ Good employment includes a living wage, health and other benefits, job stability, and a safe work environment. These goals should be basic requirements for the welfare to work program.
- *Selling well-trained, skilled employees -- not welfare -- to business increases the demand for recipients and will enhance the system's image.* Competition does not allow most businesses to engage in long-term social programs. Creation of demand for the program is one means to create a continuous supply of jobs -- and thus increase the ability for participants to demand better wages. Therefore, the success of the program -- educating, training, and preparing participants for employers -- becomes even more critical in context of this issue.
- *The program needs to rely not only on a successful product, but getting the product on the market and available to as many consumers as possible.* A calculated and targeted marketing campaign is one method to increase name recognition and demand for the "product." Marketing efforts create widespread distribution (in this case knowledge and use of the skilled, trained welfare recipient) and thus can benefit the system.

➤ **SUGGESTION #10: CREATE A ONE-TO-TWO-WEEK MOTIVATIONAL/SELF-ESTEEM ORIENTATION FOR ALL PARTICIPANTS WITH A NEIGHBORHOOD ENTRY POINT**

- *The cultural and social transition for first time participants in welfare to work program can be a shock.* Participation often means asking recipients virtually to change one's life overnight. The importance of a familiar place to begin this transition as well as a curriculum that recognizes the cultural and social implications is critical.
- *The system should utilize the region's existing foundations to create a comprehensive assessment, motivation, and basic preparedness orientation.* The Community Renewal Team and Department of Social Services already offer elements of assessment, motivation, and basic preparedness. These elements should be examined and integrated into a system that coordinates the goals and outline of this report.
- *A critical function of the one-to-two week motivational and self-esteem orientation should be to create familiarity with career opportunities within an industry sector.* Vertical movement within an industry is a natural method of increasing wages.

¹³ Connecticut Business & Industry Association, "CBLA/DSS Welfare-to-Work Small Business Research Project Fact Sheet," Hartford, CT, July 1997.

Knowledge of career and wage potential can become a simple motivational tool. "Buy in" from the welfare recipient creates interest in industry careers and increases relevance of learning -- making the system of education and training more effective.

- *The method and merits of New York-based STRIVE's (Support and Training Result in Valuable Employees) attitudinal training are well documented.* The key lesson to take from STRIVE's philosophy is the need to address issues in a structured, deliberate curriculum such as a self-esteem, history of failure, workplace culture, taking direction from a supervisor, conflict resolution, proactive versus reactive action, sharing success, and building confidence.

7.5 CREATE A SEAMLESS CONTINUUM OF COMMUNICATION AND SUPPORT SERVICES

➤ SUGGESTION #11: COORDINATE WITH THE CAPITOL REGION COUNCIL OF GOVERNMENT'S WELFARE TO WORK TRANSPORTATION PILOT PROGRAM

- *The CRCOG welfare to work transportation program plans to offer more than \$2 million in transportation services to welfare recipients returning to work.* The CRCOG plan sets a goal to assist more than 3,000 participants in the Capitol Region. Some public transportation users are already benefiting from the plan as the West Farms Mall and the Berlin Turnpike service extended hours and routes.
- *Coordination with the CRCOG transportation program will fill transportation gaps for employed TFA recipients.* Ongoing communication can shift CRCOG resources to meet the needs of the welfare to work system along industry clusters or major employer routes. Database information gleaned from the system can assist CRCOG planners in further routing and use of resources. More information on the database system is in Suggestion #13.)

➤ SUGGESTION #12: COORDINATE EXISTING CASE MANAGEMENT FUNCTIONS TO CREATE A SYSTEM OF OMBUDSMEN

- *To achieve self-sufficiency, families and individuals require coordinated and concentrated service delivery that reflects the many obstacles to independence.* Many model programs offer ongoing support through group work or individual case management for people after they are placed in jobs.¹⁴ These services need to be linked throughout the process -- with flexible on-site and at-home visits and a full-continuum of care (mental health, substance abuse, domestic violence counseling, etc.).¹⁵

¹⁴ Rangarajan, A.; Kerachsky, S.; Hainson, J.; Hershey, A.; and Stapulonis, R.; "Post-employment Services to Promote Job Retention Among Welfare Recipients." *Off Welfare and Into Work*. Mathematica Policy Research, Inc., Princeton, New Jersey, February, 1996, p.3-6.

¹⁵ Shlay, Anne and Holupka, Scott. "Steps Toward Independence: Evaluating an Integrated Service Program for Public Housing Residents." *Evaluation Review*, Vol. 16 No 5, October, 1992, p. 508-509.

- *An ombudsman should coordinate services for welfare participants throughout the education and training system -- from initial assessment to successful job retention.* The ombudsman follows the client by providing ongoing support on- and off-site, crisis intervention if needed, and connections to other relevant support services.
- *Each ombudsman has a specialty on which to focus.* These specialties include the support areas of ESL, substance abuse, domestic violence, and young women, among others. Ombudsmen are connected with individual welfare recipients during the one-to-two-week self-esteem and motivational curriculum. Initial assessments in the orientation period match participants with an ombudsman.
- *Use and referral of contingent support services is critical.* Services already provided in the community do not need to be duplicated, but rather accessed efficiently for participants in the system. One function of the ombudsman is to monitor this access and explore methods in which to gain customized services for participants when needed for retention.

➤ SUGGESTION #13: DEVELOP A MULTI-USER DATABASE

- *Backward and forward communication needs to be established with service providers, education and training providers, welfare officials, employers, and TFA recipients.* The level of communication about the needs and issues of each participant gives the system tools to respond to individual problems. Communication gives the system a tool to be proactive in addressing a problem and preventing it from resulting in failure. It also tracks successes and failures, giving immediate feedback to Alliance Providers and the Oversight Committee to adapt to deficiencies and challenges.
- *The state of Connecticut has explored a "common front end" computer system linking all state agency information databases.* The same concept is the basis for a database that links all stakeholders in the welfare to work process. State officials have identified some key barriers to implementation including extensive computer software revisions, interagency cooperation, imbalance of financial responsibility upon particular departments, and differing confidentiality protocols.
- *Capital expenditures and confidentiality arise as important issues with a database that is complex and communicates between agencies and employers.* These issues become formidable in any plans that use high technology on this level. Just as in the approach to address issues of employer education and supervisory training (Suggestion #8), programs that target and separate TFA recipients as "different" or needing special attention can reinforce negative stereotypes or unnecessary stigma.

7.6 ADDRESS ISSUE OF ENGLISH AS A SECOND LANGUAGE THROUGH A TARGETED WORKING GROUP

➤ **SUGGESTION #14: FORM A WORKING GROUP OF INDIVIDUALS FROM THE PUBLIC AND PRIVATE SECTORS WHO HAVE STRONG COMMITMENTS TO THE ESL POPULATION.**

- *Providers, public officials, and employers with special interests or connections to the different ESL populations¹⁶ need to commit their resources toward solutions to the ESL/welfare to work issue.* The ESL population presents unique challenges to the welfare to work discussion. Further thinking and strategizing needs to occur in order to develop a plan that addresses the unique challenges yet keeps this sub-population in accord with welfare policy.
- *One method to securing jobs appropriate for recipients with little English competency is to place qualified recipients in jobs where little English competency is necessary or the employer/supervisor speaks a second language.* The working group should attempt to identify those industries and employers where placements such as this would be appropriate. Preferably many of these employers would already be a part of the working group.
- *The working group needs to address implications of welfare policy that are unique to the pathway to employment for ESL recipients.* One issue that needs attention is the limits on vocational education, and thus vocational ESL, in PRA policy. Current policy allows for only 20 percent of the welfare population to use vocational education toward the 20 hour per week work requirement. For those ESL recipients undertaking concurrent vocational ESL and skills training these limits become a potential restriction.

7.7 EXAMPLE MODEL (SEE ATTACHMENT)

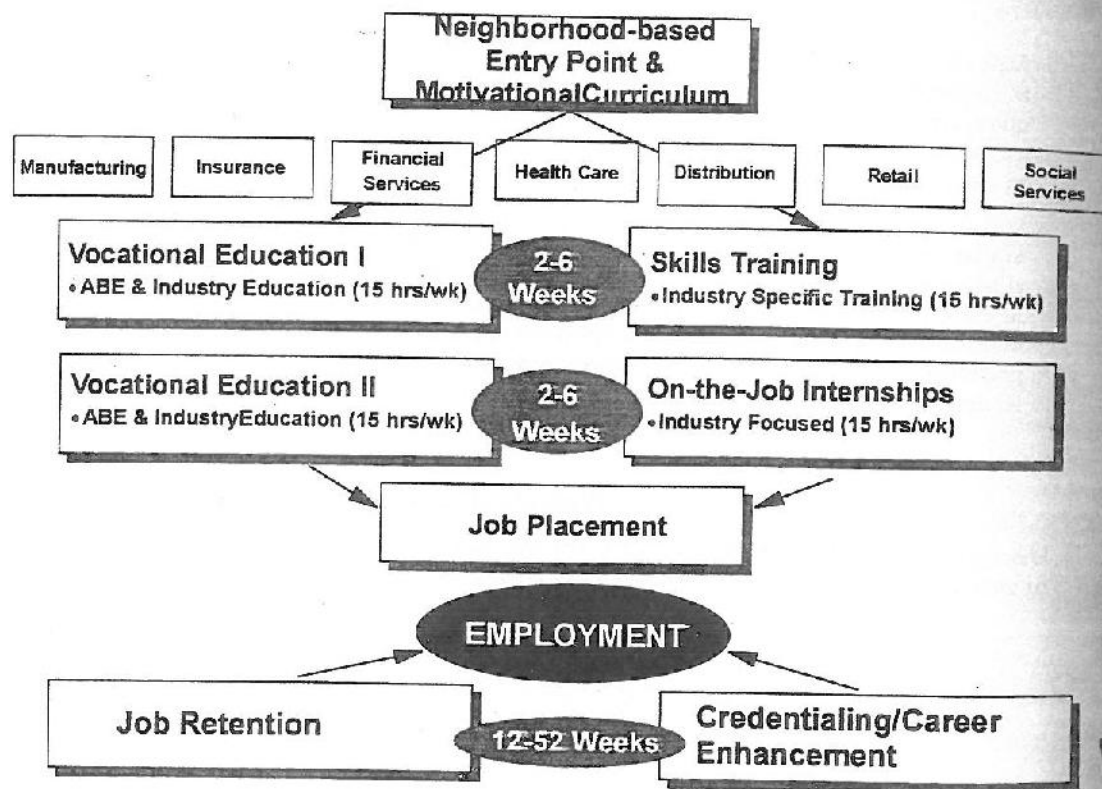
An example model accompanies the following suggestions and provides a general framework for further discussion. Utilization of the framework serves to embellish the welfare to work system only and does not suggest permanence.

¹⁶ Critical subcategories within this designation are Eastern European immigrants, Asian enclaves, and Spanish speaking Latinos.

8.0 NEXT STEPS

This document intends to provide a framework with a number of suggestions as how to proceed in the welfare to work discussion. Clearly a working group with the different stakeholders in the region needs to form and come to some definitive decisions on the next action steps. These steps could range from strategies targeted on a smaller, neighborhood level or on a larger system-wide level. They could also focus on "scaling up" successful programs to have a larger impact, begin with a pilot project, or take on a broader programmatic focus. The challenge is to continue the momentum and reach a set of achievable next steps.

Example Model



Town-by-Town AFDC/TFA Cases, 1993-1997 Hartford LMA & Capitol Region

Town	1993 Cases	1995 Cases	1997 Cases	1996 Pop.	1995 Cases/Pop.	1993-1995 Actual Change	1993-1995 % Change	1993-1997 Actual Change	1993-1997 % Change
Andover	11	11	11	2,640	4.2	0	0.0%	0	0.0%
Ashford	30	32	26	3,950	8.1	2	6.7%	-4	-13.3%
Avon	9	13	8	14,350	0.9	4	44.4%	-1	-11.1%
Bedfordhamsted	5	8	8	3,520	2.3	3	60.0%	3	60.0%
Berlin	52	49	58	17,150	2.9	-3	-8.8%	6	11.5%
Bloomfield	214	252	252	18,960	13.3	38	17.8%	68	31.8%
Bolton	13	11	8	4,690	2.3	-2	-15.4%	-5	-38.5%
Bristol	749	876	889	81,260	14.3	129	17.2%	140	18.7%
Burlington	11	16	15	7,370	2.2	5	45.5%	4	36.4%
Canton	25	25	25	8,500	2.9	0	0.0%	1	4.0%
Chaplin	9	14	12	2,170	6.5	5	55.6%	3	33.3%
Colchester	58	78	74	12,500	6.2	20	34.5%	16	27.8%
Columbia	10	11	13	4,680	2.4	1	10.0%	3	30.0%
Coventry	34	42	55	10,580	4.0	8	23.5%	21	61.8%
Cromwell	40	49	54	12,420	3.9	9	22.5%	14	35.0%
Durham	11	15	17	6,930	2.5	4	36.4%	6	54.5%
East Granby	13	16	15	4,380	3.6	3	23.1%	2	15.4%
East Haddam	35	35	35	7,000	5.0	0	0.0%	0	0.0%
East Hampton	34	43	46	10,830	4.0	9	26.5%	12	35.3%
East Hartford	816	1,260	1,239	49,370	26.5	344	37.6%	323	35.3%
East Windsor	71	81	60	10,110	6.0	10	14.1%	-11	-15.5%
Ellington	29	28	30	11,330	2.3	0	0.0%	4	15.4%
Enfield	334	373	341	45,680	8.2	39	11.7%	7	2.1%
Farmington	53	64	55	21,300	3.0	11	20.8%	2	3.8%
Glastonbury	81	104	87	28,490	3.7	23	28.4%	6	7.4%
Granby	13	16	15	9,540	1.7	3	23.1%	2	15.4%
Haddam	15	16	21	6,920	2.3	1	6.7%	6	40.0%
Hartford	11,520	11,402	10,156	131,790	86.5	-118	-1.0%	-1364	-11.8%
Hartwinton	4	8	10	5,350	1.5	4	100.0%	6	150.0%
Hebron	22	24	22	7,420	3.2	2	9.1%	0	0.0%
Lebanon	27	28	27	6,340	4.4	1	3.7%	0	0.0%
Manchester	646	755	786	52,220	14.5	109	16.9%	120	18.6%
Mansfield	51	79	95	19,620	4.0	28	54.9%	44	86.3%
Marlborough	13	13	12	5,680	2.3	0	0.0%	-1	-7.7%
Middlefield	8	7	13	3,950	1.8	-1	-12.5%	5	52.5%
Middletown	555	713	587	42,990	16.6	58	8.9%	32	4.9%
New Britain	2,551	2,880	2,745	71,570	40.2	329	12.9%	194	7.6%
New Hartford	14	9	13	5,850	1.5	-5	-25.7%	-1	-7.1%
Newington	82	97	114	29,180	3.3	15	18.3%	32	39.0%
Plainville	110	135	123	17,450	7.7	25	22.7%	13	11.6%
Plymouth	80	103	83	11,940	8.6	23	26.8%	3	3.8%
Portland	54	60	52	8,520	7.0	6	11.1%	-2	-3.7%
Rocky Hill	47	55	47	18,850	3.3	8	17.0%	0	0.0%
Simsbury	18	25	20	22,380	1.1	7	38.9%	2	11.1%
Somers	29	36	27	9,260	3.9	7	24.1%	-2	-6.9%
South Windsor	47	58	52	22,950	2.5	11	23.4%	15	31.9%
Southington	180	203	193	39,000	5.2	23	12.8%	13	7.2%
Stafford	85	114	114	11,350	10.0	29	34.1%	29	34.1%
Suffield	22	30	28	11,610	2.6	8	36.4%	6	27.3%
Tolland	15	20	19	11,320	1.8	5	35.3%	4	26.7%
Vernon	412	408	380	29,340	13.9	-4	-1.0%	-32	-7.8%
West Hartford	329	423	431	58,810	7.2	94	28.6%	102	31.0%
Wethersfield	82	117	100	25,640	4.6	25	27.2%	8	8.7%
Willington	16	28	31	6,340	4.4	12	75.0%	15	93.8%
Winchester	119	149	123	11,710	12.7	30	25.2%	4	3.4%
Windham	745	785	794	21,630	38.3	40	5.4%	48	6.6%
Windsor	195	240	250	28,260	8.5	45	23.1%	65	33.3%
Windsor Locks	69	86	93	12,480	6.9	17	24.6%	24	34.8%
Capitol Region	18,546	19,777	18,333	859,650	23.0	1,231	6.6%	-213	-1.1%
Hartford LMA	21,129	22,628	21,140	1,184,560	19.6	1,499	7.1%	11	0.1%
Connecticut	53,273	56,754	N/A	3,289,080	17.3	3,481	6.6%	N/A	N/A

Source: Connecticut Department of Labor, Planning Guides & Department of Social Services
 Note: 1) Because 85% of welfare cases are single parent households, the number of cases better approximates the number of adults in need of education and training assistance. 2) 1997 data is through the month of March.

**APPENDIX F:
CAPITAL PROJECT ANALYSIS**

PROJECT EVALUATIONS:

**METROHARTFORD MILLENNIUM
STRATEGIC ACTION PLAN**

Prepared for The Connecticut Capitol Region Growth Council, Inc.

Prepared by Abeles Phillips Preiss & Shapiro, Inc.

with assistance from Public Development Services

as part of a study effort led by Mt. Auburn Associates

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A key part of the Millennium project is to move from overall concepts to specific projects. Any number of projects are possible and desirable; the question is which will yield the best results insofar as promoting the Millennium's themes. Therefore, this element of the study entailed a consistent evaluation of a number of the development projects under consideration in the region. These proposals varied, from large museums to infrastructure initiatives to industrial developments. The evaluation methodology can be used by the Millennium leadership group to make decisions regarding its capital project priorities.

With an eye toward deepening the level of project analysis and evaluation, detailed survey information was gathered from each of the project sponsors using a standard questionnaire designed by the Millennium consultant team. (The standard questionnaire is provided at the end of this Appendix.) The survey information was combined with other published data and Connecticut Capital Region Growth Council (CCRGC) staff insights to complete individual project profiles.

Simultaneously, the Steering Committee reviewed and approved project evaluation criteria. These criteria were later expanded and regrouped to permit a more thorough and quantitative evaluation of the economic development characteristics of each project. A total of 27 different economic "measures" were identified; these were grouped into four "categories," as follows:

- **Direct Economic Impact**—This category of measures assesses the direct economic yield produced by each project: job creation, business formation, tax base increases and tourism development. Only those impacts which are directly attributable to each project are included; only longer-term, permanent impacts are counted, and only net increases in employment, tax revenues, tourist visitation, etc. are weighed. Short-term construction jobs, for example, are not included. Retail sales which are generated at the expense of other centers in the region are not given points in this scoring class either.

- **Economic Infrastructure**—Direct job creation and business activity are clearly an all-important evaluative yardsticks. But so are indirect job and spending spin-offs. So too are job training, entrepreneurship development, improved market efficiencies, and streamlined regulatory compliance reporting—all of which may contribute to the internal strength of the economy, without producing immediate and directly measurable impacts. Transportation improvements are perhaps the most striking example of market efficiency builders, reducing the time and expense associated with the movement of labor and materials. Downtown and riverfront projects that create a new synergy and economic dynamic are also examples of economic infrastructure development.

- **Regional and Planning Impacts**—This category of measures looks at

whether a new project in one part of the region would create undesirable competition or conflict with projects elsewhere in the area—not so much from a feasibility point of view, as from a policy point of view. This category also considers whether a project complies with the region's overall economic development strategy (as defined by the Millennium themes), whether it complies with other regionally significant plans (specifically Riverfront Recapture, SINA, etc.), and whether it contributes to the region's quality of life (parks, education, amenities).

- **Feasibility**—The last category evaluates the feasibility of each project. The variables considered include funding and the sponsor's experience and capacity. The variables also consider project risks and uncertainty. An independent feasibility study or financial audit was not prepared for each project. However, independent judgment was made as to the reasonableness of development costs or market research based on comparable projects.

Each measure was ascribed a score ranging from 2 to 5 points, depending on their relative weight. A comprehensive evaluation matrix was created to summarize the numerical scoring, project by project. The numerical ranking can be used to compare and eventually to prioritize projects, not just in total, but also by how they address the Millennium's themes. The numerical scoring can also be used to define the strengths and weaknesses of each project, including the potential "fatal flaws" of each project. In this manner, the evaluation process can be a vehicle for identifying how to improve upon projects.

Sixteen capital budget projects were then evaluated. The proposals evaluated were limited to high-impact, high-visibility projects with a projected development cost of \$1 million or more. This threshold was not adopted to discriminate against smaller neighborhood-based ventures, but rather to compare similar scale projects. Stacking up a major downtown convention center against a neighborhood day care center, it was agreed, would not yield any illuminating comparisons. Regional projects should be held up against comparable regional counterparts, as neighborhood projects should be compared against other neighborhood projects. (Many of the variables used to evaluate this shorter list of larger-scale projects could, and indeed should, be used to assess neighborhood-based projects. Under the Strategic Direction set by the Millennium project, the evaluations of neighborhood projects will be conducted by the newly-constituted Hartford Economic Development Partnership. This will assure that neighborhood projects receive the high priority they deserve.)

Likewise, only capital projects were evaluated. Plans were not. Major economic development related plans include: SINA (now complete), Riverfront Recapture (now being revised), North Hartford Initiative (now underway), and the Downtown Economic and Design Action Strategy (now being initiated). It would not be productive to group all of the capital projects encompassed under one plan—since the

evaluation would then tend to respond to the most impact/highest cost projects which may or may not be central to the plan. For example, Riverfront Recapture would be judged on the basis of the highly expensive Ebbet's Field and Science Center projects, not its park loop. Projects should be ranked against projects, and plans against plans. (Instead, the plans have been integrated into several measures used in the evaluation process, including Quality of Life, Compliance with Regional Land Use Plan, Relationship to Regional Competition, Synergistic Investment, and especially Relationship to Other Regional Plans (refer to Section 4, Scoring Methodology).

The matrix employed and the scoring system for the matrix analysis are presented later. The next section concentrates on the conclusions and implications of the analysis. The subsequent section provides a project-by-project description of the results of the analysis.

Sixteen projects were scored using the categories described above and the measures itemized later. While all projects received a cumulative score, the dissection of the evaluation matrix into the four principal categories allowed for an understanding of each project's comparative strengths and weaknesses. Some projects had strong direct economic impacts, but were not highly feasible. They received an overall low score, despite their projected job gains or tourism sales. Other projects received low scores in direct economic impacts, but they scored high on spin-offs. In this way, the evaluation process yielded interesting results as it not only prioritized projects, but incised them to give a clearer picture of each project's relative merits and limitations. This in turn gave us the ability to critically add observations aimed at improving each project's profile.

Listed below is every project that was evaluated, and its score under the analysis. Projects are listed from the highest to the lowest ranking.

Highest Ranked Projects:

- Higher Education Center (68 points)
- Six Flags (67 points)
- Perishables Center (66 points)
- Riverfront Recapture Park (65 points)
- Sports and Technology Center (65 points)

Middle-Ranked Projects:

- Convention Center (61 points)
- Charter Oak Terrace (61 points)
- Science Center (61 points)
- Capital Region Rail Transit (60 points)
- Bushnell Park (60 points)
- Bushnell Memorial (60 points)
- Colt Armory (55 points)
- Veeder Place (54 points)

Lowest-Ranked Projects:

- Ebbet's Field (38 points)
- Wethersfield Historic District (38 points)
- Equestrian Center (34 points)

Below we have selected the top scoring projects and arranged them to fit into all but one of the strategic growth themes identified in the Millennium plan. (The exception

Evaluations:

MetroHartford

Millennium

Strategic

Action Plan

has to do with creating the consensus and capacity to carry forward economic development, a theme that has little relation to the capital and development projects evaluated herein.) Only the highest- and middle-ranked projects relevant to each theme are listed (in order from highest to lowest ranking within each theme).

Focuses on key business sectors—Clusters and Technology:

Higher Education Center
Perishables Center
Charter Oak Terrace
Science Center

Focuses on key business sectors—Arts, Entertainment and Tourism:

Six Flags
Convention Center
Sports and Technology Center
Science Center
Bushnell Memorial

Creates world-class workforce:

Higher Education Center

Creates a vibrant downtown:

Higher Education Center
Riverfront Recapture Park
Sports and Technology Center
Convention Center
Capital Region Rail Transit
Bushnell Park
Bushnell Memorial
Colt Armory

Promotes beneficial regional infrastructure, land use and environment:

Six Flags
Perishables Center
Riverfront Recapture Park
Convention Center
Capital Region Trail Transit

Evaluations:

MetroHartford

Millennium

Strategic

Action Plan

The evaluations point to an important lesson insofar as the grouping of projects. The evaluation effort largely scored each project as a separate, stand-alone initiative. Only several measures addressed spin-off, multiplier or synergistic benefits. In fact, though, these projects are not stand-alone at all. They can work in conjunction and cooperation and yield very different economic consequences.

As examples: The Sports and Technology Center, as a stand-alone venture, is less compelling than it is as an anchor in a repositioned civic center redevelopment. The Equestrian Center looks very different as a stand-alone project or as an element of the Riverfront Recapture effort. Veeder Place holds stronger economic promise as a sectorally focused development, tied perhaps to Bradley air cargo plans. Integrating and mixing the components of these projects into slightly revised planning initiatives can better ensure that all or most of these projects contribute to a larger synergy, and that few or none of these investments work at cross purposes with any others.

This is especially important with regard to tourism and downtown projects. Pursued simultaneously but separately, these projects generate too much supply in search of too little funding potential, and can counter overall tourism and downtown Hartford revitalization efforts. Alternatively, if some of these projects could be integrated into dense tourism and shopping clusters, their impact can be catalytic. Imagine, for instance, the impact of the Sports and Technology Center and the Ebbet's Field project on each other. Or imagine the impact of these sports facilities, the Science Center and Athenaeum projects on a convention center; and vice versa, the impact of a convention center on these other, if closely-sited, projects. As to costs as well as benefits, further imagine how shared parking and roadway infrastructure can be used to reduce the costs of the sports and convention facilities. Or imagine how a shared IMAX theater, lobby and parking facility can reduce the costs of tourism attractions clustered at one site, such as the Civic Center or Colt. Finally, imagine how a downtown transit loop—a component of the Capital Region Rail Transit project—could be used to unite downtown's projects and subareas, as well as to provide congestion relief and better access to remote parking.

Timing also effects these spin-off and synergistic impacts. As one example: Convention centers generally follow—not lead—entertainment, arts and even shopping and eateries. Conventioneers go to New Orleans or San Francisco because of their attractions and amenities; these attractions and amenities were not created after the fact in order to service conventioneers. A convention center built now would have less benefit on Hartford than one built after the city's arts, entertainment and sports attractions are better developed. As another example: Removing the Science Center from East Hartford to downtown Hartford (where it could add to the downtown tourism mix) would have a negative impact on the image of East Hartford if done now. But if it is done just after a far more momentous Six Flags project is announced for East Hartford, its impact on East Hartford's image would be hardly noticed.

Project

Evaluations:

MetroHartford

Millennium

Strategic

Action Plan

The opportunities presented by the clustering and timing of projects underscores how planning can be used to improve the benefits and reduce the costs of specific projects. The proposed Downtown Economic and Design Action Strategy would, for example, provide the opportunity to better think through projects and their sequence. A case in point exists in the Hartford region already: the Riverfront Recapture plan, which foresees a series of individual projects strung together with the unifying element of a Riverfront Recapture Park. Such collective endeavors have the potential to dramatically change how the region perceives itself and is perceived by others. Comprehensive efforts such as that envisioned by Riverfront Recapture and the downtown Strategy have revitalized other urban waterfronts (e.g., San Antonio and Baltimore), central business districts (e.g., Pittsburgh and Cincinnati), and urban neighborhoods (e.g., South Boston and South Bronx).

Project

Evaluations:

MetroHartford

Millennium

Strategic

Action Plan

3. Project Descriptions

8

A brief description of each of the projects that were evaluated during the course of the study is presented below, in alphabetical order. The actual matrix analysis summarizing the evaluation and scoring by each variable is presented at the end of this Appendix. The "value added" exercise of noting how each project's score can be improved is italicized, to differentiate this discussion from the more objective elements of the evaluations.

Bushnell Memorial:

The Horace Bushnell Memorial Center proposes to expand its existing cultural facility onto a nearby vacant parcel located on Clinton Street in Hartford. Bushnell Memorial is one of the area's primary cultural loci, featuring performance and visual arts programs. In order to expand its program capacity and to increase the volume and range of cultural programs, the Bushnell Memorial proposes to embark on a \$20 to \$25 million building expansion which would create a 300+ seat performing arts complex.

The Bushnell Memorial proposal ranked fairly high as a growth generator, more as an indirect contributor to the region's capacity than as a direct employer or business stimulant. The Bushnell Memorial proposal would create nearly 100 full-time and part-time jobs, at a cost, though, of over \$200,000 per job. The project's appeal lies more in its contribution to the vitality and livability of the Hartford area, its inclusion in the region's tourism strategy, and its magnetism—helping to lure culture-hungry professionals to the Hartford region. The Bushnell Memorial expansion would further contribute to the region's growth strategy by adding to the range and diversity of educational and cultural opportunities in the downtown Hartford vicinity, and by attracting visitors from nearby suburbs. It would also support Bushnell Memorial's core cultural mission, and in so doing bolster the visibility of the performance center and the downtown, statewide.

The Bushnell Memorial Board has invested considerable time and thought in planning for the expansion, considering a number of different locations in the area and studying both modest and aggressive building campaigns. The current proposal is perceived by the Board to be a moderate undertaking, commensurate with the organization's fund raising and managerial capacity.

The demand for additional cultural seating capacity is always uncertain, however. For example, in terms of audiences, would the new facility compete with, complement or "anchor" other downtown arts facilities and programs? Is the audience sufficient to support the facility? How would the new facility affect the capital and operational financial support for other existing cultural venues, including the Bushnell Memorial's? *The relative costs, benefits and risks of this project are therefore only*

well understood in light of an analysis—yet to be done—that evaluates the Bushnell proposal in its market context.

Bushnell Park:

Bushnell Park is a 150-year old historic landscape designed by Frederick Law Olmsted, and listed on the National Register of Historic Places. Located in the downtown Hartford central business district, and immediately adjacent to the Capitol Building, Bushnell Park is a 40-acre preserve which is presently visited by one million people each year. Bushnell Park's revitalization would include the restoration of existing improvements, among them a carousel, a gallery, a pavilion stage and a memorial arch.

These improvements would heighten Bushnell Park's visibility and symbolic value as an emblem of civic pride and economic strength. Educational, environmental and recreational programs would intensify the Park's usage, attracting more visitors and tourists to the downtown area, bringing with it increased demands for products and services. Bushnell Park is a palpable amenity for downtown Hartford businesses and employees who use the park for eating, recreation, special events and other entertainment. The Park's restoration would therefore contribute directly to the appeal of downtown Hartford's commercial real estate. Bushnell Park is also one of the principal amenities for downtown residents. Its restoration would therefore contribute to the promotion of downtown's value for residential development and conversion. However difficult to measure, these indirect benefits can be considerable. By comparison, the restored Park would employ only an additional 15 to 20 residents.

The Bushnell Park project is expected to cost \$6 to \$10 million. Once complete, Bushnell Park will require annual subsidies to cover its \$600,000 to \$1,000,000 operating budget. Capital funds are expected from the State, City and federal governments, and from private donations from individuals and corporations.

Bushnell Park is a singular site. There are no other downtown parks which fit so prominently into the downtown revitalization effort. This fact, combined with the Park's landmark status and proximity to the Capital, caused the project to rank moderately high in the evaluation process, even though it is still hard to compare Bushnell restoration with other economic development projects because it is, first and foremost, a quality-of-life, not an economic, project.

Capital Region Rail Transit:

Sponsored by the Greater Hartford Transit District, The Capital Region Rail Transit project, is a strategic regional passenger rail project which would connect a number of communities, employment centers, and tourism and shopping centers in and around the north Hartford region. One main route, known as the Griffin Line—would be built in two phases, and would start at downtown's train station and run north as far as Bradley International Airport. Additional spurs or links are proposed for the North Meadow Enterprise Zone and downtown (the "downtown loop"). Eventually, a region-wide transit system is envisioned. Only the Griffin Line component has been the subject of a major investment study and has been costed out.

Evaluating the Rail Transit project proved complex because the location of travel lines and train stops is highly influential in determining rail ridership overall, and in driving the location and nature of other large projects benefiting from a rail station stop. While the Rail Transit project was thus evaluated using the same measures which were used to assess other regional projects, the project is clearly unique in that it is itself an economic venture and at the same time a market-maker for other endeavors.

The Rail Transit project did not score well as an economic venture, since its 200 to 600 new, permanent jobs would be created at a cost of well over \$500,000 per job. However, the Rail Transit project scored extremely well as an economic infrastructure project. It would improve the livability of both downtown and the suburbs. It would provide more travel options for workers, shoppers and tourists. It would reduce traffic congestion and reduce passenger vehicle emissions. It would leverage additional public and private investment in a range of related economic activities, real estate development ventures and public spaces—all of which benefit considerably from rail service access. The Rail Transit line's contribution to the region's growth potential gave it high marks as an efficiency booster and growth stimulant.

A key benefit of the project is its downtown transit loop connecting a number of generators and facilities. These include the train station, Constitution Plaza, the Civic Center, the Athenaeum, the State Capitol/offices, the proposed convention center, the Riverfront Recapture Park, and remote parking located at highway exits. The transit loop presently involves high-cost but high-image light rail. *If a transfer would be needed at the train station, a lower-cost "trolley bus" involving historic-looking buses might be an alternative.* The transit loop would relieve congestion, increase use of remote parking, and bolster patronage of downtown businesses and cultural amenities.

The Rail Transit project—like other transportation projects at this scale—requires extraordinary public capital subsidies for the Griffin Line/downtown loop alone: the capital subsidy amounts to over \$300 million for Phase 1 and \$450 million altogether.

er, and the annual operating subsidies are close to \$7 million out of a total operating cost of \$9 million. Significant federal funds are included in the proposed project capitalization, which scored the Griffin Line extra points. However, State Department of Transportation (DOT) support for the project—which is a prerequisite for implementation—has not been forthcoming as yet. The Griffin Line/downtown loop components are a 5- to 7-year project which involves many stages of design and construction. All of the Phase 1 right-of-way is publicly owned and the project sponsors are confident of securing the remaining right-of-way. However, the extraordinary public subsidies needed, long time horizon for development, the complicated site control and zoning obstacles, and the current opposition of DOT effected the project's feasibility score negatively. They also suggest that the project may be condemned to the purgatory of perpetual planning and research. *This impasse could perhaps be broken by viewing the Griffin Line/downtown loop components in relation to funding and planning decisions related to other transportation and land use projects (as discussed next).*

The Griffin Line proposal, cost effective in its intent, makes use of pre-existing rights-of-way and older transit corridors in deciding its route configuration. The Griffin Line runs north and west of downtown Hartford, however, bypassing Hartford's more congested corridors to the east, south and west. The Griffin Line provides congestion relief where it is needed least. Thus, while the present proposal takes advantage of existing infrastructure, it is less than ideal as a problem-solver. *Additional research may best focus on an exploration of how the proposed Griffin Line compares with other commuter rail lines which, while perhaps more ambitious, could resolve more pressing traffic problems.*

Whatever transit strategy is adopted, a key feature should be the downtown loop proposed by the Greater Hartford Transit District. The downtown loop could involve light rail, "trolley buses" involving small, historic-looking shuttle buses, or conventional buses. Light rail is expensive and overkill unless it can combine frequent stops at low speeds in downtown with long-distance travel at high speeds outside of downtown. In an experimental trial run through the evaluation process, a downtown loop scored very favorably as a separate project, in fact higher than the main Griffin Line north to Bradley Airport.

Charter Oak Terrace:

The Charter Oak Terrace Commercial and Industrial Park envisions the commercial/industrial redevelopment of a now public housing complex. The site is located in Hartford, adjoining West Hartford. It is presently zoned residential, but is contiguous to industry and proximate to both rail freight service and an interstate highway exit. Half to all of the 54-acre site could be redeveloped for commercial/ industrial uses,

depending on the amount of land to be retained for residential and open space uses.

The Charter Oak Terrace Project has a number of direct benefits built into its conceptualization. The project is expected to generate 560 to 800 jobs, at a cost of \$30,000 to \$40,000 per job. These jobs would be targeted to neighborhood residents in general, and Housing Authority tenants in particular. Employment opportunities would be tied to training opportunities, including the Campus of Learners program established by the Housing Authority for its tenants. The development's space is to be specifically marketed to the growth clusters identified in the Millennium plan. Approximately 33,000 square feet of space is specifically set aside for a business incubator, also targeted to locally-grown business enterprises. Like most of the other projects considered in the evaluation process, the property would remain under private not-for-profit ownership; however, the Charter Oak Terrace project envisions PILOTS (payments in lieu of taxes) and an inter-municipality development zone encompassing privately held property, thus contributing to the grand list (tax base) of both West Hartford and the City of Hartford.

The indirect benefits of the project are less substantial. They nonetheless include enhanced and economically integrated housing for the current Housing Authority tenants housed on the site, and riverside open space that provides a buffer between the commercial/industrial park and residential uses across the Park River.

The \$24 million project is dependent on public support for 75% of its capital. The project's market study concluded that the regional real estate market can absorb the level of development envisioned, provided that carrying costs are competitive with similar suburban development. This has meant that all of the demolition, tenant relocation, and site improvements must be subsidized, to bring the site in line with its "greenfields" competition. This explains the high development costs and need for subsidies. However, HUD money is available for readying the site for development and providing substitute housing for the current tenants.

The Growth Council's participation in the conceptualization of the Charter Oak Terrace Project helps to explain its focus on maximizing its benefits in terms of jobs, targeted clusters, etc. *The implication is that these purposes will need to be kept paramount as the project goes forward and real estate marketing realities gain in prominence.* The current willingness of HUD to demolish and rebuild housing for Housing Authority tenants on another site helps to explain how this project is feasible despite its high cost. *But the further implication is that the project—however logical on paper—will require a significant effort to secure the full cooperation of two municipalities, the tenants of the complex, the neighborhood in which tenants are to be relocated, and thus HUD if it is to go forward.*

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Colt Armory:

The Colt manufacturing complex, still partially utilized, represents one of the region's most striking examples of 19th century industrial architecture. These buildings are the subject of a mixed-use revitalization proposal which would modernize the property for live/work studios, arts and entertainment spaces, retail, and mainly small-scale manufacturing.

This proposal scored reasonably well as a net provider of jobs and business activity. The project would retain the 120 jobs presently on site, and add another 180 jobs, for a total of 300, at a cost of \$60,000 per job. The project also involves the substantial rehabilitation of one of the region's most visible historic resources, and can be the cornerstone of other improvements to and investments in its south-downtown environs.

Local and regional political support would doubtless be forthcoming. Yet the project's feasibility was not proven. The project involves the substantial rehabilitation and environmental remediation at a cost as high as \$18 million. Colt has committed to underwriting nearly one-fifth of the project's costs, but the project requires heavy public subsidy in the form of environmental clean-up funds, property tax abatements and low-cost financing.

The site's proximity to I-91 gives it some significant locational advantages. But the depth and strength of the industrial market is not certain. Information presented to date does not substantiate adequate demand to absorb the proposed 250,000 square feet of industrial incubator space. As with any building structure of this vintage, time is perhaps of the essence in that the property's rate of decay is surely accelerating. *To improve feasibility, perhaps some buildings should be mothballed (stabilized and shelved for later redevelopment) or even demolished (to make way for needed parking).*

The unknown market for rehabilitated industrial space has been offset in the current plan by emphasizing the non-industrial uses proposed. But the danger is that the complex would not have any organizing identity: naming every use imaginable is not the same as a well-conceived mixed-use development. *Integrating the Colt property redevelopment with other Riverfront Recapture projects would improve its viability for non-industrial uses.*

So would including a major attraction within the project—ideally a use like the Science Center, which would otherwise involve a new building located outside of downtown. (Note that the Colt site, unlike a more central downtown site, would still allow the Science Center to make the river one of its themes.) In addition (for synergy) or alternatively, an attraction might be built around a defined theme, such as the history of technology or industry. Such an attraction should be conceived so as not

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to compete with the Science Center or other attractions, either for funding or for visitors. The reliance on existing exhibitry might address this issue. For example, the facility might feature the Colt firearms collection (available from the Athenaeum airplane and rocket machinery and artifacts (available from Pratt & Whitney).

Convention Center:

A convention center was proposed in the City of Hartford's Downtown Development Plan of 1994, and the Governor just appointed a Connecticut Convention Center Authority to carry out the project. The Authority is now evaluating potential sites which to locate a convention center in or near downtown Hartford. The Authority also expected to commission financial and design feasibility analyses for the proposed convention center.

The broad benefits of a convention center are easily intuited. The facility provides amenity for local businesses and associations; it generates a substantial number of jobs; it increases hotel and motel room occupancies; it provides added revenue for local restaurants and comparison stores; and it contributes to its region's reputation as a destination. The spin-off benefits alluded to above are, however, directly proportionate to the centrality of the convention center in terms of the businesses that benefit. For example, a convention center at a suburban location and with its restaurant, retail and overnight facilities will internalize many benefits, and will support a limited number of establishments appealing to the "lowest common denominator" generated by its conventioners. The same convention center within a wider range of downtown eateries, stores and hotels will support a greater number of establishments, since these establishments can count on other sources of market support. Convention centers hosting major conferences import millions of out-of-region dollars, as distinct from convention centers hosting trade shows geared to local residents. The benefits of convention centers, though substantial, therefore

The broad costs and risks associated with a convention center are also fairly dictable. Convention centers are usually built by authorities, with bonds guaranteeing their operation at a loss, with a cross-subsidy generated by room occupancy taxes or other public sources. The implication is that the greater the number of restaurants and stores, the greater the revenue available for underwriting the convention center, whether or not the cross subsidy method adopted is direct (i.e. excise tax) or indirect (i.e., increased City or State tax revenues from hotels and other sources). Convention centers are not the stuff of small downtowns with limited and hotel accommodations.

However much the proposed Hartford Convention Center might contribute

vibrancy of downtown, and however committed the State and City are to making the project finances work, this project has too many uncertainties to score high in the evaluation process. *The project should therefore be reevaluated once its details are better understood.*

As clearly, the project should be fully considered as part of the Downtown Economic and Design Action Strategy now being commissioned by the Downtown Council as an outgrowth of the Millennium effort. The Action Strategy provides the opportunity to assure (1) that the convention center is well situated in downtown, and (2) that the downtown's roadway, pedestrian, parking and development elements are designed to better serve the convention center, thereby (3) increasing the project's benefits, and (4) providing shared parking and other elements to reduce project costs and risks.

Finally, the Action Strategy provides an opportunity to better place the Convention Center not just in its geographic but also in its temporal context. People, corporations and organizations from around the nation decide first on the places they want to go, and then enquire as to which of those places offer the best convention facilities. The nation's most successful convention centers have been built in established tourist destinations offering a variety of overnight accommodations and amenities. *Efforts to create a more pedestrian-oriented, amenity-filled, shopping/entertainment-oriented downtown should either take precedence over the convention center, or at the very least move ahead at the same time.*

Ebbet's Field:

The Ebbet's Field project, sponsored by Ebbet's Field LLC, owner of the name rights, is an amusement/entertainment center which would be home to minor league baseball competition and also serve as a convention and concert forum. The complex would be located on a presently vacant site near the Riverfront Recapture crosswalk which links Constitution Plaza with the Connecticut River waterfront. Average event attendance is projected at 7,000 to 10,000 people.

Ebbet's Field scored middling as a generator of jobs and new capital. Ebbet's Field is projected to create 150 direct jobs within the facility, but at a cost of \$200,000 per job. It is estimated that the facility could attract as many as 1 million visitors, with as many as 250,000 visitors and tourists from out-of-state, but stadium and concert visitors tend to bypass local stores and restaurants for the stadium's own outlets; indeed, modern stadiums depend on internalizing such expenditures in order to offset their high operating costs. The visibility of Ebbet's Field would doubtless be regional, however. The project could also play a central role in the Riverfront Recapture project.

Estimated to cost roughly \$30 million, the project would be capitalized with both pub-

lic and private funds, with nearly one-third of total development funds originating from a public stock offering. Still in its early phases of development, Ebbet's Field does not yet have any committed funding, nor has it secured site control. Many feasibility variables could not yet be quantified—variables such as long-term self-sufficiency—because research has not confirmed post-opening income and expense figures.

Further questions arise about how Ebbet's Field would be integrated with other high impact tourist and sports facilities. These include the proposed University of Connecticut Football Stadium, the Science Center, and the Sports and Technology Center—all of which are vying for the same public subsidies and corporate support. Also, New Britain's existing minor league baseball venue would be adversely impacted by this development. So would the city's outdoor arena to the north. *One option to consider is merging this project with the Sports and Technology Center or the football stadium.*

Equestrian Center:

The Living Horse Learning Center (also known as the Equestrian Center) is a horse park which aims to provide social, educational and recreational experiences for children and families. With a proposed 100-acre site located next to the old Sherwood Forest Zoo and golf course in Keenie Park, the \$5 million venture would make a series of improvements to the park which would allow for competitive, educational and recreational horse riding.

A unique living/learning environment, the Equestrian Center would be the first of its kind in the region, attracting visitors and tourists from considerable distances. Fully realized, the Equestrian Center could contribute to the overall regional goal of boosting Hartford's cultural and educational offerings. It would—at only 25 to 30 jobs—*not have many direct economic impacts.*

The design and construction of required improvements are still under study. Market research has not yet been completed to determine whether there is adequate demand to support the Equestrian Center. These uncertainties and lack of funding caused the Equestrian Center to rank relatively low in the evaluation process. *Future research on this project should also consider the experience of other horse parks in the northeast, most of which have experienced chronic operating deficits.*

Beyond feasibility, research completed to date has not indicated that the Equestrian Center development is significant with regard to other priority educational, cultural or physical revitalization initiatives or regional plans. *It may be useful, for example, to consider integrating the Equestrian Center into the Riverfront Recapture plans, tak-*

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ing advantage of floodlands and the linear quality of the riverfront parks envisioned and increasing the project's benefits.

Higher Education Center:

The Hartford Higher Education Center is a coordinated regional education and training initiative which would consolidate the two existing campuses of the Capital Community Technical College (CCTC) into one central downtown campus, thereby consolidating these two disparate sites at one convenient core location. Although the initial plans for the Higher Education Center are being revisited, as originally put forward, the central campus would be expanded into a more comprehensive learning center by partnering with the Hartford Consortium for Higher Education (HCHE), an amalgam of Hartford area colleges and universities. Together, the CCTC and HCHE propose the creation of a state-of-the-art education center which would provide wide course offerings to college and university students and an array of technical and vocational training courses for daytime and evening continuing education students. The Higher Education Center would provide full-time education programs to over 4,000 students from the region and continuing education courses to 10,000 part-time students and downtown employees, visitors and business owners.

The Higher Education Center would occupy roughly 225,000 square feet of space in the downtown area. Estimated to cost \$60 to \$75 million (new construction, excluding acquisition and site preparation), the Higher Education Center has received formidable and widespread support from business and industry, from the education community, and economic development organizations. Its total reliance on capital and operating subsidies is the project's major shortcoming.

This problem is more than offset by the project's manifold benefits. The Higher Education Center would create nearly 2,000 jobs at a cost of well under \$40,000 per job. But its educational, work force, downtown and spin-off benefits would be even greater.

The consolidated campus would provide uncommon access to a diverse array of students from the city and suburbs alike. Beyond rationalizing the current CCTC campuses, the Center would coordinate and integrate a variety of degree and technical programs currently offered by other area colleges and universities.

The Higher Education Center would also provide targeted training for Hartford area businesses which are suffering from labor shortages and skill deficiencies. Hartford area businesses have identified a profound skills mismatch in the region, with acute labor shortages reported in computer programming, software engineering, precision machining and other semi-skilled and skilled disciplines. The Higher Education

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Center offers an opportunity to remedy this growth obstacle.

Facilities planning professionals from CCTC and the HCHE have evaluated a number of development sites in downtown Hartford. This would allow the center to infuse more visitors and spending in downtown: 16,000 students and employees would boost downtown's businesses, arts, and street life.

There is sufficient building space in the downtown Hartford area to accommodate the Center. These spaces include the former G. Fox department store and the underutilized Civic Center. The adaptive reuse of either structure would also allow for the Center's integration into the existing building stock, as opposed to new construction. This adds to the proposal's appeal, as it would absorb existing vacant space.

The Higher Education Center could also be piggy-backed with other development initiatives, multiplying its impact. Colleges and universities are often strong partners for technology incubators, such as that proposed for the Colt property.

Perishables Center:

Proposed by the Bradley Development League, the International Perishables Center is the centerpiece of a plan to position Bradley International Airport as a primary port of entry for perishables into the Northeast United States. The project would entail the new construction of a state-of-the-art warehouse facility at Bradley.

The Perishables Center received middle to strong scores both as a direct and as an indirect generator of economic activity. The facility itself would create 40 to 50 jobs for warehouse workers, truck drivers and administrators, at a cost of under \$150,000 per job. The warehouse facility would also stimulate related wholesale, processing and retail flower and related perishables sectors throughout the region. The Perishables Center would rival Massachusetts, Rhode Island, New York and New Jersey for perishables traffic, thereby importing economic activity which is presently located outside of the state.

The project, although less visible than some other projects under evaluation, had satisfactory local and regional support and was thought to be highly feasible. Most of the required \$6 million funding for the project has been identified. The lion's share of construction capital will come from private sources. The construction timetable is only one year. Once complete, the facility will not require subsidy. The site, an unimproved paved lot at Bradley, has yet to be secured, however.

Of all the projects reviewed during the course of this study, the Perishables Center was one of the few that had a simple, short-term development and realization program.

Straightforward, the Perishables Center does not have many of the heavy uncertainties that other ventures associated with huge public investments, zoning changes or five-year development time horizons do. For these reasons alone, the Perishables Center held strong favor in the scoring process.

The project is, however, presently stand-alone; i.e., it does not relate to any other plan or initiative. *Advancing the proposal should be pursued in tandem with a larger planning effort for the undeveloped land in and around the airport, both public and private. This vacant land represents a unique development opportunity for the region which should be cultivated comprehensively, with the Perishables Center being one of a number of uses proposed for the area.*

Riverfront Recapture Park:

Riverfront Recapture is a multi-decade effort aimed at turning the Connecticut River into a regional asset—once again the focus of Hartford and other riverfront communities. Riverfront Recapture potentially encompasses a variety of development projects, some of which are discussed elsewhere in this report: the Science Center, Ebbet's Field, Colt Armory, Wethersfield Historic District. Riverfront Recapture's centerpiece is a system of linear parks along both sides of the river, in Hartford and East Hartford, with long-term plans to extend the park "loop" into Windsor and Wethersfield. Five miles of pedestrian/bikeways, with three river crossings, are envisioned, uniting recreational, entertainment, historical and vending facilities. Additional boating facilities are also planned.

Like Bushnell Park, the Riverfront Recapture Park is a major infrastructure investment in the quality of life of the region. The number of direct, permanent jobs created by the park are minuscule compared to its costs: only 60 full-time jobs, plus more summer jobs for youth. But the impact on the region's image is manifold. While the Riverfront Recapture project may not generate much tourism directly, it would create the backdrop or viewshed for major attractions, such as the Science Center. The Riverfront Recapture park would also be a major amenity for adjacent residential and office districts, including downtown Hartford's. As a unifier, it would help to promote synergistic connections between projects and neighborhoods.

The park project carries an enormous price tag of roughly \$50 million. Much of the capital cost is for funded highway improvements. The Riverfront Recapture park would have a carrying cost of slightly more than \$3.5 million per year, three-quarters of which will come from public sources. Construction started in 1986, and is expected to be finished by 2004. The project is well underway, 70% of the funding is in place, and public support for the project is commensurate with its cost. However, full funding is in not place and the annual operating subsidy is quite large. As such, the

project is in need of additional and continuous public support that may falter.

Planning has been used from the outset to maximize the project's benefits and also to identify to the possible private and dedicated revenue sources. The Riverfront Recapture project is therefore a model of how planning can be used to good effect.

Science Center:

Proposing to serve over 350,000 visitors each year, the Science Center of Connecticut would feature exhibitry on science, technology and mathematics, including a theme related to the Connecticut River's ecology. Preliminary design work locates the Center in East Hartford, along the banks of the Connecticut River across from the Colt complex. The proposed development site is controlled by the sponsor. A 160,000 square foot structure, the Science Center would contain, in addition to exhibit and demonstration space, classroom space, support services, retail trade and a large format theater with a planetarium.

The Science Center received mid- to high-point scores on most accounts. Consultant studies indicate that the Science Center would employ between 280 and 530 people, at a cost of \$80,000 to \$160,000 per job. More importantly, the Center figures prominently as a regional tourism attraction and in the Riverfront Recapture plan, as it would be a major draw for residents, employees and visitors.

A facility of this sort can also have unexpected workforce benefits. It can advance the interest and literacy of area youth in science and technology, promoting careers in these sectors. It can attract academic talent. Other science centers across the country have included job training and placement, basic science literacy education and other community-based programs in their non-profit citizenship mission. These programs are currently being considered by the Science Center's sponsors. The location of a Science/Technology/Mathematics magnet middle school—proposed by five communities for a site adjacent to the Science Center—would increase the Center's educational benefits.

The project did not score high in select feasibility measures, though. It is a multi-year project with a large price tag of \$45 million or more. As much as one-half of the total capital cost may come from donors and sponsors from the private sector, but only some of the required funding has already been committed. The Science Center expects to cover most of its operating costs out of earned income— income from restaurant, gift shop and theater ticket sales, etc. But self-supporting museums are almost unheard of. A post-opening income and expense budget is currently being prepared.

The Science Center proposal, in its present location, presents certain trade-offs. It is important to the Riverfront Recapture effort and East Hartford's image; but it does not reinforce any other tourism or downtown Hartford initiatives. This is important to note because centers of this sort do not necessarily create strong secondary growth. When sited outside of theme parks or downtowns, they generally have an island economy character to them. Visitors park, experience the center, have a snack or meal, and then return home. Such a facility can, though, contribute significantly to an existing core of commercial and tourism activities. This is especially the case if they do not provide a cafeteria (other than for school groups) within the facility, compelling visitors to seek their food outside of the facility. *Given that there are so many projects in the region which endeavor to capture the tourist market, perhaps the Science Center proposal would figure better if it was integrated into a downtown revitalization proposal, married to the Sports and Technology Center or the Colt property redevelopment, etc. This might allow for a concentration of destinations, thus extending the market draw of downtown in general and each of the projects in particular.*

Six Flags:

Six Flags is considering the development of a large outdoor amusement park on the present site of Pratt & Whitney's airport/industrial park in East Hartford. Six Flags is also considering an alternative site in Rhode Island. Both sites have been selected because they are convenient to highways, halfway between New York City and Boston. Hartford's site has the further advantage of being central to a large suburban and urban resident population; Rhode Island's site has the counter advantage of being proximate to other regional tourist destinations, including Foxwood, Mystic and the beach.

The benefits of the Six Flags amusement park are readily identified. The amusement park would generate a substantial number of jobs, although the majority would be seasonal in nature. It would also maintain the Pratt & Whitney site as a private—hence taxpaying—use. The several hundred million dollar would infuse a considerable amount of capital into the region that would otherwise be directed elsewhere. It would, however, rely for half of its funding on a bond guaranteed by the State of Connecticut, and repaid through dedicated use of the State's amusement tax. This represents an indirect cost.

The amusement park would generate even more significant spin-off benefits. It would probably be the biggest "name" tourist attraction in the Hartford region, therefore extending the reach and reputation of Hartford as a place to go. As a weekend attraction, it would bolster the average room occupancy ratios of local hotels and motels, probably enabling at least one additional hotel or motel to be built in the region. Its across the boards family appeal would complement the current mix of attractions—

such as Bushnell Memorial, the Atheneum, historic sites—which are essentially "high-end." As such, it might even help clinch the mix of attractions that must precede or accompany the development of a convention center.

The Six Flags amusement park is located outside of downtown Hartford, theoretically diminishing its spin-off impacts. However, amusement parks are by necessity self-contained, auto-oriented developments, so downtown stores would not get any additional trade no matter what. Also, the land-intensive Six Flags development would eat up valuable downtown acreage better put to more year-round, intensive uses. Indeed, one of the principal benefits of the Six Flags proposal is that it would absorb a significant amount of the Pratt & Whitney site which, with its highway access and infrastructure, could easily absorb much of the retail, office and housing development intended for downtown.

The Six Flags development is a market-driven initiative, and involves sale of privately-owned land to a private corporation. While the structure of the deal has not been negotiated, public support would probably take the form of guarantees on the bond, tax abatements and other incentives. No direct (cash outlay) subsidy is expected. However, the Six Flags development would almost certainly undermine a several-million-dollar State investment in the nearby, historic Lake Compounce amusement park. The placement of this investment at risk should be counted as an indirect public cost. *A strategy to promote a niche theme at Lake Compounce amusement park that is resistant to Six Flags competition would improve the rating for Six Flags.*

As a large-scale, high-benefit, privately-financed enterprise, the Six Flags development scores high in the matrix evaluation. Its only flaw is the impact on other State investments. *The implication is that the project should still be a high priority for the region.*

Sports and Technology Center:

Proposed for downtown Hartford, the Sports and Technology Center is a multi-faceted sports and entertainment facility. It potentially includes the ESPN Visitors Center, sports and technology exhibits, the Connecticut Sports Museum and Hall of Fame, health and fitness exhibits, "Over The Edge" Theater, a 70 mm film/motion ride, sports careers center and sports food court and related retail trade. The Sports and Technology Center is currently proposed for the retail space in the Civic Center, involving the repositioning of a large portion of the Civic Center into a sports based tourism and sales center.

The Sports and Technology Center received medium to high point scores across-the-board. The project anticipates the creation of 475 new jobs, at a cost of \$80,000 per

job. Entry to the museum elements would be priced at or near that of a movie ticket, thereby providing convenient and affordable access to a major attraction for residents and visitors of all economic backgrounds. Most important, the Sports and Technology Center would reorient the entire Civic Center and enable the downtown area to capture increased business and employment activity. Unlike some other tourism projects, the Sports and Technology Center was highly desirable because it would rejuvenate an existing facility in downtown, rather than pull trade away from central business district. The facility's location in an otherwise vacant or underutilized downtown building is not just opportunistic from its sponsor's point of view; it is essential from the Millennium project's point of view. *While the project should not be "real estate driven," it should also not lose sight of how the real estate element is central to its benefits.*

A one- to two-year development endeavor, the project is expected to cost \$40 million. Much of the funding for the project has been reportedly committed by State and local government and by national and local sponsoring corporations, but none of the funding is in place. Project finances also depend greatly on favorable lease or sales terms for the Civic Center space. The project is expected to be self-financing and therefore should not require additional subsidies after construction. However, questions arise as to the feasibility and sustainability of the project, especially given the large number of potential competitors for public subsidies and private donations: Ebbet's Field, the Science Center, the Mark Twain House, etc. The site has yet to be secured.

As the opposite of the Science Center, the Sports and Technology Center's scoring problems have nothing to do with location and spin-off, but everything to do with the clarity and sustainability of its program. The use of the ESPN name may be temporary, and does not represent significant corporate commitment for the programming or financing of the project. The Basketball Hall of Fame upriver in Springfield proposes a major expansion of its facility, raising the question of how the two facilities will dovetail. Research on sports-based centers and halls of fame suggest that the Sports and Technology Center may have an identity problem since, by covering all sports, it may not be able to provide the type of depth that museum goes in general, and sports fans in particular, crave. But a project which focused on golf, tennis or hockey only would not relate to ESPN or any other Hartford attraction. *The Sports and Technology Center may therefore benefit by being partnered with other attractions, both to reduce costs and to provide greater identity.* This reinforces the sponsor's decision to locate the facility in the civic center, where it would benefit from existing employment, shopping and travel activities. *Other linkages should be considered. These could include a shared facility involving another museum-like attraction, such as the Science Center; or they could include a different site next to another sports facility, such as Ebbet's Field.*

Veeder Place:

Veeder Place is the site of a large vacant industrial building which was once a significant employer in the Asylum Hill community. Sponsored by the MJB Corporation, which presently owns the development site, the Veeder Place project will reuse the 122,000 square foot factory building by marketing the newly renovated spaces to area businesses. While some of these businesses will be new or expanding enterprises, others will be simply relocating from other nearby locations. The list of tenants committed to the project are St. Francis Hospital, Easter Seals, Arrow Drug, Star Tel Cellular, and a local police office. A nearby electrical wholesaler has expressed an interest in the rehabilitated facility along with some other neighborhood residents contemplating business start-ups.

Veeder Place received high scores for its strong projected economic impact. Once fully rebuilt, Veeder Place itself will employ 200 to 250 neighborhood residents, at a cost of under \$70,000 per job. Veeder Place is also a linchpin for the larger Tri-Neighborhood Revitalization Initiative, an ambitious undertaking valued at some \$75 million and including overall improvements to area housing, retail strips, infrastructure and the environment of the Asylum Hill, Clay Arsenal, Northeast and Upper Albany neighborhoods. Projected benefits from the project are, however, highly localized. Most of the tenants, for example, are simply relocating from other existing or potential sites in the community.

The project is in place and nearly all funded, causing it to rank highly in terms of feasibility. However, Veeder Place's reliance on heavy public subsidies and its uncertain long-term self-sufficiency placed its long-term feasibility in doubt. A \$14 million endeavor, the project relies on public sources for some two-thirds of its capital, with the balance coming from private philanthropic contributions. The total development cost per-square-foot for Veeder Place is well above industry averages. This may be due to the bulky environmental cleanup costs associated with the project. A more market-driven development and management strategy would have given the project higher points.

Inner-city industrial revitalization ventures such as Veeder Place face serious obstacles, from waning markets to environmental compliance. Many projects that do succeed exhibit some commonalities. They are located in a marketplace with some expanding classes of businesses, and/or take advantage of new infrastructure or access improvements. *Having a sectoral theme or industry concentration or some sort of a market niche would probably help a project like Veeder Place.* *Tying Veeder Place to emerging growth industries in telecommunications or processed food, for example, might lessen the marketing uncertainty.* *Linkages with prospective initiatives, like using the Griffin Line that would run next to Veeder Place and connect to Bradley Airport's Perishables Center, may be worth considering too.* Simply shuffling exist-

ing tenants from one part of the city into the expensively rehabilitated Veeder Place building may not produce the highest benefits possible.

Filling a large vacant industrial building in a universally down market is a profound challenge. Veeder Place must avoid becoming a space which is indiscriminately in search of occupants. The Veeder Place structure is really contiguous floor-through buildings with interior demising structures, and therefore lends itself nicely to phasing. *One of the three building sections could be brought on line first, testing the market for a more focused theme occupancy, with later sections coming on line after earlier renovations have been leased. The buildings are overbuilt and could also accommodate a range of uses, perhaps parking included, which may figure into a revised more market-driven development proposal.*

Wethersfield Historic District:

A comprehensive neighborhood development proposal sponsored by the Town of Wethersfield, the Historic District Housing and Development Plan is designed primarily to preserve and enhance the quality of existing historic housing. Beyond the restoration of buildings within the historic district, the plan calls for the development of museums and other educational facilities, streetscape improvements, public space and sidewalk amenities and other physical improvements. Thus, the maintenance and enhancement of the town's stock of historic buildings is also intended to figure into a business attraction and tourism development scheme.

Wethersfield's historic district is the state's largest. It is a destination for some tourists and visitors and, once buttressed, could stimulate area retail sales and other business activity. Once fully realized, the Wethersfield Historic District Plan could be linked to and integrated with Hartford's Riverfront Recapture and other downtown trade and tourism centers. A \$10 million program, the multi-year project would be financed almost exclusively with public funds.

While the Wethersfield Historic District Plan scored high as a community stabilization proposal, its benefits, though admirable, would be highly localized. As an economic endeavor, the program is not a cost-effective job-generator or tourism-generator. These considerations, combined with the heavy funding and legislative/zoning uncertainties, brought the project's overall scoring down.

4. Scoring Methodology

As explained at the outset, the evaluations presented above are the outcomes of carefully and systematically considering the cost, benefit and feasibility of each project, in terms of 26 measures. These measures were grouped into four major measurement categories, as follows:

- Direct Economic Impact
- Economic Infrastructure Development
- Regional Variables
- Feasibility

Each of the measures (hence each of the categories) contains a maximum number of points which may be scored by a project. The sum total of all points available to a project is 100. Each measure is weighted differently, with more or fewer points depending on how much emphasis each is given. In each measure, projects can earn anywhere from 2 to 5 points. Some measures award points based on a stated performance threshold. For example, with regard to the jobs measure, the number of points awarded is proportionate to the total cost per job. But many measures are softer. In these instances, projects may receive no points or lower points because they evidence more or less of the scoring characteristic. For example, with regard to political support, a project with moderate or uncertain local political support would receive a score of 1, and strong political support would receive the full score of 2.

While many of the measures used in the evaluation process are fairly self-explanatory, below is a more detailed definition of each of the 27 measures, in the four scoring categories. The maximum score for each measure and category is parenthetically indicated.

Direct Economic Impact: (20 points)

• **Job Retention and Creation**—This measure refers to direct job retention and creation attributable to the project. Points are awarded in this category on a capital cost-per-job basis, so as to place projects on an equal footing. Higher points go to projects that forecast a higher employment/investment ratio. Five (5) points are awarded to projects which have a development cost-per-job ratio of up to \$50,000 per job; 4 points for a ratio of \$50,000 to \$100,000 per job; 3 points for a ratio of \$100,000 to \$150,000; 2 points for a ratio of \$150,000 to \$200,000; 1 point for a ratio of \$200,000 to \$250,000; and no points if the cost-per-job exceeded \$250,000. Where the project costs or number of jobs are not known, a general understanding of the project cost to jobs relationship is employed. Construction and related jobs are not included in any scoring indices, for two reasons. First, they are short-term and may or may not be local (in-migrating construction jobs produce far less for the local economy than locally-sourced ones). Second, construction-related cost-per-job figures are

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generally stable and do not vary considerably from project to project. Thus, it can be assumed that all of the projects being considered will have a short-term construction cost-per-job value which will be roughly comparable. (5 points)

- **Import Substitution/Export Development**—This measure gives points to projects which attract new income and wealth to the area by permanently altering the flow of cash and income into the region. Import substitution occurs when money which presently leaves the region to purchase goods or services outside the area is recaptured by local sources. If, for example, area families leave the vicinity to spend their money at out-of-region family theme parks, the creation of a new theme park in the region would recapture funds which are presently leaking out of the local marketplace. Export development also brings fresh capital to the region when businesses which sell to a national or international market are developed. A national direct-mail catalogue company, for instance, will leverage a high degree of business activity because it exports products out of the region. Tourism, of course, imports disposable income from outside the region; but a tourism project which competes with other tourism projects for the same consumer dollar is clearly less desirable than a project which attracts new consumers from outside the area. (5 points)

- **Private Capital Leverage**—This and the next measure relate to net capital inflows to the region—with points awarded based on the portion of total revenue generated by the project attributable to private capital or out-of-region capital inflows. Higher points in this specific measure are given to projects which have the highest proportion of private capitalization. Of the total points available, 3 are given to projects which are 75% or more privately capitalized, 2 points if 50% to 75%, and 1 point if 25% to 50%. (3 points)

- **Government Capital Leverage**—Projects which are capitalized with new sources of federal government funds are also given extra points. If a project is wholly financed from public funds, points are still derived in this category if the funding is from a non-local and non-State of Connecticut source. New federal funds bring fresh capital to the region without depriving other projects of local and State government funds. So an industrial park project which brings HUD investment to the region scores above one which relies entirely on State funds. (2 points)

- **Tax Base Increases/Stabilization**—This measure awards up to 3 points when projects make a direct net contribution to property taxes or other broader tax base changes which boost government revenues, beyond sales and payroll tax increases tied to employment, business, and tourism gains (which are reflected in other measures). Property tax (grand list) increases are the most important variable here. Beyond local property tax increases, tax base integrations which enhance regional stability are also given points here. The development of moderate- or middle-income housing in an otherwise low-income neighborhood contributes to a tax base and

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income stratification and stabilization which benefits the region's tax base, for example. This measure awards up to 2 points for these direct but non-quantifiable tax benefits. (5 points)

Economic Infrastructure Development: (25 points)

- **Job/Business Spin-Offs**—Some projects generate secondary economic growth, such as business spin-offs and sales multipliers. For example, a convention center can create additional business opportunities in hotel, personal and business service and retail sectors. These secondary growth characteristics are weighed in this section, with higher points going to projects which leverage greater indirect growth on a dollar-for-dollar basis. Secondary growth effects are difficult to measure, but certain types of industries, manufacturing for example, generally carry a higher secondary growth multiplier effect than jobs in personal and business services. Whenever possible, these distinctions are considered in this measure. (5 points)

- **Local/Regional/National Visibility**—Points are awarded here when a project is visible to businesses, residents, visitors and others outside of the project's immediate vicinity. Up to two points are awarded to projects which have local visibility. Up to another three points are awarded to projects that have broader regional and national visibility. A renovation project could impact neighborhood perceptions, for instance. A large museum could impact regional perceptions. A large theme park could impact national perceptions. (5 points)

- **Sustainable Community Development**—Projects which sustain and maintain viable mixed-use communities—including in downtown—receive scoring points in this measure. Commercial strip preservation and revitalization programs, for example, are given points here, as are community health centers, schools, cultural programs and other ventures which help neighborhoods. Crime prevention efforts and beautification campaigns are relevant, too. The inclusion of this scoring category is intended to acknowledge the importance of neighborhood-based preservation projects which often go unnoticed in a portfolio of high-impact large-scale initiatives. (5 points)

- **"Crowd-In" Investments**—Certain types of investment beget other investment. For example, a landlocked tract of land which is made accessible through investment in new road and rail development will doubtless invite related investments in property improvements. A new airport will always invite related commercial developments. Investments like these which trigger other private sector investments are, in essence, "crowding in" sister projects. These sorts of endeavors are given scoring points in this measure. (5 points)

- **Synergistic Investments**—Certain types of projects increase the benefits of other projects. For example, one tourism project may generate additional visitors to the area, or generate a changed perception of the area, that rebounds for other tourism projects. As another example, several downtown projects may add to a synergy in which the sum of the benefits is greater than the parts, i.e., the cumulative impact is greater than the individual project impact. (5 points)

Regional Variables: (25 points)

- **Compliance with Millennium's Themes**—Particular emphasis is placed on each project's compliance with the Millennium's overall economic development growth strategy for the region. To the extent that each project supports or does not support furtherance of the Millennium's targeted sectors and strategies, it is given more or less points accordingly. (5 points)
- **Compliance with Regional Land-Use Plan**—Akin to, but distinct from the former measure, this measure assesses the degree to which the project fits into and supports the region's desired land use scheme, as articulated in the Millennium plan. (5 points)
- **Relationship to Other Regional Plans**—Akin to, but distinct from the "Crowd-In Investments" and "Synergistic Investments" measures, this measure assesses compliance with spirit or letter of other regionally significant plans. These plans presently include SINA, the North Hartford Initiative, and especially Riverfront Recapture. They also include the prospective Downtown Economic and Design Action Strategy. (5 points)
- **Relationship to Regional Competition**—Projects which do not compete with other developments in the region are awarded extra points. Normal market competition is, of course, preferred. This section, however, deals with regional projects such as museums, commercial real estate, parks, etc. which detrimentally compete with other attractions and centers in the region, either for patronage or for subsidies. The less the project competes, the higher the score. (3 points)
- **Quality of Life**—Many projects have public benefits which are not economic in the strictest sense. Expanded open space, new park lands, a healthier environment and a vital cultural milieu are all important accomplishments, though they are not included in conventional measures of economic growth. They improve the quality of life of the community and sometimes the region, hence the area's attractiveness as a place for workers, professionals, managers and business owners alike. (5 points)
- **Congruent Political Support**—Congruency in political support here refers

to two general conditions. The first is that political support exists throughout the area impacted by the project in rough proportion to the intensity of the project's impact. In other words, the strongest political support should come from the areas most effected by the project. The second consideration is consistency. If there is consistent political support from the entire area affected by the project, then points are awarded here too. (2 points)

Feasibility: (30 points)

- **Site Support/Control**—Project sponsors which have support from the site owner receive one point. Sponsors which have formal site control (option, contract, lease, license or deed) are awarded full points. (2 points)
- **Time Horizon**—Projects which have a one- to two-year time horizon for completion receive 2 points and those with a three- to four-year completion date receive 1 point. Projects with longer time horizons receive no points, the assumption being that longer term projects will always be more uncertain. (2 points)
- **Committed Funds**—Projects with 75% or more of their funds committed receive full points. Those with 50% to 75% of their funds committed received 3 points; those with 25% to 50% received 2 points; and those with up to 25% received 1 point. Projects with no committed funds received no points. (4 points)
- **Existing vs. Projected Demand**—Projects which cater to an existing market are usually less risky than ones which rely on uncharted demand for their success. For example, a commercial real estate venture which relies on changing shopping patterns, traffic habits and attracting customers from outside of the neighborhood's existing catchment area is more risky than a project which relies on existing consumer spending patterns and current demographics. So, projects which rely entirely on existing demand or on well documented consumer demand receive full points; projects which rely on wholly speculative or unlikely sources of demand receive no points. (4 points)
- **Dependence on Other Projects**—Some projects depend, in whole or in part, on companion projects. A stadium, for example, may rely on a companion municipal parking lot or highway improvement. This interdependence is scored here, whereby the linked project's feasibility is accounted for. If the linked project is assured or feasible, one point is given. If the project is wholly independent, or not linked to any other initiative, then it is given full points. (2 points)
- **Legal, Zoning or Legislative Actions**—If a project has already received, or will not require any zoning modifications, statutory changes or other approvals from

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public agencies, then the project's feasibility is obviously much greater than a project which has yet to surmount these obstacles. So projects which are already approved or are "as-of-right" receive full points here. Projects which are confident of approvals receive 1 point. (2 points)

- **Local Political Support**—Projects that have received, or do not require, local political support either for funding or for legal/zoning/legislative actions are more feasible than ones that do. As this affects project feasibility, political support is included in the feasibility category. (2 points)

- **Organizational Capacity**—Regardless of any project virtues, the capacity of the project sponsor is paramount in determining feasibility. The sponsor's experience in successfully developing similar projects of a comparable scale gives the project a far greater degree of feasibility. Highly experienced sponsors receive full points here. Those with no relevant experience receive no additional points in this measure. (4 points)

- **Long-Term Self Sufficiency**—Projects which generate revenues which are adequate to cover post-construction operations are clearly more feasible in the long term than ones which do not. When additional private or public funds are required to subsidize an annual operating deficit, long-term stability is uncertain, regardless of the project's desirability. That is why this measure awards additional points to projects which can stand alone financially in the long run. Funding reliability is also referenced in this category because some projects which run annual operating deficits, such as museums, may, depending on the sponsor, be reliable fund raisers and therefore able to cover annual shortfalls. In these circumstances, projects are not penalized for running deficits if subsidies can confidently be presumed to be forthcoming. (4 points)

- **Long-Term Indirect Subsidies**—Indirect subsidies refer to regular government outlays which are required to support a project. A sports complex, for example, may be financially self-sustaining, but may require regular government outlays to support infrastructure, security, fire and sanitation services and traffic management. These additional government outlays indirectly raise the operating costs and risks of each project and are reflected in this scoring category. Projects which do not require additional government support for their long-term survival are given full points. (2 points)

- **Reasonableness of Projected Costs**—Projects with unitized development, construction and operating costs which significantly deviate from industry standards are generally more risky than ones which conform with industry precedents. A theater construction project which is projected to cost twice the industry average may bear special development risks. Full points are awarded if the project is relatively

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inexpensive for its kind. No points are awarded if the project is unusually expensive for its kind. (2)

BASIC INFORMATION

1. Project Name: _____
Municipality (if Hartford, neighborhood): _____
Please enclose site location map (Hagstrom, Hammond or similar base map is suitable)
2. Contact: _____ Organization: _____
Address: _____
Telephone #: _____ Fax #: _____
3. List of Co-sponsors (if any) _____
4. Brief description of project vision: _____
5. Brief description of current site or building, if known: _____

Please enclose photos of the site.

ECONOMIC DEVELOPMENT BENEFITS

6. Estimated # of permanent jobs created at the project: _____
Types of jobs (training involved, whether inner-city residents benefit particularly, etc.): _____
Estimated # of spin-off jobs, if relevant: _____
7. Total project cost: \$ _____ Public support: \$ _____
Private support: \$ _____
8. Will project add directly to Grand List? Yes _____ No _____
Will it create spin-off development or promote higher property values, and if so, how? _____
9. Ways in which project improves quality of life of the neighborhood (____),
municipality (____) or region (____): _____
10. Ways in which project addresses needs of un- and under-employed populations: _____
11. Other significant economic development benefits: _____

REGIONAL BENEFITS AND ISSUES

12. Ways in which project boosts region's (____) or central city's (____) image: _____
13. If project has competition, how is that competition defined, and where is it located? _____
14. What other municipalities are involved or affected, and how? _____
15. Is the project replicable, and if so, how? _____
16. Describe whether and to what extent the project involves jobs and economic activity that would otherwise locate outside of the region. _____

PROJECT FEASIBILITY

17. Of the funding for the capital cost, what percent is in place (____%), identified (____%), or yet to be identified (____%).
18. Sources of capital funding ("check" if in place; leave blank if identified but not committed).

Status	Source
(____)	_____
(____)	_____
(____)	_____
19. What municipal actions are required (zoning, access improvements, etc.)? _____
20. Municipal government has officially (____) or unofficially (____) given its support; municipality has not (____) given its support; not relevant (____).
21. Property is owned by sponsor (____); property is in negotiation (____); property owner is supportive (____); property owner is not yet involved (____); not relevant (____).
22. Current status of property: vacant land (____); vacant building in good repair (____); vacant building in poor repair (____); occupied building (____); not relevant (____).
23. Market study has (____) or has not (____) been prepared.
If it has: name, affiliation and telephone number of preparer: _____

24. Key issues identified by market analysis in terms of sustaining project after construction:
-
25. Total annual operating cost in typical year: \$ _____
 Will project require operating subsidies? Yes () No ()
 If so, how much subsidy is needed? \$ _____
 How about as a percent of total operating costs: _____ %
26. Design study has () or has not () been prepared.
 If it has, name, affiliation and telephone number of preparer: _____
27. Approximate timing: Start of construction: _____ (Year)
 Completion of construction (of first phase of multi-phased): _____ (Year)
 Completion of last phase (if multi-phased): _____ (Year)

Categories/Measures (Scoring Points)

Categories/Measures (Scoring Points)	Projects									
	Blushard Memorial	Buxton Park	Casoli Pavilion Ball Fields	Cherise Cook Terrace	Coll Amory	Convention Center	Ebba's Field	Equitation Center		
Direct Economic Impact:										
Job Retention and Creation (5)	3	0	0	5	4	3	1	2		
Import Substitution/Export Development (5)	0	1	0	0	0	0	3	1		
Local Capital Leverage (3)	0	0	0	2	0	0	0	1		
Government Capital Leverage (2)	1	2	4	4	3	3	0	0		
Tax Base Increased/Stabilized (5)	6	3	8	14	9	11	1	0		
Subtotal (20)										
Economic Infrastructure Development:										
Job/Business Spin-Offs (5)	3	1	5	3	2	5	1	1		
Local/Regional/National Viability (5)	4	3	3	3	4	5	4	3		
Sustainable Community Development (5)	3	5	5	5	5	3	0	5		
"Crowd-In" Investments (5)	4	5	5	1	1	5	1	1		
Syncretic Investments (5)	4	5	5	0	1	5	3	1		
Subtotal (25)	16	13	23	12	13	23	8	11		
Region at Variables:										
Compliance with Millennium's Themes (5)	4	3	5	5	4	5	4	1		
Compliance with Regional Land Use Plan (5)	5	5	4	5	5	5	5	3		
Relationship to Other Regional Plans (5)	5	5	4	4	3	5	4	2		
Relationship to Regional Compulsion (3)	5	5	0	2	1	1	0	1		
Quality of Life (5)	2	2	1	2	1	2	5	4		
Concurrent Political Support (3)	2	2	1	2	1	2	1	1		
Subtotal (25)	22	22	20	19	15	20	19	12		
Feasibility										
Site Support/Control (2)	2	2	1	1	2	0	0	1		
Time Frame (2)	1	0	0	1	1	0	0	1		
Compliance (4)	0	0	0	2	1	0	0	0		
Existing vs. Projected Demand (4)	1	2	2	2	1	2	0	0		
Dependence on other Projects (2)	2	2	2	1	2	1	0	0		
Legal Zoning or Local Law Actions (2)	1	1	0	1	1	1	1	1		
Local Political Support (2)	2	2	1	1	2	2	0	1		
Organizational Capacity (4)	4	2	3	1	2	2	0	0		
Long-Term Self-Sufficiency (4)	0	0	0	3	2	0	0	0		
Long-Term Indirect Subsidies (2)	1	1	0	2	2	0	0	0		
Reasonableness of Projected Costs (2)	1	1	2	1	1	1	1	0		
Subtotal (30)	16	16	9	16	17	7	4	6		
Total (Out of 100 Points):	60	60	60	61	65	61	38	34		
Ranking:	6	9	9	5	12	6	14	16		

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Categories/Measures (Scoring Points)

	Projects						
	Higher Education Center	Parklands Center	Riverfront Rec/Arts Ctr	Science Center	Six Flags	Sparks and Technology Center	Wetherfield Historic District
Direct Economic Impact:							
Job Retention and Creation (5)	5	3	0	4	5	4	0
Private/Institutional/Support Development (2)	0	5	0	3	4	4	1
Government Capital Leverage (3)	0	3	0	1	3	1	0
Government Capital Leverage (2)	2	1	2	1	0	0	0
Tax Base Increased/Stabilized (5)	7	14	6	10	14	10	4
Subtotal (25)							
Economic Infrastructure Development:							
Job/Business Spin-Offs (6)	5	4	4	1	5	4	1
Local/Regional/National Visibility (5)	3	3	4	6	5	5	3
Sustainable Community Development (6)	4	0	5	3	0	4	5
"GrowWithIt" Investments (6)	4	2	5	2	4	4	5
Synergistic Investments (6)	5	4	5	4	0	6	4
Subtotal (25)	21	13	23	16	14	22	16
Regional Variables:							
Compliance with Millennium's Themes (5)	5	5	5	4	5	4	1
Compliance with Regional Land-Use Plan (5)	5	4	5	4	5	5	1
Relationship to Other Regional Plans (5)	2	3	5	5	0	5	2
Relationship to Regional Competition (3)	5	0	2	1	0	1	0
Quality of Life (6)	2	3	2	5	4	4	4
Concurrent Political Support (2)	2	2	2	2	1	2	2
Subtotal (26)	24	14	24	21	15	21	10
Feasibility:							
Site Support/Control (2)	0	1	1	2	1	0	1
Time Horizon (2)	1	2	0	1	1	1	0
Uncommitted Funds (4)	1	2	3	1	3	1	0
Bidding vs. Proprietor Demand (4)	4	3	2	2	2	0	0
Legal Assistance on other Projects (2)	1	3	0	2	2	3	0
Legal Zoning/Regulatory Actions (2)	1	1	0	1	2	2	0
Local Political Support (2)	2	2	2	2	1	1	0
Organizational Capacity (4)	4	4	4	3	4	2	2
Long-Term Self-Sufficiency (4)	0	4	0	0	4	2	0
Long-Term Indirect Spillover (2)	1	2	0	1	2	0	1
Reasonableness of Projected Costs (2)	1	2	1	1	2	1	1
Subtotal (30)	16	26	13	15	24	12	7
Total (Out of 100 Points):	66	65	65	61	67	65	38
Rankings:	1	2	4	6	2	4	14

APPENDIX G: CLUSTER GROUPS

The Distribution/Logistics Cluster in the Greater Hartford Region	G-1
The Financial Services Cluster in the Greater Hartford Region	G-7
Health Care Cluster in Hartford	G-12
Information Technology	G-23
The Precision Machining/Aerospace Cluster	G-35

THE DISTRIBUTION/LOGISTICS CLUSTER IN THE GREATER HARTFORD REGION

DEFINING THE CLUSTER

The distribution (or logistics) industry includes wholesalers and distributors, and companies that transport products to a variety of commercial and individual customers. In addition to the actual act of selling goods, wholesale and distribution companies are likely to perform some combination of related services including: maintaining inventories of goods, extending credit, physically assembling, sorting, and grading in large lots, breaking bulk and redistributing in smaller lots, delivery, refrigeration, and various types of advertising and label designing. The emphasis of the industry is shifting from the storage of goods to order fulfillment and, thus, is changing in name from distribution to logistics.

Within the Hartford region, there are approximately 2,300 firms employing about 38,000 workers who are involved in various aspects of the distribution of goods. This cluster can be divided into three segments:

- *Wholesalers and distributors serving a local market:* Local distribution firms sell merchandise to retailers, contractors, manufacturers, or other wholesalers within the greater Hartford region.
- *National or regional distribution facilities:* These facilities provide centralized distribution to companies or consumers in a broader geographic region -- most often New England or the Northeastern United States.
- *Transportation/shipping-related activities:* The transportation component includes firms that transport the goods or provide services that facilitate the transfer of goods from supplier to customer, including trucking, air transport, port, and freight forwarding.

NATIONAL TRENDS

- *The competitiveness of the industry has increased with the deregulation of interstate trucking and airlines.* Deregulation has decreased the barriers to entry into the distribution industry. Initially, this has led to an increase in the number of firms in the distribution industry. Both startups and firms from similar entries have entered. These companies have been able to compete with the industry giants because of their ability to maintain lower overhead.
- *"Third-party" distribution/logistics firms will capture an increasing portion of business as companies in general recognize that their assets are best invested in doing what they do best, rather than trying to operate trucks and warehouses.*

Many U.S. manufacturers are eliminating their entire truck fleet and contracting with dedicated distribution/logistics firms to handle warehousing, transportation, and other services. Legions of manufacturers are scrutinizing their in-house trucking and warehouse operations to see if this part of their business would be better served by a "third-party" logistics contractor. This part of the logistics industry is expecting dramatic growth in the next five years, capturing more than 10 percent of the total logistics market in the year 2000 from less than 3 percent in 1992.

- *Firms are using new technology to handle larger volumes and to efficiently track inventory and purchasing and, therefore, relying on less labor per square foot of space.* Many warehouse/distribution firms rely on sophisticated handling and order-picking devices that enable them to provide quicker delivery to a wider area than was possible in the past. As a result, today's warehouse requires less labor per square foot of space. With the introduction of electronics, "rolling warehouses" are a trend -- that is, trucks becoming transportable warehouses able to transport goods and process demand through computers tracking inventory. While one industry expert estimates that only about 20 percent of firms nationally have moved to a truly automated operation, there appears to be consensus that the future of distribution is tied to "continuous product flow, cross docking, and automated material handling." (*Integrated Warehousing and Distribution*, January 1995.)
- *Even though much of the industry has improved productivity, a majority has not achieved the productivity levels possible through a more aggressive adoption of technology.* In many instances, the companies are adopting and implementing more sophisticated computerized systems to control quality and provide faster turnaround. Arthur Andersen's industries research division reports, however, that the industry is not adapting as quickly as possible, "Most firms have failed to enthusiastically embrace the technology and quality movements to the same degree as other industries."
- *The industry is moving from a system of stocked warehouses close to population and industry centers, to one of fewer larger-scale distribution centers serving large geographic areas.* Information technology and new practices reduce processing time and provide a larger window for transportation time. And, the ideal design for a warehouse building and efficient handling and storage of materials is no longer found in the old, urban multi-level facilities. As a result, many distribution facilities are locating away from central cities and toward new, low congestion facilities with access to major transportation routes.
- *The use of intermodalism is increasing.* Many distribution firms have or are retrofitting operations to allow for quick and easy transfer of freight from one mode of transport to another. Freight containers that can be transferred easily from air to rail to truck or some other combination of modes can provide cost savings. Not surprisingly, one of the key factors influencing location is suitable transportation networks. Of primary importance is local access to interstate highways as a majority of freight is transported on roads.
- *Industry experts point to the inevitable development of degrees programs that produce "certified warehouse professionals."* The increased competition and

demand for a more qualified workforce is leading to a need for a more educated warehouse professional. Factors such as liability, increased outsourcing, and more computerized processes necessitate a more highly trained employee. As the need for certification continues to increase among firms, warehousing programs at universities and community colleges will emerge.

OVERVIEW OF THE INDUSTRY IN METROHARTFORD

- *Wholesaling and distribution activity is very strong in the Capital Region, representing between 6 and 7 percent of the region's jobs.* The wholesale component of the industry represents roughly 28,000 jobs, or 4 percent of the employment in the Hartford region. In addition, the region employs a significant number of people in transportation and related industries, which support the distribution industry. This component of the industry contains more than 15,000 jobs or approximately 2.5 percent of employment in the region. Together they represent 38,000 jobs, and between 6 and 7 percent of the region's total employment.
- *Although the number of jobs in the distribution industry has declined in the region, projections indicate growth in the number of distribution jobs over the next 10 years.* Between 1992 and 1995, the number of jobs in the distribution industry declined by 9.4 percent. These figures are somewhat buttressed by the improving economy and the increase in total employment in the region since 1994. In addition, Department of Labor employment projections between 1994 and 2005 estimate that there will be an increase of more than 4,000 jobs in the industry.
- *There are more than 2,000 firms directly involved in wholesale trade and/or the transportation of manufactured goods in the Hartford region.* As with the other clusters, the wholesaling and distribution cluster has both a traded and non-traded component. Many local distribution companies serve the regional consumer goods market. Other companies in the region, such as J.C. Penney's catalogue sales center in Manchester and the Sears catalogue center Newington, serve larger regional and national markets, and thus are considered export-oriented.
- *Several towns in the metropolitan area have a large base of export-oriented distribution activity.* These areas include the towns abutting Bradley International Airport (Windsor, South Windsor, Windsor Locks, Suffield, and East Granby) and along major transportation corridors (Tolland, Rocky Hill, Enfield, Manchester, and Glastonbury).
- *Employment levels at distribution centers vary.* Some firms have less than 50 employees, while some of the larger centers employ several hundred to more than a thousand. The typical firm in the Bradley Airport region, for example, employs approximately 50 people. There are several larger employers in the region with more than 1,000 employees in their companies. Some of these are United Parcel Service, Hallmark Cards, Hublein, Inc., and J.C. Penney.

- *Wages vary depending on skill level, but entry-level wages tend to be between \$8 and \$10 per hour.* The industry overall pays above average wages (\$37,142), but many of these jobs are in non-entry level positions such as administrative, transportation (trucking), and sales occupations. The Connecticut Department of Labor statewide employer survey in 1997 lists the wage of workers in the "material handlers, laborers" occupation as \$8.55 per hour.

WORKFORCE ISSUES

- *In recent years, the occupational structure of the labor force has been divided into roughly 3 percent professional, 20 percent semi-skilled, and 72 percent unskilled general warehouse laborers.* For example, in a typical warehouse of the 250,000 square foot size, 105 workers would be needed. Of these workers, 100 would be unskilled or semiskilled.
- *With increasing reliance on high technology in the industry, distribution firms are relying on more truck drivers and fewer traditional warehouse laborers.* Automation and advances in the material handling systems used by the industry have changed jobs functions from the classic "box kickers" or "humpers" into laborers more attuned to operating computers and automation equipment. Gone is the day when distribution simply required the strength and will power to move boxes around a crowded warehouse. The new equipment, however, has been developed with the current labor force in mind. As one interviewee stated, "It's like running a McDonald's cash register...there is not a whole lot of skill required."
- *Some of the larger national warehousing companies and distribution centers utilize mini-competency/basic skills tests as a means to determine qualified applicants.* One industry test (required of each new entry-level applicant) is timed and is in two parts (five minutes each). It covers reading comprehension, following directions, literacy of industry forms, and basic statistics related to invoices. A range of 40 to 60 percent of all applicants fail the test. Since the advent of the test, turnover has been at 5 percent and the company has experienced better attendance, behavior, and quality among its workforce. In addition, these same companies are instituting drug testing of employees. One company uses it as part of the application process and loses 10 to 15 percent of its applicants. Another company uses it among applicants and current employees and loses close to 30 percent of its employees through failed tests.
- *Most entry-level positions will involve loading and stocking inventory, filling orders, and general information gathering.* An example of some of the skills required in these positions are: basic skills (reading, writing, and math and familiarity with computers); communication and interpersonal skills (oral and written communication skills, ability to work in teams, good listening skills, and ability to maintain positive co-worker and supervisor relationships); analytical skills (ability to gather information, prioritize, patience to understand the context of a problem, understanding and listening to other's points of view); and organizational skills.

- *The larger catalogue centers hire most of their new employees during peak seasons; sometimes as many as 100 workers within a few months.* J.C. Penney, United Parcel Service, and others hire large groups of new employees in late August and the early Fall to meet the demand of holiday orders. Companies often use these seasonal hires as the labor pool from which they select permanent employees. For example, J.C. Penney's catalogue center in Manchester hires approximately 100 employees for each year for the holiday season. The best are evaluated along production, attendance, accuracy, and attitude standards. If the employee scores satisfactory or better on each standard then the employee is retained for permanent, full-time work.
- *Many of the smaller distribution companies (100 employees or less) do not express an immediate need for new employees.* Even though only a few of the smaller employers were contacted for this research effort, most of them did not have immediate employment opportunities or plans to make major hiring efforts in the future.

OPPORTUNITIES IN THE HARTFORD REGION

- *The wholesale/distribution cluster has a competitive advantage in Hartford due primarily to a combination of location and infrastructure.* Hartford's location is the key to developing the distribution cluster in the region. The region is strategically located between two major metropolitan areas -- Boston and New York. This location is enhanced by tremendous infrastructure resources and a strong commercial and industrial real estate market, with many prime sites available for business location and expansion. The region's highway capacity is excellent, with two major U.S. Interstates, 91 and 84.
- *These assets have enabled the region to develop strategic marketing efforts that are regionally focused, such as those in the Bradley Development League region.* The BDL has embarked on an aggressive marketing campaign to increase growth and development around the Bradley International Airport. The BDL is positioning itself to capitalize on the infrastructure of the airport as well as coordinating a streamlined project approval process. Most recently, the BDL secured the location of a UPS cargo hub for New England with a potential for 800 to 1,000 jobs. Another foreign cargo distributor built \$75 million of warehouse and distribution space near the airport to expand from 75 to 150 jobs at the site.
- *Additionally, the region has a number of underutilized regional airport facilities including Bradley International Airport and Brainard Airport.* The recent location of the United Parcel Service regional package sorting facility at Bradley is evidence of the region's locational advantage for distribution-oriented activities. Both airport facilities have capacity and space to accommodate additional development and traffic.
- *The industry benefits from the region's strong labor force and the ability of the education and training system to provide tailored and industry specific training if needed.* The region's skill base is viewed as being adequate enough to maintain a competitive advantage in an industry that is increasingly technologically intensive. In

terms of educational attainment, MetroHartford is one of the strongest regions across the nation. In addition, the workforce development system in the region is more receptive to and aggressive in meeting the needs of employers. If the industry did experience a labor shortage, there is an adequate system available to prepare and train residents for jobs.

COMPETITIVE CHALLENGES FOR THE HARTFORD REGION

- *The region needs to continue regional and sub-regional marketing efforts -- it lacks strategies beyond the Bradley Development League.* In order to exploit MetroHartford's advantages of location and quality of labor force, more sustained and coordinated marketing efforts should be pursued. At present, MetroHartford lacks coordinated strategies beyond the one pursued by the Bradley Development League. The region can use the Bradley Development League's example and success as a model for other sub-regions. The issues of shared marketing costs and coordination among permitting and project approval processes are advantageous attraction efforts.
- *At present, MetroHartford cannot compete on the basis of costs alone.* One of the bases in evaluation of the business operating environment for firms in the industry is the business cost structure. Of particular concern in this industry are taxes, such as fuel taxes, that affect the costs of transportation.
- *In order to compensate for high tax costs, the region must out-compete its competitors through its highly-skilled and qualified labor force.* The region needs to make sure that its labor force is adjusting to the technological advances in the field. Even though the workforce development system is in a good position to respond to the distribution industry, there have not been substantive conversations between the two. The region has access to many highly respected computer training resources that could be tailored to meet industry needs.
- *The region needs to assess and understand its competitors.* In order to develop effective strategies that capitalize on the region's strengths and recognize potential market opportunities, the region should first assess its competitors. An initial assessment shows that many competitors in the Northeast enjoy the same advantages as the MetroHartford area, great highway access, good location relative to New York, and access to other spots in New England and Canada. One of the emerging competitors in the Northeast is the Stewart International Airport area in Newburgh, New York. Other major competitors include: Scranton, Pennsylvania; Providence, Rhode Island; and Worcester, Massachusetts.

THE FINANCIAL SERVICES CLUSTER IN THE GREATER HARTFORD REGION

DEFINING THE CLUSTER

The financial services cluster in Hartford is composed of two distinct segments with very different needs, products, and competitive issues. These are:

- **Local Market Segment:** First, are those services that are found in every city to service the financing needs of residents and businesses. These include many of the activities of the commercial banks, brokerage firms, savings institutions, and credit unions. These companies are currently tied to the local market. Their growth and development are dependent on the overall health of the regional economy and the size and wealth of the region's residents.
- **Export-oriented Segment:** Second, are export-oriented financial services that serve a national, and increasingly international marketplace. These services are found in:
 - venture capital firms and brokerage houses;
 - financial services components of the insurance industry;
 - specialized services of regional banks;
 - mutual funds; and
 - third-party processors.

In addition to the firms directly involved in delivering financial products, there are many companies in the Hartford region that provide services to the financial services industry. These include software developers, consultants, data processing companies, and other companies that are closely linked to the major companies in the financial services industry in the region.

While both segments of the cluster are important from an economic development standpoint, their role in the regional economy differs:

The local market segment is a very important component of the region's resource base. The capacity of the local segment to meet the financing needs of the region's businesses and residents is critical in terms of the ability to start new enterprises, sustain existing businesses, and support the growth of jobs.

The export-oriented segment is a key source of employment and taxes in the region. Firms that export goods and services outside of the region are one of the key engines of the region's economy. They bring net new income into the region and thereby fuel and strengthen the local market segment.

JUSTIFICATION OF TARGETING

- *Even with the restructuring and downsizing, the financial services industry remains one of the most important "engines" in the regional economy.*
- *The Hartford region has one of the largest concentrations of financial services employment of any metropolitan area of the U.S.*
- *In addition to the large companies in the financial services industry, there is evidence of the growth and development of niche companies that serve the industry.* These companies include "boutique" investment companies and insurers.
- *The availability of highly-skilled financial professionals provides the potential for further development of new enterprise development in the industry.*
- *Growth potential exists within the industry -- one potential area of growth in the industry is in retirement products, particularly variable annuities.* National consumer and business interest in these products could spur employment growth in the Hartford region.

NATIONAL TRENDS

- **Convergence:** The deregulation of the industry has increasingly blurred the distinctions within the industry. With banks buying brokerage firms, insurance companies managing mutual funds, and the growth of non-bank financing, it is more and more difficult to categorize companies within the industry.
- **Globalization:** The financial markets have become increasingly global. Trading takes place on a 24-hour basis and what occurs in Japan overnight has significant implications for the financial services industry in the U.S.
- **Restructuring:** The most important trend impacting Hartford directly has been the reengineering and restructuring occurring within the insurance industry. Every major company has undergone significant changes over the past three years. They have dropped entire product lines; transformed their management structures; and, more generally, have undertaken significant steps to increase their competitiveness.
- **Technological change:** Rapid advances in telecommunications and information processing have transformed most aspects of the industry and have changed the competitive factors affecting the industry. A recent OTA study noted, "Technology is one of a number of factors contributing to dramatic changes in the organization and location of insurance companies. As a result, the presence of large insurance offices in American cities can no longer be taken for granted."
- **Consolidation:** Consolidation is most dramatic in the banking industry, where merger and acquisition activities have resulted in the growing dominance of a smaller and smaller number of international and large regional banking organizations. However,

similar activity is occurring in the insurance industry and indications are that merger and acquisition activities will continue.

- *Innovation in distribution channels:* According to a recent article, "Distribution will separate the winners from the losers in the new competitive landscape." It is in this area that traditional insurers face the most challenges.
- *Dispersal of back office operations:* With the separation of specialized, technical functions and routine functions within the financial services industry, companies have increasingly located some of their less technical functions -- such as claims and check processing and call centers -- throughout the country, and increasingly the world.

IMPLICATIONS OF NATIONAL TRENDS

- *growing cost sensitivity, particularly in the location of routine functions;*
- *increasing importance of information technology within the industry;*
- *more footloose companies;*
- *increasing importance of infrastructure -- both transportation and telecommunications;*
- *growing reliance on skilled and available workforce both in investment services as well as information technology; and*
- *consolidation of routine back office operations in fewer locations.*

KEY COMPETITIVE ADVANTAGES FOR THE INDUSTRY IN THE HARTFORD REGION

- *The financial services export zone provides an incentive for activity within the city, but requires federal legislation.*
- *High vacancy rates in the city provide relatively inexpensive and affordable office space at a time where other major cities such as Boston are facing a shortage of available office space and relatively high costs.* For example, a recent study of the industry in San Francisco concluded, "Currently, contiguous office space of 100,000 square feet and greater is very limited." This is perceived as constraining financial services in that city.
- *The large amount of expertise in information technology found in the region is a key strength of the Hartford region.*
- *The region has a large pool of talent relevant to the financial services industry.* With the downsizing of the industry some of this talent is underemployed. This talent

could provide an entrepreneurial base for the development of new companies in the financial services industry.

- *The region has a specialization in long-term financial products -- variable annuities and other products that are less sensitive to short-term outcomes in the stock market.* Moreover, demographic trends are conducive to further growth in this component of the financial services industry.
- *The state has a venture capital pool specifically targeted to the industry.*
- *The Hartford region has a number of institutions of higher education that offer courses that are relevant to the industry.*

COMPETITIVE CHALLENGES FOR THE HARTFORD REGION

- *Repositioning the image of Hartford from the "insurance capital" to a national center in the new financial services industry and ensuring that the region maintains a strong position as the industry consolidates and restructures.*
- *Better meeting the specific workforce needs of existing actors in the economy.* The most critical needs facing businesses: are the ability to attract young, professionals to the Hartford region; the general shortage of skilled information technology workers; and the lack of a job ready, entry-level workforce for customer service and processing jobs.
- *Turning around the perception of the region and the state as being unsupportive of the industry.*
- *Air connections to foreign and domestic locations will be increasingly important to the industry.* Strengthening Bradley will be beneficial to the industry.
- *Of competing states (New York, New Jersey, and Massachusetts), Connecticut taxes business consulting services most aggressively.*
- *Creating an environment conducive to entrepreneurial activity and small business growth.*
- *Attracting new companies and investment in the region through leveraging new incentives, promoting the region's competitive strengths, and ensuring a competitive cost environment.*
- *Lack of linkages between educational institutions and industry.*
- *Reduced in-house training activity amongst key actors.*

POTENTIAL STRATEGIES FOR STRENGTHENING THE CLUSTER IN THE HARTFORD REGION

- *Image enhancement* -- external and internally-oriented strategies for promoting the Hartford region as a "player" in the financial services industry.
- *University/Industry partnership* -- development of a Financial Services Research and Training Center through the Higher Education Consortium to be located at the proposed Downtown Higher Education Center.
- *Cooperative recruitment of young professionals* -- development of a joint recruitment effort that emphasizes the career paths in the financial services industry in Hartford; the affordability of housing; and the arts and culture of the region.
- *Specialized training initiatives with community colleges* -- development of specialized curriculum designed by the industry for customer service jobs.
- *Promoting and supporting entrepreneurial development* -- providing entrepreneurs with very low-cost facilities and services to encourage new enterprise formation.
- *Strategic attraction of new companies* -- aggressively pursuing expansion activities from the New York and Boston marketplaces.

HEALTH CARE CLUSTER IN HARTFORD

DEFINING THE CLUSTER

The health care cluster includes health service providers and other employers such as insurance carriers and managed care organizations, manufacturers of biomedical products, and biomedical service providers. In total, the health care cluster in Hartford encompasses about 72,000 jobs, representing 12.3 percent of the total non-agricultural workforce. The health care cluster segments are as follows:

Health Services Industry

The first segment of the health care cluster is health care service providers that serve the regional market. This segment is comprised of private, public, and nonprofit institutions that provide medical, surgical, and long-term health care. These include hospitals, offices, and clinics of physicians and dentists, nursing homes and other specialized health care facilities, and managed care providers serving local businesses and residents. Home health care and continuing care facilities such as resident health clinics, wellness programs, and hospice services, represent a growing segment of the health services industry.

Currently, there are 57,000 direct health service jobs in the Hartford region, representing 9.7 percent of the total non-agricultural workforce. The majority of health services jobs are in acute care hospitals. Employment in the health services industry has grown significantly in the region; between 1992 and 1995, 3,800 jobs were added.

Managed Care Industry

The second segment of the industry is the managed care industry. There are two types of actors in this market in Hartford. First are the managed care providers such as the health maintenance organizations (HMOs), independent practitioner associations (IPAs), and preferred provider organizations (PPOs) that primarily serve the regional market and, to some extent, the state of Connecticut. Unlike traditional indemnity insurance companies, managed care organizations make a priority of cost containment by monitoring patient utilization, encouraging the most effective treatments and procedures, and emphasizing preventive care.

Of more importance, however, are the large national companies in the industry that are headquartered in the Hartford region and serve a national market. These companies are major exporters of services to the national market. They include the major health insurers, such as Aetna, CIGNA, and Travelers. With the restructuring of the insurance industry in Hartford, the region has become an increasingly important presence in the national managed care industry.

A recent study of the insurance industry in Hartford estimated that about 37 percent of the 39,575 insurance workers in the region are now involved in various aspects of the health insurance industry. (See Table 4.) Using this estimate, one can assume an additional 14,600 jobs in the insurance industry in the Hartford region are directly related to health care.

Medical Products and Services Industry

The third segment of the health care cluster in Hartford encompasses biomedical manufacturing and service firms that provide goods and services to the health services industry in the Hartford region and beyond. Included in this segment are the biomedical and advanced technology firms that manufacture products such as adhesive films, specialty chemicals, and diagnostic and surgical equipment. Manufacturers of home health care products such as wheelchair supplies, bandages, and neck braces are also included in this segment. Biomedical service firms in Hartford provide an array of specialties such as breast scanning clinical services, monitoring and detection services for patients with arrhythmia and pacemakers, specialized clinical testing services to physicians and hospitals, and pharmaceutical research and testing services.

According to our estimates, there are at least 1,000 additional jobs in biomedical companies that serve the health care industry in Hartford.

NATIONAL TRENDS IN HEALTH CARE

National employment projections to 2005 indicate that occupations with the fastest growth rates are concentrated in health services. The growth in health service jobs coincides with dramatic structural changes in the national health care industry. These trends are summarized below:

- *Growth in Managed Care.* The growth in managed care is one of the most significant forces shaping industry development. In response to rising health care costs, Americans have increasingly enrolled with managed care providers.
- *Increase in Outpatient Services.* Not only has managed care ushered in changes in the market for health care services, it has also affected the delivery of services. A dramatic rise in outpatient services has resulted from the managed care emphasis on preventive treatment. Between 1991 and 1995, outpatient volume in Connecticut has increased by approximately 30 percent, according to a recent report in the *Connecticut Economic Digest*. Another contributing factor to the increased use of outpatient services is the advance in medical technology. More and more primary and preventative procedures can be carried out in health clinics, physician's offices, and in the patient's home at a lower cost, thus reducing the demand for hospital inpatient services.
- *Hospital Consolidation and Downsizing.* There has been a national trend toward hospital mergers and consolidation in reaction to the decline in demand for hospitalization brought on by managed care and advances in technology. These

partnerships among hospitals have enabled them to compete with managed care companies and increase their bargaining power with insurers.

- *Fast-growing Health Care Occupations.* According to the U.S. Bureau of Labor Statistics, five of the ten fastest growing occupations nationally are in health care and include personal and home care aides, home health aides, physical and corrective therapy assistants and aides, occupational therapy assistants and aides, and physical therapists.
- *Decline in Hospital Employment.* While the health services industry as a whole is expected to add a significant number of new jobs in the future, hospital mergers and reduced occupancy rates have forced many hospitals to reduce staff. As a result, since 1991, hospital employment in Connecticut has declined by 9.5 percent.

OVERVIEW OF THE CLUSTER IN METROHARTFORD

While the health provider community in Connecticut is very strong, the insurance industry has precipitated a dramatic growth in managed care over the last few years. Insurers are cutting provider budgets, and reduced reimbursement rates to physicians, hospitals, and other providers are drastically changing the health care system. Although Connecticut trails the rest of the nation in managed care penetration in the health care industry, legislative deregulation in 1994 ushered in a dramatic increase in managed care enrollment. In comparison to other states, Connecticut is about in the middle in terms of the percentage of individuals in managed care, behind Massachusetts, California, Oregon, and Minnesota, but ahead of others. Connecticut still has significant growth potential with the expectation that managed care will grow from 40 percent of the market to 70 percent within five years.

Strong anti-managed care sentiment exists in the state legislature, driven by consumer groups and providers. Current proposals include: external appeals processes, shifting liability for health care decisions to HMOs; expanding the scope of emergency room services; length of stay mandate for specified procedures, mandated coverages, and dual regulation by insurance and health departments. Changes in the health care industry have had the following impacts on the industry in MetroHartford:

- *The expansion of managed care has led to significant restructuring among health service providers.* All health care providers in MetroHartford are feeling the effects of managed care and responding to its incentives that encourage less costly methods of providing medical care. This has resulted in a much more competitive atmosphere among health care providers, where market share and efficiency are increasingly important. This has caused a general trend toward industry consolidation through mergers and acquisitions, with providers either merging or developing new affiliations. A hospital human resource director predicted that the number of hospitals in the MetroHartford region would decline from a high of 36 a few years ago to about 20 in the next few years. Within five years, it is anticipated that three to five health plans will dominate the market.

- *While HMOs are the stronger competitor in this cost containment atmosphere, they are also experiencing major restructuring.* Kaiser Permanente, one of the few HMOs that provides direct care, has expanded to a mixed model, moving in the direction of network development. IPAs are moving toward contracting networks. Most claims processing, transaction-based financial functions, information processing, and corporate functions will be housed at division and national facilities. Recent consolidation has included the acquisition of Healthsource Connecticut, Inc. by CIGNA, and US Healthcare by Aetna.
- *Hospitals are filling fewer beds for shorter periods of time.* Hartford Hospital, the largest acute care provider in the region, has declined from 900 inpatient beds to 350 over the past few years. Another large hospital, Manchester Memorial, was previously licensed for 303 beds, but is now licensed for 240, budgets for 190, and generally plans on 110 to 120.
- *Acute care providers are building health care systems and diversifying services.* In order to maintain their patient base, providers are affiliating to provide primary, secondary, and tertiary care under the same umbrella, and building vertical health service systems that include more outpatient care, day programs, and home care services. Hartford Hospital, for example, provides inpatient, outpatient, support, family practice, residential care, and home care. In addition, it also provides for-profit subsidiaries, including an immediate care center, medical labs, an HMO, and real estate and parking operations.
- *Home health care is a growing sector of health services industry.* Statewide, the home health care industry has seen a 25 percent growth in the last year.
- *Customer service is increasing in importance.* With outpatient care, day programs, and home care playing an increasing role in the growing competitive atmosphere among health care providers, marketing and customer service have assumed much greater importance. Outpatients have more choices, which has compelled hospitals to spend more on marketing through newspaper advertisements, brochures, and direct mail in the last five or 10 years than they did in the last 100 years.
- *Hospitals are conscious of their relationship with community-based institutions and neighborhoods,* and of community expectations regarding employment. Connecticut Children's Medical Center opened next to Hartford Hospital in April 1996, consolidating the pediatric services of Hartford Hospital, University of Connecticut Medical Center, and the old Newington Children's Hospital. Neighborhood residents had high expectations for additional employment, which have yet to be realized as first-year losses precipitated a hiring freeze.
- *The managed health care business has been an area of strength for many insurance companies in the face of major industry restructuring and has been a significant factor mitigating against the declines in insurance industry employment.*

The following tables list the largest health providers in the MetroHartford region by hospital (Table 1), nursing homes (Table 2), and HMOs (Table 3). Table 4 lists the major insurance companies in Hartford.

Table 1: Largest Hospitals in the Greater Hartford Region

Hospital	Location	Licensed Bed Capacity	Personnel (Full-Time Employees)	Total Gross Patient Revenue (1995 dollars)
Hartford Hospital	Hartford	879	5,931	393,386,923
Saint Francis Hospital and Medical Center	Hartford	615	3,006	432,859,121
New Britain General	New Britain	330	1,845	125,954,000
Manchester Memorial Hospital	Manchester	249	1,054	84,912,218
University of Connecticut Health Center-John Dempsey Hospital	Farmington	204	1,118	166,812,431
Hospital for Special Care	New Britain	200	652	56,742,206
Middlesex Hospital	Middletown	180	1,100	154,464,000
Bristol Hospital	Bristol	152	903	73,483,000
Connecticut Children's Medical Center	Hartford	123	524	30,978,000
Rockville General Hospital	Vernon	102	478	72,140,537

Source: *Hartford Business Journal*, Book of Lists, July 1, 1996

Table 2: Largest Nursing Homes in Greater Hartford Region

Nursing Home Facility	Location	Number of Licensed Beds	Personnel (FTEs)
Riverside Health Care Center	East Hartford	360	223
Mediplex of Wethersfield	Wethersfield	330	365
Brittany Farms Health Center	New Britain	300	336
Hebrew Home and Hospital	West Hartford	293	385
Greenwood Health Center	Hartford	240	164
Chelsea Place	Hartford	234	185
Westside Multicare Center	Manchester	231	14
St. Mary's Home	West Hartford	217	200
Avery Nursing Home	Hartford	199	150
Walnut Hill	New Britain	192	214
Brookview	West Hartford	180	165
Harbor Hill	Middletown	180	146
Hughes Convalescent Inc.	West Hartford	180	196
Kimberly Hall-South	Windsor	180	186
Mediplex of Newington	Newington	180	144
Plainville Health Care Center	Plainville	180	152
St. Elizabeth Health Center	East Hartford	180	140

Source: *Hartford Business Journal*, Book of Lists, July 1, 1996

Table 3: Top Connecticut Health Maintenance Organizations

Company	Location	Total Number of Members	Participating Physicians	Total Revenue in CT in 1995	Date Licensed
Blue Cross and Blue Shield	North Haven	275,800	14,800	N/A	1993
ConnectiCare	Farmington	177,000	4,200	206,922,029	1982
Physicians Health Services of Connecticut, Inc.	Trumbull	170,000	10,000	283,069,646	1977
M.D. Health Plan Inc.	North Haven	159,000	6,000	179,415,308	1987
CIGNA Healthcare of Connecticut	Bloomfield	142,000	4,250	45,041,346	1986
Aetna Health Plan of Southern New England Inc.	Windsor	104,549	7,030	152,613,203	1986
Kaiser Permanente	Farmington	52,000	1,000	84,046,973	1982
US Healthcare	Middletown	50,000 (approx.)	N/A	76,881,506	1987
Oxford Health Plan Inc.	Norwalk	40,000 (approx.)	8,000 (approx.)	19,249,168	1993
Yale Preferred Health	North Haven	13,714	2,500	2,300,000	1995
Suburban Health Plan Inc.	Shelton	6,245	1,000	6,876,458	N/A
Pru Care of Connecticut	Norwalk	6,000 (approx.)	800 (approx.)	8,387,050	1988
Wellcare of Connecticut Inc.	Cheshire	580		191,703	1995
Healthsource Connecticut Inc.	Farmington	N/A	500	145,094	1995

Source: *Hartford Business Journal*, Book of Lists, July 1, 1996

Table 4: Largest Insurance Companies Located in Hartford

Company	U.S. Employment	Hartford Employment	Percent Health	Percent Property Casualty	Percent Life/Asset Mgmt
Aetna	42,000	15,000	53	20	27
CIGNA	50,000	7,000	7,000	20	10
Connecticut Mutual	1,900	1,800	0	0	100
H. Stearn	1,700	400	0	100	0
Hartford	18,000	6,000	4	54	42
Phoenix	5,000	2,000	2	0	98
Sec. CT	400	375	0	0	100
Travelers	24,000	7,000	25	50	25
Total	143,000	39,575	37	29	34

Source: *Employment Trends in the Hartford-based Insurance Industry*, by Lewis Mandell, School of Business Administration, University of Connecticut, April 25, 1995.

EMPLOYMENT STRUCTURE AND TRENDS

Health Services

- *Hospitals are the largest employers in health care.* Among the health service providers, hospitals are the largest employers. Hartford Hospital leads this sector with 5,981 full-time employees (FTEs). Hospital workforces are large and varied. For example, St. Francis Hospital, the second largest hospital, includes approximately 3,006 FTEs in its workforce. Thirty-five percent of its employees are professional and licensed personnel (physicians, nurses, physical therapists, pharmacists, etc.) and senior management; 45 to 50 percent are technical staff such as medical technicians, cardiac technicians, nurses assistants, etc.; and the remaining 15 to 20 percent are in service and unskilled positions such as laundry, housekeeping, and food service.
- *Nursing homes are also a significant employer in the health services industry although they are considerably less important than acute care hospitals.* Leading the pack are Riverside Health Care Center, Mediplex of Wethersfield, and Brittany Farms Health Center, all of which employ 300 or more.
- *Among the HMOs, Kaiser Permanente, perhaps the largest employer and one of the few direct service managed care providers, employs 350 FTEs in the Hartford area of whom 60 are physicians, 150 are clinical and clinical support staff (nurses, lab staff, clinic receptionists), and 150 are administrative staff (management, claims processors, information services, finance, etc.).*
- *Five health service occupations offer the greatest employment opportunities.* According to the Connecticut Department of Labor Employer Survey, the following occupations (and their respective wages) are identified as those occupations with most expected new hires in the Hartford region for 1997:

Occupation	Wage
Therapists	\$39.67
Registered Nurses	\$17.80
Licensed Practical Nurses	\$14.75
Home Health Aides	\$10.09
Nurses Aides, Orderlies	\$3.40

- *Sources of new jobs include:* 1) 300 to 400 new jobs created with the development of the new research wing of the University of Connecticut Medical Center, including both research scientists and support technicians and staff; and 2) 160 positions to be filled by University Physicians, which recently obtained the contract to hire health care staff for the Connecticut Department of Corrections.
- *The use of "per diem" staff has increased in hospitals.* Their use provides greater flexibility in light of declining demand for inpatient beds.

- *Part-time employees are a significant portion of the hospital workforce.* Ranging from 20 to 40 percent of hospital employment, part-time positions are plentiful in the nursing, clerical, and service job categories. This is primarily due to the round-the-clock staffing needs of the industry.
- *Providers vary in the use of temporary workers, but generally expect their use to increase.* Providers maintain both in-house pools of "per diem" workers (primarily for nursing and service positions) and use external temporary services (primarily for clerical positions).
- *Inner-city residents comprise less than 15 percent of most health service providers' workforce, and are primarily in low-skilled service jobs.* Reasons given for the low city resident employment include inadequate transportation for Hartford residents (lack of cars and poor nighttime public transportation); mobility (once city residents get jobs they tend to move out and commute into Hartford); and poor basic skills and work ethic. One striking exception was a Wethersfield nursing home, which hired 80 percent of its entry-level staff from Hartford.

Managed Care/Insurance

- *Advanced technology is increasing productivity.* While the demand for managed health care is increasing, use of information management technology is expected to increase productivity and offset the need for workforce expansion.
- *The managed health care lines of business in the insurance industry have experienced rapid growth.* While insurance companies acknowledge that technology has replaced people, many companies are observing rapid business growth offsetting the effects of automation.
- *Workforce skill requirements have shifted upwards.* The impact of these trends on employment in health insurance is an increasingly higher-skilled workforce.

IMPLICATION FOR WORKFORCE DEMAND

Health Services

- *The health services industry has experienced the most dynamic employment changes in the MetroHartford health care cluster.* Hospitals have felt the pressures of the managed care trend, with insurers cutting provider budgets and reducing reimbursement rates to physicians, hospitals, and other providers. The impact on health services employment has been significant, particularly on the hospitals. In general, cost cutting and consolidation of medical institutions are resulting in an employer's market for workers. Hospital human resource directors have indicated that they can find skilled workers for their skilled jobs and that, in general, the industry is seen as attractive enough to keep turnover fairly low in unskilled jobs. Changes in the industry will shift some job categories, and attrition will provide some

job openings, but overall employment is expected to stay relatively constant or contract slightly.

- *Managed care is going to continue to constrain employment opportunities in many health occupations.* Administrative, managerial, and in-hospital nursing positions are expected to decrease. Physician positions are expected to remain constant. Patient services and general service jobs are expected to remain constant or decline.
- *A few health occupations are expected to increase, although employers are not worried about worker shortages.* Outpatient and visiting nurse positions will increase enough to pick up the expected surplus of hospital nurses. Allied health positions are expected to either remain constant or grow slightly. Certified nurse assistant (CNA) and home health aide positions should see some growth.
- *Clerical positions may increase slightly.* Due to the increased paperwork requirements of managed care, more clerical staff may be needed.
- *Hospital staffing patterns have become more challenging in the wake of downsizing.* No single overall trend is apparent yet. Different hospitals anticipate a variety of staffing pattern changes. One hospital administrator predicts a downward skills shift from physicians to physician assistants and nurse practitioners, from specialists to primary care professions, and from registered nurses to licensed practical nurses. In contrast, another source predicts that hospitals will place greater emphasis on multi-skilled individuals -- registered nurses rather than licensed practical nurses (LPNs); medical technologists (four-year degree) rather than medical technicians (two-year degree).
- *A new job category, patient service representatives, is under consideration at some hospitals.* The intention is to combine basic patient care (transportation, etc.) and service (housekeeping, food service, etc.) roles.
- *Employment decreases in some occupations within one sector of health services may be offset by heightened demand in others.* While some hospitals anticipate a decline in some of the lower skilled occupations, nursing homes, on the other hand, are expected to use larger numbers of LPNs and CNAs. Increased demand for long-term care may cause an increase in demand for CNAs and offset potential hospital layoffs.
- *New staff categories may appear.* Hartford Hospital is collapsing 800 to 900 job descriptions down into 300 to 400 "role descriptions," requiring more flexibility and a greater customer service orientation.

Managed Care/Insurance

- *Most lower skilled jobs are being replaced by automation, are being outsourced, or are being sent to lower cost areas.* Clerical jobs are being replaced by those requiring computer skills. A higher proportion of college graduates make up the employee mix in health insurance companies.

- *The types of jobs being added in health insurance companies are technology specialists, in particular those who know the industry and those with "people skills."* In addition, high-end financial, information systems, and actuarial jobs are in demand. Finally, managed care specialists, such as nurses and physicians, for utilization review are in demand.

OPPORTUNITIES IN THE HARTFORD REGION

- *MetroHartford is an ideal location for system-wide administrative functions* of the managed care industry because the region contains a pool of skilled workers qualified in insurance-type functions due to layoffs resulting from insurance industry restructuring.
- *The extremely poor real estate market has induced many companies to remain in Hartford* rather than taking the hit on earnings and assets by writing down the value of their facilities or paying for facilities elsewhere. Because of the favorable prices, some companies have bought buildings.
- *Medical "infomatics" is an untapped area of potential growth.* Infomatics refers to the use of health information and statistics to assess quality of care requiring development of databases and protocols. Significant research and design resources are needed.
- *A recently formed Biomedical Alliance for Central Connecticut will expand research and development activities at Trinity College, the University of Hartford, and the University of Connecticut Health Center in collaboration with several hospitals some in the Hartford area.*
- *Perceptions about the region as a business location have improved.* Suburban providers see their location as a plus, while city providers worry about public perceptions of crime in the area, but note that recent gang problems have abated.
- *Community-industry partnerships offer employment possibilities.* Five Hartford institutions, including three hospitals, Trinity College, and Connecticut public television, have partnered with four community-based organizations to build a major community employment initiative targeting three low-income communities in Hartford. Among the projects of this partnership are employment training programs that could focus on preparing Hartford residents for growth occupations in health services such as the evolving "patient services" representatives and other technical, clerical, and service positions in demand.
- *Models of city resident hiring can potentially be replicated.* The nursing home in Wethersfield's hiring practices can be examined and perhaps serve as a model for employing city residents.

COMPETITIVE CHALLENGES FOR THE HARTFORD REGION

- *Many companies still perceive Hartford as inhospitable to businesses.* While the pool of skilled workers is attractive, few national companies in managed care/health insurance find Hartford to be particularly hospitable to business. Other costs, such as relatively higher building lease rates, induce firms to locate elsewhere. Some foresee an out-migration of managed care firms in the long run.
- *In terms of locational attributes for health providers, transportation is a major disadvantage.* There is a need for round-the-clock public transportation due to the seven-day, three-shift nature of health service operations. Night bus service is seen as inadequate in the downtown area, thus limiting the employability of city residents. The Capitol Region Council of Governments (CROG) has undertaken a pilot welfare-to-work program that encompasses transportation system enhancements to connect city to suburb. Its efforts may be relevant to this situation.
- *Employers have difficulty attracting professional workers to Hartford.* Corporate recruiters find it difficult to attract new employees to the area, citing high cost of living, high taxes, and the decline of downtown Hartford. In fact, a number of companies will not start new lines of business in Hartford for recruiting as well as cost reasons.
- *Improvement in the quality of education is critical.* Since well-educated employees are key to employment in the Hartford insurance and managed care industry, many companies desire improvements in the quality of education in the state at all levels, primary and secondary, particularly in urban areas, as well as in higher education.
- *There is a perception that Connecticut has not been providing "blue chip folks."* Several employers will not hire graduates of the state's university system and have raised criticisms of its lack of responsiveness to industry needs. Coordination with Connecticut's higher educational institutions could help meet the professional and high-skill shortages in the workforce, particularly in areas of applied medical research, statistical analysis, bioengineering, information systems programming, and systems analysis. The University of Connecticut has a health systems management program, but it is underfunded. The new dean, however, is aggressive and could be supported to expand the program. Criticisms of the University of Connecticut for not having an urban presence could be addressed by relocating the business school to downtown Hartford, which would also contribute to a revitalized downtown.
- *Applicants for lower-skilled positions in health services lack skills.* Health service providers identify the lack of basic skills in reading, writing, and math, poor work ethic, and deficiency in computer skills in the applicant pool for allied health, patient services, clerical, and service jobs. Pre-employment training and English as a second language resources need to be identified and developed, perhaps through the SINA project, as a means to match health service employers with potential employees from the city of Hartford.

INFORMATION TECHNOLOGY

DEFINING THE CLUSTER

As the "insurance capital" of the county, the MetroHartford region became a very early and significant user of computer technology. Since the insurance industry involves the processing of a large amount of information, companies in the region had to develop very advanced systems for organizing the vast amount of data and information involved in operating their companies. As a result, MetroHartford historically had one of the largest concentrations of computer hardware and computer programming capacity in the U.S. Anecdotally, a number of people have noted that at one time the Hartford region had one of IBM's largest customer bases.

This history has left MetroHartford with an important legacy -- a large number of firms and activities that could be defined as part of the "information technology" cluster. While there is no universally accepted definition of "information technology," the term has been used to describe a wide range of industries and occupations that involve the storage, manipulation, and communication of information. Many who use the term include all aspects of computer manufacturing within the category, and focus primarily on only the most technologically advanced aspects of the computer industry. Others use the term to refer to such activities as call centers and back office data processing operations. For the MetroHartford area, it is important that the term refer to the "cluster" of economic activity that has emerged in the region, primarily as a result of the presence of the financial services industry, and, increasingly, the health care management industry. This region has developed a large and vibrant set of companies that are involved in all aspects of information processing -- from the highest end, software development; to the lowest end, back office call centers and data processing operations. *What these activities have in common is that they involve designing and developing systems that involve the digitizing of information or the management of information as well as implementing these systems through the input, processing, and communication of information.*

The following further categorizes the information technology cluster in MetroHartford:

- **Prepackaged software:** This includes companies engaged in the design, development, and production of computer software and software documentation.
- **Computer processing and systems design:** This category involves the wide range of companies in the region involved in providing computer consulting and information technology services. The companies range from those involved in web page design to international management consulting companies involved in the design of complex information systems.
- **Information retrieval services:** This category includes establishments that provide on-line information on a contract or fee basis, such as credit reporting and direct mail

advertising companies, or companies that provide access to on-line information, such as Internet providers.

- **Back office/data processing operations:** Service sector firms with large customer bases and high volumes of routine transactions (notably financial services) tend to divide their workforces into two roughly equal sized parts, headquarters and back offices. Headquarters typically represent the nerve center of the corporation, in which strategic decisions are made regarding the firm's investments, products, employment, marketing, etc. The tasks involved are generally performed by a skilled and well paid labor force. Back offices, on the contrary, perform many routinized clerical functions such as data entry of office records; stock transfer and registration; and processing of payroll or billing information, bank checks, insurance claims, magazine subscriptions, and airline frequent flyer coupons. These are the production facilities of the information technology sector. Most of the back office operations in MetroHartford are part of large financial services and managed care firms that are headquartered in the region.

While the above categories define the types of activities included in the information technology cluster, where and by whom these activities are undertaken further complicates the definition of the cluster in the region:

- **A large proportion of the information technology jobs are located within firms that are defined by the product or service they produce.** Within MetroHartford, a large percentage of the information technology activities take place within the large companies in the financial services and health care management industries. In other words, while the companies' products would be classified as either in the financial services or the health care management industries, a large amount of the economic activities involve data processing and systems design. For example, Aetna, CIGNA, and ABB have back office facilities in the Bradley Development League area. Fleet Bank and Travelers also have strong back office operations. Within the headquarters facilities there is also a large proportion of jobs that could be defined as highly-skilled, information technology positions. While it is not possible to precisely identify the number of jobs in the financial service and health care industries that involve such activities as computer systems design, programming, billing, claims administration, and check processing, we know that a significant number of jobs that are categorized in the financial service industry fall within this area.
- **Many information technology employees work on a contract basis or for personnel supply companies.** Given the large demand for information technology workers, many companies hire for these position on a contract basis. Thus, total employment figures often mask the large number of individuals who are considered "self-employed," but actually work in the information technology industry. Similarly, many companies use personnel supply or leasing companies for their information technology needs. Thus, there are personnel supply companies that hire a large proportion of information technology workers. The temporary workforce is growing at a rapid rate -- doubling in employment since 1991. For example, Stamford based

Advantage Staffing Services (which recently bought Hartford based Options Group) is now a significant player in Hartford. This company now places professional "temps" -- many of whom were previously employed in the financial services industry -- in companies throughout MetroHartford. One insurance company reported that 300 of its 2,000 information technology workers are temporary contractors rather than full-time employees.

In effect, the definition of the information technology cluster in MetroHartford represents a different way of looking at regional specialization. Rather than focusing on the end product -- as in the case of a financial instrument -- the focus is on the operations critical to producing that product. *Thus, information technology includes firms whose products directly involve the processing, manipulation, or communication of information, as well as those parts of other industries that involve these activities.*

Given the complexity of defining the industry, it is not possible to estimate with any level of precision the exact number of employees involved in the information technology cluster in MetroHartford. In terms of standard industrial codes, we do know that the region has a large number of jobs -- about 8,000 -- in companies that are involved in computer programming services, prepackaged software, computer integrated systems design, computer processing and data preparation and processing services, information retrieval services, computer facilities management services, computer rental and leasing, computer maintenance and repair, and other computer-related services such as computer consultants. However, the number of jobs in the financial services industry and the health care industry that involve information technology is significantly above this number. Moreover, many jobs classified under management and consulting services involve information technology.

The following table lists some of the large independent information technology firms.

Major Information Technology Companies in the Region		
Command Systems	Farmington	Computer systems consulting services
Quodata Corp	Hartford	Software for education and non-profits
Scan-Optics	East Hartford	Information processing systems
Leverage Group	Glastonbury	Finance industry software and systems
Open Solutions	Glastonbury	Retail banking software
Securities Software & Consulting	Bloomfield	Financial investment mgmt software
Impact Systems	Glastonbury	Data processing consulting
AMOS, Inc	Southington	Banking and mortgage loan software
Programming Resources Co	Hartford	Insurance related software and systems
Magner	Middlefield	Finance industry software and equipment
Cadkey	Windsor	CAD software
The Allied Group	Glastonbury	Computer consulting services
Connecticut Data Systems	Rocky Hill	Computer programming and software
Mergent International	Rocky Hill	PC and Network security software
Line Systems	Bloomfield	Computer systems and programming
The Systems Group	Glastonbury	Software and systems for finance industry
Software Marketing Associates	Rocky Hill	Software for direct mail industry
Paramount Systems	East Hartford	Systems integration services
CNC Software	Tolland	CAD/CAM software
Strategic Solutions International	Conventry	Network management software
TLF Associates	Newington	Computer consulting services
Continental Computer Systems	Newington	System integration services
Telepartner Intl North America	Farmington	Communications software
Structure Computer Systems	Avon	Purchasing, materials mgmt software
Distributor Information Systems	Farmington	Distribution management software
Corporate Information Technologies	Farmington	Systems consulting
PRT, Inc	Windsor	Systems consulting and millennium
Business Data Services	Glastonbury	Information Systems
<i>Source: Corp Tech Directory</i>		

In addition to these companies with over 15 employees, there are about 90 other companies involved in software development and computer systems consulting services located in the MetroHartford region (see attached list). The region is also the home to large management consulting firms including Andersen Consulting and Coopers and Lybrand that provide information technology services to firms.

JUSTIFICATION FOR TARGETING

- *Nationally, the management of information is one of the key defining areas of competitiveness in the new economic environment.*
- *There are employment growth opportunities related to business process outsourcing to third-party administrators, as well as processing jobs within large information-related industries.*
- *The Hartford region has a workforce with the skill base applicable to this industry.*
- *The region has been successful in attracting firms in the information technology industry in recent years.*

INDUSTRY TRENDS

Clearly, as the world truly enters the "information age," all aspects of information technology are going to become critical to the success of firms in almost every industry. From distribution companies that are increasingly technology intensive -- requiring sophisticated logistics systems -- to managed care firms that are processing millions of forms, all of MetroHartford's key industries require workers with skills in managing information. In addition, those firms involved in "products" to serve this "information age" are amongst the fastest growing in the global economy.

Another trend that points to the growing importance of information technology and information processing is the increasing use of outsourcing services by large companies as they seek to streamline their operation and become more competitive. A recent report by the Yankee Group noted, "Of the largest 1,000 publicly traded organizations, more than 85 percent have outsourced some significant component of their business delivery engine and over 38 percent have sought to have outside service providers deliver a significant component of their information processing function." MetroHartford has both an important customer base for outside service providers and a growing base of vendors able to meet the specialized information technology and processing needs of companies throughout the world as they seek to outsource some of their internal operations.

Evidence from interviews and employer surveys in MetroHartford finds strong evidence of the importance of this "cluster" to the regional economy.

- *Information technology companies responding to the Mt. Auburn survey are all anticipating rapid growth in the next three years.*
- *While a number of the companies in the region sell their products throughout the U.S., many serve the financial services and managed care industry in MetroHartford.*

- *The most important factors related to doing businesses in MetroHartford for information technology companies were: highway access, telecommunications infrastructure, and quality of life.*
- *All of the companies in the industry are very concerned about the availability of skilled technical workers.*

The following looks in more detail at some of the trends affecting two of the major components of the information technology cluster in MetroHartford: software and back office operations.

Software

- *The computer software industry is one of the fastest growing in the U.S. Software employment grew at a rate of 9.2 percent per year between 1990 and 1996.*
- *While people do not ordinarily think about Connecticut or MetroHartford as the location of a vibrant software industry, the state has over 936 firms in the industry, many of which are located in the region. According to a study on the Connecticut Software Industry completed by the Connecticut Technology Council, software employment in the state grew by about 20 percent during the 1990s. Of the 50 companies recently chosen as the fastest growing technology companies in Connecticut by the Connecticut Technology Council and Deloitte and Touche LLP, the largest number (18) were classified as software companies.*
- *Wages in the industry are among the highest in the nation -- offering opportunities to support a high quality of life for residents. Annual wages in 1995 were \$57,319, or more than twice the national average of \$27,900 in the U.S. In Connecticut, the average wage in the industry was \$46,407, well above the average for all industries in the state -- \$33,811.*
- *Entrepreneurial development and spin-off potential exist within the region. While at some level there is a lot of consolidation in the industry, there is also a trend towards increased specialization and "niche" market development. Information technology and financial services professionals in MetroHartford have left larger companies and started their own companies in increasing numbers. In effect, the downsizing activity -- with many senior managers taking early retirement or large severance packages -- has helped to spur entrepreneurial activity in the region. Some of this activity is found in small, software companies.*
- *The region has developed a specific expertise in software related to the financial services industry. A number of the fast growing, software companies in MetroHartford have developed innovative products related to the insurance industry and more specifically to financial services.*

Back Office/Data Processing Operations

- *Companies that have large back offices are those with considerable customer service operations, companies with large credit card authorization and billing departments, companies that require big centralized accounting and other types of record keeping and data processing operations, companies that handle large volumes of financial transactions, and publishing companies that print large volumes of data.* These activities can be classified into three general categories: customer service operations; forms/data processing; and printing.
- *Being located with corporate headquarters or major regional offices can pose problems for back office operations.* The location makes the back office operations subject to the same workforce availability, pay scales, space costs, and urban environment as their corporate headquarters. A combination of rising downtown real estate costs, improved technology, and an increasingly competitive corporate atmosphere is, therefore, creating incentives for companies to locate their business service operations separately from other company departments. Today, a back office can locate anywhere in the world and still share timely information. The only requirements are fax machines, dedicated fiber-optic networks, computers, and phones. In the process of vertical disintegration -- separating relatively routinized, capital intensive, unskilled functions and moving them to peripheral areas, while retaining skilled, labor intensive administration functions in downtown areas -- service firms follow much the same trajectory as many manufacturing companies before them, which sent waves of branch plants to the suburbs and beyond.
- *Recently, large companies with significant back office operations have begun to solicit the help of third-party processors.* This process is known as outsourcing, and is increasingly frequent among financial services firms. Banks are taking advantage of investments in state-of-the-art technology offered by outsourcing companies to cut operating costs and upgrade service. Economics of scale permit a single outsourcing company to run such functions for several other companies.
- *Currently, a common trend is for urban-based companies to locate their back office operations in surrounding suburbs.* The incentives for this location are numerous. Suburban commercial rents are often one-third cheaper than those in downtown areas, and new office space in the suburbs can be specifically designed to accommodate back offices. Suburban labor forces are generally better skilled than those found in central cities, and lower crime rates are an advantage as back offices are typically staffed by women, who often work late at night and rely on public transportation in cities. Easier and shorter commuting, lower cost of living, less congestion in office areas, good schools, and nearby recreational areas and facilities make for an ideal suburban location for back office operations.
- *Increasingly, companies are looking to rural areas in other states for less expensive rent and a quality workforce.* Recently, given the increasing locational flexibility afforded by satellites and a growing web of inter-urban fiber optics systems, back offices have begun to relocate on a much broader scale. Some states even offer moving

expenses, free buildings, free training, huge infrastructure investments, and low interest loans. In some instances, low taxes and a business friendly environment can be enough to lure large back office operations.

LABOR FORCE ISSUES

Labor Force Needs

Information processing operations involve a range of skilled and unskilled employees. Back office tasks involve unskilled or semi-skilled labor. The majority of back office workers are classified as clerical staff, with a much smaller number of managers and computer operators and programmers. On the other hand, software development firms require a distinct set of highly-skilled workers, many of whom have graduate degrees. More generally, financial service firms require workers with a broad range of information technology skills. With rapid changes in computer technology, there is a shortage of workers with knowledge of Windows NT, local area networking, and database programming.

The Connecticut Department of Labor is projecting a rapid growth in a range of occupations related to the high end of information technology in the MetroHartford region. According to its projections of employment in the Capital Region, computer system analysts are projected to grow by 59 percent, computer engineers by 68 percent, and operations research analysis by 37 percent by the year 2005. These are amongst the fastest growing occupations in the region.

A particular area of high demand in the current labor market is individuals with COBOL programming experience to address the Year 2000 problem. Given the computer hardware base associated with the insurance industry, MetroHartford is the home to a relatively large number of residents with this skill -- which had been thought of as out-of-date until recently. With the need to avoid a computer crisis tied to older programs, many companies are aggressively seeking retired programmers with this experience. Others are looking to train younger professionals in this older skill. The shortage of workers able to work on the Year 2000 situation is a growing problem throughout the U.S. This problem is particularly acute in MetroHartford given its economic base.

On the lower-skilled end, back office tasks involve unskilled or semi-skilled labor, primarily women, and frequently operate on a 24-hour per day basis. Generally, the staff is divided as follows: 80% clerical workers, 15% middle managers, 7% computer operators and programmers, and 1 percent executives. Skill requirements for back office personnel vary depending on the type of service provided. Customer service facilities generally seek people with good voice and interpersonal skills. Forms and data processing firms look for people with clerical and basic math skills. The back office operations of the large insurance companies are looking for individuals with a couple of years of college and some work experience.

Companies are also facing serious shortages in this occupational area. One insurance company noted that "it has used every ounce of creativity it has" to try and fill its jobs in

customer relations. These jobs pay between \$21,000 and \$23,000 and do not require a college education.

Although data processing firms teach their employees to use the computer workstations, they prefer to hire people with some level of comfort with computer equipment. For communities that are eager to attract back office jobs, the quality of semi-skilled labor is important. To this end, the nature of the high school curricula and labor training programs is critical, especially computer literacy.

Training Programs

There is a perception amongst some employers in this industry that training programs in MetroHartford are primarily serving the low skill areas of the information processing industry. One software company noted, "What about those of us who can generate many new jobs, but we are competing at the higher end of the technology spectrum? It costs me \$50,000 to train an entry level programmer...It sure would be nice to get some help or stop teaching students on old technology and give us graduates that have skills set we can immediately put to use."

In general, there is a mismatch between the information technology workforce needs of employers in MetroHartford and the training available at local schools and institutions of higher education. Employers are looking for individuals with COBOL programming skills, Internet software tools, client/server program development, and updated programming languages. There is a need for more certificate programs -- offering courses that are not necessarily part of undergraduate and graduate degree programs.

The educational institutions in the region do, however, have particular expertise and capacity related to information technology. For example:

- *RPI in Hartford has graduate courses and programs that are focused on the management of information.* The Management of Technology Program is a two-year interdisciplinary program leading to a Master of Science Degree. The program is supported and taught by faculty of the School of Management and School of Engineering and Science.
- *A number of the community technology colleges were cited as having developed programs in conjunction with insurance companies that focused on back office skill sets and involved work study.* In addition, most offer associate degrees in computer information systems, as well as specialized certificate programs in microcomputer processing, records management, word processing, and other information processing-related skill areas.
- *The University of Hartford has a certificate program in Management Information Systems and offers a wide variety of courses in information systems at the Barney School of Business and Public Administration.* The school also offers general computer and clerical skills training as part of its Department of Professional and Continuing Education.

- *Central Connecticut State University has worked with companies around work-study programs.* In addition, the school has degree programs that are related to a wide range of skill sets needed by private employers involved in information technology.

KEY CHALLENGES

In its efforts to further promote employment opportunities and growth related to the information technology cluster, the MetroHartford region faces a number of challenges:

- *The most immediate and critical challenges facing both the industry nationally, as well as within the region, is the availability of skilled information technology workers.* In MetroHartford, companies have a large number of jobs that are going unfilled as a result of the inability to locate appropriately skilled workers. There is a lot of shifting going on within the region -- with information technology workers moving from company to company as firms increase wages and benefits. Companies are also facing difficulties in recruiting nationally due to the perception that MetroHartford is not an attractive place to live for young professionals. Many of the large companies noted that they are often turned down by those offered jobs because they do not want to move to Hartford. As a result of the shortage of skilled workers, growth in the industry is being constrained and investment decisions are being made elsewhere.
- *There has not been a strong relationship between institutions of higher education in the region and the industry.* Although information technology is such an important component of the regional economy, there has been a growing mismatch between the needs of employers and the curriculum and programs at the colleges and universities. A study of the Connecticut Technology Council noted that since 1988, computer and information sciences degrees are down 40 percent in all Connecticut colleges and universities. The total number of Connecticut graduates with these degrees was expected to fall below 350. As noted, there are many degree and certificate programs available at institutions of higher education in MetroHartford that meet the industry needs. However, these programs do not meet the scale of the need in the region. Moreover, there is some concern that the curriculum is not always appropriate to private sector needs.
- *Many of the local firms in the industry are highly dependent upon the financial services industry.* A challenge for many of the local companies is to broaden the markets they serve -- both by the industry and geographically. In the future, firms in the industry could be providing similar services to a more diverse set of industries.
- *The cost structure in the region, along with a perception of a poor business climate, has negatively affected the locational decisions of some of the larger companies looking for back office locations.* As noted, back office operations are much more footloose than they had been in the past. Not only are companies moving their back offices from central city locations to suburban locations, but they are

moving these operations entirely out of the MetroHartford region. In some cases, the investment decisions are linked to issues beyond the control of state and local officials. For example, one company noted it needed a facility in a "sunbelt" location to ensure customer contacts during bad winter weather in the Northeast. However, investment decisions are also being made based upon the perception that companies can find a more hospitable and low-cost location in other parts of the U.S. Being able to compete effectively with other regions that have successfully attracted large back office and data processing facilities is a prime challenge for MetroHartford.

OPPORTUNITIES

Although many of these challenges are significant, the information technology cluster still offers considerable opportunities for job development within MetroHartford:

- *Information technology firms are potential targets for recruitment to MetroHartford.* Given its skilled labor force, the current availability and affordability of commercial space in the region, access to major markets (New York, Boston, Hartford financial services industry), and the quality of life in the suburban communities, the region is potentially attractive to large information technology firms, as well as third-party administrators. The recent decision by a New York based software company, PRT, to expand in Windsor is a good example of this potential. This firm, which is addressing the Year 2000 problem, chose the region because of its talent pool of information technology workers and access to its clients in the financial services industry. As another recent example, the Pennsylvania based information technology company, IKON, created a new customer service center in Glastonbury, creating about 100 jobs. These two recent locational decisions provide evidence that the region is a potentially attractive site for firms in the industry.
- *The privatization of information systems by the state of Connecticut provides an opportunity for focusing attention on the information technology "cluster" in MetroHartford.* The state of Connecticut is in the process of privatizing its information technology services. As part of this process, it is seeking to maximize the economic benefits associated with a private firm taking over these functions. The potential exists for using this new private sector firm as an "anchor" to a more developed information technology center within the city of Hartford.
- *The Higher Education Consortium is targeting information technology as an area of concentration for the proposed Downtown Higher Education Center.* The Consortium is looking at the model -- the Connecticut Information Technology Institute -- developed by the University of Connecticut in the Stamford area. This program is a joint venture between the Stamford Campus, the School of Business Administration, the School of Engineering, the Division of Extended and Continuing Education, and a group of technology-based businesses in Fairfield County and the Southwest Area Commerce and Industry Association. The goal of the effort is to expand and enhance the information technology labor pool in Fairfield County and to

expand the interaction among the business community and the University. The effort in MetroHartford will probably be broader -- involving many different institutions and targeting a wider range of skills.

- *The Year 2000 problem has been, and can continue to be an area of growth in MetroHartford.* First, the region has a large investment in computer systems and, thus, is a large market; and, second, the region has a large number of workers with the skills relevant to address the problems. A number of area firms, including Command Systems in Farmington and CW Costello & Associates in Wethersfield, have been growing rapidly due to this market. Other firms have hired internally to address the problem.
- *The increasing importance of information technology in the health care industry opens up potential areas of opportunities in MetroHartford.* With the dispersion of health care services across different levels of care comes the need to develop Integrated Delivery Systems and Community Health Information Networks. To manage care more effectively, many health care organizations will require the development of a clinical data repository, automated medical records, and master patient indices. These are the types of services that companies in MetroHartford are well-positioned to provide.

THE PRECISION MACHINING/AEROSPACE CLUSTER

DEFINITION OF CLUSTER

Two sets of companies dominate the manufacturing sector in MetroHartford: precision machining and aerospace. While these two components of the sector have a lot of crossover in terms of their products, markets, and, to some extent, resource requirements, they are also very distinct.

- *The Hartford precision machining cluster involves myriad buyer-supplier chains that cut across a diverse set of manufacturing industries.* It includes firms that engage in the production of very precise machined parts that have extremely high tolerances (it differs from other standard metalworking firms that are involved in metal bending operations, for example, and the mass production of parts). Most companies in the region produce highly specialized metal products. While many firms supply to the transportation equipment industry, most firms supply customized component parts to a diverse range of industries, including medical and pharmaceutical, telecommunication and information technology, and a host of other manufacturing industries. Firms in this cluster produce specialty industrial machinery and machine tools, machine parts, gages and precision grinding services, as well as customized metal component parts such as screw machine products, fasteners, metal stampings, ball bearings, and metal springs.
- *The aerospace cluster, alternatively, is dominated by firms that produce for the same market and are not necessarily linked by similar workforce and technology needs.* Firms in this cluster include manufacturers of aircraft engines and engine parts, metalworking, instrumentation, electronics, and plastics. The presence of several large defense contractors, particularly several divisions of United Technologies, in the region has stimulated the development of this cluster. While many of these firms are diversifying into other markets, there remains a large concentration of activity in aerospace specific manufacturing.

HARTFORD'S PRECISION MACHINING/AEROSPACE INDUSTRY

Hartford's Precision Machining/Aerospace industry is dominated by establishments engaged in the manufacture of screw machine products (SIC 3541), metal stampings (SIC 3469), bolts, nuts, rivets, and washers (SIC 3452), metal plating and polishing (SIC 3471), metal coating (SIC 3479), wire springs (SIC 3495), turbines (SIC 3511), machine tool accessories (SIC 3545), industrial machinery (SIC 3599), aircraft engines and engine parts (SIC 3724), and aircraft parts and equipment (SIC 3728).

According to the 1992 Census of Manufacturers, there are more than 1,100 businesses in the region that could be classified as part of the precision machining/aerospace cluster.

Roughly 67 percent (nearly 750) of these businesses are small family-owned operations, with fewer than 20 employees. The structure of the region's industry is comparable to the national industry in which roughly 65 percent of firms have fewer than 20 employees.

Recent data indicates that together, if defined broadly to include most businesses involved in metalworking and aerospace activity, the precision machining and the aerospace industry provide approximately 70,000 jobs in the Metro Hartford region.

JUSTIFICATION FOR TARGETING

The following factors have influenced the development of Hartford's metalworking cluster:

- *Strong regional market for precision manufactured products.* The competitive strength of the Hartford Metalworking Cluster stems from the region's strong base of manufacturing industries dependent on metal and precision manufactured components.
- *Historical strength of the industry in Connecticut and the Hartford region.* Hartford, and Connecticut as a whole, have a strong history in the metal trades and base of family-owned businesses that have operated in the Connecticut River Valley for generations. Evidence of regional clustering emerged as early as 150 years ago and the region remains a recognized center of precision manufacturing.
- *Jobs within the metalworking cluster offer high wages and good benefits.* The metal trades continue to offer some of the highest wages of all industries in the region. A skilled machinist in the Capital Region, for instance, earns an average of \$60,000 to \$70,000 per year.
- *Institutional support for precision manufacturing and small manufacturers.* Many small precision manufacturers in the region have received financial and technical assistance through several state and locally-sponsored programs. The University of Connecticut's Advanced Technology Center for Precision Manufacturing is an interdisciplinary research center established "to provide a technology resource accessible to industry and to help revitalize the state and national manufacturing base through technological innovation." The Center is one example of a program designed to specifically benefit members of the state's metalworking industry. In addition, the state's five-year property tax exemption on new machinery has been a big factor in helping small manufacturers in the region defray the costs of retooling.

CONSTRAINTS/DISADVANTAGES OR COMPETITIVE CHALLENGES

Despite tremendous strengths, the region's precision manufacturing industry faces several challenges.

- **Labor skills and availability.** The largest issue for the region's metalworking cluster is the increasing scarcity of skilled labor and the impending labor shortage, particularly as the industry's current generation of machinists and tool makers begins to retire. The graying of the workforce and the difficulty of attracting new entrants into the industry is recognized as a national problem, and is being addressed by the state and the national industry associations. The Hartford region is confronting this labor pool challenge head on, investing in outreach and training programs to attract a new generation of workers. A recent report on workforce and labor availability prepared by the Precision Machined Products Association revealed the following national industry trends:
 1. *Skilled labor shortages will worsen in the years ahead and many companies report that they have positions that they could fill today if qualified applicants were available.*
 2. *The skilled metalworking and precision machining workforce is aging, and the industry anticipates that it will be difficult to attract a new generation of skilled workers into the metal trades.*
 3. *The composition of the workforce is changing, with more and more minorities, immigrants, and women entering the metalworking trades.*
 4. *The skills of the workforce do not match job requirements.* Increasingly, workers lack basic education skills such as problem solving, math, reading, and writing. More jobs in the metal trades require at least a high school education, and many more require some education beyond high school. As technology requirements in the industry change, employers are seeking workers with more math, critical thinking, and problem solving skills.
 5. *Overall, the eroding work ethic of new entrants into the labor pool is an issue for many industries involved in the metalworking cluster.*
- **Image.** The national and local metalworking industry has changed dramatically in recent years. The industry is working to change its image from one of "dirty" manufacturing to one of clean, precision manufacturing that reflects the increasing technical sophistication of the industry.
- **Market diversification remains an issue for many companies.** A large number of the region's metalworking companies make sales to the defense industry, however, few companies rely solely on the defense and civilian aerospace industry. For the most part, companies in the metal trades have a diverse customer base. With many of the region's largest defense and aerospace firms cutting back on purchases, the region's metalworking industry has been forced to restructure. Many firms that previously relied heavily on the aerospace industry for the bulk of their sales, have successfully diversified into other markets. And many small, family-owned companies indicate that they have benefited from defense industry cutbacks, gaining skilled workers from some of larger companies in the region.

- **Costs associated with manufacturing modernization.** Most of the companies in the region's industry are small and have fewer than 100 employees. For the small- and medium-sized companies, costs are a barrier to modernization and workforce training and retraining.
- **Education and training system.** While there is evidence of some stabilization in the precision machining industry in the region, the industry's continued strength will depend on the region's ability to build an education and training infrastructure that meets the needs of these firms, and train a new generation of workers in the metal trades. In a recent interview, the director of the Connecticut Tooling and Machining Association, an association of smaller manufacturers located in Glastonbury, noted that the key to the industry's competitiveness is its ability to "turn high-tech," reflecting the changes in the local metal and machinery industries. The most pressing need of employers is for skilled machinists and workers able to operate sophisticated new computer-controlled machinery.

CUSTOMER-SUPPLIER RELATIONSHIPS

One way to better understand how integrated and fundamentally important a cluster is to a regional economy is to explore customer-supplier linkages among firms. Through analysis of regional and national input-output tables, industry commodity purchases, business surveys, and business interviews, Mt. Auburn Associates explored these relationships. A preliminary review of available data and industry interviews revealed a profound set of relationships between the precision machinery industry and other businesses in the region. This set of relationships makes precision machinery perhaps the most vital sector of the region's economy.

Backward Linkages (Suppliers): Top Supplier Industries:

- paints, varnishes, lacquers, enamels, and allied products (SIC 285);
- miscellaneous chemicals and chemical preparations (SIC 2889);
- miscellaneous plastics products (SIC 308);
- blast furnaces and steel works (SIC 3312);
- iron and steel foundries (SIC 332);
- aluminum sheet, plate, and foil (SIC 3353-5);
- iron and steel forgings (SIC 3462);
- electroplating, plating, and polishing (SIC 3471);
- ball and roller bearings (SIC 3562);
- electronic computers (SIC 3571); and
- relays and industrial controls (SIC 3625).

Forward Linkages (Customers): Top Purchasing Industries:

- logging (SIC 241);
- millwork (SIC 2431);
- mattresses and convertible beds (SIC 2515);
- tires and inner tubes (SIC 301);
- metal cutting machine tools (SIC 3541);
- special dies, tools, die sets (SIC 3544);
- motor vehicles, car bodies (SIC 3711);
- motor vehicle parts and accessories (SIC 3714);
- aircraft (SIC 3721);
- aircraft engines and engine parts (SIC 3724);
- missile and spaceship engines (SIC 3764); and
- search, detection, navigation, guidance, aeronautical and nautical systems, instruments and equipment (SIC 381).

EMPLOYER SKILLS AND BEHAVIOR REQUIREMENTS

From the results of a survey of manufacturers for the Millennium Project and from several focus groups and discussions with employers in the industry, there are three major areas of competencies that employees should have. These competencies are generally required by entry-level workers who would be classified as assemblers and machine operators. Most employers do not expect that someone new to the industry would have mastery over all of these competencies, but they would like a solid foundation. Advanced skills training that leads to the position of machinist will, in most cases, be provided by the employer. Employers recognize that a good machinist will take years to train.

1. Technical Skills -- Entry-level employees should have:

- familiarity with basic mathematics -- arithmetic, fractions and decimals, metric conversion, some trigonometry and geometric principles;
- an ability to read and interpret blueprints and engineering drawings;
- an ability to communicate orally and in writing, particularly as it relates to the machine environment;
- an ability to use basic gauging and measuring devices and tools (e.g., micrometers, calipers, gauge blocks);

- the capacity to operate standard machine tools and equipment, including surface grinders, lathes, drill presses, saws, vertical mills, as well as an understanding of feeds and speeds;
- an understanding of fluid laws and dynamics;
- an ability to perform basic bench operations (e.g., use of hand tools and simple reburrring);
- familiarity with CNC equipment operation;
- knowledge of CAD and CAM; and
- familiarity with statistical process control principles.

2. Non-technical Skills -- Entry-level employees should:

- know how to work in teams and function as a member and a leader;
- be able to think critically;
- be able to solve problems;
- have good written and verbal communication skills;
- have an ability to set priorities among a diverse set of tasks;
- have knowledge of systems, rather than simply knowing facts and isolated information; and
- have the ability to access, organize, interpret, and communicate information.

3. Attitudes and Behaviors -- Entry-level employees should be able to:

- dress appropriately for the workplace;
- take initiative;
- arrive at work on time and on a daily basis;
- persist until a job is done;
- assume responsibility for his/her own actions;
- work in a team;
- adapt and be flexible; and
- act safely and respect safety protocols.

DEMAND FOR ENTRY-LEVEL EMPLOYEES IN THE PRECISION MACHINING INDUSTRY

The demand for entry-level employees in the industry is high and will continue to be so in the immediate future. First, the Millennium Project surveyed over 200 companies in the MetroHartford region, and 130 of those were manufacturers. The majority of the manufacturers were in the precision machining and aerospace industries. Those 130 manufacturers indicated that they would be hiring approximately 1,000 new employees in the next 12 to 18 months. Secondly, the Connecticut Department of Labor's Career Center in Hartford currently has 340 job requests from employers in the metalworking and precision machining industries -- from just 15 communities in greater Hartford. If the Career Centers from the remaining communities in the Millennium Project area were included, the number of job openings in the industry would easily double to 700.

Finally, in one of the precision machining focus groups that was conducted for the Millennium Project, one CEO indicated that he could comfortably hire 40 people to meet the demand in sales and services for his company. Another CEO at the focus groups indicated that he wants to start a second shift in his current 100-employee operation.

TECHNICAL RESOURCES AVAILABLE TO ASSIST COMPANIES

1. *CONN/STEP* is Connecticut's version of the Industrial Extension Service. It is a private, nonprofit organization of 20 field engineers that work with manufacturers across the state. *CONN/STEP* provides two days' worth of free direct technical assistance to identify and solve problems in the areas of: quality standards, computer systems, supplier relations, new product development, process operations, and plant layout.

In 1996, *CONN/STEP* engineers helped approximately 300 manufacturers with automation systems design, material selection, control systems integration, process improvements, cost estimating systems, production layout, and ISO9000.

2. *The Institute for Industrial and Engineering Technology (IIET)* is a program of the School of Technology at Central Connecticut State University. The IIET was designed to enhance the competitiveness of Connecticut's manufacturing and technology industries. It has four program components.

- *The Manufacturing Applications Center* has 14 labs and draws upon the expertise of engineering faculty in the University. Small- and medium-sized companies can get technical assistance in product prototyping, process control, product development, CAD systems applications, R & D, and failure analysis.
- *The Technical Training Center* offers flexible and custom-designed training services in precision manufacturing, SPC, CAD, CAM, and other engineering applications. Training is also offered in quality programs, supervisory skills, and blueprint reading.

- *The Procurement Technical Assistance Center* provides clients with affordable, on-line access to federal, foreign, state, municipal, and institutional contracting opportunities.
- *The Human Resource Development Center* offers training and services in workplace literacy, written and verbal communications, time management, and team building.

3. *The UCONN Precision Manufacturing Center (PMC)* was established to work with industry to solve problems and provide a base for new products and processes in the areas of: precision machine tool design, nanostructured materials processing, production scheduling and intelligent manufacturing control, and grinding process improvement. PMC utilizes numerous high-tech research laboratories to conduct its research, including labs for CAD/CAM research, visualization, and grinding. The center is staffed by over 100 researchers and graduate students, and has created significant collaborations with Connecticut industry.

4. *The Engineering Applications Center* at the University of Hartford is managed by the College of Engineering, with support from the Barney School of Business, Ward College of Technology, and the College of Arts and Sciences. The Center has a number of labs and programs designed to meet the engineering and technology needs of the state's manufacturing base. These include: the Acoustics and Vibrations Laboratory, the Advanced Manufacturing Engineering Institute, the Energy Institute, the Environmental Institute, and the Mechatronics Institute.

Scores of companies (and institutions) have received assistance from the center in a diverse number of areas, including: digital signal processing, finite element analysis, thermal cool storage, vibration control, sound absorption, and factor floor computer simulation.

5. *Connecticut Innovations, Inc. (CII)* is a quasi-public entity that promotes technological growth in Connecticut by targeting key growth industries and assisting companies financially through the Yankee Ingenuity Initiative grant program. CII focuses on nine critical sectors in the state, including advanced materials and aerospace manufacturing. CII oversees the Advanced Technology Centers and the Critical Technologies Research Program at the University of Connecticut and Yale University.

CII's Investment Program provides up to \$10 million each year to small businesses for product development and product marketing financing. The Technology Assistance Center, an information clearinghouse, coordinates with the state Department of Economic and Community Development and the Connecticut Development Authority to make resources available to new or existing businesses.