

'ENTREPRENEURIAL PLANNING' AND URBAN TELECOMMUNICATIONS-  
ORIENTED DEVELOPMENT: THE CASE OF SPRINGFIELD, MASSACHUSETTS

A Thesis Presented

by

RICHARD J. NUNES

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Approved as to style and content by:

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John Mullin, Chair

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Meir Gross, Member

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Mark Hamin, Member

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Ann Burke, Member

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Jack Ahern, Department Head  
Landscape Architecture and Regional Planning

## **DEDICATION**

To my grandfather, Manuel José Gregório

(1923-2001)

To a man whose entrepreneurial schemes always opened onto the next.

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## ABSTRACT

### 'ENTREPRENEURIAL PLANNING' AND URBAN TELECOMMUNICATIONS-ORIENTED DEVELOPMENT: THE CASE OF SPRINGFIELD, MASSACHUSETTS

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RICHARD JOSEPH NUNES, BArch., CORNELL UNIVERSITY

MRP., UNIVERSITY OF MASSACHUSETTS AMHERST

Directed by: Professor John R. Mullin

Set in the context of a growing trend toward increased privatization, changes in information technology and telecommunications infrastructure pose both challenges and opportunities for economic development. These developments have led to an emergent telecommunications-oriented strategic approach to urban planning. It is increasingly common that these policies couple urban media strategies with urban-wide economic development strategies together into one 'high-tech' economic development package. Under the rubric of 'urban telecommunications-oriented planning' strategies, the problem with these policies is when they are often viewed as *new* technological 'quick fix' solutions to complex urban problems.

This thesis examines the potential for 'high-tech' economic development strategies as a catalyst for redevelopment, and their implications for the role of local government and non-profit organizations. In what is an overall trend toward privatization or the outsourcing of traditional municipal services, it will (1) illustrate how industry and government have undergone an 'entrepreneurial shift,' and (2) identify how this trend, concomitant with changes in information technology and telecommunications infrastructure, poses both challenges and opportunities for economic development. Finally, it will (3) define what role local government must take as entrepreneurial planners.

## TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS.....	iv
ABSTRACT.....	v
LIST OF TABLES.....	ix
LIST OF FIGURES.....	x
CHAPTER	
I. ‘ENTREPRENEURIAL PLANNING’ AND THE THE DEVELOPMENT OF INNER CITY “INFORMATION DISTRICT STRATEGIES”: THE CASE OF SPRINGFIELD, MA .....	1
A. Introduction.....	1
1. “Organizing Capacity”.....	2
a. Urban Telecommunications-oriented Development and the Internet.....	3
b. Promotional Economic Development.....	4
2. Entrepreneurial Planning: Competition or Collaboration.....	6
B. Statement of Problem.....	7
C. Purpose of the Case Study.....	9
1. Competitive Advantage.....	10
2. Telecommunications Advantage.....	11
3. Springfield ‘Plugged-In City Technology Program’.....	13
D. Research Questions.....	14
E. Methodology.....	15
F. Organization.....	16
II. LITERATURE REVIEW.....	19
A. Entrepreneurial Shift.....	19
1. Urban Economic Restructuring.....	19

a. New Economy: “Old wine in a new bottle” .....	20
b. New Regionalism and the New Economy .....	21
B. Entrepreneurialism.....	22
1. Entrepreneurial Planning .....	23
2. ‘Competitive Advantage’ and the Ensuing Debate.....	24
a. Clusters: A Sector-oriented Economic Development Approach .....	25
b. Free Market Unpredictability .....	29
c. ‘Competitive advantage’ .....	34
d. The Ensuing Debate .....	36
III. A “GLOBAL PERSPECTIVE” .....	41
A. Springfield in a Regional Context .....	42
1. New Atlantic Triangle .....	43
2. New England’s Knowledge Corridor.....	45
3. “Information District” Development .....	47
a. Areas of core technology strength.....	48
b. Industrial and commercial capacity.....	50
IV. A “LOCAL AUTONOMY PERSPECTIVE” .....	69
A. Nature of the Local Economy.....	69
1. Educational Attainment .....	70
2. ‘High-Tech’ Presence in the Local Economic Base .....	70
B. Marketability.....	71
1. Vacant Downtown Office Space in Springfield.....	72
2. Vacant Industrial and Commercial Land and Buildings in Springfield.....	73
C. Probability that industry can be sustained .....	74
1. The <i>Info Tech Village</i> (Buffalo, NY): An Eight-Point Plan .....	75
D. Behind the ‘Springfield Plugged-In City Technology Program’ .....	77

1. Regional Alliances/Research Institutions .....	78
2. Local Government/Membership Organizations.....	79
V. CONCLUSIONS AND RECOMMENDATIONS .....	95
A. Recommendations .....	97
REFERENCES .....	99



## LIST OF TABLES

Table	Page
3.1: Boston Hartford New York Metro Market .....	56
3.2: Selected Metro Rankings (Out of 56) .....	56
3.3: Greater Springfield Office Market Vacancy .....	57
3.4: Hampden County Industrial Market .....	57
3.5: Significant Development Parcels .....	58
3.6: Industrial, Business and Technology Parks Survey .....	59
3.7: Industrial and Commercial Parcels/Relative Capacity .....	64
3.8: Industrial, Business and Technology Parks/Relative Capacity .....	66
3.9: Areas of Core Technology Strength .....	68
4.1: City of Springfield, Downtown Vacant Retail Space .....	84
4.2: City of Springfield, Downtown Vacant Office Space .....	86
4.3: City of Springfield, Vacant Industrial/Commercial Land Inventory .....	91
4.4: City of Springfield, Vacant Industrial/Commercial Buildings Inventory .....	93

## LIST OF FIGURES

Figure	Page
1.1: Centralized, Decentralized and Distributed Networks.....	17
1.2: Telecommunications Providers, Downtown Springfield.....	17
1.3: NorthEast Optic Network, Inc. (NEON): Fiber Optic Backbone Through Downtown Springfield .....	18
2.1: Keys to the Old and New [American] Economies.....	38
2.2: Characteristics of Old and New Economies .....	39
2.3: A Sector Solution Approach: Compare and Contrast .....	39
2.4: City Economic Development: Two Models .....	40
3.1: New Atlantic Triangle .....	54
3.2: Springfield and Hartford Metro Areas.....	54
3.3: New England’s Knowledge Corridor.....	55
3.4: Distribution of Technology Parks/Centers for Springfield and Hartford Metro Areas .....	55
4.1: Major Labor Divisions for Springfield and Hartford Metro Areas.....	81
4.2: Springfield Downtown and Central Business District .....	82
4.3: City of Springfield Business, Industrial and Commercial Use Distribution.....	83

## CHAPTER I

### **'ENTREPRENEURIAL PLANNING' AND THE THE DEVELOPMENT OF INNER CITY "INFORMATION DISTRICT STRATEGIES": THE CASE OF SPRINGFIELD, MA**

#### A. Introduction

Industry and government have undergone an 'entrepreneurial shift' from 'welfare' issues to economic regeneration [strategies] as the key urban policy question (Hall and Hubbard, 1998). In other words, the traditional issues of 'social equity' are replaced by notions of competition whereby the rationale for the distribution of financial resources is based on the competitive strength of the players and local economic development groups that replace traditional government structures (O'Toole, 2000). The 'entrepreneurial shift' rests on the notion of public-private partnership. This "new entrepreneurialism" (Harvey, 1989) consists of four aspects: creating jobs, expanding the local tax base, fostering small firm growth and attracting new forms of investment (Hall and Hubbard, 1998). It is associated with an increasing ideological view of the world economic order generally and public-private partnership in particular, which has also been specifically referred to as 'privatism.'<sup>1</sup> Privatism, though, should not be confused with 'privatization' (Squires, 1991). The ideology of 'privatism' and the policies of 'privatization,' which have been adopted by national governments worldwide, constitute the transformation to entrepreneurial planning practices over the last two decades. Furthermore, this transformation has been associated with a more widely perceived trend known as 'globalization,' which has been characterized by a restructured manufacturing-based economy for a services-oriented one albeit facilitated by the Internet. Together, both 'marketization' and 'globalization' perceptions

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<sup>1</sup> Contrary to privatism, privatization is the regulatory policy that transfers the ownership of particular industries or public services from the government to the private entrepreneur. In other words, this could also be viewed as the 'marketization' of public services, which ensures quality through competition.

converge on the ability of a city to design and implement sustainable economic development programs.

Concomitant with these perceptions, economically developed nations have also entered a period where electronic information transfer is widespread. Changes in information technology and telecommunications infrastructure pose both challenges and opportunities for economic development. That is, economic boundaries have become increasingly more flexible and penetrable, while political ones have maintained various degrees of rigidity. These challenges are imbedded in one essential policy issue: policies for city management generally and those for urban telecommunications-oriented development can no longer be considered separately.<sup>2</sup>

### 1. “Organizing Capacity”

Telecommunications, as a catalyst for economic development, is part of a strategy to develop and retain existing businesses and attract new business growth. There is no unified theory of economic development planning that illustrates how this should be done. Fortunately, however, there are comprehensive strategic approaches that can yield ‘rational’ and pragmatic decision-making processes. These strategies or action plans are not always clear as to their approach. In fact, civic leaders often confuse development instruments with a development strategy. For example, industrial parks, small business assistance, one-stop business information centers, and tax relief are ingredients of an economic development strategy, not the plan itself. In *Planning Local Economic Development: Theory and Practice*, Edward Blakely (1994) states that a project must be distinguished from a strategy or program. The distinction, he argues, is that projects emerge from strategies or specific courses of action—not the other way around. Kenneth Voytek and Larry Ledebur (1997, 177) also point out that economic development is a “relatively

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<sup>2</sup> See Graham and Marvin (1999).

untargeted intermunicipal sales and marketing competition. Just as private firms must target their marketing efforts, communities must focus and *rationalize* [Italics added] their economic development efforts.” The success of these efforts is contingent on an “organizing capacity”<sup>3</sup> or an ability to formulate strategies for the specific development goals of a community, city or region (Blakely 1994, 133).

#### a. Urban Telecommunications-oriented Development and the Internet

Cities are often attuned to Internet-disseminated practices in other cities; the frequency of which is modulated by an examination of emerging “best practices” by various economic development agents. The ensuing competitive pressure between cities complicates the formulation of strategies and policies. Politically, cities continue to pursue economic development strategies that many researchers and even practitioners have discouraged as cost-ineffective, while the stakes increase with growing uncertainty among practitioners about what *really* does work economically. Moreover, this decision-making process appears increasingly affected by a presumed need for visible and/or symbolic returns on investment (i.e., ‘flagship’ or promotional economic development). In his essay “*Local Economic Development Policy: What Explains the Divergence between Policy Analysis and Political Behavior?*” Harold Wolman (1988)<sup>4</sup> suggests that political rationality may not necessarily correspond to economic rationality. Whatever the challenges may be for economic development planning and decision-making, there is clearly a competitive element to the interaction of both rationales. A city’s image is inherently

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<sup>3</sup> In Leo van den Berg’s (1997, 1) article “*Metropolitan Organizing Capacity: Organizing Major Projects in European Cities*,” he acknowledges that “control,” as the power to adequately be able to “anticipate and respond to and cope with changing intra/inter-metropolitan relations,” is contingent on its ‘organizing capacity’—an “*ability to enlist all actors involved, and with their help generate new ideas and develop and implement a policy designed to respond to fundamental developments and create conditions for sustainable development.*”

<sup>4</sup> See also Reese and Fasenfest 1996, 281.

contingent on its ability to attract human, economic and intellectual capital through the marketing of a 'quality of life' character and the strategic management of its 'competitive advantage.'

### b. Promotional Economic Development

Fueled by the Internet industry, 'globalization' has left conventional economic thinking dominated by the Gross Domestic Product (GDP) and market pricing at the cost of citywide approaches to unmet inner city demand.<sup>5</sup> On the one hand, a citywide approach emerges from the uneven economic development that presently contributes to the increased division of economic, human, and intellectual capital. On the other hand, it emerges from strategic economic growth through urban 'sustainable development' and 'competitive advantage.' As a result, some have argued for reshaping the global economy towards social justice and environmental sustainability at every level of practice, from global to the regional and local. Others, however, have argued for 'competitive advantage' and strategic economic growth, from vertically integrated industrial 'clusters' to 'quality of life' factors and city image.<sup>6</sup>

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<sup>5</sup> Consultant services like *A Social Compact* market the 'quality of life' [image] agenda through initiatives that probe into unrecognized economic development potential, particularly in inner city neighborhoods (State Farm, Bank of America, The Ford Foundation and the MacArthur Foundation sponsored *A Social Compact*, in consultation with Shorebank Advisory Services). The initiative looks to address the issue of business 'sustainability' beyond the 'bricks and mortar,' and generally demonstrates the hidden strength of under-serviced local market sectors by challenging poverty-based data sets ("A Social Compact: The Business of Emerging Neighborhood Markets," 1998; "A Social Compact: Sustainable Businesses, Sustainable Communities," 1998).

<sup>6</sup> Popular city image policies, whether from local or Federal government agendas, has been characterized by the 'quality of life' (QOL) agenda for a sustainable standard of living (Rogerson, 1999). In an effort to revitalize cities, economic development agents and political officials are willing to devise strategies for re-inventing them (U.S. Dept. of Housing and Urban Development, 2001). Often rhetorical and contradictory, if not misleading, terms such as 'sustainability' and 'quality of life' market that effort. As strategies, these economic development programs also constitute for the actions behind ad hoc environmental impact statements (EISs) and sell the promise of a healthy future! See Harrison and Glasmeier, 1997; Bates, 1997; Henderson, 2000 for social justice and sustainability and Kotler, 1993; Porter, 1997; Held, 1996; Segedy, 1997; Rogerson, 1999 for 'quality of life' factors.

Altogether, these developments point to the emergent ‘urban telecommunications-oriented planning’ approach. The ‘information district’ or the ‘urban televillage’ is one of three major tools used in this approach (Graham and Marvin, 1999). Increasingly common, these policies couple urban media strategies with urban-wide economic development strategies together into one ‘high-tech’ economic development package. Under the rubric of ‘urban telecommunications-oriented planning,’ these policies are often viewed as *new* technological ‘quick fix’ solutions to complex urban problems. Behind such ‘quick fix’ solutions, urban policy-makers often jump onto the latest “policy band wagon” and adopt the same “trendy” approaches to municipal economic development programs without proper evidence of efficacy or recognition of infrastructure needed to sustain them. Philip Kotler (1993, 20), on the contrary, firmly notes that no two places [cities] are the same. He adds “no two places are likely to sort out their strategies, use their resources, define their products, or implement their plans in the same way.” When they do, however, Susan Fainstein (1996) notes that late coming new industry sector promoters will not see the profits of their innovators, so policy imitators are unlikely to flourish. The lesson being that successful local economic development strategies will generally depend on other city leaders not implementing the same strategies, which would otherwise cancel out the other’s “area campaign” (i.e., zero-sum game) (Adams, 1994). Furthermore, the underlining policy guideline is that the ‘real’ benefit of ‘urban telecommunications-oriented planning’ initiatives to the ‘real’ local need will require government to assess more critically the role of technology in these contemporary urban strategies, as well as their role in administering it. The design and implementation of urban marketing and promotional programs behind this effort should be concerned with their respective city histories, cultures, politics, leadership, and particularly in their ways of managing public-private partnerships (Kotler, 1993).

## 2. Entrepreneurial Planning: Competition or Collaboration

Entrepreneurial planning has been particularly important in inner cities where its use has been encouraged by government organizations to achieve urban regeneration through private-sector property development. The public sector plays a very important role in these site-specific redevelopment schemes, which include securing access to a redevelopment site, land renewal, public sector investment, development packages and the implementation of private-sector schemes (Adams, 1994). David Adams' (1994) points that successful entrepreneurial planning must be able to select the right site, develop a strategy, exploit available subsidies, spotlight or publicize successful schemes, and assemble a team of people with all the relevant skills (i.e., "organizing capacity"). Generally speaking, this involves promoting and marketing an area, making land available and packaging development grants and subsidies.

The power of an "information district," as an urban redevelopment strategy, symbolically signifies a future 'high-tech' modernity for the city that promotes it. Behind these promotional developments are negotiative networks, which encompass government departments and quasi-government organizations (i.e., private non-profits acting in the interest of government initiatives), the private sector and the public. According to Pauline M<sup>c</sup>Guirk and Andrew MacLaran (2001), these networks or organizational forms continue to structure entrepreneurial urban governance. The entrepreneurial planner must work with speed, creativity and flexibility, as opposed to the rigid, process-oriented development control in traditional planning practices. Entrepreneurial planning is action-oriented and implementation centered. It will seek to identify and make available, from public funds, the additional financing necessary to turn unprofitable developments into profitable ones. In other words, it will attempt to "lever" or induce private sector investment into a weak market with public-sector finance (Adams, 1994).



The increased number of public-private partnerships in entrepreneurial governance, however, places an increased demand on the goal of political and economic interests. Generally speaking, the progressive image behind ‘flagship’ or landmark developments, like the ‘information district,’ will help to reverse the negative perceptions of the city—a political rationale. An economic rationale might argue that, independent of a developer’s profits, the return on public investment should also be sensitive to ‘real’ local needs. The two rationales do not always correspond with each other, allowing some urban developments to carry on despite their limited success or cost-ineffectiveness. This conflict makes formulating urban telecommunications-oriented development strategies and policies particularly challenging for public-private partnerships.

### B. Statement of Problem

The heightened interaction among urban economies and polities raises a number of challenges for economic development planning and decision-making. Telecommunications as a catalyst for redevelopment and its implication for the role of local government should maximize on existing local market potential or introduce new market demand as an effort to augment existing market activity. Because cities operate in a highly competitive market, they can just as often drive developers to other jurisdictions as they can attract them. Therefore, economic development generally has less to do with how one adapts to market demand and more to do with how one builds markets. In this view, the use of ‘urban telecommunications-oriented planning’ strategies for land reclamation and redevelopment programs should allocate financial resources to sites that have the greatest potential for re-use rather than those that pose the most environmental concern. Nancy Leigh and Rhonda Hise (1997) have described this approach as a form of “land use triage”<sup>7</sup> in which planners take into account the nature of the local economy, the marketability

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<sup>7</sup>See Leigh, Nancy Green and Rhonda Hise, 1997. *Community Brownfield Guidebook*, Atlanta: Georgia Tech, pp. 1-44.

of the land itself second, and finally, the probability that the desired new market activity can be sustained. The place-based approach, however, risks operating on a micro-scale at the cost of an integrated multi-sectored plan that would consider housing, transportation and workforce training among other issues. Therefore, limiting an urban telecommunications-oriented development strategy to a small district area leaves the strategic element of an integrated city plan absent.

Furthermore, in a “theory of regions,” regional economists<sup>8</sup> insist that, before a number of economic benefits begin to accrue (i.e., jobs, public goods and revenue), urban planners must develop a ‘critical mass’<sup>9</sup> of socioeconomic factors. It is important to note that both the market-economy’s ability to provide a public good (parks, clean air, roads, etc.) and the local government’s ability to have an effect on that same market-economy (in favor of the public) are definitive. Government and industry intervention of local and regional markets are limited with respect to economic development. In other words, neither industry nor government alone can achieve it. An awareness of a private sector’s ability to intervene for economic development, relative to the public sector’s ability to do the same is fundamental to the success of an urban telecommunications-oriented planning approach. Therefore, public-private partnership is crucial. When recognizing these limits, the public sector must assume an entrepreneurial role. This will require that “entrepreneurial governance” proactively promote the design, implementation and maintenance of local economic development initiatives, and lessen their focus on the rigid and inflexible *process-oriented* traditional planning practices behind development plan making and control.

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<sup>8</sup> See University of Massachusetts and University of Connecticut, (2001). “New England’s Knowledge Corridor: The Making of an Interstate Region.”

<sup>9</sup> A ‘critical mass’ is a level of socioeconomic factors required to achieve economic development. Some of these factors include secondary educational attainment, venture capital and public services—finance, insurance, and real estate.

### C. Purpose of the Case Study

The case study for this thesis is the Springfield ‘Plugged-In City Technology Program.’ The thesis attempts to ascertain the program’s potential effectiveness and legitimacy as an urban telecommunications-oriented development strategy, which packages vacant low-cost office space with business support services. Its underlining objective is to regenerate an area or areas of the city through commercial and industrial property reclamation and redevelopment.

Preliminary expectations for the ‘Plugged-In City Technology Program’ hold that the current “Information”<sup>10</sup> industry sector in Downtown Springfield will not sustain it. This does not imply that the program should be abandoned. Telecommunications as an economic development strategy should maximize on existing local market potential or introduce new market demand as an effort to augment existing market activity. Often times, the challenge is not so much meeting market demand as it is creating it. Strategies of this nature should consider programs that span several financial years when operating in commercially less viable market areas. Sustaining such an endeavor will be contingent on a team of individuals or organizations of individuals that will provide an unyielding “driving force” behind the project’s conception. This includes the ability to successfully promote and market an area, and make land available with a mix of development grants and subsidies for its redevelopment. The key policy issue with the ‘Plugged-In City Technology Program’ will be maintaining its citywide approach by not limiting it to a small district area, which would leave the strategic element of an integrated city plan absent.

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<sup>10</sup> The “Information” sector (51\*) includes publishing industries, motion picture & sound recording industries, broadcasting & telecommunications and information & data processing services.

## 1. Competitive Advantage

Springfield is the largest city in Western Massachusetts and the third largest in the State. It offers low cost office and retail space, and housing competitive with major New England metropolitan areas centered on Worcester, Hartford, and New Haven. When economists speak of ‘competitive advantage,’ they are often referring to a city’s ability to retain, expand and attract new businesses to their city (Porter, 1995). Springfield’s proximity to educational and employment training resources,<sup>11</sup> a competitive cost structure,<sup>12</sup> and high ‘quality of life’<sup>13</sup> offer it a unique ‘competitive advantage’ (EOEA, 1993). The advantage is partly due to the city’s location on the “crossroads” of two major routes of commerce between Boston and Hartford (i.e., Interstates 91 and 90). Accessibility by air includes three regional airports: Barnes Municipal Airport (Westfield), Westover Metropolitan Airport (also home to Westover Air Force Base, Chicopee) and Bradley Field International Airport (Hartford, CT).<sup>14</sup>

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<sup>11</sup> The educational and employment training resources are particularly concentrated at the University of Massachusetts Amherst (UMass) and the Springfield Technology Community College (STCC). UMass is a huge economic resource for the Pioneer Valley. The university’s direct and indirect expenditures also make it one of the region’s largest consumers and service providers. It provides 5000 non-university jobs, many of which have been generated from university spin-off businesses (University of Massachusetts, Office of Economic Development (OED), “Impact, Increasing the Commonwealth: The Economic Impact of UMass Amherst”). STCC – Technology Park’s resources include its Network Service Providers (NSPs), the STCC Center for Business and Technology, the Springfield Enterprise Center and the Deliso Videoconferencing Center. The NSPs include Neon Communications, Inc., Williams Communications, Equal Access Networks, NEESCOM and Crocker Communications (<http://www.stcc.mass.edu/TechPark>).

<sup>12</sup>These competitive cost structures include low industrial and commercial and office and retail (rental and land) costs, and relatively reasonable water costs due to the large supply of water—particularly in Springfield.

<sup>13</sup>For the purposes of this study, ‘quality of life’ is understood as high speed telecommunications, skilled labor force or secondary educational attainment (college educated) and information generating institutions as opposed to more traditional economic advantages (e.g., proximity to markets and cost of labor), albeit factors of location.

<sup>14</sup> Twenty percent (20%) of Bradley Field International Airport’s traffic originates in Massachusetts. The area is relatively uncongested with room for controlled growth (EOEA, 1993).

Springfield also has a long history of technology transfer, which is rooted in its manufacturing origins as the site of the first U.S. Armory in 1794. The arsenal was revolutionary, developing a system of interchangeable firearms that led to mass production (e.g., Springfield Rifle and M1 Grand Rifle). The technological advances were patented, fabricated and exported by entrepreneurs like D.B. Wesson, a forerunner to Smith-Wesson in 1894. Today, a large population of engineers, machine operators and technical experts remains, who provide a skilled workforce that is representative of the regions' roots in traditional manufacturing (e.g., fabricated metals, paper, and plastics industries) (City of Springfield, (2001b).

## 2. Telecommunications Advantage

Springfield also has a *unique* telecommunications advantage as far as security and redundancy is concerned. That is, the mere number of *decentralized* long-distance carrier services in Springfield is no happenstance. In a brush with historic fate, this *decentralized* city network was fashioned on the work of the (Defense) Advanced Research Projects Agency (ARPANET), a military organization associated with the Pentagon that oversaw computer research in the 1970s (Fig. 1.1). In the early 1960's, the agency researched defense strategies that could enhance U.S. military capability and strategically protect and improve communication systems simultaneously with the use of inter-networked computer system operations.<sup>15</sup>

As a result, all North/South and East/West fiber optic networks converge in Downtown. These networks provide separate Points-of-Presence (POP) or access points to the Internet for

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<sup>15</sup>The pioneering research of Paul Baran (1960s) envisioned a communications network that would survive a major enemy attack (i.e., "Cold War"). The "Distributed" network structure offered the best survivability, but the "Decentralized" model was instead applied to the City of Springfield. The research of the ARPANET has long since been repackaged and it is, today, widely perceived as the Internet.

each of the five major telecom service providers (TSP).<sup>16</sup> The TSPs in Downtown include AT&T, Bell Atlantic, Frontier Telecommunications Company, MCI/WorldCom, Brooks Fiber (Div. of MCI/WorldCom) and Sprint. These central offices contain state-of-the-art digital switches, which are interconnected with fiber optics cable networks (Fig. 1.2). The resulting telecommunications capability and bandwidth capacity make Downtown Springfield a major switch center for the Northeast. This also makes the city one of the few places in the country with uninterrupted telecommunications capability—a consideration for any high-tech industry (University of Massachusetts Amherst, Center for Economic Development (CED), Spring 1998).

However, Springfield's overall telecommunications infrastructure mainly consists of long-haul fiber (e.g., NorthEast Optic Network, Inc. (NEON)) (Fig. 1.3). This problem is associated with its lack of “loops,” which would facilitate the outward growth and development of telecommunications infrastructure on a citywide scale.<sup>17</sup> The absence of a citywide network has not encouraged the expansion of telecom-related uses, which other cities like Lowell, Somerville and Lynn have enjoyed. Therefore, the expansion of the existing telecommunications network, local economic development and urban telecommunications-oriented development in Springfield remains largely related to the “theory of regions” mentioned earlier. Urban planners must first develop a ‘critical mass’ of socioeconomic factors before a desired number of economic benefits are attained in Springfield. This should also consider the overall impression of the city by private entrepreneurs generally and the skilled labor force or secondary educational attainment and information generating institutions in particular, albeit sufficiently facilitated by

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<sup>16</sup> Other centers in the country, such as New York, Boston and Chicago, house their carriers under one roof (Pioneer Valley Planning Commission (PVPC), 1994; Springfield Business Improvement District (SBID), [www.springfielddowntown.com/glance.htm](http://www.springfielddowntown.com/glance.htm)).

<sup>17</sup> From the perspective of capitalizing on a service-oriented market economy, it is imperative that back-office operations, such as banks, insurance companies, mail-order companies, and related hardware and software firms have access to high-speed Internet telecommunications (IT) infrastructure.

telecommunications access. Without this demand, TSPs are not willing to incur the cost of running fiber to areas where it does not exist.

### 3. Springfield ‘Plugged-In City Technology Program’

The Springfield ‘Plugged-In City Technology Program’ packages vacant low-cost office space with business support services (e.g., tax credits, rent abatements, special utility rates, employee credits, and fiber). The program will market the vacant retail and office space of a designated area as Internet-ready or “information district.” These districts are envisioned, from a political economic perspective, as areas of desired urban regeneration that would potentially coincide with and respond to any real estate demands from the businesses trained at the Springfield Technical Community College (STCC).<sup>18</sup> The program, however, awaits the results of a two-phased study by Telecommunications Insight Group, Inc. (TIG),<sup>19</sup> who will author and implement regulatory changes, and develop and implement a comprehensive marketing strategy. TIG will also produce all licenses, agreements and contracts as required. The Springfield

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<sup>18</sup> STCC (1996) is one of only ten centers nationwide that is funded by the National Science Foundation (NSF), which meets the needs of telecommunications and information technology sectors; it is also sponsor of the STCC - Technology Park and the Springfield Enterprise Center. The college received a \$5 million grant from NSF in 1997—in participation with 20 Northeast colleges/universities and 14 high schools. Together with \$500,000 of their own and \$4.5 million in matching grants from private telecommunications companies, STCC has created the Northeast Center for Telecommunications Technology (NCTT), which develops telecommunications education programs, textbooks and CD-ROMs, and monitors trends in the telecommunications industry. Both the Springfield Enterprise Center and STCC – Technology Park and NCTT provide thousands of square feet to entrepreneurial businesses region wide, many of which remain in the Springfield area after taking advantage of the park’s resources. NSF has also designated STCC as one of its nine National Centers of Excellence in Advanced Technological Education nationwide (*Union New – Sunday Republican*, September 3, 1997).

<sup>19</sup> TIG is a private telecommunications consulting team. It was contracted last year by the Springfield Media and Technology Group, Inc. (SMTG) and the Springfield Technology Initiative (STI) to develop a strategy that will maximize the economic development potential for telecommunications infrastructure in Springfield. STI is a group of public, private and non-profit entities that want to encourage regional collaboration. The group includes the City of Springfield, the Economic Development Council of Western Massachusetts (EDC), Springfield Business Development Corporation (SBDC), Telitcom, STCC, Western Massachusetts Electric Co. (WMEC), and private real estate officials. STI has also worked closely with TIG and SMTG to inventory and map Springfield’s telecommunications infrastructure and review city policies and ordinances related to telecommunications development in order to evaluate Springfield’s potential strengths and weaknesses.

‘Plugged-In City Technology Program,’ in this view, will coordinate with other regional efforts in Hartford, CT., in order to foster the interstate regional development of an “Information” industry sector. The combined success of these regional efforts will in turn facilitate local economic development goals in Springfield.

#### D. Research Questions

An inventory of vacant industrial and commercial buildings and lots, coupled with informal interviews and conferences, has contributed to the following questions regarding the Springfield ‘Plugged-In City Technology Program’ and its implication for the role of local government as entrepreneurial planners.

1. In what ways might the Springfield ‘Plugged-In City Technology Program’ help revitalize the local economic base?
2. Can a public-sector program better address local economic regeneration than a private-sector-initiated one can? That is, can a publicly initiated urban telecommunications-oriented development program solely redirect the course of local economic development?
3. In other words, should local governments plan on the basis of what the private sector potentially would be induced to deliver, letting it largely determine patterns of land use? Or should one, for example, plan on the basis of addressing local needs, such as workforce development – analyzing the socioeconomic preconditions that determine private sector investment?
4. How do these relate?
5. Should an urban telecommunications-oriented development program be limited to a small district area, imbued with financial incentives irrespective of the industry sector? Or, alternatively, should it be consistent with a comprehensive citywide plan that has “targeted” industry sectors?



## E. Methodology<sup>20</sup>

According to Susan Fainstein (1996), urban economic restructuring can be assessed from two perspectives, a “global perspective” and a “local autonomy perspective.” The former assesses city development as part of a totality and the latter assesses it as a unique outcome of a particular history. The global perspective examines cities in the context of shifts in the regional and national economy. Whereas the local autonomy perspective identifies what internal forces have conditioned the city’s economic, social and political atmosphere. The methodology adopted for this thesis has assembled data that will help describe the urban economic restructuring context from which entrepreneurial planning has emerged. As a product of this restructuring as well as the increased multiplication of marketing strategies and entrepreneurial governance, it is more appropriate that the ‘Plugged-In City Technology Program’ be assessed from these two vantage points rather than restricting it to a case study comparison.

The regional data that has been collected will determine the extent to which the Springfield ‘Plugged-In City Technology Program’ will be affected by shifts in the regional and State economy (i.e., telecommunications industry sector). A telephone survey of industrial parks in the Hartford-Springfield region has also been inventoried in order to assess the regional context. Particular emphasis, however, has been placed on local data. The data has been partially

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<sup>20</sup> Early stages of development for this thesis were guided by conferences attended, informal interviews, phone conversations and field observations and research. The conferences attended include “New England’s Knowledge Corridor: An Economic Study of the Hartford-Springfield Region,” University of Massachusetts and University of Connecticut, 2001; “The Dot.Commonwealth Road Show to Western Massachusetts: “Pioneering the Next Generation of IT Companies,” Springfield Technical Community College, 2001; “Baltimore’s Digital Harbor,” APA 2001 National Planning Conference; “Digital Infrastructure and Economic Development,” APA 2001 National Planning Conference; and, “Community Strategies in the Information Age,” APA 2001 National Planning Conference. The early stages of the thesis development took place during a research assistantship with the Donahue Institute, contributing to the research and development of the “New Bedford Case Study” in *Technology as an Economic Catalyst in Rural and Depressed Places in Massachusetts* (Donahue Institute, University of Massachusetts Amherst, 2000).

assembled from two on-going inventories. The first has inventoried available office and retail space in Downtown Springfield.<sup>21</sup> The second has begun a citywide inventory of vacant industrial and commercial land and buildings.

## F. Organization

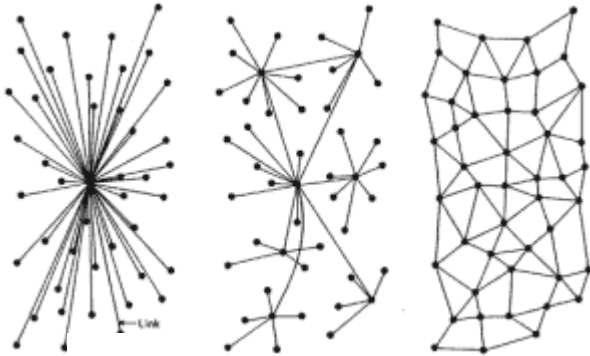
The remainder of this thesis is composed of four chapters. Chapter 2 reviews the research literature, which describes the transformation from traditional planning practices to that of an entrepreneurial planning approach. In section one, of the two-part literature review, the “entrepreneurial shift” describes this transformation as a change from the old to the ‘new’ economy and regionalism. Entrepreneurial planning is a highly debated subject, namely with respect to “social equity”—where the lending hand is not always the hand of the benefactor. Section two looks at this from a slightly different angle by discussing the factors of ‘competitive advantage’ and collaboration in entrepreneurial planning in Springfield and the surrounding region. Chapter 3 emphasizes how the success of the Springfield ‘Plugged-In City Technology Program’ is contingent on the extent to which it is able to connect with regional market demand. Chapter 4 identifies the unique local players, public-private partnerships and university cooperation behind the program. Finally, Chapter 5 concludes and appropriately offers recommendations. It considers the implication of urban telecommunications-oriented development on the role of local government as entrepreneurial planners in the ‘new’ economy.

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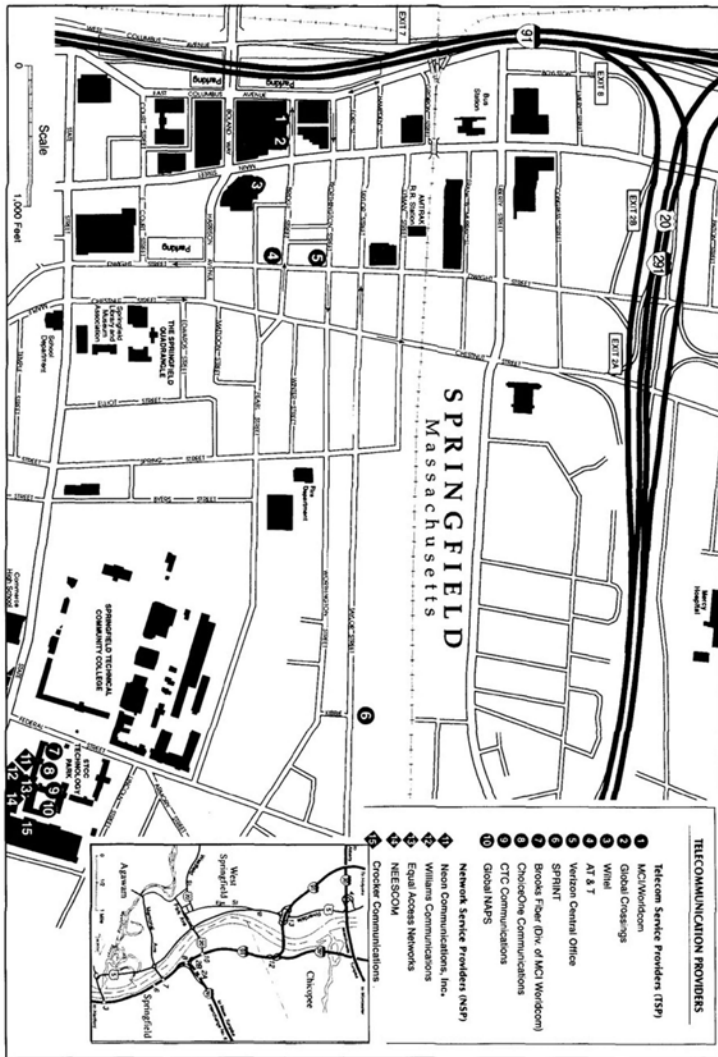
<sup>21</sup> The office and retail space inventory has assessed available telecommunications infrastructure accessible from the street versus that which is readily accessible from within the building or vacant tenant space (built on existing data from the Springfield Business Improvement District (SBID) and phone interviews with individual leasing agents, building owners and managers). Finally the industrial and commercial vacant land and buildings survey has documented individual parcels with an account of their condition, size, land use restrictions, contacts, etc. The author in cooperation with the Springfield Office of Economic Development and the Springfield Planning Department developed both surveys.

Figure

1.1: Centralized, Decentralized and Distributed Networks



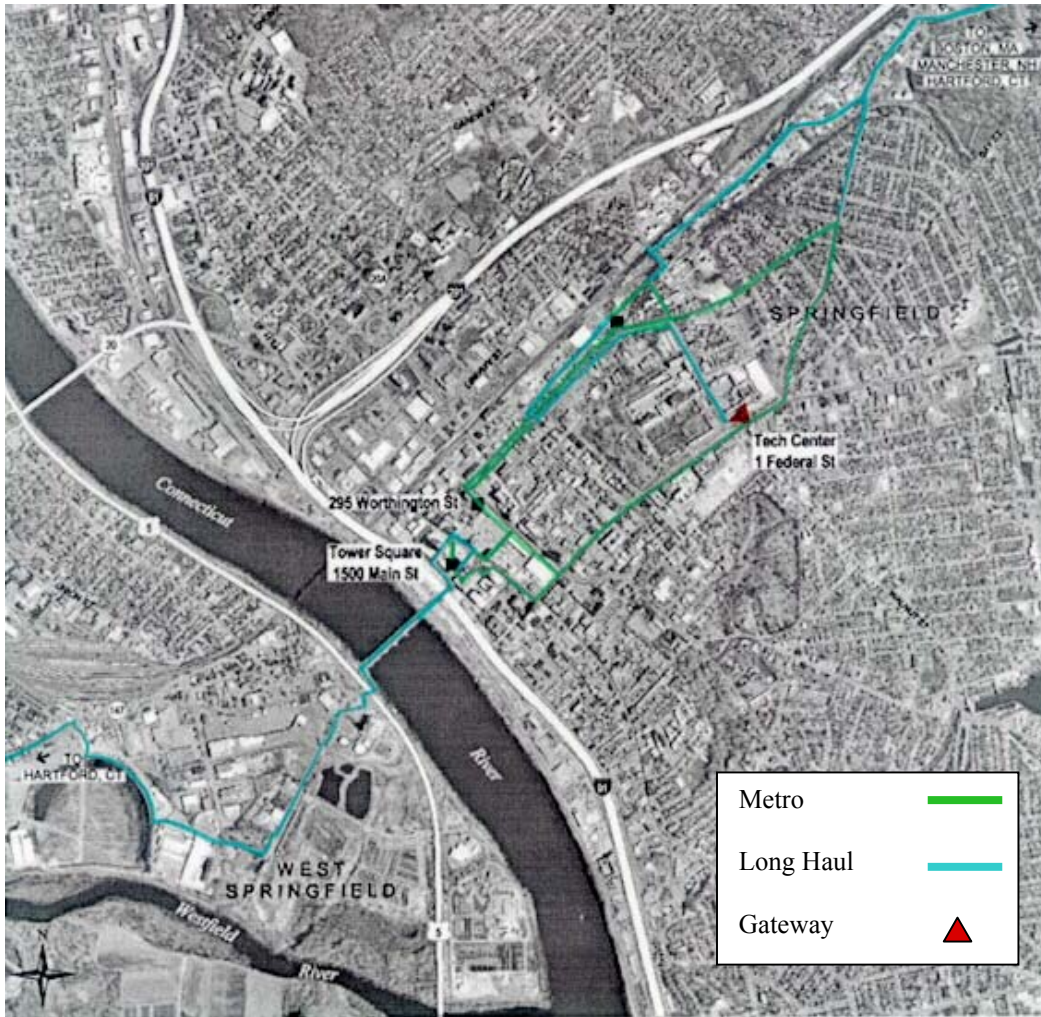
1.2: Telecommunications Providers, Downtown Springfield



Source: Map Courtesy of the Pioneer Valley Planning Commission

Figure

1.3: NorthEast Optic Network, Inc. (NEON): Fiber Optic Backbone Through Downtown Springfield



## CHAPTER II

### LITERATURE REVIEW

#### A. Entrepreneurial Shift

In an increasingly more mobile and decentralized society decentralization is not the villain. In fact, it is because of decentralization that we emerge as communities (Shirky, 2001). The creative and destructive forces behind decentralization undoubtedly have been facilitated by technological innovation. Although, social construction theorists argue that it is impossible to identify an all-inclusive ‘impact’ of telecommunications on cities, because telecommunications and urban-economic transformation vary significantly across time and space (Graham and Marvin, 1996). The forces of increasing physical mobility and relative wealth, concomitant with a greater demand for privacy and the hope of greater security, contributes to this end by incessantly driving development outward (i.e., “urban sprawl”) (Zukin, 1995).

#### 1. Urban Economic Restructuring

Urban sprawl, to the extent that it involves the disparity between the rate of land consumption and population growth, is one of the many facets of today’s tenuous and elusive urban-political condition, which is often described in conjunction with a ‘new’ urban-economic transformation (i.e., ‘globalization’). Two points should be noted regarding urban economic restructuring. First, technological advances are the most potent forces affecting the way we live, work, travel and communicate. Second, the new pressures of global competition now challenge old realities of business administration (Kotler, 1993). On the one hand, as an “urbanization” process, ‘new regionalism’ represents regrouped and newly formed trading blocs. These “super-regions” or inter-regional trading blocs have reactivated metropolitan regions and reoriented them as nodes in the global transportation and communications network. On the other hand, as a

“localization” process, it represents the networking of many smaller economic agglomerations or ‘clusters.’

These new pressures of global competition now challenge the old realities of ‘production organization,’ especially with regard to urban economic restructuring. According to Bennett Harrison *et al* (1996), regional economists and planners have long debated the characterization of business ‘clusters.’ On the one hand, they write of same-sector businesses (i.e., industrial/business parks). On the other hand, they write of diverse social and economic institutions. Austrian economist Joseph Schumpeter (1934) identified these long-term transformative forces of ‘production organization’ as “gales of creative destruction.” Richard Florida (1996, 314-5) reinforces Schumpeter, adding that these forces also involve a geographic or regional element. He illustrates that the genesis of new innovative forms of ‘production organization’ is possible for older regions, despite their local economic bases being locked into outmoded technologies and traditional practices. Florida (1996) goes on to note that work teams, the integration of suppliers into product development and other organizational factors among these new forms allow for the transformation of mass production into ‘flexible’ production (i.e., old to new economy).

#### a. New Economy: “Old wine in a new bottle”

The ‘new economy’ is a political, urban-economic condition. It embraces a knowledge-based and idea-based economy where, according to economists, the keys to job creation and a higher standard of living are innovation and new technology-imbued forms of ‘production organization.’ Unfortunately, however, many speak of urban change (of ‘decentralization’ or

“disurbanization”<sup>22</sup> and even ‘urban sprawl’), yet few have been able to define the ‘new economy’ as a set of qualitative and quantitative changes in the context of that transformation (Progressive Policy Institute’s (PPI), “The New Economy Index,” Sec 1, 1998).

The ‘new economy,’ according to the Progressive Policy Institute (PPI), emerged fifteen years ago in the United States. In the context of economic history and policy (political history), the previous economic order approximately lasted from the WWII mobilization to the oil crisis and subsequent recession, 1938-1974. It was built on a manufacturing-based economy of standardized production run by stable and hierarchical forms of ‘production organization.’ Between the mid-1970s and the early 1990s<sup>23</sup> these foundations incessantly broke down. As industries restructured themselves, states reacted to the effects of regional economic recession and sectoral [industry] crisis—lumber and wood products in the Pacific Northwest, auto and steel in the Midwest, farming in the Plains, textiles in the South, oil and gas in States like Texas and Oklahoma, and finally minicomputers and Defense in New England and California (Fig. 2.1, 2.2).<sup>24</sup>

#### b. New Regionalism and the New Economy

‘New regionalism’ can be likened to drawing a distinction between old and new economies. Since the 1930s, natural boundaries and features, land ownership and settlement,

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<sup>22</sup> In the early 1980s, Leo van den Berg and L. Klassen put forth a model of urban growth, which included four “phases:” urbanization, suburbanization, disurbanization and reurbanization, reinforcing the “creative destruction” paradigm.

<sup>23</sup> This period accounts for the oil crisis in 1973 to the real estate savings and loan crash from 1987-1991.

<sup>24</sup> These figures highlight the changes from old to new economies (1986-present), keeping in mind that the ‘new’ economy is “an infrastructure of collaboration.” Kantor (1995) writes in her book *World Class* that “politics involves battles over distribution: who gets which slices of the pie. A community’s social infrastructure, in contrast, offers the prospect for expanding the pie. Yet, the social infrastructure (for collaboration) is too often neglected, allowing the area to remain fragmented and balkanized.”

religion, language, infrastructure and politics have defined regions and regionalism.<sup>25</sup> Although, the key forces driving today's 'new regionalism' [in the United States] is characterized by global competition, information technologies, telecommunications and a "people's desire to live in non-urban areas" (Prestwood and Schumann). Neal Pierce (*Union-News* July 23, 2001) reinforces this 'new regionalism' in a two-part scenario. First, it is the "world's emphasis on economics instead of military power." Second, it is "an end to the 'tin cup' era of besieged inner cities begging for federal aid." This is underlined by the growing importance of metropolitan regions as national economic engines or "cash cows"<sup>26</sup> that "cross-subsidize," according to Pierce, less wealthy rural areas with existing State and Federal funding. David Adams (1994, 136) refers to this as "leverage planning" because private sector investment is levered into a weak market by applying public-sector finance. In other words, urban planning is programmed and executed together to induce a private market response, or "a public action that will produce a sustained and widespread private market reaction" (Garvin 1996, 398). This stresses upon the role of entrepreneurship in public projects, where entrepreneurs "conceive projects when others are unaware that there are any opportunities available. Without the extra drive that entrepreneurs supply, these other players would be overwhelmed by the uncertainties of the marketplace" (Garvin 1996,405).

## B. Entrepreneurialism

Local economic development discourse is "so pervasive" that it interests both left and right sides of partisan politics (O'Toole, 2000). It appeals to 'entrepreneurialism,' on the left, by asserting local cooperation, promoting identity of place and strengthening municipal pride, while, on the right, it supports ideas of 'neo-liberalism'—promoting enterprise and a belief in the virtues

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<sup>25</sup> See Donna Prestwood and Paul Schumann, Jr., "Regionalism: Taking Control of the Future" ("RegionalReport" at [www.glocalvantage.com](http://www.glocalvantage.com)).

<sup>26</sup> According to the economic forecasting firm of DRI-WEFA, metropolitan regions will continue to expand their economic output to almost 87 percent of the U.S. total by 2025.



of the private sector and emphasizing entrepreneurship where all forms of capital are exploited for economic development. This neo-liberal emphasis on private sector leadership, according to Samuel Nunn (2001, 161), would imply that any planning process aimed at urban development is likely to have more in common with a “private-managerialist planning” model, than an inclusionary public-planning model would.<sup>27</sup> In other words, the key question is: Should one plan on the basis of what the private sector is induced to deliver, letting it largely determine patterns of land use? Or should one analyze social conditions and plan on the basis of tackling local needs, such as workforce development? (Adams 1994, 137)

### 1. Entrepreneurial Planning

British new town development corporations pioneered entrepreneurial planning in the 1970s. Their promotional campaigns were originally designed to attract industrial development, which was later adopted by regional development agencies (RDAs). In the 1980s, entrepreneurial planning assumed product-marketing strategies where consultants reported on and advertised the city by proposing a new urban image through a “comprehensive audit” of its strengths, weaknesses, opportunities, and threats. In the 1990s, these product-marketing schemes were incorporated with multi-faceted economic development strategies that invested in education, workforce training, enterprise development, telecommunications and, research and technology. This strategic economic development approach to entrepreneurial planning, today, involves proactive land promotion through public-private partnership. The success of land promotion and likewise for entrepreneurial planning is contingent on the local government’s “organizing capacity” for promoting and marketing an area, making land available, and packaging development grants and subsidies (Adams, 1994). In other words, there is a fine line between

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<sup>27</sup> See also ‘Initiative for a Competitive Inner City (ICIC). ICIC is a national non-profit, funded by the Harvard Business School. Together with the State of Connecticut’s Department of Economic and Community Development (DECD), ICIC has co-authored the *Hartford Inner City Business Strategy Initiative: Creating Jobs, Income, and Wealth for Inner City Residents*

inter-municipal competitiveness and collaboration<sup>28</sup> and the consensus<sup>29</sup> necessary for negotiating public-private partnership. For those policy-makers desiring to promote small and medium scale “industrial dynamism” through urban telecommunication-oriented development, the question remains whether this can be achieved by simply harnessing the entrepreneurial energy and initiative of small private firms.<sup>30</sup>

## 2. ‘Competitive Advantage’ and the Ensuing Debate

Michael Porter is a household name to most economic development and government organizations. His thesis of inner city ‘competitive advantage’ is applauded for its “thumbnail sketch” of inner city urban decay, its causes and the new approaches to urban revitalization for local governments, CBOs/CDCs or “third force organizations,” and the private sector. More importantly, he has stimulated productive debate on the inner city. Rather than focusing on individual companies,<sup>31</sup> Porter’s “strongest contribution to inner city economic development lies

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<sup>28</sup>Telecom City is currently 200 acres of “telecommunications overlay zoning.” The district has been envisioned as a high-tech research and development park, encompassing three suburbs—Everett, Malden and Medford. The “district” remains fairly undeveloped; the sites of 17 buildings (Malden) that once stood in the area are “in various stages of demolition, but the search for new tenants (development) has been difficult. The telecommunications overlay zoning, which was introduced after the project’s conception has resulted in pending charges at Malden District Court. Boxford-based land developer (Robert Grant), Essex Capital Partners claims that government [State-chartered Mystic Valley Development Commission (MVDC)] has “meddled” with their business (e.g., pulling out of deals—only to turn around again in an attempt to buy the land instead). MVDC has even gone as far as pursuing a 10% interest on future development, based on the value-added advantage that TeleCom City is supposed to provide; MVDC has State-granted power to take property and oversee redevelopment.

<sup>29</sup> Where and when consensus is possible, conflict is often exacerbated. That is, each group demands, further still, that the other conform to its values and accept its priorities (Gans 2001, 65). Political economists argue that just because spatial barriers can be overcome (in certain circumstances), it doesn’t mean that they are being overcome (Kotval, 1999). As mentioned earlier, economic rationality does not always correspond with political rationality and these programs often carry on despite their limited success or cost-ineffectiveness.

<sup>30</sup> Numerous authors liken the industrial synergies or “untraded interdependencies” of innovative regions (e.g., Silicon Valley *et al*) to a culture of horizontally integrated or business to business relations for the exchange of ‘know-how’ (Bartik, 1990; Storper, 1997; Scott, 1995; Castells, 1994).

<sup>31</sup> An industry sector is a scattered collection of businesses united by a set of common commercial interests and challenges (or identities). With respect to a sector-solution approach, the ‘cluster’ is a tool for the agglomeration of these like businesses (e.g., industrial parks and districts and “information districts”). The

in the extension of his influential advocacy of and planning for interdependent ‘clusters’ or a “sector-solution” approach, which is rooted in strategic initiative<sup>32</sup> (Center for an Urban Future, 2000; Harrison and Glasmeier, 1997) (Fig. 2.3).

#### a. Clusters: A Sector-oriented Economic Development Approach

Porter’s concepts of ‘clusters’ have a long history that predates his writing (Harrison and Glasmeier, 1997). As early as the nineteenth century, economist Alfred Marshall coined the term “industrial district” to describe the concentration of cutlery makers in Sheffield and the cotton mills in Lancashire, England (James Surowieki, *The New Yorker*, April, 2000). According to Surowieki (2000), industrial districts enjoy the same economies of scale that other “giant” companies do not. Annalee Saxenian (1994) illustrates that among the benefits that outweigh the costs of rising real estate and the contention between suppliers is “specialized knowledge”: one’s specialization attracts another’s specialized knowledge. In other words, a successful ‘cluster’ can become, to borrow from Surowieki (2000), a ‘brand’ in its own right (e.g., Silicon Valley (CA), Route 128 (MA) and Research Triangle Park (NC)).

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Center for an Urban Future (2000) argues that a sector-oriented economic development approach, premised on working closely with industry leaders, will help a city design “smart” policy (i.e., economically efficient from the standpoint of tax abatements), which in turn helps many other businesses. This argument is set in the context of costly approaches to economic development, which target individual companies instead of industry sectors; a practice that was widely perceived as ‘smokestack chasing’ in the manufacturing-based economy (1938-74); the expression has been re-coined ‘chip-chasing’ under current ‘new economic’ conditions (Center for an Urban Future, 2000. “The Sector Solution: Building a Broader Base for the New Economy,” January). *See also* Eisinger’s (1988) “demand-side” terminology, in *The Rise of the Entrepreneurial State*.

<sup>32</sup> Strategic initiative refers to the “organizing capacity” for information generation, analysis and forecasting; technical and managerial capacity of local enterprise; economic and technical competence; fostering of linkages between R&D and new production; and, the training of the labor force (Kirwan 1987, 21). *See also* “Connecticut Inner City Business Strategy” and “Governor’s Council on Economic Competitiveness and Technology,” in “Industry Cluster Progress Report” 1999, CT.; Farrant and Flynn, 1997; and, *Choosing to Compete*, MA, 1993.

A strategic “sector-solution” approach, according to the Center for an Urban Future, starts with a survey of the local economy and the “targeting” of industry sectors. Second, a local group, typically of a public-private partnership or a chamber of commerce, designs and implements the projects by researching market trends and tackling “anti-business” regulations that may impede economic development. The Center emphasizes that listening to the industry’s specific needs in this process is more important than the way in which a “sector-solution” approach is designed and implemented (Voytek and Ledebur 1997, 191). Voytek and Ledebur (1997) add that a “sector-solution” approach is and should be a component of a strategic multidimensional initiative, while stressing that effective “industry-targeting” requires expertise. Unfortunately, however, Voytek and Ledebur are unable to provide any clear guidelines on how to integrate “industry-targeting” with a comprehensive citywide economic development plan.

### “Choosing to Compete” and the “Pioneer Valley Plan for Progress”

*Choosing to Compete* (EOEA, 1993) and the *Pioneer Valley Plan for Progress*<sup>33</sup> (PVPC, 1994) are two strategic initiatives that follow the same basic premise. The Weld-Cellucci

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<sup>33</sup> The strategic goals of the regional plan include developing a regional identity that celebrates growing diversity, connecting communities and fostering economic growth through collaboration, and integrating university resources into the regional economy for direct economic benefit (e.g., university as developer or university partnerships—John P. Thurber, Thompson Edison State College, [jthurber@tesc.edu](mailto:jthurber@tesc.edu): *Policy Partnerships: Opportunities and Dilemmas for Cities and Universities*).

- Maximize job expansion and retention by targeting the region’s export industries.
- Recognize the special importance of core cities to the overall health of the region
- Foster positive business climate through the creation of (assurances) capital and sustaining its availability (e.g., revolving loan programs, community banks, etc.); industry-led job training (*See Best and Forrant, 2000, the ‘Machine Action Program’*); and, streamlining the permitting process and regulations.

The metalworking industry in Western Massachusetts consists of approximately 300 small and medium-size firms, employing 11,000 workers and representing almost twenty-five percent of the region’s total manufacturing base. It offers one example of the potential usefulness of a revolving loan program; samples of the region’s metal products include molds for the plastics industry, timing chains for the *Saturn*

Administration published *Choosing to Compete* in an effort to outline categories for industrial development in each region of the Commonwealth, including the Pioneer Valley.<sup>34</sup> The initiative identifies “critical” industries as those that bring money into the region; an industry in which a ‘critical mass’ of firms already exists; an industry responsive to technological change; and, one that provides upward career mobility. Industries in the Hampden and Hampshire Counties include paper and allied products; health and allied services; fabricated metals; industrial machinery and equipment; and, printing and publishing. All of these industries are manufacturing-related with the exception of the health industry. Emergent industries include polymers and advanced materials; computer software and development,<sup>35</sup> aircraft and environmental engineering and related services; and, diagnostic instrumentation, which are all centered on finding new non-defense markets.<sup>36</sup>

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automobile, *Craftsman* tools for *Sears* department stores, and industrial saw blades shipped to more than thirty countries world wide (PVPC, 1994).

<sup>34</sup> The Pioneer Valley region consists of 44 cities and towns comprising of Hampden and Hampshire Counties. Interstate 91 (completed in 1970) has unified the region together with the 25 communities of Franklin County. It also has expanded the Valley’s geographic definition as an economic unit, maximizing on the economic potential for each city and town will be contingent on inter-municipal relations and regional collaboration; the Pioneer Valley has a population of 608,479 as the fourth largest metropolitan area in New England (U.S. Census of Population and Housing, 2000).

<sup>35</sup> Polymers and advanced materials and computer software and development are both expected to grow from UMass spin-offs (EOEA, 1993).

<sup>36</sup> Millitech (S. Deerfield) specializes in making devices that measure changes in atmospheric conditions. Instrument Technology started out by making jet engines and nuclear power plants; it has since then entered the medical market through the manufacturing of boroscopes. Hutchins Tool and Engineering Company (Springfield) started out by making products for the aerospace industry and it is now fabricating a product that helps medical technicians administer Cardio-Pulmonary Resuscitation. American Saw and Manufacturing Company (Springfield) have an international distribution network, including a distribution facility in Japan. Thermaflo (Springfield) has created an effective, low-cost technology that will reverse the effects of chlorofluorocarbons (EOEA, 1993). Furthermore, the Northeast food wholesaler/distributor, Springfield Food Service Corp, was recently bought out by Performance Food Group, Inc—a food wholesaler based in Richmond (VA) that also bought out Empire Seafood Holding Corp last April (*Boston Business Journal*, July 23, 2001). As a result, the old Springfield Foodservice Corp facilities in Downtown Springfield were rehabilitated and expanded by the new owner.

The *Pioneer Valley Plan for Progress* included a research phase, which produced the *Economic Assessment of the Pioneer Valley* (April, 1994) and three ‘Economic Summits.’ The first summit had approximately 300 registered participants—each group discussing a topic related to elements of the economy. Craig Moore of the University of Massachusetts Amherst described the importance of export industries, emphasizing that local (or domestic) firms will only survive if export industries are bringing money from out-of-region markets into the region (Moore, *New Economic Reality: Massachusetts, 1994*).<sup>37</sup>

Additional strategic initiatives include the *Hartford Inner City Business Strategy Initiative* (DECD and ICIC, 1999), which has assembled corporate, government and community leadership. The undertaking has produced a detailed analysis of Hartford’s inner city economy—based on industry clusters that drive its growth, and the strategies and action plans that facilitate it. An economic development and job creation strategy also has been initiated by the City of Springfield. It encompasses six programs: Fiber Optics – Telecommunications (i.e., Springfield ‘Plugged-In City Technology Program’); Riverfront/Basketball Hall of Fame; Downtown Revitalization; Industrial Land Development; the UMass/Baystate Health System Springfield Initiative; and, the Economic Development Incentive Program (City of Springfield, 2001). All of the action items are discussed in the city’s urban-centric “Downtown Master Plan,” promoting the development of the new Springfield Basketball Hall of Fame (City of Springfield, 2001b).

At the State level, the *Dot.commonwealth Coalition* aims to brand Massachusetts as the center for technology leadership and innovation. Affiliates include the Western Massachusetts

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<sup>37</sup> The Berkshire Plastics Network (BPN), for instance, was organized in 1987 and has thirty-five firms in the organization. These firms believe that sound economic development begins with locally owned and operated businesses. BPN’s interim executive director represents the interests of the network and promotes new developments that will help the industry participate more fully in their communities by competing more effectively in the global economy (PVPC, 1994).

Technology Business Council, Massachusetts Technology Collaborative, Massachusetts Biotechnology Council, Massachusetts Alliance for Economic Development, Cape Code Technology Council, Inc., and the Berkshire Technology Alliance. In Western Massachusetts, additional ‘high-tech’ business and economic development corporations and strategic initiatives include the Pioneer Valley Life Sciences Initiative,<sup>38</sup> Regional Technology Alliance (RTA), Telitcom Development Corporation, Westover Metropolitan Development Corporation (WMDC) and Westmass Area Development Corporation.

#### b. Free Market Unpredictability

The demand for ‘competitive advantage’ lends itself to entrepreneurial planning. Given the unpredictable nature of a free market economy, the question for some economists and planners remains whether a long-term strategic approach *is* a viable option for economic development (Goldsmith, 1997).<sup>39</sup> From the standpoint of an e-business consultant, Larry Downes (2001) writes that obstacles to business development for most companies fall into two categories: problems internal to the company and those forces external to its industry. In response to the poor performance of private sector organizations, Michael Porter (1997) argues that by “ignoring strategy, many companies have undermined the structure of their industries” (Downes, 2001). In other words, these companies have not recognized their “unmet market demand.” For Porter, economic development is possible provided the government concerns itself with the creation of a

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<sup>38</sup> The Pioneer Valley Life Sciences Initiative is a partnership dedicated to expanding the state’s capacity for high-quality R&D in the life sciences. It is an outgrowth of on-going research collaborations between scientists at UMass Amherst and Baystate Medical Center in Springfield. The initiative expects to attract commercial investment in molecular biology, medical instrumentation, bioinformatics and biomedical engineering, integrating polymer and computer sciences (*The Commonwealth Coalition*, Springfield, MA, June 1, 2001). RTA and the Technology Enterprise Council (TEC) desire to take this a step further in order to assist in the transformation of traditional industries (e.g., fabricated metals) and the promotion of emerging industries (e.g. polymers and advanced materials) through “technology networks;” technology transfer between the two would promote, for example, the innovative development of metal molds for the plastics industry.

<sup>39</sup> See also Voytek and Ledbur, 1997; Blair and Kumar, 1997; and, Taylor, 1997.

strong ‘business climate’ (e.g., taxes, insurance, permitting, etc.) and leaves the creation and support of economically viable businesses to private sector organizations. He adds government should refrain from the direct involvement in, or intervention of business growth. Likewise, quasi-government organizations (e.g., CBOs/CDCs or “third-force organizations) should service the community through job-referrals, “community attitude” development, site acquisition and development (Porter, 1995). However, given the accelerating pace of an incessantly changing market, Downes (2001) argues that the use of long-term planning can do more harm than it can do well. To this end, David Bartik (1990), offers the “market failure approach.” According to David Adams (1994, 33), “market failure happens if the functioning of the market is distorted by external influences,” violating conditions of “perfect competition” (i.e., free-market unpredictability).<sup>40</sup>

Regardless of either perspective, a resource-efficient development strategy must recognize both the unmet local and regional market demand in order to trigger a new market or revitalize an existing local economic base. Porter’s “direct government involvement” in the ‘competitive advantage’ of the inner city does not oppose a proactive government role in entrepreneurial planning. In fact, both roles should produce a sustained and widespread private market reaction, which stresses upon entrepreneurialism. The actions generally taken by local government, in this view, respond to business development demands such as financial assistance, and employment training and assistance programs through partnership with State and Federal authorities (Kirwan 1987, 22). Porter’s criticism of “direct government involvement” is instead

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<sup>40</sup> Neo-classical welfare economists believe that it is impossible to help one person without making the other worse off. This is known as *Pareto* optimality, where it is believed that [competitive] markets automatically achieve this condition or “market failure.” This is provided, however, that no external distortions exist. For example, Bartik (1990) refers to these distortions as the ability to influence the market by recognizing the unmet demand and incentivizing it in order to create a new market demand.



directed at those public organizations that elect to do this by continuously increasing social investment.

### Springfield's 'Machine Action Program' and the Massachusetts Economic Development Incentive Program

Michael Best and Robert Farrant (2000) describe the public proactive role in the industrial modernization program of the Machine Action Project (MAP). MAP was a community and industry-based undertaking in Western Massachusetts that worked with hundreds of metalworking firms.<sup>41</sup> The program helped to “leverage” the “fabricated metals” industry sector with public finance and encouraged industry-led workforce training. MAP also functioned as a business retention team. Other business retention teams in the City of Springfield were expanded upon when the *Pioneer Valley Plan for Progress* created the Economic Development Partners group, the Plan for Progress Cabinet, and the Retention and Expansion Committee of the Springfield Chamber of Commerce in 1994 (PVPC, 1994). The Springfield Chamber of Commerce currently monitors, evaluates and supports local businesses that are part of the regional economic base. It surveys regional businesses on a regular basis and offers a model for the development of additional business retention teams.

The short-term strategies (1995-1997) of the *Pioneer Valley Plan for Progress* (PVPC, 1994) focused on telecommunications capability and recommended the use of regional incubators<sup>42</sup> for the identification and concentration of businesses requiring strong ‘telecom’ infrastructure. These companies include financial office operations, companies needing an 800-

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<sup>41</sup> See also ‘Manufacturing Partnership of Western Massachusetts Initiative’ (PVPC, 1994).

<sup>42</sup> Incubated companies and laboratories transfer information, and exchange and develop their skills.

number marketing center, cable television programmers, long-distance learning programs and software firms. The Springfield Chamber of Commerce and the Pioneer Valley Economic Council led this effort in 1994.<sup>43</sup> Shortly thereafter, STCC created the college's Technology Park in 1996 and the Northeast Center for Telecommunications Technologies (NCTT) in 1997. Located at the STCC – Technology Park are the 'Springfield Enterprise Center' (SEC), under which the STCC Entrepreneurial Institute provides credit courses through the STCC – School of Continuing Education and the 'Center for Business and Technology' (CBT). Among them are the 'Student Incubator,' which provides young entrepreneurs with an opportunity to incubate their businesses and the Deliso Videoconferencing Center.

One of the important aspects behind strategic initiatives is knowledge creation. 'High-tech' incubators like STCC – Technology Park are essential to this process through the local and regional attraction, retention and training of a skilled work force. In fact, STCC has partnered with other education institutions and private information technology (IT) vendors in the region to train workers at key IT companies through State and Federal levered finance.<sup>44</sup> Roger Miller and Marcel Côté (1985) have reinforced the importance of 'high-tech' incubators after conducting a survey of 'high-tech' 'clusters' in North America and Europe. They have found that a 'high-tech'

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<sup>43</sup> The endeavour has since then developed into the 'Plugged-In City Technology Program.'

<sup>44</sup> Established 'high-tech' incubators, such as STCC – Technology Park, will attract funding from State and Federal sources like the "Information and Telecommunications Technology (IT<sup>2</sup>) Project." IT<sup>2</sup> is funded with a \$15 million grant from the U.S. Department of Labor. STCC, Capital Region Community College (CT), Greenfield Community College and various private IT vendors have partnered with the IT<sup>2</sup> project in order to train workers at key technology companies in the region. IT<sup>2</sup> is also one of two regional joint ventures behind the Hartford-Springfield region's three Workforce Investment Boards (WIB). The WIBs were created by the new Federal Workforce Investment Act to oversee all federally funded workforce-training programs, training an estimated 966,000 workers who make their living in the 'Knowledge Corridor.' All information regarding the WIBs is available through their seven One-Stop Career Centers throughout the region (e.g. FutureWorks and CareerPoint) (*New England Developments, Policy Issues Shaping the Regional Economy*, October, 2001).

incubator together with a strong ‘business climate’ and a ‘quality of life’ that attracts professional and skilled workers are essential to the growth of ‘high-tech’ enterprise.

Combined research and development (R&D) resources for the University of Massachusetts Amherst and STCC has also created and fostered new business development and workforce training. Some of these resources have been allocated to the manufacturing businesses of the ‘Western Massachusetts Manufacturing Partnership,’ by “leveraging” its investments with private, State and Federal support. Long-term recommendations from the *Springfield Biotechnology Summary Report* (UMass CED, 1998) defends the need for a UMass-Springfield research institute and training facility in Springfield; yet, there remains to be seen whether Springfield will have a physical UMass presence in the near future.

Other programs attempting to induce a private-market reaction include the Massachusetts Economic Development Incentive Program (EDIP). EDIP offers the City of Springfield an assortment of economic development incentives for the packaging of development grants and subsidies. The Commonwealth has designated the city as an Economic Target Zone (ETZ) under the EDIP, within which three Economic Opportunity Areas (EOAs) have been identified. “Certified Projects” within an EOA are eligible for a five percent Investment Tax Credit, a ten percent Abandoned Building Tax Credit, priority for State capital funding, and various municipal tax benefits such as Tax Increment Financing (TIF), which has a public and private investment component. The City of Springfield Office of Economic Development and the Massachusetts Economic Development Office also encourages business growth through the Enterprise Community Grant and the Section 108 Loan Guarantees. Additional funding sources include city and State bonds, and Federal grants such as the Environmental Protection Agency’s Brownfields Grant and the Brownfields Economic Development Initiative (BEDI) (City of Springfield, 2001b).

### c. 'Competitive advantage'

Michael Porter (1995) offers two models to inner city economic development in his widely discussed article "*The Competitive Advantage of the Inner City*," (Fig. 2.4). Throughout the article, Porter stresses how an economic rather than a social perspective must be adopted for successful inner city economic development. In other words, he places the focus of the 'new' model on the private sector rather than on the social services of the 'old' model, discouraging cities that continue to perpetually increase social investment as a vehicle for inner city economic development.

Porter (1995) also describes the inner city in terms of advantages and disadvantages or "barriers" to economic development. Among the advantages are strategic location, local market demand, integration with regional 'clusters,' and human resources. To a city's disadvantage are building costs, land vacancy, acquisition (litigation) and cleanup, security, infrastructure, lack of venture capital, and other costs like high-priced utilities, insurance and permitting. The 'competitive advantage' situates itself on the exploitation of the advantages, while lessening the barriers to economic development with private sector resolve rather than social programs, subsidies, and direct government involvement, which have been "piecemeal and fragmented at best." Porter's 'new' role for the private sector must do what it does best: create and support economically viable businesses that are built on "true" economic advantage. Additionally, the local government must shift its focus from direct involvement and intervention in the private sector toward the creation of a favorable business environment (i.e., 'business climate').

Finally, Porter's account of CBOs/CDCs underestimates the growing importance of these "third force organizations" when they are described as having "few *notable* [Italics added] successes" (Zukin 1995, 138-9; Tietz 2001, 291-3). Because of the wide range of CBOs/CDCs,

Porter does not make any general recommendations. Instead, he offers four principles: identify the unique competitive advantages to CBOs/CDCs, encourage positive workforce and community attitude development, provide work-readiness and job-referral assistance, and facilitate commercial site improvement and development.<sup>45</sup> Altogether, Porter emphasizes that the private sector should lead economic revival and the public sector should support them. In so doing, cities embrace a “rational economic strategy” that can overcome the “intolerable costs of outdated approaches.”

### Regional Technology Alliance and the Technology Enterprise Council

An example of the potential behind a “third force organization” is the Regional Technology Alliance (RTA) of Western Massachusetts. RTA has fostered public-private-partnerships by bringing together industry, higher education and public and private non-profit sectors. In doing so, it aims to ensure that the region is taking advantage of available ‘high-tech’ development funds and existing ‘high-tech’ industry networks.<sup>46</sup> The Interstate 91 corridor has significant telecommunications resources through its research and education institutions, and ‘high-tech’ industries. According to RTA, however, these assets are not “connected”<sup>47</sup> to the industrial base of the Pioneer Valley as well as they could be. RTA’s initial assessment of Western Massachusetts and the Pioneer Valley resulted in a number of key findings. One of the

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<sup>45</sup> The actions taken by these local economic development groups include the removal of barriers to enterprise, expansion and employment, fostering competition between existing businesses, supporting product development or technological innovation, establishing local development corporations, supporting and encouraging the development of new companies, and procurement programs that help the local economy (Kirwan 1987, 23).

<sup>46</sup> RTA is comprised of higher education, the private sector, public utilities and private non-profit entities. The organizations’s founding partners include UMass Amherst, Western Massachusetts Electric Company (WMEC), EDC, *Pioneer Valley Plan for Progress*, Mass Ventures, STCC and numerous industry leaders.

<sup>47</sup> See City of Springfield, 2001. “Promoting Springfield: Images and Phrases,” in *Master Plan Summary for the Metro Center*.

findings describes Western Massachusetts industry in a critical period of development. That is, both traditional and emerging industries have recognized the importance of technology, but where and how they coincide with each other remains to be further investigated (e.g., crossing the region's fabricated metals industry with the emerging polymers and advanced materials industry).<sup>48</sup>

With the help of a \$600,000 grant from the National Science Foundation, RTA has deployed technology resources in support of the region's industries as a means of addressing the necessary "technology networks." Driven by industry participants, the alliance has created the first "technology network" between Yankee Environmental, Thomcast, Cyberlore, Millitech and Hotroof, Inc. The "technology network" is appropriately known as the Steering Committee of the Information Technology and Communications Cluster. Together with the Western Massachusetts Technology Business Council and Information Technology,<sup>49</sup> both have merged to form the Technology Enterprise Council (TEC), which will provide business development services to information and communication technology-driven companies.

#### d. The Ensuing Debate

The ensuing academic debate on Porter's theory of inner city 'competitive advantage' is worth noting. The articles that followed included Timothy Bates' "*Michael Porter's Conservative*

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<sup>48</sup> RTA commissioned Battelle Memorial Institute of Ohio to help assemble the technology networks for the region, assessing core technologies of industry and higher education as well as identifying networks for collaboration and developing a work plan for each network. Battelle interviewed 51 firms in the region (identified by RTA) and 74 industry representatives on core technology competencies. Battelle also interviewed four higher educational institutions for a total of 44 faculty and administrators. Centered on the results of these interviews, Battelle held four focus group meetings with a total of 54 attendees, representing a cross-section of the region's public, private and non-profit economic development organizations.

<sup>49</sup> The Western Massachusetts Technology Business Council and Information Technology were established in 1995 as the Western Massachusetts Software Association.

*Urban Agenda Will Not Revitalize America's Inner Cities: What Will?*” and, Bennett Harrison and Amy Glasmeier’s “*Response: Why Business Alone Won't Redevelop the Inner City: A Friendly Critique of Michael Porter's Approach to Urban Revitalization.*” Bates (1997) argues that Porter’s sweeping generalizations about the causes of urban decay as it relates to “outdated approaches” of government and “third force organizations” requires scrutiny. The difference between the two models leave the government to appear as the “main culprit” and the non-profits as “well-intended idiots,” while the private sector “emerges relatively unmuddied.” According to Bates, all three of these parties are far from consistent and “any analysis in so few pages is superficial”—offering a case study of Mesbic Ventures<sup>50</sup> to challenge Porter’s portrayal of policy initiatives in the 1960s as entirely geared to social policy. Bates applauds Porter, however, for stimulating a productive debate and encouraging businesses to rethink inner city investment opportunities. Harrison and Glasmeier (1997) likewise argue that Porter’s concepts of ‘clusters,’ and industrial and business parks have a long history that predates his writing. Nonetheless, Porter’s incorporation of these elements, for Harrison and Glasmeier, is valuable, but his neglect of the positive contributions of local governments and “third force organizations” is not.

Both articles address the positive contributions of CBOs/CDCs and local government in general, with an understanding that each has had varying levels of success. The growing numbers of such services, especially in neighborhoods of color where issues of equality, distributive justice, and power are often debated, stands in great conflict with the entrepreneurial shift from ‘welfare’ issues to economic regeneration as the key policy issue in urban revitalization (Alonso, 2001; Baxter, 2001; Harrison, 2001; Yaro, 2001).

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<sup>50</sup> Mesbic Ventures is a for-profit investment company in Dallas, Texas; it was incorporated in 1970.

Figure

2.1: Keys to the Old and New [American] Economies

<b>Keys to the Old and New [American] Economies</b>		
<b>Economy-Wide Characteristics</b>		
<b>ISSUE</b>	<b>OLD ECONOMY</b>	<b>NEW ECONOMY</b>
Markets	Stable	Dynamic
Scope of Competition	National	Global
Organizational Form	Hierarchical, Bureaucratic	Networked, Entrepreneurial
Potential Geographic Mobility of Business	Low	High
Competition Between Regions	Low	High
<b>Industry:</b>		
Organization of Production	Mass Production	Flexible Production
Key Factor of Production	Capital/Labor	Innovation/Knowledge
Key Technology Driver	Mechanization	Digitization
Source of Competitive Advantage	Lowering Costs Through Economies of Scale	Innovation, Quality, Time-To-Market, and Cost
Importance of Research/Innovation	Moderate	High
Relations With Other Firms	Go It Alone	Alliances And Collaboration
<b>Workforce:</b>		
Principal Policy Goal	Full Employment	Higher Wages and Incomes
Skills	Job-Specific Skills	Broad Skills, Cross- Training
Requisite Education	A Skill	Lifelong Learning
Labor-Management Relations	Adversarial	Collaborative
Nature of Employment	Stable	Marked by Risk and Opportunity
<b>Government:</b>		
Business-Government Relations	Impose Requirements	Assist Firms' Innovation and Growth
Regulation	Command and Control	Market Tools, Flexibility

*Source:* The Progressive Policy Institute (PPI), (2002). Technology, Innovation, and New Economy Project, [www.neweconomyindex.org](http://www.neweconomyindex.org); and, Kotler, Philip, (1993). Marketing Places: Attracting Investment, Industry and Tourism to Cities, States, and Nations



Figure

2.2: Characteristics of Old and New Economies

<b>Characteristics of Old and New Economies</b>		
<b>Characteristics</b>	<b>Old</b>	<b>New</b>
Scope	Domestic	Global
Driving Force	Mass Production	Technology, innovation
Resource	Capital	Knowledge, information
Jobs	Stable, large firms	Dynamic, smaller firms
Organizations	Centralized/hierarchical	Matrix, fluid, decentralized
Markets	Stable	Fluid
Workers	Uneducated, unskilled	Educated, skilled, adaptive
Tasks	Simple, physical	Complex, intellectual, participatory
Technology	Mechanical	Electronic, biological
Emphasis	Predictability	Innovation, creativity
Information flow	Top-down	Bottom-up, interactive
Opportunities	Limited, fixed	Fluid, rotational, mobile
Business/government	Minimal intervention	Cooperation, partnership
Symbol	Smokestack	Computer

*Source:* Rosabeth Moss Kanter, *The Change Masters*

2.3: A Sector Solution Approach: Compare and Contrast

<b>A Sector-Solution Approach: Compare and Contrast</b>	
<b>Traditional Tax Abatement</b>	<b>Sector Solution</b>
Public dollars spent on one company	Public and private dollars invested in an entire sector
Defensive response to a company's demands	Government-initiated investigation and response to an industry's needs
Large, one-shot tax abatements	Small, long-term investments
No guarantee of new jobs	Accountability measures to ensure new jobs are being created
Strategy largely determined by government	Strategy determined in collaboration with government, businesses and other local leaders
Central administration	Local administration
Elite assistance to massive corporations	Focused on all businesses in the city
Success defined as preventing loss	Success defined as growth

*Source:* New York/New Jobs, "The Sector Solution," January 2000/ [www.nycfuture.org](http://www.nycfuture.org)

Figure

2.4: City Economic Development: Two Models

<b>Inner City Economic Development</b>	
<b>Old Model</b>	<b>New Model</b>
Social: redistribute wealth	Economic: create wealth
Government and social service organizations	Private sector
Subsidized businesses	Profitable businesses
Isolation from the larger economy	Integration with the regional economy
Companies that serve the local community	Companies that are export oriented*
Skilled and experienced minorities engaged in the social service sector	Skilled and experienced minorities engaged in building businesses
Special institutions created	Mainstream, private sector institutions enlisted
Inner city disadvantages counterbalanced with subsidies	Inner city advantages addressed directly
Government involved directly in providing services or funding	Government focused on improving the environment for business

*Source:* Porter, Michael E. "The Competitive Advantage of the Inner City"

## CHAPTER III

### A “GLOBAL PERSPECTIVE”

Before the ‘telecom’ downturn in 1999-2000, the market analysts at Grubb & Ellis, Inc. (2001) forecasted that the high demand for older business, industrial and retail space for telecom-related facilities would offer thousands of real estate opportunities. They foresaw the next round of economic expansion in mid-size U.S. cities, many of which would have a “wealth” of older downtown office buildings suitable to meet the new demand (e.g., switching stations, telecom hotels<sup>51</sup> and back office space). They also forecasted a steadfast increase in demand for ‘telecom’ space despite new technological advancements that would continue to inevitably reduce square-footage requirements. Consequently, the over-estimated market was quickly oversupplied with ‘telecom’ space. Last year’s first quarter vacancy rates, in this sector of the real estate market, was an astounding 44.6 percent (Grubb & Ellis, 2001). The second quarter closed at 38.9 percent, but vacancies still exceed 30 percent in most major real estate markets. This drop may seem optimistic, but it does not indicate any market improvement. Rather the drop reflects tenants who, in previous quarters, had pre-leased space that was subsequently occupied after construction (Miller, 2001). By comparison, the national office vacancy rate at the end of the first quarter was 10.1 percent, while the industrial vacancy rate was approximately 6 percent. National vacancies for office and industrial space in the second quarter were 10.1 and 6 percent respectively. The outlook is clear: the excess supply of ‘telecom’ space will need to be burned off before additional

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<sup>51</sup> Tenant requirements for these ‘telecom’-related facilities include the proximity of fiber optic lines, a floor load capacity of 125 lbs. / sqft. and a minimum twelve-foot ceiling height with few windows, redundant power sources (i.e., a 480-volt power supply, 960-volts is preferred), space for fuel storage and backup generators, lines-of-site for rooftop antennas, and advanced fire and security systems. Buildings that meet all of these requirements are rare. When they do meet these criteria, they often command rents well above those in surrounding office buildings (i.e., anywhere between \$5.00 - \$45.00 / sqft.). However, a ‘telecom-hotel’ will only employ one to two individuals. Therefore, the “excess” of planned ‘telecom-hotel’ space can create “dead zones” in areas where there is a need for revitalization. If these areas are not accompanied by significant concentrations of employment, then it might discourage the development of office and retail space in that area (Grubb&Ellis, 2001).

construction or conversions should take place. “With the evaporation of venture capital and poorly capitalized telecoms, it is unlikely that demand for space will equal that seen in 1999 and 2000” (Grubb & Ellis, 2001; Miller, 2001).

Furthermore, the long-term ‘high-tech’ tenant demand is uncertain as well as the amount of fiber that will be needed. Apparently as new products and services enter the market, it seems that there will be an increasing push toward efficiency and cost savings. This implies that businesses will likely share telecommunications infrastructure<sup>52</sup> and further reduce the demand for ‘telecom’ space. Nevertheless, the IT market is in its infancy, continuously restructuring and generating new corporate consolidations. Moreover, “telecom’ companies are the utility companies of tomorrow—there will always be a demand for telecom services, especially as telecom products advance and grow.” This also will be accompanied by a long-term demand for faster and cheaper communication systems. Together, both will generate a steady growth in urban telecommunication-oriented development (Grubb & Ellis, 2001; Miller, 2001).

#### A. Springfield in a Regional Context

The collapse of the Soviet Union triggered a massive economic restructuring of local and regional economies in 1991. This was a major blow on U.S. mid-size cities after years of national defense buildup during the 1980s. Massachusetts, at this time, was nationally ranked third (\$ value) in prime defense contracts as well as third in the portion of private sector jobs sustained on this Federal capital. The following decade saw these contracts decline by 46%<sup>53</sup> between 1989

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<sup>52</sup> The increasing concentration of telecommunication companies at the STCC – Technology Park has created a telecommunications “hotel” (not to be confused with ‘telecom-hotel’). This ‘high-tech’ incubator allows companies to rent telecommunications capacity from other companies in the park as necessary.

<sup>53</sup> Defense spending is a significant contributor to technological innovation. It funds 82 percent of all engineering research, 75 percent of mechanical engineering, 73 percent of metallurgy and material, 55 percent of computer science and 28 percent of mechanics research. Prime contracts in Massachusetts (primarily electronic and communications systems) were administered under the Research, Development,

and 1999. However, the economic impact from this disinvestment had an uneven affect on Massachusetts as some areas experienced economic growth and others fell behind (UMass Donahue Institute 2000, 5). Those communities that have fallen behind are typically characterized by factors of race, low educational attainment and insufficient employment training, which altogether might contribute to high unemployment and poverty. These factors are also typical of economic bases unable to restructure according to new economic challenges. According to the Donahue Institute (2000), these conditions persist despite their proximity to modern technology infrastructure (i.e., “digital divide”).

### 1. New Atlantic Triangle

The dissolution of traditional economic and political boundaries are among the more characteristic of urban economic transformations in the ‘new’ economy. Economic boundaries have become increasingly more flexible and penetrable, while political ones have maintained various degrees of rigidity. Under this pattern of development, metro regions are increasingly structured on an interconnected network of urban-economic centers and corridors. These configurations of flexible economic and political continuity or super regions are a product of the new global age. They offer a global ‘competitive advantage’ above the rest because of their massive concentrations of economic, institutional and cultural resources (CT21, 2001), much like the Boston, Albany and New York (City) metro regions of the ‘New Atlantic Triangle’ (Fig. 3.1).

The pattern of economic activity in the ‘New Atlantic Triangle’ was commonly dispersed among a series of large city centers. Today, it is centered primarily in the core metropolitan areas of New York, Boston and Hartford. Within these areas are large concentrations of services or

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Test and Evaluation program (RDT&E), contributing to its reputation as a ‘high-tech’ state. However, the RDT&E budget for Massachusetts has declined by 10% in 1990 to 6.1% in 1999, respectively declining by an overall 12% nationwide.

‘clusters,’<sup>54</sup> which branch outward along the interstate corridors (CT21, 2001). For instance, the Hartford-Springfield metro area captures six corporation headquarters in six of the 62 *Fortune 500* industry categories<sup>55</sup> (Fig. 3.2). If all insurance sub-categories were combined for this region, the insurance industry would be the largest category with three headquarters.<sup>56</sup> While Connecticut has never had a “Silicon Valley” or a RT. 128, Interstate 91<sup>57</sup> could provide this type of location (i.e., ‘New England’s Knowledge Corridor’) (CT21, 2001). In fact, Hartford ranked 17<sup>th</sup> out of the 40 top office and R&D real estate markets in the Northeast, placing the city among the top 8-10% of markets nationwide (Table 3.1) (*Expansion Management Magazine*, 2000). Traditional economic activity in Massachusetts and Connecticut continues to be an integral component in each of the State economies despite accompanying declines in manufacturing. Nevertheless, the transformation of manufacturing to an R&D and a services-based economy in both States has been supported by an institutional and social structure that provides financial resources, training and consulting.<sup>58</sup> This transformation has generally lent itself to value-added manufacturing and a higher demand on specialized labor skills (CT21, 2001).

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<sup>54</sup> These ‘clusters’ account for financial, educational, medical and research institutions, transportation facilities, labor pools, and managerial services.

<sup>55</sup> The data reported for both Hartford and Springfield Metro Areas uses the 1997 federal Office of Management and Budget (OMB) definition; this is the most current of Hartford and Springfield MSAs. The Springfield Metro Area includes 28 of the 43 municipalities in Hampden and Hampshire Counties and Sunderland (Franklin County).

<sup>56</sup> In the remaining New York and Boston metro areas, the major industrial categories are “large financial group” (e.g., commercial banks and securities firms) and “commercial banks” respectively. New York has the largest grouping in the nation with 36 of the 62 *Fortune 500* categories (CT21, 2001). This makes the New York office market the largest in the ‘New Atlantic Triangle,’ leaving northern New Jersey and Boston office markets as the second and third largest in the Triangle respectively. The New York metro area also has the most dynamic industrial market, respectively leaving Boston and Hartford as the second and third largest markets (Tables 3-1, 3-2); this industrial concentration is centered on Northern New Jersey; nationally speaking, only Los Angeles has a larger market.

<sup>57</sup> Interstate 91 is the principle corridor that bisects the Triangle southeast from Hartford-Springfield to Stamford-Bridgeport and New Haven via New London-Norwich, CT.

<sup>58</sup> This institutional and social structure includes organizations such as STCC, UMass Amherst, Telitcom, Technology Enterprise Council, Mass Ventures, Chambers of Commerce, FutureWorks and CareerPoint.

## 2. New England's Knowledge Corridor

'New England's Knowledge Corridor'<sup>59</sup> is comprised of the Hampden and Hampshire counties in Massachusetts and the Hartford and Tolland counties in Connecticut. The impetus behind 'New England's Knowledge Corridor' presumes that its sum will be larger than its component parts (Table 3.2). In aggregated form, the four counties constitute 85 cities and towns with a total population of 1.6 million (U.S. Census, 2000). This makes the 'Knowledge Corridor' the second most populated region in New England, accounting for 39,405 businesses and an approximate \$2.3 billion in annual business-to-business trade flows (UMass and UConn, 2001) (Fig 3.3).

According to the Milken Institute, both Massachusetts and Connecticut together with California, Colorado and Washington are the five top-ranking states most likely to succeed in the 'new' economy. Research and development dollars, percentage of advanced degrees, number of patents issued, venture capital investment, and business start-ups were among the Institute's criteria or indicators of future growth. The report also emphasized that only those countries, states and metro areas that are able to create 'clusters' of 'high-tech' industries will prosper in the new global age.

According to the Progressive Policy Institute (PPI), Hartford ranked 22<sup>nd</sup> among fifty of the largest metro areas nationwide in a study<sup>60</sup> that surveyed industries for workforce education

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<sup>59</sup> The 'Knowledge Corridor' was initiated by the Hartford-Springfield Economic Partnership (HSEP), which was established in 1999 with the support of Northeast Utilities. HSEP envisions the 'Knowledge Corridor' as a regional entity that is intent on achieving economies of scale, while simultaneously helping to promote the area. Its name has been attributed to the high concentration of universities and colleges in the region.

<sup>60</sup> PPI and Case Western Reserve University's Center for Regional Economic Issues jointly carried out the study titled "*The Metropolitan New Economic Index: Benchmarking Economic Transformation in the Nation's Metro Areas*."

levels, telecom service providers, patents issued, and the number of science and engineering graduates among other indicators. In fact, according to the American Electronic Association and NASDAQ on 'high-tech' industrial development, 28.9 percent of all jobs created in the metro Hartford area were 'high-tech,' ranking it 2<sup>nd</sup> in the nation for 'high-tech' job growth (*Expansion Magazine*, March 2001). However, 'high-tech' jobs in the City of Hartford only represent 9.7 percent of all city jobs. Furthermore, the total number of 'high-tech' jobs between 1992-1997 suffered a 0.2 percent decrease, while suburbs registered a 12.0 percent increase. This reinforces the decentralizing effects of the 'new' urban-economic transformation that has been heightened by advances in telecommunications technology and its distribution.

In addition to the population decreases registered for Hartford (-3.14% - 1998-2003) and Springfield (-3.1% - 1990-2000), the prospect for telecommunications as a catalyst for inner city urban-economic revitalization is simple. Critically, much of the economic development work that remains in the 'new' economy does not lie with "bridging the digital divide," so much as it does with training the 'old' labor force with the skills of the 'new' through public-private partnerships (e.g., Capital Region Partnership).<sup>61</sup> The entrepreneurial approach, in this view, would continue to facilitate information transfer by encouraging inter-agency partnerships; supporting industry-led technology councils and regional skills alliances; initiating public programs that work with business 'clusters'; and, implementing a workforce development system, which is linked to the private sector. Again, this would emphasize that local and regional jurisdictions "shift" their focus from providing individual businesses with tax breaks and direct subsidies to facilitating workforce development through public-public and industry-led public-private partnership. This

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<sup>61</sup> Approximately 52 percent of the labor force (25 or older) in the Hartford-Springfield region has only a high school degree or less; 22.3 percent of which has less than 12 years of schooling (PVPC, 1999).



would also include “targeting” industries, creating a skilled workforce and fostering an innovative ‘business climate.’

### 3. “Information District” Development

The Telecommunications Reform Act set the stage for the deregulation of the telecom industry in 1996, which unleashed competition into the telecommunications market. Subsequently, new ‘high-tech’ companies have placed an increased demand for ‘unshackled’ sectors of the market (i.e., the “Dot-coms”). For the entrepreneurial planner, this eventually has manifested itself into the profitable real-estate opportunities of urban telecommunications-oriented development. However, not every obsolete building has been a good candidate for conversion because many are office-building retrofits (i.e., Class B or C), while only some of these properties are new construction (i.e., Class A);<sup>62</sup> defunct shopping centers are also among these classifications. Nevertheless, the old vacant industrial building appears to have had its calling for the re-incorporation of its previous manufacturing utility as a newly rehabbed ‘telecom’-related facility. The marketability of these properties and other vacant industrial and commercial land typically highlights its proximity to railroad rights-of-way and the fiber optic cables that are commonly sited there. The location of these properties in older inner city neighborhoods also allow their promoters to market the easy access to Downtown services and transportation interchanges. Regardless of these advantages, industrial and commercial land in the

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<sup>62</sup> Building classifications (Colebrook Realty Services, Inc.): *Class A*: Office buildings constructed after 1965 and whose quality has been maintained by professional management. *Class B*: Rehabilitated office buildings constructed earlier than 1965 and whose quality has been maintained by professional management or, structures built after 1965 and maintained by moderate quality management; *Class C*: Office buildings constructed earlier than 1965 and maintained by moderate quality management. Available floor space in the Pioneer Valley is in upwards of 2.5 million square feet, the majority of which is split between Class B and C space; approximately ten percent is Class A. (C.B. Richard Ellis, Western MA Economic Development Council (EDC) and the Holyoke Economic Development and Industrial Corporation (HEDIC)) (Table 3-3, 3-4, 3-5).

inner city has a number of planning constraints, which includes land that is often contaminated, too small, or located in an unreputable area of the city (e.g., perceived crime).

There is currently no comprehensive data compiled on commercial and industrial capacity for Springfield and the Pioneer Valley; a strong measure of which would be the amount of available industrial and commercial land and floor space. However, the *Pioneer Valley Planning Commission's Industrial and Commercial Sites Database* has taken the first steps toward compiling the necessary data. The list of properties downloaded on July 30 of last year included 80 entries of vacant land and floor space for sale or lease in the Pioneer Valley. All vacant land averaged approximately 23 acres with 50 percent of the properties averaging only 6 acres.

#### a. Areas of core technology strength

Industrial, business and technology parks have competitive advantages that older inner cities will find difficult to create.<sup>63</sup> Griffin Center is an ambitious example of this industrial park advantage over the inner city. It occupies 600 acres between Windsor and Bloomfield (CT.) and lies 6 miles north of Hartford between Downtown and Bradley International Airport, and a short drive south on Interstate 91 (30 min.) from Springfield (Fig.3.4). The area has been steadily converted from tobacco fields in the mid-1980s into nearly 2 million square feet of office space, including a 165,000 s.f. building for JDS Uniphase.<sup>64</sup> According to Griffin officials, the office

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<sup>63</sup> Technology and business parks are defined as follows (Blakely, Edward J., 1994): *Technology park* – A collection of advanced technology industries concerned with both research and manufacturing, located in attractive, well-landscaped surroundings and situated within a reasonable catchment area of a scientific university or major institute. *Business park* – A prestigious environment, suitable for a wide range of activities, including manufacturing, assembly, sales and other office-based activities. There is no requirement for these parks to be close to academic institutions.

<sup>64</sup> JDS Uniphase designs and manufactures fiber-optic telecommunications components.

park will likely grow to 2.5 million square feet over the next three to four years and to 3 million (s.f.) in the years afterward.

This park far exceeds its average counterpart, because it is able to offer an urban microcosm of “downtown” amenities.<sup>65</sup> The Griffin Center is a master planned business community, which has been developed by Griffin Land and Nurseries, a landscape nursery and real estate development business (Griffin Land). Together with the town of Windsor (27,000), Griffin Land is also developing a proposal for a 6,500-seat amphitheater for the Hartford Symphony Orchestra that will utilize the park’s vast parking lots. Jogging trails integrated with a nine-hole putting green, volleyball, and a 225-person restaurant are available to all of the 3000 individuals employed at the park. Additional restaurants and carryout food services, day-care and retail shopping is in the planning stages. Included in the planning stages is an existing on-site railroad spur (Griffin Line) that could be extended to Bradley International Airport, providing area mass transit from Hartford.

There are currently seven technology parks/centers in the Hartford-Springfield metro area, five in Connecticut and two in Massachusetts (Table 3.6). They are 229 Technology Park and ESPN (Broadcasting Center) (Bristol), South Windsor Technology Center (S. Windsor), Windham Mills Technology Park (Windham), Day Hill Technology Park (Windsor), Palmer Technology Park (Palmer, MA), and STCC – Technology Park (Springfield). All sites are strategically located along major interstate highways (I-84, I-90, and I-91), with the exception of Windham Mills Tech Park. STCC – Technology Park is the only one located in the inner city, while the rest are sited in suburban locations. This inventory of ‘high-tech’ parks together with

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<sup>65</sup> Aside from a pleasant work environment, the Center offers recreation and entertainment, and hassle-free parking.

that of business and industrial parks is clearly not a measure of economic activity, nor does it intend to measure the capacity for commercial and industrial development. It does attempt, however, to quantify the industrial district development in the Hartford-Springfield metro areas.

#### b. Industrial and commercial capacity

The following section combines the findings of an industrial, business and technology parks survey of Hartford and Springfield metro areas. It incorporates the data from a commercial and industrial capacity study of the Pioneer Valley Region by the Pioneer Valley Planning Commission (PVPC, 1999) (Tables 3.7, 3.8). The number of municipalities from the PVPC study, however, was reduced in order to correspond with only those municipalities in the Hartford and Springfield Metropolitan Statistical Areas (MSA). PVPC's study calculates a measure of capacity relative to the size of a community's labor force in order to determine each municipality's ability to provide the personnel needed for commercial and industrial activity. The study recognizes two principle issues with its data: parcel "size" and "property value." In an effort to mitigate the lack of "size" data, it introduced property values by assuming that the size of the land is a substantial element in its value. However, "property values" are contingent on a number of other factors,<sup>66</sup> namely location. Nevertheless, despite these limitations, PVPC presents the data as an "available alternative" to no data.

Two issues with the study remain, which PVPC failed to recognize. The following aspects are representative of the complexity behind the measurement of a municipality's ability to

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<sup>66</sup> Recall David Adams (1994). Implications to property value also include adjacent properties, public utilities (including telecommunications), accessibility to transportation infrastructure, size and configuration of the site, and necessary site work and contamination cleanup. All of these factors remain underscored by their proximity to service centers such as a downtown or industrial 'cluster.' The safety and general quality of the surrounding area (e.g., available quality housing) will always be a factor regardless of these other site characteristics.

compete competitively with other jurisdictions for economic development; the second of the two has been central to this thesis. First, an available labor force also has its factors, namely educational attainment and intermunicipal mobility. For this reason, the ratio calculated to measure “capacity” is misleading. Second, the calculated commercial and industrial “capacity” does not consider the presence or lack of ‘strategic management’ factors behind the policies, programs and projects that initiate, facilitate, and implement economic development (e.g., “industry targeting” and effective public-private partnerships). This is a consideration in counterpoint to cities and regions supplying individual companies with tax breaks and other subsidies irrespective of whether they have a ‘competitive advantage’ in the “targeted” industry sector. In other words, local urban planning approaches should identify and cater financial packages to those companies within the “targeted” industry sectors (Table 3.9). As described earlier, there is a fine line between inter-municipal competitiveness and the actions behind “entrepreneurship” as the consensus or “organizing capacity” necessary for negotiating public-private partnership.

Regardless, the PVPC study offers some interesting observations. Commercial properties in the Massachusetts portion of the Hartford-Springfield MSA decreased by 375 parcels<sup>67</sup> (3.9%) in 1998 from 9,311 in (FY) 1993, while industrial property decreased by eight parcels (0.3%) from 3,025. The greatest percentage gains in commercial parcels per municipality were among some of the smallest towns in the region, while the urban core (Springfield, Chicopee and Holyoke) experienced a decline. In fact, Springfield experienced the mildest decline (0.3%), while Hatfield and Hadley represented more than double the “relative capacity”<sup>68</sup> of any other

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<sup>67</sup> A parcel is a taxable unit of land irrespective of its size or use. Religious centers and government-related uses (e.g., city hall) are exempt from this taxation. A particular development might consist of a number of parcels with different owners (public and private) or single ownership.

<sup>68</sup> Relative capacity is the number of parcels divided by labor force in the 1,000s.

municipality and five times the relative capacity of the overall region.<sup>69</sup> Both towns represent a commercial capacity ratio of 168.0 and 159.0 respectively. Interestingly, however, Hadley's community character ("Kind of Community") has been designated by the *U.S. Census* (2000) as "resort, retirement, artistic." This would not be an indicator of a commercial and industrial community; the high capacity ratio is actually a result of the high traffic corridors of RT. 9 (between Amherst and Northampton) and I-91 that run through the city.

The greatest increases in industrial parcels included Easthampton, gaining 35 parcels (50%) in (FY) 1998 from 70 in 1993, and Hatfield with a gain of 11 parcels (100%) from 11. The next greatest gain was Chicopee with nine parcels (2.6%) from 346, and Springfield with a gain of 15 parcels (3.1%) from 491 in 1993 and an industrial capacity of 7.3. The average industrial capacity ratio for the Springfield Metropolitan Statistical Area (SMSA) was 9.6 and 10.4 for the Pioneer Valley Region. The greatest industrial capacity, though, was in the hill towns of Plainfield (66.3) and the "rural economic center" (*U.S. Census*, 2000) of Russell, with nearly five-times the metro average (45.4). One would assume that there would be a 'cluster' of industrial activity within Russel,<sup>70</sup> but it does not have one. Again, this reinforces the suburban expansion of industrial development. Irrespective of the negative environmental impacts of this suburban telecommunications-oriented sprawl, the growth of industrial and commercial capacity in those areas has encouraged realtors to confirm the region's position as a potential "[tele] communications nexus and fertile ground for Internet developers." This has been observed by Colebrook Realty Services, Inc. who point to the 'wiring' of new and existing office space that

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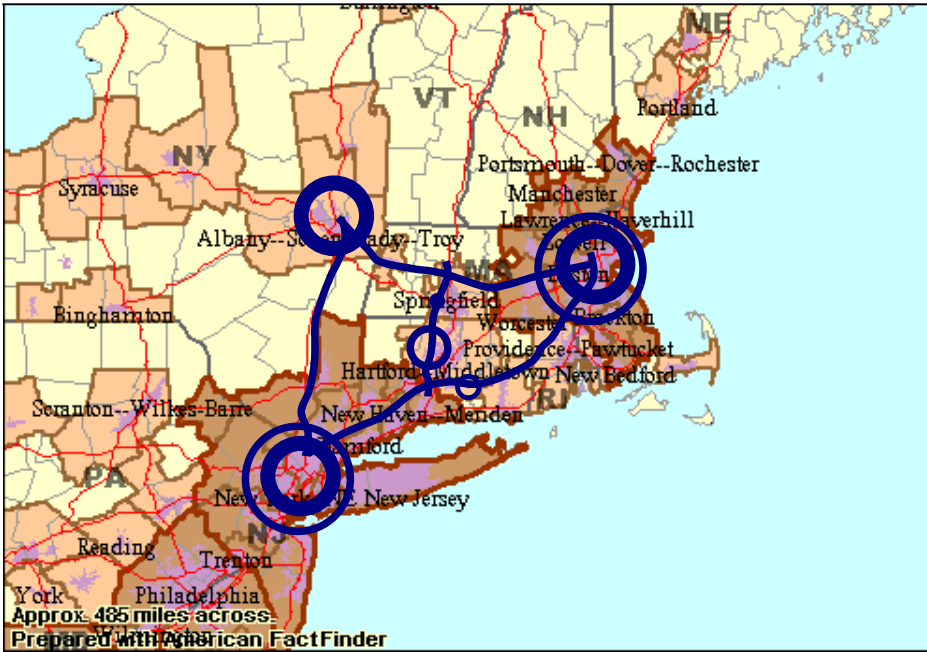
<sup>69</sup> Hatfield (0.3%) experienced a small decline by one parcel from 380 in (FY) 1993, while Hadley (2.1%) increased by six parcels from 289 in the same year.

<sup>70</sup> Russel is already included in the SMSA and continues to grow (4% between 1990-2000).

has begun to have an affect on the real estate office market of Greater Springfield (Colebrook, 1999).

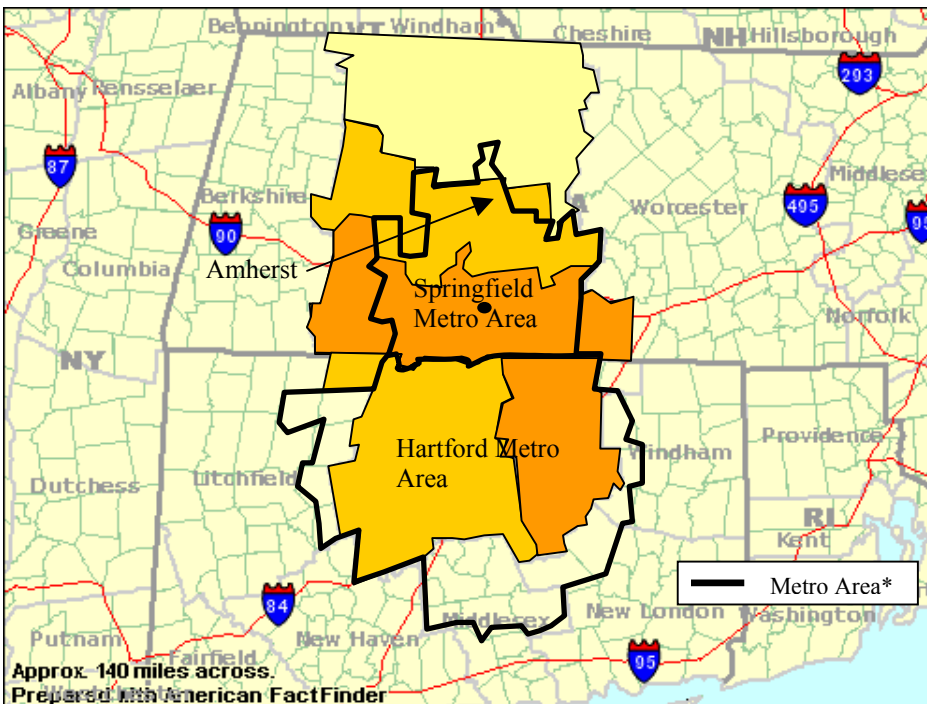
Figure

3.1: New Atlantic Triangle



Source: American Fact Finder/ CT21 (1999)/ Graphic rendering by author

3.2: Springfield and Hartford Metro Areas

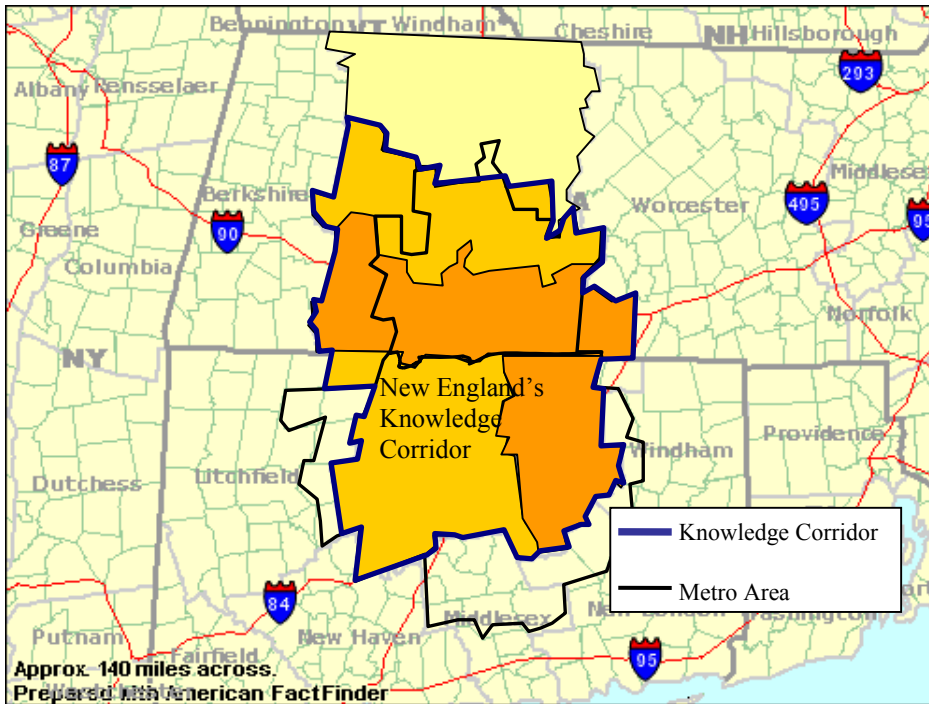


\*Respective counties correspond (Hartford/Tolland (CT); Hampden/Hampshire/Franklin (MA)) with the shaded areas.



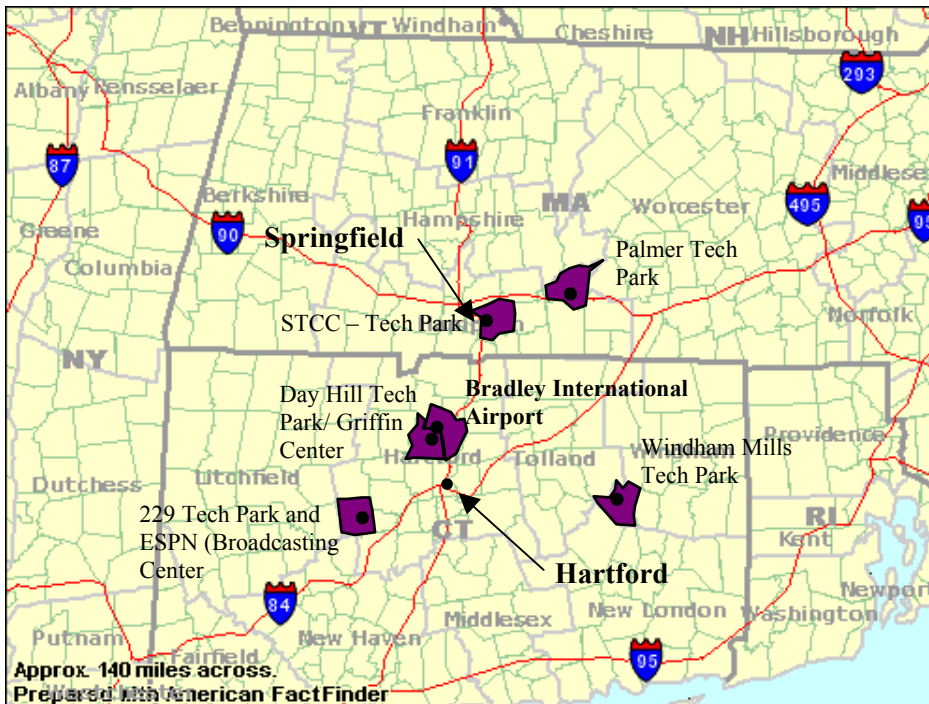
Figure

3.3: New England's Knowledge Corridor



Source: American Fact Finder/Author Survey

3.4: Distribution of Technology Parks/Centers for Springfield and Hartford Metro Areas



Table

3.1: Boston Hartford New York Metro Market

INDUSTRIAL MARKET	TOTAL NRA*
Boston	321,704,554
Hartford	102,128,519
New York Metro	1,006,335,493
Manhattan	NA
Northern New Jersey	715,535,679
Long Island	149,642,758
Westchester	71,631,401
Stamford	69,525,655

*Source:* Connecticut Regional Institute for the 21<sup>st</sup> Century (CT21), (1999). “Connecticut: A Strategic Economic Framework.”

\* Net Rentable Area

3.2: Selected Metro Rankings (Out of 56)

METRO AREAS	BUSINESS CLIMATE	QUALITY OF LIFE	HUMAN CAPITAL	INFRASTRUCTURE	OVERALL RANK
Raleigh-Durham	2	11	1	7	1
Des Moines	10	1	4	45	5
Charlotte	6	34	9	13	9
Columbia	25	20	3	16	11
Hartford-Springfield	17	23	12	18	12
Cincinnati	22	38	25	3	18
Hartford	12	19	40	9	22
Albany	51	12	22	26	31
Providence	24	29	35	38	34
Springfield	54	44	47	41	49
Chattanooga	40	53	50	52	51

*Source:* UMass/UConn, 2001. The Knowledge Corridor: An Economic Study of the Hartford-Springfield Region

Table

3.3: Greater Springfield Office Market Vacancy

<b>GREATER SPRINGFIELD OFFICE MARKET VACANCY</b>	
<i>Holyoke, Chicopee, Ludlow, Longmeadow, East Longmeadow, Wilbraham, West Springfield, Agawam</i>	
<b>Class A: 1.6 Million s.f.</b>	Vacancy
Springfield Central Business District (CBD)	<b>5.83%</b> (up from 5.0% in 1998)
Northern Suburbs <i>Holyoke, Chicopee, Ludlow</i>	<b>4.08%</b>
SE Suburbs <i>Longmeadow, East Longmeadow, Wilbraham</i>	<b>4.25%</b>
W. Suburbs <i>West Springfield, Agawam</i>	<b>2.76%</b>
Holyoke	<b>2.00%</b>
<b>Class B: 1.8 Million s.f.</b>	
Springfield Central Business District (CBD)	<b>13.9%</b> (down from 16.9% in 1999 and 19.26% in 1998 )
Suburbs	<b>&gt;10%</b>
Holyoke	<b>12%</b>
<b>Class C: 2.1 Million s.f.</b>	
Springfield Central Business District (CBD)	<b>49%</b> (8% deterioration rate, 41,600 s.f., up from 38.86 % in 1998)
Regionally	<b>44%</b>

*Source:* Pyres, Robert and Jeff Hayden, 2001. "Overview of Area Real Estate Market" (based on last years annual Office Space Survey of Greater Springfield, prepared by Colebrook Realty Services, Inc., and published in Business Magazine (Dill, 2001))

3.4: Hampden County Industrial Market

<b>HAMPDEN COUNTY INDUSTRIAL MARKET</b>	
Agawam	1.4 Million s.f.
Ludlow	1.6 Million s.f.
Westfield	3.1 Million s.f.
West Springfield	3.2 Million s.f.
East Longmeadow	3.8 Million s.f.
Holyoke	5.3 Million s.f.
Chicopee	7 Million s.f.
Palmer	1.1 Million s.f.
Springfield	9.7 Million s.f.
Monson	.16 Million s.f.
Wilbraham	.32 Million s.f.
<b>Total</b>	<b>36.68 Million s.f.</b>

*Source:* C.B. Richard Ellis 1999-2000

Table

3.5: Significant Development Parcels

<b>SIGNIFICANT DEVELOPMENT PARCELS</b>		
Agawam	Tennis Club Property Rt. 57	90+/- Acres
Amherst	Rt. 116 North Amherst	110 +/- Acres
East Longmeadow	Benton Dr. & Deer Park	104 +/- Acres
Holyoke	Crossroads Industrial Park (Bobala Rd.)	80 +/- Acres
Northampton	Rt. 10 Business Park	117+/- Acres
Northampton	Business Park - Northampton State Hospital	144 +/- Acres
Palmer	Palmer Airport	350+/- Acres
Springfield	Cottage St. (landfill)	52+/- Acres
Springfield	Springfield Plaza Site	37+/- Acres
Springfield	Smith & Wesson	62 +/- Acres
Westfield	Owens District Rd.	207 +/- Acres
Westfield	Cabot St.	67 +/- Acres
Westfield	Falcon Drive	67 +/- Acres
Westfield	DEC Property	75 +/- Acres
West Springfield	K&M Site	80 +/- Acres
Montague	WMECO	100 +/- Acres
<b>Total</b>		<b>1742 +/- Acres</b>

Source: Western MA Economic Development Council 2000

Table

3.6: Industrial, Business and Technology Parks Survey

INDUSTRIAL, BUSINESS AND TECHNOLOGY PARKS SURVEY FOR HARTFORD AND SPRINGFIELD METRO AREAS							
Nº	City	Industrial/Commercial and Business Parks	Technology Parks and Centers	KOC (Kind of Community) U.S. Census, 2000	Contact	Tel.	Comments
<b>HARTFORD METRO AREA*</b>							
1	Andover					860-742-7305	
2	Ashford					860-429-7044	
3	Avon	Avon Park North (industrial); Avon Park South (industrial)			Steve Rushner (Twn.plnr.) /Harry DerAsadourian	860-409-4328	
4	Barkhamsted					860-379-8665	
5	Berlin				Jim Mahoney (Econ.dev.dir.)	860-828-7005	
6	Bloomfield	Britain Industrial Park, Granby Industrial Park Griffin Office Center (a.k.a. Griffin Center)			Tom Hooper  Karen Bert (Griffin Land)	860-286-7660 x 202	
7	Bolton					860-649-8066	
8	Bristol		<b>229 Technology Park; ESPN (Broadcast</b>		Alan Weiner (City plnr.)	860-584-7645	
9	Burlington	NONE				860-673-6789	
10	Canton	Canton Commerce Center; Powder Mill			Eric Bares	860-693-7891/56	
11	Chaplin					860-455-0570	
12	Colchester	Upton Road Business Park				860-537-7280	
13	Columbia	Industrial Way				860-228-0440	
14	Coventry	NONE				860-742-4062	
15	Cromwell	NONE			Craig Minor (Twn. plnr.)	860-632-3422	
16	Durham	Commerce Circle				860-349-3452	"industrial condos"
17	E. Haddam	E.Haddam Industrial Park			James Ventures	860-873-5031	
18	E.Granby					860-653-3444	
19	E.Hampton	NONE			Diane Blackman (Twn.plnr.)	860-267-9601	
20	E.Hartford	NONE				860-291-7301	
21	E.Windsor	E. Windsor Industrial Park			Don Polland	860-623-6030	300+ acres
22	Ellington	NONE			Joe Baker	860-870-3120	700+ acres ready for development
23	Endfield				Ray Warren	860-253-6355	low supply of industrial land for sale
24	Farmington	Farmington Industrial Park; Farm Glenn Industrial Park; Farmington Business Park;Farmington Business Center; Forest Park (business); Waterside (business park); Meadows;			Jeff Olandorf (Plnr.); Liz Dolfin, (Assist. plnr.) /Linda Kavanaugh (Econ.dev.dir.)	860-675-2325/675- 2395/7(fax)	

Continued next page

Table  
3.6 (Continued)

INDUSTRIAL, BUSINESS AND TECHNOLOGY PARKS SURVEY FOR HARTFORD AND SPRINGFIELD METRO AREAS							
Nº	City	Industrial/Commercial and Business Parks	Technology Parks and Centers	KOC (Kind of Community) <i>U.S. Census, 2000</i>	Contact	Telephone	Comments
25	Glastonbury	NONE				860-652-7510	
26	Granby						
27	Haddam				Selectman's office	860-345-8531	
28	Hartford	North Meadows; South Meadows			Roland Klee	860-543-8675	
29	Harwinton	NONE				860-485-9051	
30	Hebron					860-228-5971	
31	Lebanon	Earth-Gro Industrial Park			Mary-Ann Sadowsky	860-642-2006	
32	Manchester	Manchester Industrial Park; Buckland Industrial Park			Mark Pellegrini	860-647-3044	
33	Mansfield					860-729-3330	
34	Marlborough	Dickinson Industrial Park			Laura Bergenholtz	860-295-6202	
35	Middlefield	Old Indian Trail Industrial Park; Brookside Industrial Park			Charlie Auger	860-349-7114	
36	Middletown	Tuttle Business Park; Saw Mill Industrial Park; Millenium Business Park			Monroe Johnston/Rick Kearney	860-344-3426	
37	New Britain	New Britain Industrial Park; Smart Park; South Street Industrial Park			Steve Schiller	860-826-3430	
38	New Hartford	Greenwoods Industrial Park			Karen Nelson (Asst.twn.clrk.)	860-738-9165	
39	Newington					860-665-8575	
40	Plainville	Farmington Valley Corporate Park			Mary Hughes	860-793-0221	business park
41	Plymouth	Plymouth Industrial Park			William Kuehn	860-585-4043	
42	Portland	Brownstone Industrial Park			Susan Decina	860-342-6720	
43	Rocky Hill	Rock Hill Industrial Park			Kim Ricci (Planning dir.)	860-258-2766	
44	S.Windsor		<b>S.Windsor Technology Center</b>		Karen Bert (Griffin Land)	860-286-7660 x 202	Culbro Land Resources (developer)
					Michelle Lieb	860-64-2511 x 253	
45	Simsbury				Len Tolisano	860-658-3240/5	
46	Somers					860-763-8218	
47	Southington	Captain Lewis Industrial Park; Southington Executive Park			Michael Lombardo (Econ.dev.office)	860-276-6297/fax: 276-6216	Southington Exec.Pk is in development stage
48	Stafford					860-684-1769	
49	Suffield	Industrial Park			Elaine Sarsynski, Econ.dev.dir.)	860-668-3848/9	

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Table

3.6 (Continued)

INDUSTRIAL, BUSINESS AND TECHNOLOGY PARKS SURVEY FOR HARTFORD AND SPRINGFIELD METRO AREAS							
Nº	City	Industrial/Commercial and Business Parks	Technology Parks and Centers	KOC (Kind of Community) <i>U.S. Census, 2000</i>	Contact	Telephone	Comments
50	Tolland					860-871-3601	
51	Vernon	NONE			Tom Joyce	860-870-3637	
52	W.Hartford	NONE			Mila Linson	860-523-3123	
53	Wethersfield				Stewart Popper	860-721-2837/8	
54	Willington					860-487-3123	
55	Winchester	Winchester Business Park; Winstead Industrial Park				860-738-6593	
56	Windham		<b>Windham Mills Tech Park</b>		Dave Prendergost (Econ.dev.dir.)/ Jeff Vose	860-465-3045/ 860-450-0115	
		N.Windham Commerce Park			Philip DeSiato (Sand & Gravel Corp.	860-429-6479	
57	Windsor	Waterside Crossing Business Park; N.E. Trade Port Business Park; Marshall Phelps at Pigeon Hill; Griffin Center	<b>Day Hill Technology Park</b>		Jim Burke/Karen Bert (Griffin Land)	860-285-1877/860 286-7660 x 202	Culbro Land Resources (developer at Day Hill). Uses at the Marshall Phelps site include light ind., warehousing, R.&D.office, manufacturing, distribution
58	Windsor Locks				Stewart Blackburn, Economic Industrial Development Committee	860-623-4031	
<b>SPRINGFIELD METRO AREA*</b>							
1	Agawam	Agawam Reg. Ind. Pk.; Shoemaker Ln. Ind. Pk.; Suffield St. Ind. Park		Growth Community	Pam Kerr	413-786-0400	Agawam Regional employs 1,650.
2	Amherst	University Park		Growth Community	Ken Delude (WMDC/WADC**); Planning Department	413-593-6421 ;413-256-4040	
		Amherst Prof. Research Park			Ron Laverdiere	413-253-3486	
3	Belchertown	Harris Industrial Park		Growth Community	Doug Albertson	413-323-0407	

Continued next page

Table  
3.6 (Continued)

INDUSTRIAL, BUSINESS AND TECHNOLOGY PARKS SURVEY FOR HARTFORD AND SPRINGFIELD METRO AREAS							
Nº	City	Industrial/Commercial and Business Parks	Technology Parks and Centers	KOC (Kind of Community) <i>U.S. Census, 2000</i>	Contact	Telephone	Comments
4	Chicopee	Chicopee River Business Pk		Urbanized Center	Ken Delude	413-593-6421	
		I-391 Business Pk.(Meadow)			Kate Brown	413-594-1515	
		Cabotville Commons (Ames Building)			Dan Burach (Cabotville Mgmt.)		retrofitted textile mill building; 600+ employed
		Westover Metropolitan Airport			Bob Pyres	413-593-6421	78 employed
		Westover Industrial Airpark West;Westover Industrial Airpark North			Ken Delude	413-593-6421/5126 (fax)	Airpark West employs 2,467. Airpark North employs 799
5	E.Longmeadow	E.Longmeadow Industrial ["Garden"] Park		Economically Developed Suburb		413-525-5420	tenants include American Saw and Milton Bradley
6	Easthampton	Easthampton Industrial Park Old Mills East Works		Rural Economic Center	Stewart Beckly Will Bundz	413-529-1406 413-527-1000	
7	Granby	NONE		Growth Community		413-467-7177	
8	Hadley	Hadley University Park		Resort, Retirement, Artistic	Bob Pyres	413-593-6421/5126 (fax)	148 employed
9	Hatfield	NONE		Rural Economic Center		413-247-9200	
10	Holyoke	Open Square; Springdale Industrial Park		Urbanized Center	Jack Hunter/HEDIC****	413-534-2240	Open Sq.is retrofitted paper mill space
		Crossroads Industrial Park (Bobala Road)			Francesca Maltese (O'Connell Engineering&Financial, Inc.)	413-534-0243	114 acres/6 lots undeveloped
11	Huntington			Small Rural Community		413-667-3500	
12	Longmeadow	NONE		Residential Suburb		413-565-4153	
13	Ludlow	Ludlow Industrial Center		Growth Community	Diane Olari	413-583-5624	
		Stony Brook Industrial Area			Bob Pyres	413-593-6421/5126 (fax)	117 employed
		Westover Industrial Airpark East			Ken Delude (WMDC/WADC)	413-593-6421/5126 (fax)	Airpark East emoploys 644.
14	Monson	NONE		Rural Economic Center			
15	Montgomery	NONE		Residential Suburb		413-862-3386	

Continued next page



Table  
3.6 (Continued)

INDUSTRIAL, BUSINESS AND TECHNOLOGY PARKS SURVEY FOR HARTFORD AND SPRINGFIELD METRO AREAS							
Nº	City	Industrial/Commercial and Business Parks	Technology Parks and Centers	KOC (Kind of Community) <i>U.S. Census, 2000</i>	Contact	Telephone	Comments
16	Northampton	Rt 10 Business Park/ Northampton Industrial Park		Urbanized Center	Teri Anderson (Econ.dev.coordinator)	413-587-1266	116acres undeveloped/ total park
		Business Park-Northampton State Hospital			David Webster (MassDevelopment)	617-330-2000	400,000 s.f. vacant
17	Palmer	Palmer Industrial Park (Rt 181); Chamber Rd. Industrial Park	<b>Palmer Technology Park</b>	Rural Economic Center		413-283-2605	
18	Russell			Rural Economic Center		413-572-6991	
19	South Hadley			Economically Developed Suburb		413-538-5011	
20	Southampton	NONE		Small Rural Community		413-569-3034	
21	Southwick	Southwick Regional Industrial Pk; Northend Ind. Pk., Cadwell Industrial Park		Growth Community	Kenneth Strong/Rozz (plnr.)	413-569- 3034/6056	
22	Springfield	Chicopee River Business Park		Urbanized Center	Ken Delude (WMDC/WADC)	413-593- 6421/5126 (fax)	Chicopee River Business Park is undeveloped
			<b>STCC - Technology Park</b>		R.J. Greeley Company	413- 734-7923	owned and operated by STCC
23	Sunderland			Growth Community		413-665-1441	
24	Ware			Rural Economic Center		413-967-9637	
25	West Springfield			Urbanized Center		413-263-3271	
26	Westfield	Summit Lock Ind. Park.; Mead Ind. Park.; Clark Ind. Park		Urbanized Center		413-572-6246	
		Summit Lock Industrial Park			Bob Pyres	413-593- 6421/5126 (fax)	550 employed
27	Wilbraham			Residential Suburb		413-596-2804	
28	Williamsburg	NONE		Rural Economic Center		413-268-8400	
*	Boundaries of Metropolitan Statistical Areas (MSA), as defined by the federal Office of Management and Budget, were revised since 1990. Data reported for both Hartford and Springfield Metro Areas uses the 1997 definition, the most current of Hartford and Springfield MSAs. The Springfield Metro Area includes						
**	Westover Metropolitan Development Corporation/ Western Massachusetts Development Corporation						
***	Holyoke Economic Development Industrial Corporation						

Source: Author Survey

Table

3.7: Industrial and Commercial Parcels/Relative Capacity

	City	Number of Commercial and Industrial Parcels (PVPC, 1999)						Relative Capacity (PVPC, 1999) Assessed Property Values (\$1,000) Fiscal Year 1998				
		FY 1993	Comm. FY 1998	Change	FY 1993	Industrial FY 1998	Change	Labor Force	Comm. Parcels (per 1,000 persons in Labor	Assessed Comm. Value (\$1,000)	Industrial Parcels (per 1,000 persons in Labor	Assessed Industrial Value (\$1,000)
1	Agawam	391	328	(63)(16.1%)	165	161	(4)(2.4%)	14,497	22.6	\$11,771	11.1	\$5,559
2	Amherst	426	331	(95)(22.3%)	32	27	(5)(15.6%)	17,697	18.7	\$6,071	1.5	\$168
3	Belchertown	84	82	(2)(2.4%)	42	45	(3)(7.1%)	6,433	12.7	\$3,719	7.0	\$988
4	Chicopee	739	682	(57)(7.7%)	346	355	(9)(2.6%)	27,108	25.2	\$8,950	13.1	\$5,789
5	E.Longmeadow	294	278	(16)(5.4%)	85	86	(1)(1.2%)	703	39.5	\$12,640	12.2	\$14,470
6	Easthampton	221	172	(49)(22.2%)	70	105	(35)(50.0%)	8,540	20.1	\$4,661	12.3	\$3,670
7	Granby	50	50	(0)(0.0%)	13	12	(1)(7.7%)	3,206	15.6	\$4,464	3.7	\$744
8	Hadley	380	379	(1)(0.3%)	10	11	(1)(10.0%)	2,384	159.0	\$43,985	4.6	\$2,995
9	Hatfield	289	295	(6)(2.1%)	11	22	(11)(100.0%)	1,748	168.8	\$35,275	12.6	\$5,747
10	Holyoke	778	743	(35)(4.5%)	420	410	(10)(2.4%)	16,312	45.5	\$19,753	25.1	\$7,161
11	Huntington	22	14	(8)(36.4%)	18	11	(7)(38.9%)	1,078	13.0	\$3,137	10.2	\$720
12	Longmeadow	23	28	(5)(21.7%)	4	4	(0)(0.0%)	7,486	3.7	\$4,446	0.5	\$126
13	Ludlow	261	277	(16)(6.1%)	137	127	(10)(7.3%)	10,371	26.7	\$7,373	12.2	\$3,742
14	Monson	83	83	(0)(0.0%)	84	89	(5)(6.0%)	3,809	21.8	\$5,800	23.4	\$2,982
15	Montgomery	1	1	(0)(0.0%)	7	7	(0)(0.0%)	456	2.2	\$2,748	15.4	\$1,179
16	Northampton	885	761	(124)(14.0%) [a]	191	150	(41)(21.5%) [a]	15,757	48.3 [a]	\$18,055	9.5 [a]	\$4,041

Continued on next page

Table

3.7 (Continued)

		Number of Commercial and Industrial Parcels (PVPC, 1999)						Relative Capacity (PVPC, 1999) Assessed Property Values (\$1,000) Fiscal Year 1998				
17	Palmer	222	228	(6)(2.7%)	141	139	(2)(1.4%)	5,980	38.1	\$8,233	23.2	\$6,323
18	Russell	16	15	(1)(6.3%) [a]	38	39	(1)(2.6%) [a]	859	17.5 [a]	\$2,417	45.4 [a]	\$8,159
19	South Hadley	144	144	(0)(0.0%)	88	87	(1)(1.1%)	9,332	15.4	\$4,335	9.3	\$3,466
20	Southampton	33	33	(0)(0.0%)	9	9	(0)(0.0%)	2,769	11.9	\$573	3.3	\$996
21	Southwick	108	111	(3)(2.8%)	24	29	(5)(20.8%)	4,492	24.7	\$8,246	6.5	\$1,404
22	Springfield	2,472	2,465	(7)(0.3%)	491	476	(15)(3.1%)	64,877	38.0	\$9,969	7.3	\$2,680
23	Sunderland	*	*	*	*	*	*	*	*	*	*	*
24	Ware	137	154	(17)(12.4%)	50	57	(7)(14.0)	4,814	32.0	\$7,589	11.8	\$3,168
25	West Springfield	662	678	(16)(2.4%)	177	175	(2)(1.1%)	13,853	48.9	\$20,746	12.6	\$4,782
26	Westfield	513	522	(9)(1.8%) [a]	190	191	(1)(0.5%) [a]	18,899	27.6	\$11,729 [a]	10.1	\$3,741 [a]
27	Wilbraham	131	140	(9)(6.9%)	93	94	(1)(1.1%)	6,500	21.5	\$7,787	14.5	\$3,075
28	Williamsburg	38	35	(3)(7.9%)	6	7	(1)(16.7%)	1,545	22.7	\$7,734	4.5	\$568
								Avg. Metro Area Capacity Ratio	31.3		9.6	
[a]	Fiscal year (FY) 1997 data is used instead of FY 1998											
*	Management and Budget, were revised since 1990. Data reported for both Hartford and Springfield Metro Areas uses the 1997 definition, the most current of Hartford and Springfield MSAs. The Springfield Metro Area includes 28 of the 43 municipalities in											

Source: Pioneer Valley Planning Commission

Table

3.8: Industrial, Business and Technology Parks/Relative Capacity

	City	Relative Capacity (PVPC, 1999) Property Values (\$1,000)		Assessed Fiscal Year 1998		Industrial/Commercial and Business Parks*	Technology Parks
		Labor Force	Comm. Parcels (per 1,000 persons in Labor	Assessed Comm. Value (\$1,000)	Industrial Parcels (per 1,000 persons in Labor		
1	Agawam	14.497	22.6	\$11.771	11.1	\$5.559	Agawam Reg. Ind. Pk.; Shoemaker Ln. Ind. Pk.; Suffield St. Ind. Park
2	Amherst	17.697	18.7	\$6.071	1.5	\$168	University Park; Amherst Prof. Research Park
3	Belchertown	6.433	12.7	\$3.719	7.0	\$988	Harris Industrial Park
4	Chicopee	27.108	25.2	\$8.950	13.1	\$5.789	Chicopee River Business Pk; I-391 Business Pk.(Meadow St.); Massachusetts Industrial Park; Westover Industrial Airpark West; Westover Industrial Airpark North; Westover Metropolitan Airport; Cabotville Commons (Ames Building)
5	E.Longmeadow	703	39.5	\$12.640	12.2	\$14.470	E.Longmeadow Industrial ["Garden"] Park
6	Easthampton	8.540	20.1	\$4.661	12.3	\$3.670	Easthampton Industrial Park; Old Mills East Works
7	Granby	3.206	15.6	\$4.464	3.7	\$744	NONE
8	Hadley	2.384	159.0	\$43.985	4.6	\$2.995	Hadley University Park
9	Hatfield	1.748	168.8	\$35.275	12.6	\$5.747	NONE
10	Holyoke	16.312	45.5	\$19.753	25.1	\$7.161	Open Square; Springdale Industrial Park; Crossroads Industrial Park (Bobala Road)
11	Huntington	1.078	13.0	\$3.137	10.2	\$720	
12	Longmeadow	7.486	3.7	\$4.446	0.5	\$126	NONE
13	Ludlow	10.371	26.7	\$7.373	12.2	\$3.742	Ludlow Industrial Center; Westover Industrial Airpark East; Stony Brook Industrial Area
14	Monson	3.809	21.8	\$5.800	23.4	\$2.982	NONE

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Table

3.8 (Continued)

		Relative Capacity (PVPC, 1999) Property Values (\$1,000)			Assessed Fiscal Year 1998			
	City	Labor Force	Comm. Parcels (per 1,000 persons in Labor)	Assessed Comm. Value (\$1,000)	Industrial Parcels (per 1,000 persons in Labor)	Assessed Industrial Value (\$1,000)	Industrial/Commercial and Business Parks*	Technology Parks
15	Montgomery	456	2.2	\$2,748	15.4	\$1,179	NONE	
16	Northampton	15,757	48.3 [a]	\$18,055	9.5 [a]	\$4,041	Rt 10 Business Park/ Northampton Industrial Park; Business Park-Northampton State Hospital	
17	Palmer	5,980	38.1	\$8,233	23.2	\$6,323	Palmer Industrial Park (Rt 181); Chamber Rd. Industrial	<b>Palmer Technology Park</b>
18	Russell	859	17.5 [a]	\$2,417	45.4 [a]	\$8,159		
19	South Hadley	9,332	15.4	\$4,335	9.3	\$3,466		
20	Southampton	2,769	11.9	\$573	3.3	\$996	NONE	
21	Southwick	4,492	24.7	\$8,246	6.5	\$1,404	Southwick Regional Industrial Pk; Northend Ind. Pk., Cadwell Industrial Park	
22	Springfield	64,877	38.0	\$9,969	7.3	\$2,680	Chicopee River Business Park	<b>STCC - Technology Park</b>
23	Sunderland	*	*	*	*	*	*	*
24	Ware	4,814	32.0	\$7,589	11.8	\$3,168		
25	West	13,853	48.9	\$20,746	12.6	\$4,782		
26	Westfield	18,899	27.6	\$11,729 [a]	10.1	\$3,741 [a]	Summit Lock Ind. Park.; Mead Ind. Park.; Clark Ind. Park	
27	Wilbraham	6,500	21.5	\$7,787	14.5	\$3,075		
28	Williamsburg	1,545	22.7	\$7,734	4.5	\$568	NONE	
		Avg. Metro Area Capacity Ratio	<b>31.3</b>		<b>9.6</b>			
[a]	Fiscal year (FY) 1997 data is used instead of FY 1998							
*	Boundaries of Metropolitan Statistical Areas (MSA), as defined by the federal Office of Management and Budget, were revised since 1990. Data reported for both Hartford and Springfield Metro Areas uses the 1997 definition, the most current of Hartford and Springfield MSAs. The Springfield Metro Area includes 28 of the 43 municipalities in Hampden and Hampshire Counties and Sunderland, a Franklin County town.							

Source: Pioneer Valley Planning Commission

Table

3.9: Areas of Core Technology Strength

<b>FIVE AREAS OF CORE TECHNOLOGY STRENGTH</b>			
<b>Targeted Industry</b>	<b>Description</b>	<b>companies</b>	<b>employees</b>
<b>Advanced materials</b>	Primary sectors include paper converting, plastic sheets, injection molding, and thermal molding companies. The technology focus would include coatings, adhesives, thin film and ceramics	619	24,000
<b>Advanced Information Sciences</b>	Primary sectors include traditional information services in data processing, network services, computer programming, software development, systems integration and outsourcing. This would also include more Internet related (i.e., 'new' economic) computers	364	25,000
<b>Advanced Electronics &amp; Communications</b>	Primary sectors include electronic components design, engineering, assembling and packaging. Technology focus would encompass microwave and millimeter wave technologies, RF technologies, signal processing, and fiber optic communications	141	2,300
<b>Advanced Manufacturing Systems</b>	Primary sectors include primary industries in metal fabrication, industrial machinery and devices, and aerospace. Technology focus would include advanced techniques ranging from precision manufacturing to welding to electroplating and process manufacturing	533	17,000
<b>Biosciences</b>	Primary sectors include drug development, diagnostic equipment, medical instruments and devices, and research and testing. Food sciences, agricultural chemicals (including seeds and fertilizer) and environmental biotechnology would also be included	companies and employees not compiled.	

Source: Regional Technology Alliance, 2001

## CHAPTER IV

### A “LOCAL AUTONOMY PERSPECTIVE”

The Springfield ‘Plugged-In City Technology Program’ packages vacant low-cost office space with business support. The program will market the vacant retail and office space of a designated area or “information district” as Internet-ready or ‘plug and go’ space. This ‘district’ has been conceived as an area of desired urban regeneration. It will potentially coincide with and or respond to any real estate demands from the businesses trained at the STCC – Technology Park. The Springfield ‘Plugged-In City Technology Program’ is also designed to work in cooperation with other regional efforts in an attempt to support the regional development of a strong technology sector for Western Massachusetts. ‘New England’s Knowledge Corridor’ has been conceived as the vehicle for this effort. Locally, it is imperative, however, that the program avoids simply becoming a real-estate development endeavor. That is, the shortfall of a place-based approach, risks operating on a micro-scale at the cost of an integrated multi-sectored plan that would consider issues such as housing, transportation and workforce training. Therefore, limiting an entrepreneurial partnership approach to a small district area leaves the strategic element of an integrated city plan absent. The following chapter briefly offers a profile of Springfield’s local economy and the marketability of vacant land and lease space, while assessing whether an “information district” could be sustained in the future. It will also attempt to identify the unique local players, private and public partnerships, and university cooperation behind the Springfield ‘Plugged-In City Technology Program.’

#### A. Nature of the Local Economy

The success behind local and regional ‘high-tech’ expansion, economic development and urban telecommunications-oriented revitalization, is largely contingent on whether urban planners are able to assemble a ‘critical mass’ of socioeconomic factors; only then will a desired number

of economic benefits be attained. With respect to urban telecommunications-oriented development strategies for economic revitalization policies should have a strong sense of the “Information” industry sector in the local economic base and the necessary labor force to sustain it. This will not only help to isolate ‘competitive advantages’ and workforce competencies, but it should also illustrate the concentrations of existing economic activity. Keeping track of these developments, while “targeting” emerging industry sectors may help find innovative policies that integrate the traditional economic base with ‘new’ labor markets.

### 1. Educational Attainment

High School educational attainment in Springfield (69.6%), together with other traditional industrial cities and towns like Chicopee, Holyoke and Ludlow (avg. 68%), is relatively lower than the average attainment in Hampden County (79.6%) and the State (80%). There is a 15 percent secondary educational attainment level in Springfield. This is lower than attainment levels in Hampden County (17.6%) and the State (27.2%), with the exception of Holyoke (15.2%), Chicopee (10.4%) and Ludlow (11.9%). Substantial help from the University of Massachusetts and the ‘Five College Area’<sup>71</sup> provide a different picture of secondary educational attainment in Hampshire County (31.9%); high school educational attainment levels are much higher as well (83.0%). Nationally, these attainment levels are 25.1 percent in high school education and 81.6 percent in secondary educational attainment (U.S. Census 2000, Population and Housing Survey).

### 2. ‘High-Tech’ Presence in the Local Economic Base

According to the North American Industry Classification System (NAICS) designations, the ‘high-tech’ sector has been defined as “Information.” There are 203 and 477 “Information”

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<sup>71</sup> The ‘Five College Area’ consists of the University of Massachusetts and, Amherst, Holyoke, Smith and Hampshire colleges.



sector establishments in Springfield and Hartford respectively. This accounts for only 2 percent of the total labor force in the Springfield and 3 percent in the Hartford metro areas (MSA Business Patterns, 1999), which corresponds with 2.69 percent for the Hartford and Springfield metro areas combined.<sup>72</sup> The “Information” sector (51\*) includes publishing industries, motion picture and sound recording industries, broadcasting and telecommunications, and information and data processing services. Although, one also could include the supporting “Information” industry sectors of “finance & insurance” (52\*), “professional, scientific & technical services” (54\*)” and “management of companies and enterprises” (55\*) to an “information district.” In doing so, labor force levels increase to 12% and 23% in Springfield and Hartford respectively. Relative to the manufacturing sector, the “Information” sector is still a substantially small portion of the total labor force in each of these metro areas. The top four industry divisions for each of the Springfield and Hartford metro areas are manufacturing, health care and social assistance, finance and insurance, and retail trade. All four divisions account for more than 50 percent of the total labor force (Fig. 4.1).

## B. Marketability

Because cities operate in a highly competitive market, they can just as often drive developers to other jurisdictions as they can attract them. Economic development generally has less to do with how one adapts to market demand and more to do with how one builds markets. Springfield’s current telecommunications advantage, as far as security and redundancy is concerned, is centered on the distribution of its long-distance carrier services in Downtown. In the absence of a citywide network, there is also no significant concentration of ‘telecom’-related companies, or ‘high-tech’ R&D activity in the city with the exception of STCC- Technology

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<sup>72</sup> The Hartford and Springfield metro areas *do not* constitute the four-county (Hartford/Tolland and Hampden/Hampshire) designation of ‘New England’s Knowledge Corridor.’ See Fig. 3.2-3.3.

Park. Therefore, it would be fair to conclude that ‘high-tech’ activity exists in Springfield, but it is sparse.

### 1. Vacant Downtown Office Space in Springfield

Springfield posted a historically low vacancy level for Class A space at 5.0 percent and overall vacancy levels at 17.12 percent in 1998 (Colebrook, 1999). More recently, these figures have slightly increased to 5.83 percent for Class A space, while overall vacancy levels have actually dropped to 12.15 percent. The majority of Class B space is located in the Springfield Central Business District (Fig. 4.2, 4.3). These vacancy levels were significantly higher at 13.9 percent with the absorption of 46,000 s.f. of previously vacant space (16.9%). Class C vacancy levels were the highest at 44 percent. The numbers across the entire market, however, only revealed a modest 10,000 s.f. of absorption. The discrepancy has resulted from approximately 134,000 s.f. of undeclared vacant sublease space, equating to one vacant Class A office building in Downtown and an actual vacancy level of 17.21 percent (Dill, 2001).<sup>73</sup>

The Springfield brokerage firm of Colebrook Realty Services, Inc. found that recent advances in technology and ‘high-tech’ start-ups would fill the void of larger institutional consolidations, namely sublease space. It forecasted, like many other market analysts at the time, that this demand for ‘telecom’ space would play a pivotal role in Springfield’s future as a telecommunications hub (Colebrook, 1999). Colebrook’s observation unfortunately, however, preceded the telecommunications market downturn in 1999-2000, but the “Information” sector should continue to generate corporate consolidation and restructuring. This could also be accompanied by a long-term demand for faster and cheaper telecommunications systems and the

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<sup>73</sup> The sublease space discrepancy is due to the tenants who are unable to fully occupy the space they committed themselves to in their lease agreements, while building owners continue to claim that it is leased. Regardless, these vacancy figures are the lowest noted since the 1980s.

growth and development of small to medium size firms in Springfield. In fact, it has been these small to medium-size firms, like Court Square Data Group and Disability Management Services, that have absorbed much of the inventory reintroduced back into the market by downsized corporations in sublease space (Dill, 2001) (Tables 4.1, 4.2).

## 2. Vacant Industrial and Commercial Land and Buildings in Springfield

In the industrial and commercial capacity assessment of the Pioneer Valley, Springfield experienced a mild decline (0.3%) in the number of commercial and industrial land parcels, while the region's small towns experienced an increase (PVPC, 1999). This mild decline as opposed to the increased rate of acquired industrial and commercial land in the suburbs has signaled the unmet industry market demand that Springfield must harness through land promotion and "industry-targeting." In light of this need for inner city industrial land development, Springfield has consequently begun to identify vacant industrial and commercial properties. The process has resulted in an on-going survey by the Springfield Office of Economic Development and the Springfield Business Development Corporation. Early findings have determined that many properties are small at under an acre. Additionally, the amount of contaminated soil in these and other industrial parcels is generally unconfirmed. Regardless of these disadvantages, the non-contaminated site of the Chicopee River Business Park remains undeveloped despite its easy access to regional highway interchanges, on-site utilities and road infrastructure, and a close proximity to the STCC – Technology Park and Downtown Springfield. Again, this reinforces the need for "targeting" local and regional unmet market demand in addition to identifying potential land development (Tables 4.3, 4.4).

### C. Probability that industry can be sustained

Local business assistance in Springfield is not sufficiently provided through private venture capital. Mass Venture Corporation, Inc.,<sup>74</sup> for instance, currently offers limited financial services to ‘high-tech’ business start-ups, but it can only finance small endeavors. This is a drawback to urban telecommunications-oriented development, desiring to attract a ‘high-tech’ ‘cluster’ of firms to a given area (CED, 1998, p. 17). Most businesses in Western Massachusetts are small. The 68 plastics industry firms in this part of the State, for example, employed fewer than 100 people in 1990. Industrial machinery and fabricated metals companies average between 35-40 employees. Therefore, the small business profile of most industrial activity has left large banks unwilling to risk lending to new business start-ups (EOEA, 1993). Furthermore, the lack of presence by a major R&D institution (e.g., UMass Polymer Sciences and Engineering Program<sup>75</sup>) and a business venture capital organization (e.g., Mass Ventures) does not help. Both are key social and institutional resources for urban telecommunications-oriented development and its ability to competitively accommodate small to medium size ‘high-tech’ business activity.

Western Massachusetts Enterprise Fund, Inc. is among the few organizations currently lending to small and medium-size businesses at the STCC – Technology Park. There remains,

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<sup>74</sup> Mass Venture Corporation, Inc. (Mass Ventures) is a partnership of university, business and State government representation in Hadley (MA). Its consultation services are aimed at high-growth companies in critical stages of development. Mass Ventures has invested \$6.8 million of the Mass Ventures Equity Fund, which, in turn, syndicated another \$63 million in outside capital (i.e., subsequent investment and acquisition capital). There are four venture funds in the Pioneer Valley; two are specific to Western Massachusetts—Mass Ventures Equity Fund and Long River Ventures.

<sup>75</sup> New Bedford’s \$90 million dollar (waterfront) aquarium complex will house the new Science Education and Economic Development (SEED) Center among other functions. SEED is the research arm of the Center for Marine Science Technology, aiming to extend its services and expertise by establishing New Bedford as the “Atlantic Rim” center for marine science and education. The Center will include operational and research facilities, offices, classrooms, conference areas, and a business incubator for marine-oriented start-ups; development of emerging technologies; and, technical assistance. 2.6% of New Bedford’s workforce is in the “Information” industry sector (Springfield 2%). Last year, Massachusetts “Information” sector employment held at 5.6% (iMarket, 2000; UMass, Donahue Institute, 2000).

however, the need for access to new capital in the Pioneer Valley. Diversifying the region's industrial-base away from defense-related customers will be an important first step, since CBOs/CDCs and other "third-force organizations," alone, are unable to compensate for the lack of State and Federal defense contracts and local venture capital. Local governments will also have to contribute significantly in this area by streamlining and improving accessibility to the regulatory process (e.g., "one-stop shopping" permitting). The *Springfield Regional Economic Development Center* in Downtown has begun to do so by concentrating a number of economic development services in one location. Telitcom, the Springfield Business Development Corporation and a number of other affiliates of the Western Massachusetts Economic Development Council (EDC) are among those represented by the Center.

### 1. The *Info Tech Village* (Buffalo, NY): An Eight-Point Plan

Below is an "eight-point plan" behind the financing of an urban telecommunications-oriented development strategy. Buffalo's *Info Tech Village*<sup>76</sup> and *Byte Belt* "eight-point plan" is a Mayor-initiated economic development strategy, which recognizes that the city's economic potential is predicated on its ability to exploit emerging telecommunications technology as a catalyst for urban-economic revitalization. The *Info Tech Village* has been designed in close proximity to Buffalo's Theater District. The *Byte Belt* area, which is applicable to the "eight-point plan," has been placed within the *Village* "information district" along the fiber-optic spine of Main Street. A critical element of this strategic initiative is the local participation of venture capital firms, individual Downtown property owners, real estate brokers, IT businesses and community leaders together with the Buffalo Economic Development Corporation (BERC). The

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<sup>76</sup> The Lynn Cyber District Council (LCDC) offers another example of an urban telecommunication-oriented development. It is responsible for developing Downtown Lynn as an "information district," reversing the area's blight with highly skilled and well-paid professionals; small Internet-related businesses have already located themselves within the district.

council will oversee the design and implementation of the *Byte Belt* in accordance with the following:

**1. Targeted lending, venture capital, grant and real estate assistance**

- *Special venture capital program*

Works with venture capital firms and identifies investment opportunities

- *Special lending*

Identifies existing investment areas such as Economic Opportunity Areas (EOA) and re-orientes financial assistance to “targeted” industry sectors where possible.

- *“Smartstructure” and “Smart” workforce development grants*

“Smartstructure” grants assist fledgling IT businesses by reducing the cost impacts of “wiring.” “Smart” workforce grants provide industry specific training; they should be encouraged as industry-led initiatives when possible.<sup>77</sup> Buffalo has considered both of these grants in their Community Development Block Grant (CDBG) budget.

- *Real estate assistance*

Identifies individual properties and assists those property owners that desire to retrofit their building with current up to date telecommunication infrastructure (e.g., T1, T3 and “category 5” networking).

**2. Formation of a Mayor’s information technology council**

**3. Designation of Downtown “Smart Building and Plug ‘n Go space**

- *“Smart Building” certification incentives*

Encourages the rehabilitation of buildings that are responsive to ‘high-tech’ demand

**4. Regulatory Assistance**

- *Improved permitting processes*

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<sup>77</sup> See Machine Action Program (MAP) (Farrant, 1997; Best and Farrant, 2000).

Encourages a movement toward on-line permitting

**5. Public Relations Assistance**

- *Website, new postings, conferences*

Promotes individual newsworthy business success stories and disseminates the information through local and national outlets

**6. Development of an IT Charter School**

**7. Development of an IT Training Initiative**

- *IT specific training programs and research related initiatives*

Works with local training providers and institutions of higher learning

**8. Managerial Assistance**

**D. Behind the ‘Springfield Plugged-In City Technology Program’**

Introducing the necessary fiber optic infrastructure into the City of Springfield is only the beginning. Bringing together “targeted” industry groups, higher education, and public and private non-profit sectors behind the ‘Plugged-In City Technology Program’ will be the next greatest challenge for the city, particularly with regard to packaging development grants, subsidies and private investment. EntreNetwork, an independent business development agency, has already begun to link entrepreneurs with financial and research-related resources. Included among its founding partners are Babson and Hampshire Colleges, Mass Ventures, Massachusetts Small Business Development Council (MSBDC), EDC, University of Massachusetts and STCC, and Davis and Ginspoon Foundations. Nevertheless, political and economic forces and rationales behind an urban telecommunications-oriented development strategy must first provide the means to a skilled workforce. This reiterates much of the emphasis that has been placed on “targeted” industry-led training, including the attraction of a strong institutional presence in R&D and networking initiatives.

This thesis could not possibly discuss some individual actors behind the Springfield ‘Plugged-In City Technology Program’ without risking the misrepresentation of others. Although, one could begin to organize them into the following two groups: regional alliances and research institutions, and local government and membership organizations. With the assumption that there is some overlap, these two groups generally provide private and public services in workforce development, strengthening of the local and regional ‘business climate,’<sup>78</sup> and improving the general ‘quality of life’ in the city and the region.<sup>79</sup> Altogether, these actions constitute the removal of barriers to enterprise; expansion and employment; fostering competition between existing businesses; supporting product development or technological innovation; establishing local development corporations; supporting and encouraging the development of new companies; and, the procurement of local economic development programs.

### 1. Regional Alliances/Research Institutions

Springfield already provides or has benefited from a number of services rendered by various action groups. Regional alliances and research institutions such as the Regional Technology Alliance (RTA)<sup>80</sup> and the Technology Enterprise Council (TEC), for example, constitute the better part of these action groups. Both organizations have paralleled the efforts behind regional and State-initiated economic development strategies in the *Pioneer Valley Plan*

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<sup>78</sup> A strong ‘business climate’ is contingent on the presence of banks, private companies, and local, regional and State agencies and business incubators. Economic development actions for an improved ‘business climate’ include the removal of barriers to enterprise, expansion and employment, fostering competition between existing businesses, supporting product development or technological innovation, establishing local development corporations, and supporting and encouraging the development of new companies (e.g., STCC) (Usdin, 1997).

<sup>79</sup> In a location research study by AT Kearney, a global management-consulting firm, five key factors emerged. They included talent, universities, local government involvement, pillar companies, access to capital and specialized business services. A national sample of fifty senior executives from June 19 to July 13, 2001, rated “talent” as the most critical location factor (86% agreed). In descending order, universities, local government involvement, pillar companies and access to capital received a +/- 30% favor rating; specialized business services placed last with 16%.

<sup>80</sup> *Pioneer Valley Plan for Progress* adopted the RTA in 2000.



*for Progress* and *Choosing to Compete*. The Economic Development Council of Western Massachusetts (EDC) and its affiliate organizations, namely the Springfield Business Development Corporation (SBDC) and Telitcom, are also among this group. Finally, educational and research institutions are many, though, only University of Massachusetts Amherst and the Springfield Technical Community College (STCC) actually have the sufficient resources to ground an urban telecommunication-oriented development strategy in Springfield.

On the one hand, the University of Massachusetts Amherst (UMass), together with the Massachusetts Office of Economic Development (OED),<sup>81</sup> is a great resource of technology and information transfer. University of Massachusetts faculty and staff have been involved in a number of outreach programs in Springfield.<sup>82</sup> For example, the new ‘telecom’-related companies that have emerged from the institution’s resourcefulness include Amerinex Applied Imaging (Amherst), Blackboard Technology Group (Amherst), Regional Economic Models (Amherst), National Evaluation Systems (Amherst) and Millitech (S. Deerfield). Unfortunately, however, the need for a strong physical UMass presence in Downtown Springfield remains. On the other hand, the research and business development at STCC - Technology Park offer technical as well as financial assistance through its Center for Business and Technology (CBT), the Springfield Enterprise Center (SEC) and the Student Incubator.

## 2. Local Government/Membership Organizations

One of the more entrepreneurial contributions that the City of Springfield has contributed to and undersigned is the *Regional Economic Development Center*. In addition to those tenants already mentioned are the Springfield Redevelopment Authority (SRA), the Springfield Area

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<sup>81</sup> OED is the platform for the *University Partners Program* and *Research Alliances*.

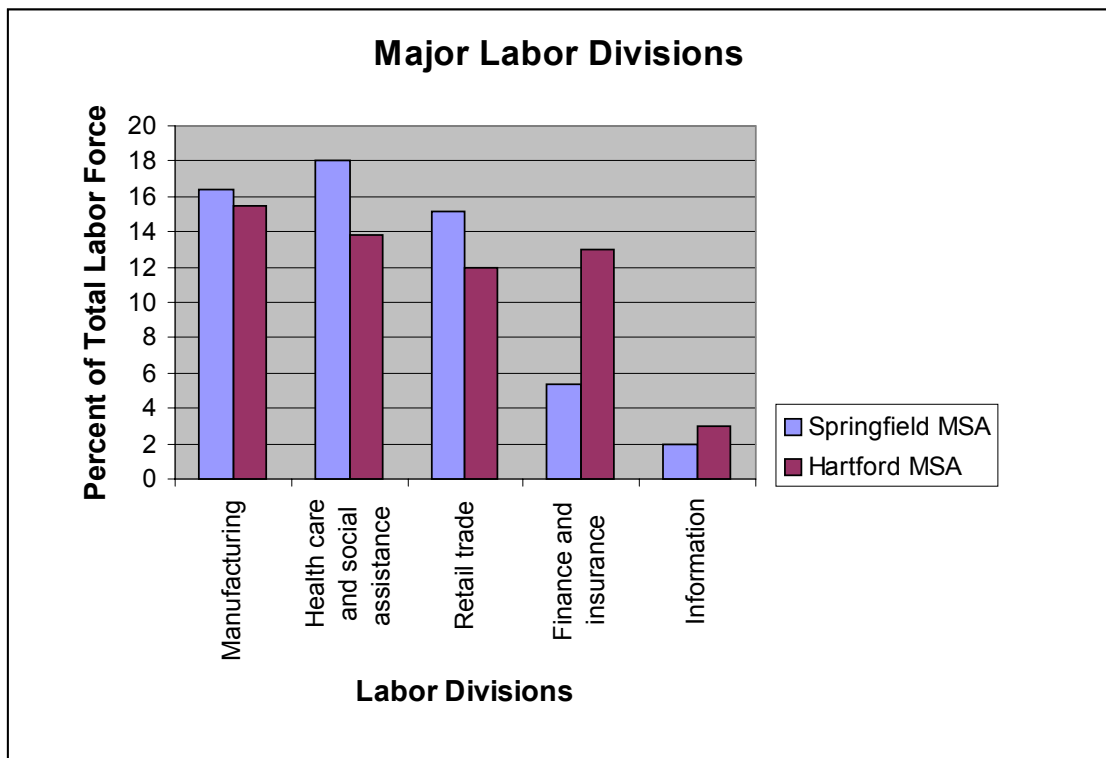
<sup>82</sup> See “IMPACT, Increasing the Commonwealth: The Economic Impact of UMass Amherst,” University of Massachusetts Amherst, Office of Economic Development.

Council for Excellence (SPACE) and the Greater Springfield Chamber of Commerce. Currently, SRA sufficiently employs one individual. A lawyer. This is a drastic reduction from Springfield's "urban renewal" days, however, SRA could become a critical player in Springfield's future urban telecommunications-oriented development needs by exercising the powers of eminent domain as well as those of purchasing and the acquisition of land.

The membership organizations of SPACE and the "chambers" are the local "cheerleaders." They hold an important place in marketing and promoting the city and the regional image, but due to the nature of their operations as member-oriented services, their public contributions are limited. The Springfield Business Development Corporation and Telitcom are also in a position to rally the necessary action groups around a telecommunications-oriented development, provided there is a mutually proactive pursuit of partnership by the Springfield Media and Technology Group, Inc. (SMTG) and the Springfield Technology Initiative (STI) with the EDC. Finally, the local government will be required to continue streamlining economic activity as proactive promoters of land development and as entrepreneurial planners. This will regularly include reviewing existing zoning ordinances in order to avoid conflict between economic development initiatives and zoning requirements, creating a capital improvement program and analyzing existing permitting processes.

Figure

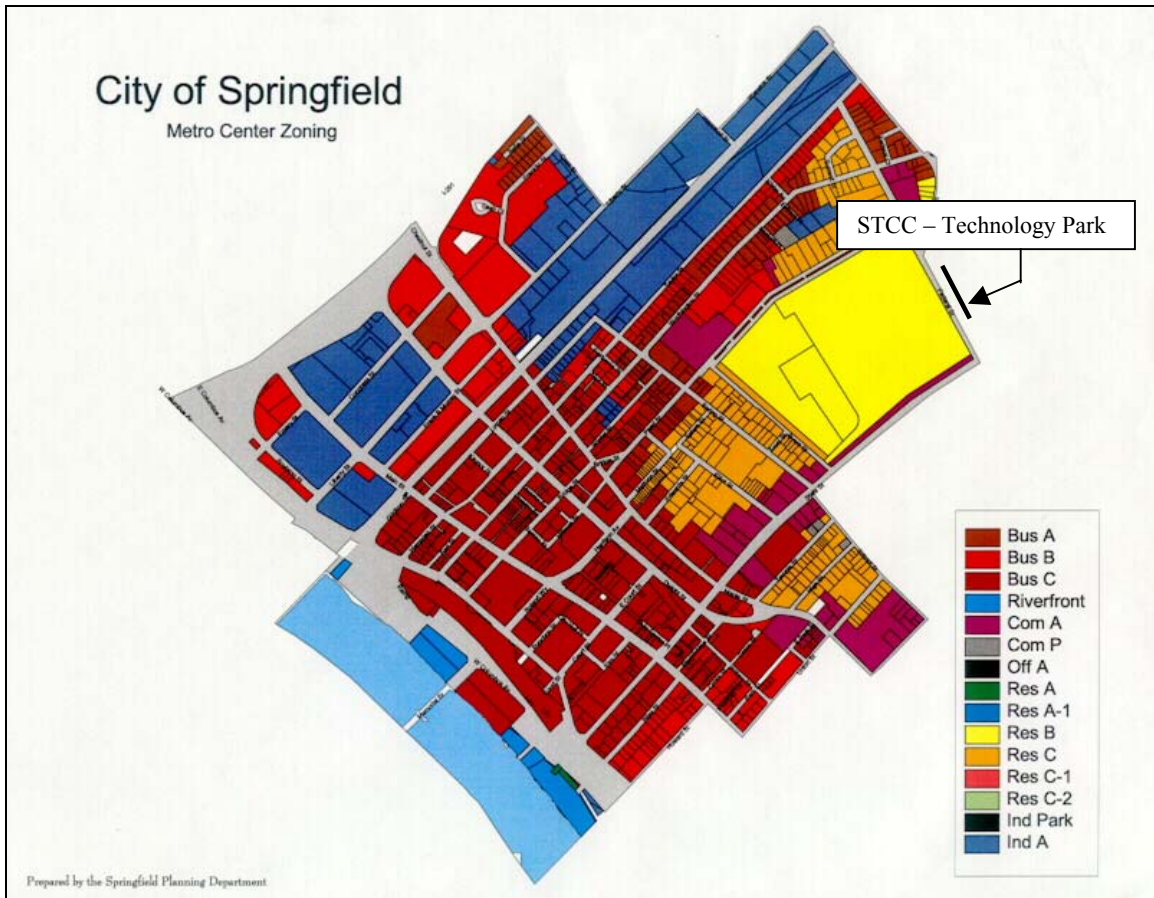
4.1: Major Labor Divisions for Springfield and Hartford Metro Areas



Source: U.S. Census, 1999 Metropolitan Statistical Areas Business Patterns

Figure

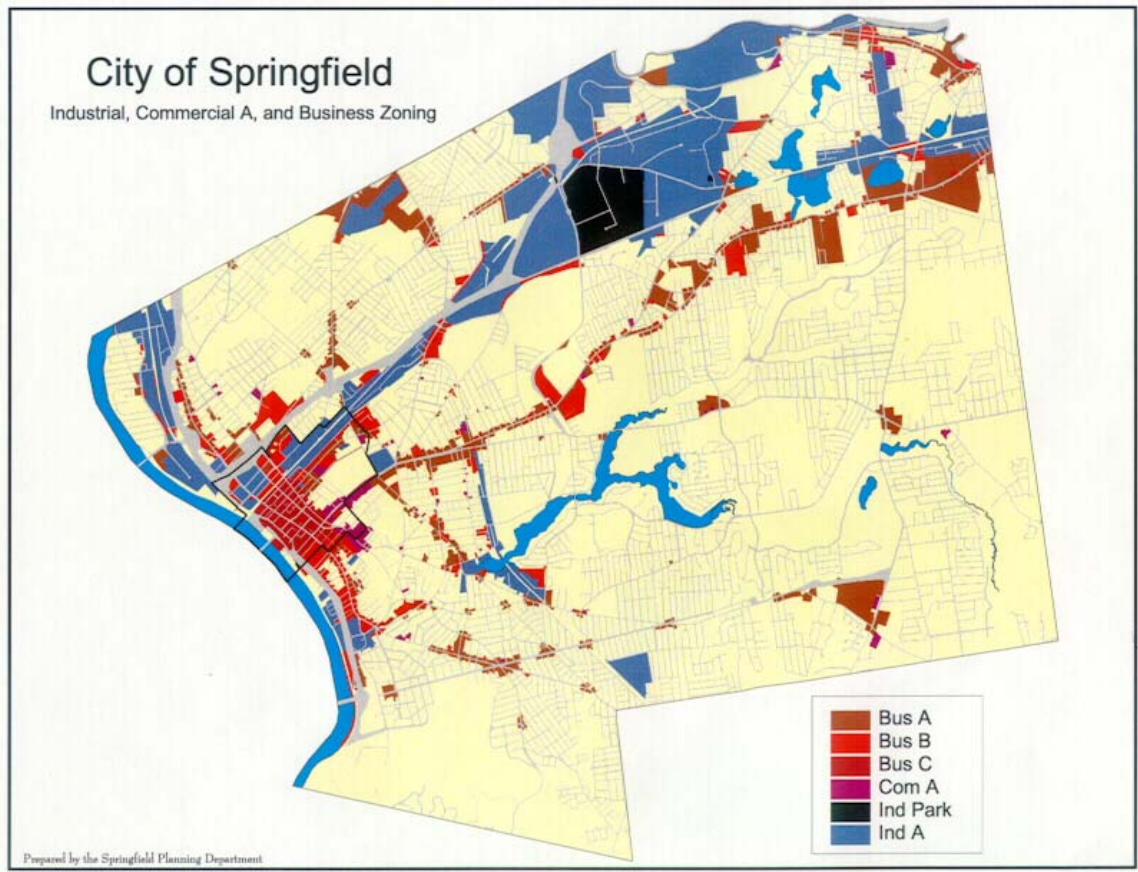
4.2: Springfield Downtown and Central Business District



Source: Springfield Planning Department

Figure

4.3: City of Springfield Business, Industrial and Commercial Use Distribution



Source: Springfield Planning Department

Table

4.1: City of Springfield, Downtown Vacant Retail Space

Building	Address	Communications /Infrastructure	Office Class	Div. Space	Sq. Ft. Avail.	Sq.Ft. Avail. with T1, T3, or Fiber Optic
Tower Square***	1500 Main Street	Tel, ISDN Lines, DSL, LAN, T1, T3, Fiber Optic	A	NO	760	760
Tower Square***	1500 Main Street	Tel, ISDN Lines, DSL, LAN, T1, Fiber Optic	A	YES	3632	3632
Tower Square***	1500 Main Street	Tel, ISDN Lines, DSL, LAN, T1, Fiber Optic	A	NO	2200	2200
Tower Square***	1500 Main Street	Tel, ISDN Lines, DSL, LAN, T1, Fiber Optic	A	YES	700	700
Tower Square***	1500 Main Street	Tel, ISDN Lines, DSL, LAN, T1, Fiber Optic	A	YES	12691	12691
Tower Square***	1500 Main Street	Tel, ISDN Lines, DSL, LAN, T1, Fiber Optic	A	YES	3095	3095
Tower Square***	1500 Main Street	Tel, ISDN Lines, DSL, LAN, T1, Fiber Optic	A	NO	2024	2024
Tower Square***	1500 Main Street	Tel, ISDN Lines, DSL, LAN, T1, Fiber Optic	A	YES	4096	4096
Tower Square***	1500 Main Street	Tel, ISDN Lines, DSL, LAN, T1, Fiber Optic	A	NO	1000	1000

Continued next page

Table  
4.1 (Continued)

Building	Address	Communication s/Infrastructure	Office Class	Div. Space	Sq. Ft. Avail.	Sq.Ft. Avail. with T1, T3, or Fiber Optic
Tower Square***	1500 Main Street	Tel, ISDN Lines, DSL, LAN, T1, Fiber Optic	A	NO	950	950
1675 Main	1675 Main	Tel	C	YES	2912	
1675 Main	1675 Main	Tel	C	YES	1512	
1675 Main	1675 Main	Tel	C	YES	2912	
1675 Main	1675 Main	Tel	C	YES	1232	
Tic Toc Building	280-302 Worthington St	Tel	B	NO	2200	
Bookstore Bldg	1383 Main Street	Tel, LAN, Fiber Optic	B	YES	10000	10000
Bookstore Bldg	1383 Main Street	Tel, LAN, Fiber Optic	B	YES	?	?
75 Market Place	1383 Main Street	Tel, LAN, Fiber Optic	B	NO	2300	2300
1156 Main Street	1156 Main Street	Tel, ISDN Lines, T1	B		812	812
1200 Main Street	1200 Main Street*	Tel, ISDN Lines, DSL, T1, Fiber Optic	B	YES	8500	8500
95 State Street	95 State Street*	Tel, ISDN Lines, DSL, T1, Fiber Optic	B	NO	5800	5800
<b>Total Available Retail Space in the BID:</b>					<b>69328</b>	<b>58560</b>

\* telecommunications infrastructure is integrated with category 5 network

\*\*\* the overall space at Tower Square is +/- 10,000 sqft in the tower and +/- 70,000 sqft. in the mezzanine

Source: Springfield Business Improvement District

Table

4.2: City of Springfield, Downtown Vacant Office Space

Building	Address	Communication s/Infrastructure	Office Class	Div. Space	Sq. Ft. Avail.	Sq.Ft. Avail. with T1, T3, or Fiber Optic
55 State Street	55 State Street	Tel, DSL	B	NO	1500	
55 State Street	55 State Street	Tel, DSL	B	YES	1550	
55 State Street	55 State Street	Tel, DSL	B	NO	600	
55 State Street	55 State Street	Tel, DSL	B	NO	1200	
Peerless Building	1331 Main Street	Tel, T1	B	NO	3400	3400
Brigham Building	1365 Main Street	Tel, T1	B	YES	3036	3036
Brigham Building	1365 Main Street	Tel, T1	B	YES	800	800
Brigham Building	1365 Main Street	Tel, T1	B	NO	507	507
Brigham Building	1365 Main Street	Tel, T1	B	YES	350	350
95 State Street	95 State Street*	Tel, ISDN Lines, T1, Fiber Optic	B	NO	6417	6417
95 State Street	95 State Street*	Tel, ISDN Lines, T1, Fiber Optic	B	NO	1687	1687
95 State Street	95 State Street*	Tel, ISDN Lines, T1, Fiber Optic	B	NO	1687	1687
101 State Street	101 State Street*	Tel, ISDN Lines, T1, Fiber Optic	B	NO	4283	4283
75 Market Place	1383 Main Street	Tel, LAN, Fiber Optic	B	NO	2300	2300
Bookstore Bldg	1383 Main Street	Tel, LAN, Fiber Optic	B	YES	20000	20000
Sovereign Bank/ NE Building	1350 Main Street	Tel, ISDN Lines, DSL, LAN, T1, T3, Fiber Optic	A	YES	50000	50000

Continued next page



Table  
4.2 (Continued)

Building	Address	Communication s/Infrastructure	Office Class	Div. Space	Sq. Ft. Avail.	Sq.Ft. Avail. with T1, T3, or Fiber Optic
Tower Square/ Fleet Bank	1500 Main Street	Tel, ISDN Lines, DSL, LAN, T1, T3, Fiber Optic	A	YES	78000	78000
Tower Square***	1500 Main Street	Tel, ISDN Lines, DSL, LAN, T1, T3, Fiber Optic	A	YES	25578	25578
Tower Square***	1500 Main Street	Tel, ISDN Lines, DSL, LAN, T1, T3, Fiber Optic	A	NO	496	496
Tower Square***	1500 Main Street	Tel, ISDN Lines, DSL, LAN, T1, T3, Fiber Optic	A	NO	2183	2183
The Board of Trade Block	1655 Main Street	DSL, Tel	C	NO	1250	
The Board of Trade Block	1655 Main Street	DSL, Tel	C	YES	2400	
The Board of Trade Block	1655 Main Street	DSL, Tel	C	NO	800	
The Board of Trade Block	1655 Main Street	DSL, Tel	C	YES	800	
The Board of Trade Block	1655 Main Street	DSL, Tel	C	NO	1675	
Tower Square***	1500 Main Street	Tel, ISDN Lines, DSL, LAN, T1, Fiber Optic	A	NO	2097	2097
Peerless Building	1331 Main Street	Tel, T1,	B	YES	3086	3086
Tic Toc Building	280-302 Worthington St	Tel, DSL, Fiber Optic**	B	YES	7000	6111
Caffeine's Building	260 Worthington Street	Tel, DSL, Fiber Optic**	B	YES	2516	2516
Caffeine's Building	260 Worthington Street	Tel, DSL, Fiber Optic**	B	YES	4000	4000

Continued next page

Table  
4.2 (Continued)

Building	Address	Communication s/Infrastructure	Office Class	Div. Space	Sq. Ft. Avail.	Sq.Ft. Avail. with T1, T3, or Fiber Optic
1248 Main	1248 Main Street	Tel,	A	YES	3000	
395 Dwight Street	395 Dwight Street	Tel, T1,	C	NO	10000	10000
395 Dwight Street	395 Dwight Street	Tel, T1,	C	NO	10000	10000
73 State Street	73 State Street	Tel,	B	NO	1500	
Paramount	1694 Main Street	Tel, DSL	B	YES	22000	
Harrison Place	1391 Main Street	Tel, ISDN Lines	B	YES	8000	
Pioneer Valley Brew Pub	59 Taylor Street	Tel, ISDN Lines, Fiber Optic **	B	YES	4000	4000
Pioneer Valley Brew Pub	59 Taylor Street	Tel, ISDN Lines, Fiber Optic **	B	YES	4000	4000
Club 418	265 Dwight Street	Tel	C	YES	1200	
Bookstore Building	1383 Main Street	Tel, LAN, Fiber Optic	B	YES	10000	10000
Bookstore Building	1383 Main Street	Tel, LAN, Fiber Optic	B	YES	10000	10000
Bowles Building	8 Fort Street	Tel, ISDN Lines, DSL, T1, Fiber Optic	B	YES	20000	20000
1200 Main Street	1200 Main Street*	Tel, ISDN Lines, DSL, T1, Fiber Optic	B	YES	8500	8500
95 State Street	95 State Street*	Tel, ISDN Lines, DSL, T1, Fiber Optic	B	NO	6417	6417
101 State Street	101 State Street*	Tel, ISDN Lines, DSL, T1, Fiber Optic	B	YES	5739	5739

Continued next page

Table  
4.2 (Continued)

Building	Address	Communication s/Infrastructure	Office Class	Div. Space	Sq. Ft. Avail.	Sq.Ft. Avail. with T1, T3, or Fiber Optic
1341 Main Street	1341 Main Street	Tel	A	YES	4775	
1341 Main Street	1341 Main Street	Tel	A	YES	4775	
Fuller Block	1531 Main Street	Tel	B	YES	10000	
The Main Office @First Mass	1441 Main Street	Tel, DSL, Fiber Optic	A	NO	3000	3000
First Mass Center	1441 Main Street	Tel, ISDN Lines, DSL, LAN, T1, Fiber Optic			6000	
Saia Law Office	106 State Street	Tel	B	NO	2500	
211 Worthington Street	211 Worthington Street	Tel	B	NO	2000	
One Financial Plaza	1350 Main Street	Tel, ISDN Lines, DSL, LAN, T1, T3, Fiber Optic	A	YES	20000	20000
Walker Building	1242 Main Street	Tel, T1, Fiber Optic	C	YES	30000	30000
155 Chestnut Street	155 Chestnut Street	Tel, DSL, Fiber Optic **	B	YES	17000	17000
155 Chestnut Street	155 Chestnut Street	Tel, DSL, Fiber Optic **	B	YES	17000	17000
155 Chestnut Street	155 Chestnut Street	Tel, DSL, Fiber Optic **	B	YES	17000	17000
<b>Total Available Office Space in the SBID:</b>					<b>766238</b>	<b>411190</b>

90.5 percent of the overall Office/Retail Space in the BID, Downtown is equipped with T1, T3, and Fiber Optic connections

\* telecommunications infrastructure is integrated with category 5 network

\*\* the telecommunications infrastructure listed is located outside of the building

\*\*\* the overall space at Tower Square is +/- 10,000 sqft in the tower and +/- 70,000 sqft. In the mezzanine

Source: Springfield Business Improvement District

Key to Tables 4.3, 4.4

**Condition**

Vacant Building	VB
Vacant Land	VL
Foreclosed	F
Undeveloped	UDEV
Under Construction	UCONST
Springfield Redevelopment Authority Land Court	SRA LNDCT

**Neighborhood**

Brightwood	BRTWD	URA	Urban Renewal Area
Memorial Square	MS	EC	Enterprise Community
Liberty Heights	LH	EOA	Economic Opportunity Area
East Springfield	ES		
Indian Orchard	IO		
Boston Road	BR		
Pine Point	PP		
Bay	BAY		
McKnight	MK		
Metro Center	MC		
Southend	S		
Six Corners	SC		
Old Hill	OH		
Upper Hill	UH		
Sixteen Acres	SA		
East Forest Park	EFP		
Forest Park	FP		

Table

4.3: City of Springfield, Vacant Industrial/Commercial Land Inventory

Property Classification									Assessed Value				Physical Characteristics				Contacts		
St. Parcel #	Location (Neighborhood)***	Block Plan	Census Track	UR A*	E C*	EO A*	Zone	Cond.**	Land/Land Items	Bldg.	Tax Amount	Tax Title/ #	Acres	Frontage Depth	Rail	Owner	Realtor	Contact Information	
1	02360-0591	S.S. Carew St.(MS)	125	8008.0	N	Y	N	BusA	UDEV/ VB	\$186.620	y	\$0	N	0.83	(150)(241)	N	City of Springfield	NONE	413-747-5192
2	02360-0018	N.S Carew St.(MS)	133	8008.0	27 A	Y	N	BusA	LNDCT /F	\$35.600	N	\$1.269	N	0.15	(60)(120)	N	City of Springfield	NONE	413-747-5192
3	08130-0409	Waverly & Main St.(MS)	129	8006.0	24	Y	N	BusA	F	\$45.900	N	\$1.636	N	0.33	(141)(100)	N	City of Springfield	NONE	413-747-5192
4	08030-0050	Lyman St.(MS)	401	8012.0	N	Y	N	IndA	UDEV	\$68.000	N	\$2.424	N	0.52	(207)(85)	N	Daigle, Augustine	NONE	NONE
5	0056/0060	Lyman/Spring (MC)	215	8012.0	N	Y	N	IndA	UDEV	\$79.000	N	\$2.781	N	1.79	(194)(270)	Y	Carando, Peter Ramon	Cara Development	181 Taylor St., Springfield 01105
6	0250/0249	S.S. Worthington St.(MC)	6055	8012.0	N	Y	N	BusB	UDEV	\$170.800	N	\$6.089	N	2.25	(383)(192)	N	Sanborn, Robert	Assciates,Inc .	P.O. Box 15449, SF, MA 01115
7	11430-0086	Taylor & Armory St.(MC)	503	8012.0	N	Y	N	IndA	LNDCT /F	\$144.600	N	\$5.155	N	1.98	(175)(673)	Y	City of Springfield	NONE	413-747-5192
8	08110-0026	Magazine St. (MK)	509	8013.0	32	Y	N	BusA	F	\$51.700	N	\$0	N	0.23	(116) (88.83)	N	City of Springfield	Gallivan & Co.	28 Somers Rd, Hampden, MA
9	08925-0014	Napier St.(LH)	1401	8004.0	N	N	N	IndA	UDEV	\$33.500	N	\$1.194	Y, 1991	0.46	(200) (100)	N	Norman Duchesneau	King & Newton	Springfield, MA 01103
10	22195-0100	Chicopee River Bus. Park	2A	8002.2	N	N	Y	IndA	UDEV	\$763.200	N	\$27.208	N	16.70	N/A	N	Area Development	NONE	255 Padgette St., Chicopee, MA
11	02195-0021	& WS Worcester (10)	9112	8002.2	N	N	N	IndA	UDEV	\$378.400	N	\$13.490	N	17.02	(994) fr.	N	Cantalini, Paul J. and Maria	NONE	Springfield, MA 01119
13	02195-0055	Cadwell Dr.(ES)	150	8001.2	N	N	Y	IndA	UDEV	\$145.300	N	\$5.180	N	3.18	(110) (509)	N	Visconti Bros.	MacMillan & Son	1537 Main St., Springfield MA
14	02195-0092	N W S Cadwell Dr.(MS)	2A	8001.2	N	N	Y	IndA	UDEV	\$156.300	N	\$5.572	N	3.43	(244) (676)	N	Western MA Electric	NONE	W.Springfield 01090

Continued next page

Table

4.3 (Continued)

Property Classification										Assessed Value			Physical Characteristics				Contacts		
St. Parcel #	Location (Neighborhood)****	Block Plan	Census Track	UR A*	E C*	EO A*	Zone	Cond.**	Land/Land Items	Bldg.	Tax Amount	Tax Title/ #	Acres	Frontage Depth	Rail	Owner	Realtor	Contact Information	
15	02347-0028	Carando Drive (ES)	794	8002.2	N	Y	N	IndA	UDEV	\$661.000	N	\$23.565	N	4.38	(354)(500)	N	Development Corporation	Realty and Services, Inc.	912, Springfield, MA 01115
16	0294/0293	S.S. Cottage St.(ES)	6055	8002.2	N	N	Y	IndP	UDEV	\$274.220	N	\$9.776	N	6.00	(400) (688)	N	Edward F. Kozub	Cottage West	Indian Orchard 01151
17	03310-0284	595 Cottage (ES)	797	8002.2	N	N	Y	IndA	UDEV	\$1,451.200	N	\$51.735	N	12.00	(325) (1416)	N	George Abdow	NONE	1111 Elm St. W. Springfield 01089
18	03310-0285	627 Cottage (ES)	797	8002.2	N	N	Y	IndA	UDEV	\$473.100	Y	\$16.866	N	12.00	(325) (1416)	N	Fontaine	NONE	510 Cottage, Springfield 01104
19	08532-0030	S S Memorial Dr.(ES)	6052	8002.2	N	N	Y	IndP	UDEV	\$82,000	N	\$2.923	N	3.60	(200) (742)	N	Development Corp	NONE	Indian Orchard 01151
20	06923-0026	S S Industry Ave.(ES)	6057	8002.2	N	N	Y	IndP	UDEV	\$269.100	N	\$9.593	N	7.36	(2438) (699)	N	U.S. Envelope Co.	NONE	Ave., Springfield, MA 01104
21	10360-0250	2100 Roosevelt Ave. (ES)	2B	8002.1	N	N	Y	IndA	UDEV	\$9,088.700	Y	\$0	N	135.00	N/A	N	Smith & Wesson, Inc.	NONE	P.O. Box 02118, Springfield, MA
22	01953-0068	Brookdale Dr.(ES)	795	8002.2	N	N	N	IndA	UDEV	\$320.000	N	\$11.408	N	12.42	(364) (810)	N	Park Properties	R.J. Greeley Co.	Springfield, MA 01105
23	10330-0027	N S Rocus St.(ES)	9110	8002.2	N	N	N	Ind A	UDEV	\$85.000	N	\$0	Y, 1997	1.89	(200) (150)	Y	Combs, Ronald	N/A	413-747-5192
24a	09755-0086	E S Pinevale St. (IO)	986	8001.0	N	N	N	IndA	VB / F / UDEV	\$1,356.200	Y	\$48.349	N	15.90	(550)(1400)	Y	Crane Company	C.B.Richard Ellis	City Place I, 185 Asylum Street,
24b	05810-0178	/N E S Oak St. (IO)	986	8001.0	N	N	N	IndA	F / UDEV	\$1,483.800	Y	\$52.897	N	26.40	(600)(2000)	Y	Crane Company	C.B.Richard Ellis	City Place I, 185 Asylum Street,
25	11170-0180	W S St. James Ave (LH)	1930	8003.0	N	N	N	BusA	VB / UDEV	\$0	N	\$6.292	N	5.09	(200)(1000)	N	Center II Association	NONE	
26	0945-0045	125-169 Paridon St.(EFP)	2E	8025.0	N	N	N	IndA	VB	\$1,210.400	Y	\$43.151	N	26.97	(1565)(765)	Y	Diamond Affiliates	NONE	NONE

\* This survey was part of an on-going inventory, supervised by the Office of Economic Development. The data was gathered during the Fall internship (2001) with the Springfield Business Development Corporation (SBDC) and co-authored by an additional intern. Contact Jim Madden of the Office of Economic Development for further details (413-747-5192).

Source: Springfield Office of Economic Development/ Author Survey

Table

4.4: City of Springfield, Vacant Industrial/Commercial Buildings Inventory

Property Classification				Assessed Value					Contacts					
	Street	Street Parcel #	Neighbor hood	Avail. Sq.Ft.	# of Flrs.	year built	Price Info		Assessed Value	Land Use Code	Zoning	Contact	Contact Address	REMARKS
							Rent	Sale						
1	417 Liberty St.	07770-0597	LH	92,820	3	1959			\$471.200	\$3.315	Ind A	Morin, Louis, F.	121 Belvues St., Springfield, MA 01108	Storage Warehouse or distribution center
2	372 Pasco Rd.	09540-0092	BR	63,000	2	1952			\$1.138.800	5158	Ind A	Pasco Dev. Co.	372 Pasco Rd., Indian Orchard, MA 01151	Storage Warehouse or distribution center
3	350 Pasco Rd.	09540-0082	BR	296,687	1	1964			\$647.300	5211	Ind A	East Coast Mill Sales Co.	P.O. Box 580, Charlestown, MA 02129	Lumber Yard
4	150 Brookdale Dr.	01953-0045	ES	234,352	1	1978			\$1.083.000	2751	Ind A	Samual D. Plotkin and Associates, Inc.	1500 Main St, P.O. Box 15449 Springfield, MA	Building used for manufacturing operation
5	189 Brookdale Dr.	01953-0072	ES	122,098	1	1988			\$902.000	5021	Ind A	R.J. Greeley Co.	I Federal St., Bldg. 104-2R, Springfield, MA 01105	General Office Building
6	40 Congress St.	03115-0009	MC	106,460	n/a	1965			\$1.522.500	3544	Ind A	C.B. Richard Ellis	City Place I, 185 Asylum St, Hartford, CT, 06103	Building used for manufacturing operation
7	538 Page Blvd.	09440-0095	ES	5,264	2	1922			\$96.900	800	Ind A	Caron, Edward	3160 Coral Way, Miami, FL, 33145	Multiple Use- primarily commercial
8	77 Maple St.	08218-0187	MC	16,462	3	1832			\$216.500	7399	Com A	R.J. Greeley Co.	I Federal St., Bldg. 104-2R, Springfield, MA 01105	General Office Building
9	77 Warehouse St.	11980-0038	EFP	42,855	1	n/a			\$264.500	3679	Ind A	Canter, Michael	12 Alvord ST., South Hadley, MA 01075	Warehouse used to store manufactured products
10	196-206 Dickenson St.	03910-0044	FP	4,601	1	1901			n/a	5931	Bus A	R.J. Greeley Co.	I Federal St., Bldg. 104-2R, Springfield, MA 01105	N/A
12	555 Cottage St.	03310-0287	ES	108,900	1	1967			\$773.100	5074	Ind A	Ram Realty Corp	555 Cottage ST., Springfield, MA 01104	Warehouse used to store manufactured products
13	160 Tapley St.	11415-0007	BAY	229,648	1	1958			\$110.400	5063	Ind A	Trust, Alison & Aleff	130 E. Randolph St., suite 2900, Chicago, IL, 60601	Building used for manufacturing operation
14	85 Carando Dr.	02347-0036	ES	68,389	1				\$396.100	4225	Ind A	R.J. Greeley Co.	One Federal ST., Bldg 104-2R, Springfield, MA 01105	Warehouse used to store manufactured products
15	Corner of St James and Martone Pl.	11170-0313	BAY	20,554	1	1981			\$117.400	9520	Bus B	Gallivan & Co.	28 Somers St., Hampden, MA	Small retail or service store under 10,000 sq. ft.

Continued next page

Table  
4.4 (Continued)

	Street	Street		Avail. Sq.Ft.	# of Flrs.	year built	Price Info		Assessed Value	Land Use		Contact	Contact Address	REMARKS
		Parcel #	Neighborhood				Rent	Sale		Code	Zoning			
16	5 Rose Pl.	10370-0014	ES	1,500	1	1949			\$122.500	1599	Ind A	Corcoran, Edward	434 Bliss Rdd., Longmeadow, MA	Storage Warehouse or distribution center
18	26 Cass St.	02480-0006	MC	7,639	1	1920			\$86.200	5084	Ind A	Iverson, Susan	3918 Picea Ct., Haywood CA, 09542	Discount Dept. Store
19	655 Page Blvd.	09440-0999	ES	658,235	n/a	1962			\$5,187,000	3999	Ind A	Springfield Industrial Center, inc.	60 E. 42nd, Rm# 2527, NY, NY 10165	Warehouse used to store manufactured products
20	1160 Bay Rd.	01085-0130	PP	26,973	1	1955			\$168.600	6411	Ind A	1160 Bay St., L.L.C.	1 Monarch Pl., Springfield, MA 01144	General Office Building
21	35 Haywood Ave.	06580-0015	MC	61,333	2	1967			\$240,000	3315	Ind A	C.B. Richard Ellis	City Place I, 185 Asylum St, Hartford, CT, 06103	Building used for manufacturing operation
22	961 East Columbus Ave.	04303-0548	S	4,901	1	1958			\$73,900	5531	BusB	Stelzer, Timothy	City Place I, 185 Asylum St, Hartford, CT, 06103	Automotive supply slaes and service
23	2180-2184 Main St	08130-0206	MS	4,259	1	1908			\$160,600	5411	IndA	Soufane, Shama and Hussein	1273 Carew St., Springfield, MA 01104	Small Retail or service store
24	34 Pearl St. & N.S. Pearl St.	09585-0010	MC	28,969	1	1940			\$138,800	5451	BusA	ACME Industrial Property Holdings	c/o/ Colebrook Realty Services, 1441 Main St, Springfield, MA 01103	Small Retail or service store
26	300 Albany St.	00160-0064	MK	18,220	1	1952			\$134,700	7214	IndA	Perella Real Estate Co.	37 Harkness Dr., East Longmeadow, MA	Storage Warehouse or distribution center
27	1709 Page Blvd.	09440-0777	ES	135,050	1	1949			\$684,900	5093	Ind A	Perella Real Estate Co.	37 Harkness Dr., East Longmeadow, MA	Automotive sales and service
28	Albany St/St James ave	11170-0052	MK	8,110	1	n/a			\$36,800	9000	Bus B	Macmillan & Son, Inc.	1537 Main St., Springfield, MA	Parking Lot
29	1089-1107 E Col. Ave	04303-0529	S	7,743	1	1920			\$91,200	7538	BusB	Shartz Family Partnership, L.L.C.	1441 Main St., Springfield, MA, 01103	Automotive supply sales and service
31	1067 E. Col. Ave	04303-0535	S	3,298		1928			\$160,700	5231	BusB	Cohen, Harriet	C/O Sams glassworks, 1067 E. Columbus Ave, Springfield, MA 01105	Discoount or Department Store
* This survey was part of an on-going inventory, supervised by the Office of Economic Development. The data was gathered during the Fall internship (2001) with the Springfield Business Development Corporation (SBDC) and co-authored by an additional intern. Contact Jim Madden of the Office of Economic Development for further details (413-747-5192).														

Source: Springfield Office of Economic Development/ Author Survey



## CHAPTER V

### CONCLUSIONS AND RECOMMENDATIONS

Planning must address the causal structures of the city condition, while continuing to direct its attention closer to the symptomatic indicators as well. The market-oriented promotion of a ‘high-tech’ image in U.S. mid-size cities and the transformation of a procedural to a more proactive form of urban redevelopment are among these discussed issues. The key policy issue has been an entrepreneurial shift from ‘welfare’ issues to economic regeneration. In other words, the traditional issues of ‘social equity’ are replaced by notions of competition whereby the rationale for the distribution of financial resources is based on the competitive strength of the players and the local economic development groups that have replaced traditional government structures. The key question behind the subsequent entrepreneurial planning practices has been whether to plan on the basis of what the private sector can be induced to deliver, or analyze local socioeconomic conditions and plan on the basis of addressing them instead. The proactive role of entrepreneurial governance in market-oriented promotional development campaigns, such as the “information district,” raises this very question. This thesis has, therefore, argued that an entrepreneurial-partnership approach to a small district area will leave the strategic element of an integrated city plan absent. This reiterates much of the emphasis that has been placed on industry-led workforce training, which must coincide with “targeted” industries, including the attraction of a strong institutional presence in R&D and networking initiatives. Furthermore, market-oriented promotional development programs are set into a competitive free market environment. For this reason, neither the public nor the private sector alone will achieve economic development. In the absence of a “theory” for achieving a collaborative form of economic development, it is certain that successful entrepreneurial governance will be dictated by the degree of public-private partnership or “organizing capacity,” which should be strategically managed on a citywide scale.

Finally, urban planning, as a public action that produces a sustained and widespread private market reaction, rests on a comprehensive consideration of the non-quantifiable forces behind the acceleration and deceleration of economic development. A determinant, in this view, is the heightened interaction among economic and political jurisdictions. The uneven character of these interactions in terms of city and regional economic, technological, and political forces has challenged and will generally continue to challenge urban planning, and urban telecommunications-oriented development in particular. Other determinants include market unpredictability, the multiplication of promotional campaigns, and the horizontal public-public and public-private inter-dependent relationships of collaboration and partnership.

## A. Recommendations

The following recommendations should help to structure the future development of the Springfield ‘Plugged-In City Technology Program,’ as well as provide some insight into the elements of a sustainable telecommunications-oriented economic development strategy.

- Creative lending services behind urban telecommunications-oriented development should include real estate assistance, workforce grants and indirect incentives like “smart building” certifications and corresponding credits (e.g., R&D credits). This might also include a capital improvement program (CIP) that provides infrastructure development (e.g., fiber). In cases of commercially non-viable development, capital improvement should take place over several financial years, requiring extensive budgeting schedules, timely financial incentives, and the availability of and access to applications for the financing of complex projects years in advance.
- Special lending programs should continue to build and encourage past economic development initiatives, State-funded or otherwise (e.g., EOAs). Small and medium size companies that are drawn to “information districts” will be price sensitive. Rather than provide direct subsidies such as rent abatements, one should consider packaging creative lending services with designated areas of tax increment financing (TIF) and other programs; a city like Springfield already offers competitive rents.
- The “Information” sector is broad. Efforts behind urban telecommunications-oriented development strategies should consider “industry-targeting,” recognizing unmet local and regional demand. This should include individual businesses and their respective industry sectors; one should not recreate, instead one should build on what already exists.

- Networking all related business development services (technical and management) in one central location and in close proximity to the business community will help to establish a strong ‘business climate.’
- Mixed-use “information districts” will be able to provide a more diverse number of related support services, while increasing greater opportunity for local labor force absorption. Downtown locations are preferable, provided there is a major research and financing component located nearby. On-line services also will facilitate the government-to-business relations (i.e., quick permitting processes or on-line permitting).
- Downtown locations have a good share of old Class C space that can satisfy ‘telecom’-related demand. ‘High-tech’ uses, though, will require up-to-date technology and around-the-clock security and cooling systems. An “information district” works very much like a technology park. A collection or concentration of Internet-ready buildings and their users, whose concerns include research and development (R&D), will also desire to have access to a good transportation network, and quality housing and leisure services (e.g., a theater district and waterfront). “Information district” buildings should, therefore, be selected by carefully identifying three to four ‘anchor’ properties that will help to define the area and allow the remaining properties to develop over time.
- Finally, the political commitment and “organizing capacity” of the real estate brokers and venture capitalists to the local community leaders and the Mayor, together with the on-going management of and a dynamic marketing strategy for the “information district” will improve chances of success.

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