

A Statistical Profile of NEW ENGLAND'S KNOWLEDGE CORRIDOR, 2002

he Hartford-Springfield interstate region is an integrated economic area that straddles the Massachusetts-Connecticut border. Almost 1.7 million residents live in the 111 municipalities that compose this 3,058 square mile region along the Connecticut River. This region is also commonly referred to as "New England's Knowledge Corridor" due to its concentration of 27 colleges and universities, whose combined total enrollment exceeds 125,000 students.

The region's urban core, concentrated in the southern two-thirds of the area, is built around the cities of Hartford and Springfield. Connected to this urban core, both economically and via transportation infrastructure, are numerous rural communities that are north, east, and west of the principal cities. The region's economic interdependence is highlighted by commuting patterns. In 2000, more than 30,000 people per day crossed the Massachusetts-Connecticut state line when traveling to their place of work.

The Knowledge Corridor is well endowed with transportation infrastructure, with interstate highways going both east to west and south to north. The region's proximity to New York City and Boston provide easy access to very large markets. New York City is 140 miles from Springfield and 114 miles from Hartford, while Boston is 91 miles from Springfield and 102 miles from Hartford.

Bradley International Airport, which lies between Springfield and Hartford, is the principal source of commercial air passenger service with 10 major passenger carriers and five regional airlines accommodating nearly seven million passengers annually. In addition, Bradley has become an important air freight center for the region with eight air cargo carriers.

The region's four largest industry sectors, accounting for 83.4 percent of regional employment, are services; retail trade; manufacturing; and finance, insurance, and real estate (FIRE). Long the centerpiece of the region's economy, the manufacturing sector, though diminished in size, continues to employ nearly one-fifth of the region's workforce and remains an important component of the Knowledge Corridor's economic base.

Despite labor force declines in the first half of the 1990s, the second half of the decade brought a return to growth in size of the labor force. The interstate region's low cost of living makes the 818,504 member labor force less expensive to employ than in other areas of the Northeast. In 2000, for example, the cost of living in the Springfield area was 84 percent of that for metropolitan Boston and only 44 percent of that for New York City; while, in 1999, Hartford's cost of living was 87 percent of Boston's and 49 percent of New York City's.¹

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Pioneer Valley Planning Commission

Total Population

	Number	Percent Change
1980	1,568,737	
1990	1,653,452	5.4%
2000	1,673,561	1.2%

Population by Age in 2000

	Number	Percent
Under 5 years	99,574	5.9%
5 to 9 years	116,294	6.9%
10 to 14 years	119,887	7.2%
15 to 19 years	121,048	7.2%
20 to 24 years	108,606	6.5%
25 to 34 years	214,292	12.8%
35 to 44 years	273,354	16.3%
45 to 54 years	235,833	14.1%
55 to 59 years	84,025	5.0%
60 to 64 years	62,668	3.7%
65 to 74 years	113,825	6.8%
75 to 84 years	88,772	5.3%
85 years and over	31,658	1.9%
Under 20 years	456,803	27.3%
Over 65 years	234,255	14.0%
Workforce (15-64 yrs)	1,099,826	65.7%

Educational Attainment

1990	Change	2000
1,076,581		1,105,192
93,896	(28.5%)	67,140
145,884	(16.5%)	121,885
329,016	(0.6%)	326,994
168,577	16.9%	197,047
78,187	4.5%	81,673
156,965	15.8%	181,822
104,056	23.6%	128,631
836,801	9.5%	916,167
261,021	18.9%	310,453
	1,076,581 93,896 145,884 329,016 168,577 78,187 156,965 104,056 836,801	1,076,581 93,896 (28.5%) 145,884 (16.5%) 329,016 (0.6%) 168,577 16.9% 78,187 4.5% 156,965 15.8% 104,056 23.6% 836,801 9.5%

Change in Poverty Rates

	1990 P	overty	Percent Change	2000 Poverty		
Individuals	148,641	9.0%	1.1%	168,635	10.1%	
Children under 18	57,389	15.1%	(0.5%)	58,221	14.6%	
Families	30,748	7.2%	0.6%	33,043	7.8%	
Individuals 65 & over	16,603	7.4%	0.1%	17,440	7.4%	

Source: U.S. Census Bureau

The People

The population of the Knowledge Corridor remained fairly stable over the last decade, increasing by 1.2 percent between 1990 and 2000. This is a slower rate of increase than the 5.4 percent recorded between 1980 and 1990. Nonetheless, in total, the interstate region's population grew by 104,824 persons in the last two decades.

Reflecting the stability of the region's population, 58.1 percent of people over the age of five lived in the same house in 2000 as they did in 1995, and 83.8 percent lived in the same county in 2000 as they did in 1995. By comparison, in the nation as a whole, 79.0 percent of the population lived in the same county in 2000 as in 1995.

Between 1990 and 2000, the population of the aptly named Knowledge Corridor made significant improvements in educational attainment. While in 1990 only 24.2 percent of the region's population had a bachelor's degree, by 2000 that number had increased to 28.1 percent. When considering associate's degrees as well, 35.5 percent of the interstate region's population have a college degree. Even more encouraging, the percentage of adults who did not complete high school dropped from 22.3 to 17.1 percent between 1990 and 2000.²

Despite an apparent nationwide economic boom, the economic condition of the region's population did not significantly improve in the decade since 1990. Overall, real median household income dropped by 5.6 percent between 1990 and 2000. This loss was most substantial in the interstate region's urbanized areas such as Hartford County in Connecticut and Hampden County in Massachusetts, which experienced 7.4 percent and 5.3 percent income declines respectively. Hampshire County, Massachusetts experienced the only gain in real median household income, but this was less than one-tenth of one percent. The gap between the wealthiest part of the Knowledge Corridor (Tolland County, Connecticut) and the poorest part of the region (Hampden County, Massachusetts) was almost \$20,000 in real median household income.³

Consistent with declining real incomes, the poverty rate in the Knowledge Corridor increased by 1.1 percent between 1990 and 2000. While this is a small percentage change, it amounts to nearly 20,000 more people in the interstate region living below the poverty line. Encouragingly, the poverty rate among children under 18 dropped by 0.5 percent. However, in 2000, 14.6 percent of children under 18 in the interstate region–amounting to 58,221 children–still lived below the poverty line.

Residence in 1995

	Number	Percent
Population 5 years and over	1,571,045	
Same house	912,440	58.1%
Different house, same county	403,792	25.7%
Same state, different county	102,472	6.5%
Different state	105,832	6.7%
Outside the U.S.	46,509	3.0%

Diversity

The Knowledge Corridor has a long history of immigration and diversity which has continued to the present. In 2000, 82.4 percent of the region's population was white, 10.7 percent Hispanic or Latino, 9.5 percent African American, and 2.5 percent Asian. While a large majority of the region's population is white, the percentage is comparable to that of Connecticut (83.3 percent white) and significantly lower than that for Massachusetts (86.2 percent white).

Contributing to the Knowledge Corridor's growing diversity is the continuing rise of foreign immigration. Nearly 100,000 people (or 5.7 percent of the population in the interstate region) in 2000 were immigrants who arrived in the United States in the last 20 years. Furthermore, the pace of immigration has increased. In the 1980s, 40,000 immigrants arrived in the interstate region. During the 1990s, 55,000 people immigrated, an increase of 37.5 percent.

With a growing immigrant population, new linguistic challenges have emerged. In 2000, 7.6 percent of the Knowledge Corridor's population identified themselves as speaking English less than very well. Perhaps more significant, nearly 20 percent of people in the interstate region said they speak a language other than English at home. Given that 10.7 percent of the population is Hispanic, it is not surprising that 9.4 percent of the population speak Spanish at home. However, 8.1 percent of the region's population speak an Indo-European language other than English or Spanish at home.

Population by Race and Hispanic Origin

	Number	Percent
Population	1,673,561	
White	1,379,497	82.4%
Black or African American	158,690	9.5%
American Indian and Alaskan Native	11,131	0.7%
Asian	41,726	2.5%
Native Hawaiian or Pacific Islander	2,663	0.2%
Other race	118,475	7.1%
Hispanic or Latino (of any race)	178,675	10.7%
Mexican	5,644	0.3%
Puerto Rican	138,257	8.3%
Cuban	2,708	0.2%
Other	32,066	1.9%

Unfortunately, the Knowledge Corridor's resources and opportunities are not equally distributed among its diverse population. The Hispanic, Native American, and African American populations of the Hartford-Springfield interstate region have far less education, lower household incomes, higher unemployment rates, and higher poverty rates than the population of the region as a whole.

In particular, Census 2000 data reveal that a majority of the interstate region's Hispanic residents are in economic distress. For example, only 54.5 percent of Hispanic adults have finished high school, only 9.7 percent of Hispanic adults have a bachelor's degree, the median household income among Hispanic households is 49.9 percent of the regional median household income, only 56.9 percent of Hispanic men and 53.2 percent of Hispanic women are engaged in the labor force, and 35.0 percent of Hispanic persons and 42.8 percent of Hispanic children are living below the poverty line.

These disparities in resources and opportunities along racial lines are a serious concern for the future of the interstate region and its urban core cities.

Immigration

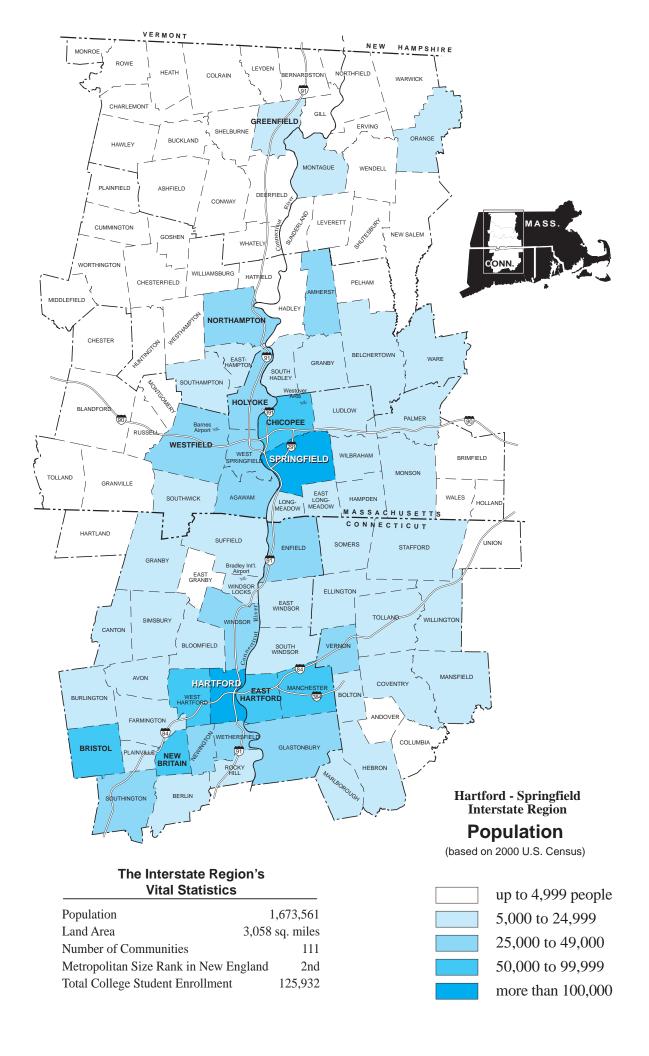
	Number	Percent
Total population	1,673,561	
Foreign born	154,320	9.2%
Foreign born naturalized citizens	81,006	4.8%
Foreign born, not a citizen	73,314	4.4%
Immigrated 1990-2000	55,257	3.3%
Immigrated 1980-1990	40,996	2.4%

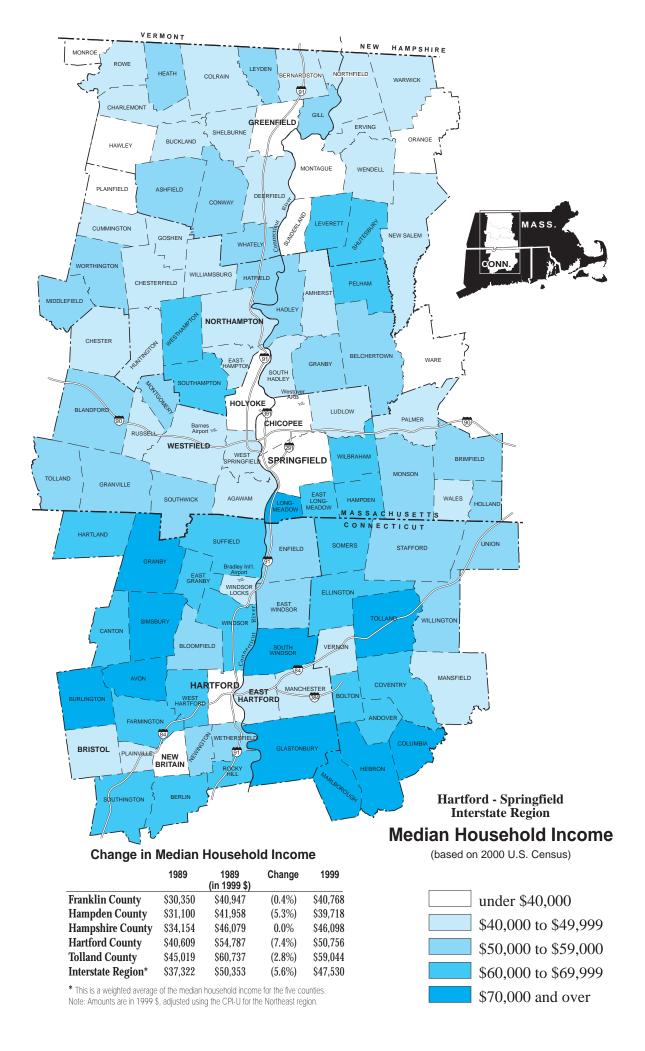
Primary Language Spoken at Home

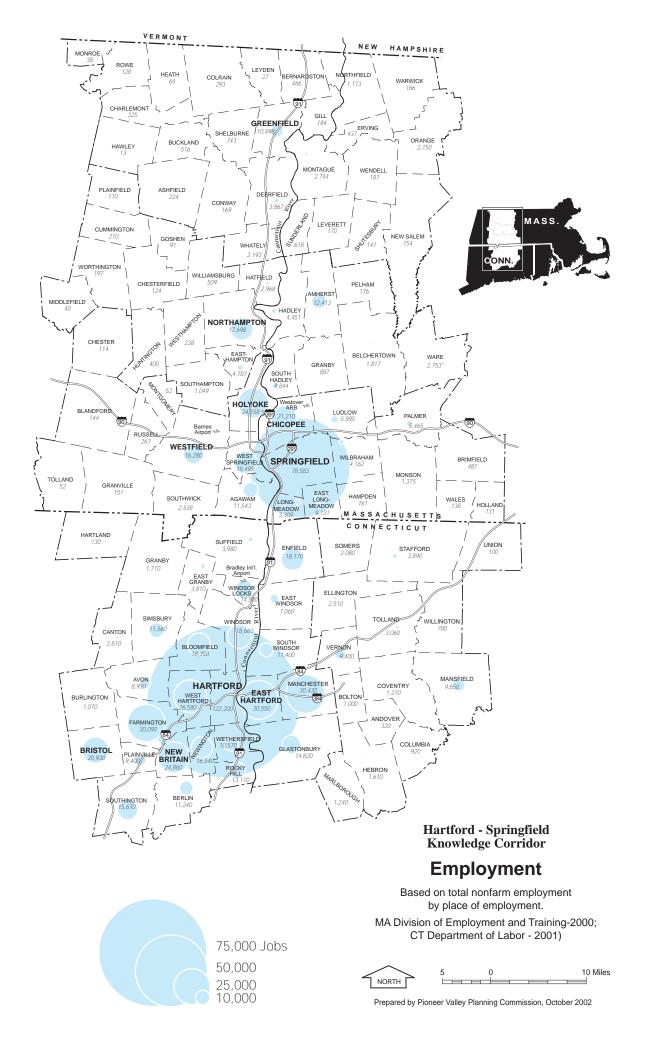
	Number	Percent
Population 5 years and over	1,571,045	
English only	1,267,795	80.7%
Spanish	147,472	9.4%
Other Indo-European languages	126,832	8.1%
Other Asian and		
Pacific Island languages	22,199	1.4%
Speak English less than Very Well	119,648	7.6%

Socio-Economic Characteristics by Race and Hispanic Origin

	Population	Percent High School Graduates	Percent College Graduates	Median Household Income	Male Labor Force Participation	Female Labor Force Participation	Unemploy- ment Rate	Poverty Rate	Child Poverty Rate	Elder Poverty Rate
White	1,351,157	85.5%	30.0%	\$50,977	72.7%	60.5%	4.6%	6.8%	8.1%	6.9%
Black or African American	141,864	75.5%	14.5%	\$32,909	62.5%	63.7%	10.7%	22.0%	29.5%	20.6%
American Indian or Alaskan Native	3,581	65.4%	16.8%	\$28,852	58.8%	55.5%	7.2%	22.3%	19.8%	27.4%
Asian	35,687	76.4%	47.6%	\$51,080	75.9%	60.8%	5.6%	11.7%	11.2%	10.0%
Native Hawaiian or Pacific Islander	760	89.0%	29.9%	\$48,256	78.5%	84.6%	19.9%	15.7%	30.9%	0.0%
Other race	101,101	51.3%	6.6%	\$21,218	58.4%	53.8%	14.3%	39.2%	48.0%	40.1%
Two or more races	39,411	70.1%	18.4%	\$32,474	66.5%	61.1%	10.3%	20.0%	22.0%	21.8%
Hispanic or Latino (of any race)	177,979	54.5%	9.7%	\$23,699	56.9%	53.2%	13.2%	35.0%	42.8%	32.0%







Employment

	1997	2000	Percent Change 1997-2000	Percent of Total for 2000
Agriculture, Forestry, & Fishing	7,498	8,160	8.8%	1.2%
Mining	250	277	10.8%	0.0%
Construction	26,014	30,289	16.4%	4.3%
Manufacturing	124,181	123,068	(0.9%)	17.6%
Transportation & Public Utilities	35,414	37,631	6.3%	5.4%
Wholesale Trade	39,651	39,378	(0.7%)	5.6%
Retail Trade	137,411	139,960	1.9%	20.1%
Finance, Insurance, & Real Estate	75,010	80,380	7.2%	11.5%
Services	225,596	238,169	5.6%	34.2%
Total Private Employment	671,025	697,312	3.9 %	N/A

Source: U.S. Bureau of Labor Statistics, Covered Employment and Wages

Establishments

	1997	2000	Percent Change 1997-2000	Percent of Total for 2000
Agriculture, Forestry, & Fishing	2,066	2,278	10.3%	5.2%
Mining	31	32	3.2%	0.1%
Construction	4,059	4,059	0.0%	9.3%
Manufacturing	2,800	2,809	0.3%	6.5%
Transportation & Public Utilities	1,398	1,332	(4.7%)	3.1%
Wholesale Trade	3,239	3,108	(4.0%)	7.1%
Retail Trade	9,227	8,900	(3.5%)	20.5%
Finance, Insurance, & Real Estate	3,806	3,781	(0.7%)	8.7%
Services	15,552	17,190	10.5%	39.5%
Total Private Employment	42,178	43,489	3.1%	N/A

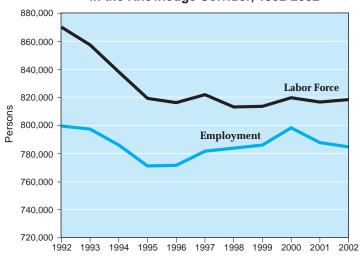
Source: U.S. Bureau of Labor Statistics, Covered Employment and Wages

Average Annual Wages in 2000 \$

	1997	2000	Percent Change 1997-2000	Percent of Avg. Wage for 2000
Agriculture, Forestry, & Fishing	\$23,491	\$24,158	2.8%	62.7%
Mining	\$45,642	\$48,238	5.7%	125.1%
Construction	\$41,189	\$43,714	6.1%	113.4%
Manufacturing	\$46,730	\$50,676	8.4%	131.5%
Transportation & Public Utilities	\$39,661	\$41,944	5.8%	108.8%
Wholesale Trade	\$45,763	\$47,760	4.4%	123.9%
Retail Trade	\$17,429	\$18,778	7.7%	48.7%
Finance, Insurance, & Real Estate	\$55,118	\$62,806	13.9%	162.9%
Services	\$31,645	\$33,486	5.8%	86.9%
Total Private Employment	\$35,691	\$38,551	8.0%	N/A

Source: U.S. Bureau of Labor Statistics, Covered Employment and Wages

Labor Force and Employment in the Knowledge Corridor, 1992-2002



Source: U.S. Bureau of Labor Statistics

Top 10 Growth Occupations 1990-1999

(occupations accounting for more than 1.0% of total employment)

	Average Annual Employment Growth	1999 Employment
Computers, math, and		
operations workers	6.1%	14,812
Social, recreational, and		
religious workers	3.2%	14,902
Personal services workers	3.0%	19,250
Health services	2.0%	19,860
Teachers, librarians, and counselors	1.8%	39,824
Health technicians and technologists	1.5%	21,603
Health assessment and treatment	1.4%	23,864
Protective services workers	1.4%	28,892
Motor vehicle operators	0.8%	27,191
Information clerks	0.6%	15,886

Source: REMI Policy Insight

Top 10 Growth Industries 1990-1999

(industries accounting for more than 1.0% of total employment)

	Ave. Annual		
	Employment	1999	SIC
	Growth	Employment	Codes
Credit and finance	5.2%	11,459	60
Nonprofit organizations	3.1%	41,568	80-86
Miscellaneous business services	2.7%	61,374	73
Educational services	2.5%	29,726	82
Trucking and warehousing	2.3%	9,923	42
Amusement and recreation services	1.9%	14,517	79
Health services	1.7%	93,048	80
Auto repair, services, and parking	1.5%	10,818	75
Personal and miscellaneous			
services and repair	1.3%	23,328	72,76
Miscellaneous professional services	1.3%	41,905	81,87,89

Source: REMI Policy Insight

The Economy

After experiencing significant economic declines as a result of the recession in the early 1990s, the Knowledge Corridor made significant gains in the second half of the decade and into 2000 and 2001. In 1992, at the height of the recession's impact, the region had an unemployment rate of 8.1 percent. This dropped to a decade low of 2.6 percent by 2000, reflecting a state of near full employment.

This dramatic drop in unemployment, while positive for job seekers, was foreboding for employers. It was caused by a precipitous drop in the size of the region's labor force, which went from nearly 870,000 people in 1992 to less than 820,000 people in 2000. From 1992 to 1996, the labor force dropped in size by 6.1 percent and employers, by the middle of the decade, were having difficulty filling open positions in a timely fashion. However, the size of the region's labor force leveled off after 1996, and in 2001 actually began increasing in size.

The return to conditions of an economic recession in March of 2001 brought rising unemployment rates. However, in June of 2002 the unemployment rate in the interstate region remained only 4.2 percent, well below the highs of the 1990s. Furthermore, this rise in unemployment, in part a result of declining employment levels, is also caused by a growing labor force. This bodes well for the future of the interstate region's economy and is a trend the region should strive to maintain.

Between 1997 and 2000, predating the current economic recession, total employment in the Knowledge Corridor rose by 3.9 percent, or 1.3 percent annually. Not only did total employment increase, but real average annual wages and the total number of firms in the region also increased by 8.0 percent and 3.1 percent respectively.

Average wages, when controlling for inflation, actually increased across all industry sectors between 1997 and 2000. Excluding mining, which has very few employees in this region, FIRE, manufacturing, and wholesale trade are the highest paying industry sectors. Retail trade is the lowest paying industry sector with average annual wages of \$18,778.

The composition of the Knowledge Corridor's economy continues to change. Total manufacturing employment is declining, while most other sectors—especially construction and FIRE—are making gains in employment. Between 1997 and 2000, manufacturing employment in the region dropped by .9 percent, while employment in construction and FIRE increased by 16.4 percent and 7.2 percent respectively. With gains of 6.3 percent and 5.6 percent, the transportation and services sectors also experienced substantial growth. In 2000, services (34.2 percent), retail trade (20.1 percent), and manufacturing (17.6 percent) were the interstate region's three leading industry sectors by total employment.

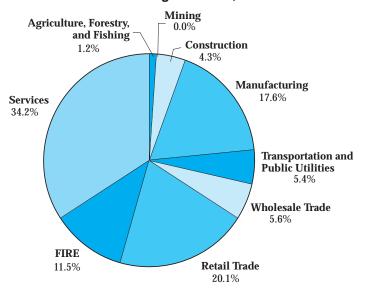
Despite ongoing declines, manufacturing remains a significant presence in our region's economy, accounting for 17.6 percent of total employment and paying nearly one-fourth of the interstate region's total wages (23.2 percent). FIRE is also a source of high wage jobs in the region, accounting for 11.5 percent of total employment and 18.8 percent of total wages. Unfortunately, the two largest industry sectors, services and retail trade, combined account for 54.3 percent of employment, but pay only 39.5 percent of total wages.

Between 1990 and 1999 the industries with the highest levels of annual percentage employment growth were credit and finance (5.4 percent annually), nonprofit organizations (3.1 percent), miscellaneous business services (2.7 percent), and educational services (2.5 percent). In addition, 93,048 people worked in health services in 1999 and the sector grew by 1.7 percent per year between 1990 and 1999.

Among occupations, annual percentage employment growth was led by computer and math workers (6.1 percent annual growth); social, recreational, and religious workers (3.2 percent); personal services workers (3.0 percent); and health services workers (2.0 percent). It is noteworthy that three different health-related occupational categories are among the interstate region's top growth fields.

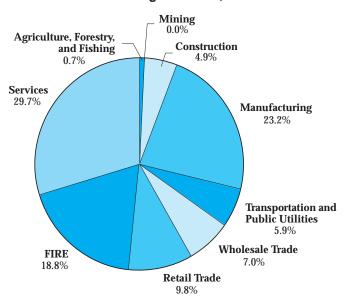
Finally, the Knowledge Corridor is experiencing increasing productivity. The region's productivity has been growing at a comparable rate with that of the nation as a whole, and both total private sector productivity and manufacturing productivity are higher in the interstate region than in the rest of the country. In 1999, the interstate region's manufacturing productivity and total private sector productivity were, respectively, 6.2 percent and 14.2 percent higher than that for the nation as a whole.

Total Employment by Industry in the Knowledge Corridor, 2000



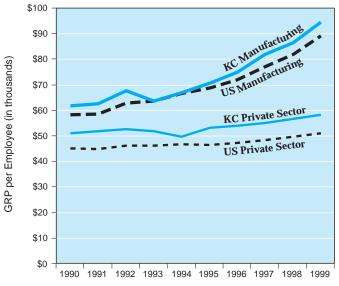
Source: U.S. Bureau of Labor Statistics

Total Wages by Industry in the Knowledge Corridor, 2000



Source: U.S. Bureau of Labor Statistics

Productivity of the Knowledge Corridor and the United States, 1990-1999



Source: REMI Policy Insight

- ¹ ACCRA Cost-of-Living Index, Quarter 2, 2000 and Quarter 4, 1999.
- While educational attainment in the Knowledge Corridor improved between 1990 and 2000, it did not improve as much as other comparably sized metropolitan areas, such as Richmond, VA, Raleigh-Durham, NC, and Columbus, OH. This is of some concern for the region moving forward.
- ³ Real median household income is adjusted to account for inflation. In nominal dollars, household incomes rose between 1990 and 2000, but the actual buying power of a household's income dropped. Amounts are adjusted into 1999 dollars using the Consumer Price Index for all urban consumers in the Northeast region.
- This is likely a direct result of increasing immigration from eastern Europe which continued throughout the
- 5 REMI Policy Insight. Historical employment data by sub-sectors is derived from REMI Policy Insight Control Model. Numbers are historical, but categories are based on REMI model groups rather than SIC Codes.
- Productivity is measured as the Gross Regional Product per employee.

DATA SOURCES:

U.S. Census Bureau

U.S. Bureau of Labor Statistics

U.S Department of Education

REMI Policy Insight

Massachusetts Division of Employment and Training Connecticut Department of Labor

Knowledge Corridor Higher Educational Institutions

		Enrollment (2000)	
	Location	Undergrad.	Graduate
American International College	Springfield, MA	1,102	446
Amherst College	Amherst, MA	1,695	-
Bay Path College	Longmeadow, MA	765	35
Elms College	Chicopee, MA	641	141
Greenfield Community College	Greenfield, MA	2,277	-
Hampshire College	Hadley, MA	1,175	-
Holyoke Community College	Holyoke, MA	5,754	-
Mount Holyoke College	South Hadley, MA	2,065	4
Smith College	Northampton, MA	2,630	483
Springfield College	Springfield, MA	3,371	1,351
Springfield Technical Comm. Coll		6,705	-
University of Massachusetts	Amherst, MA	19,061	5,355
Western New England College	Springfield, MA	3,136	1,690
Westfield State College	Westfield, MA	4,276	729
Massachusetts Sub-Region		54,653	10,234
Asnuntuck Community College	Enfield, CT	1,850	-
Capital Community College	Hartford, CT	3,042	-
Central Connecticut State Univ.	New Britain, CT	9,443	2,809
Manchester Technical College	Manchester, CT	5,135	-
Renssalaer College	Hartford, CT	-	1,807
Saint Joseph College	New Britain, CT	1,227	596
Trinity College	Hartford, CT	2,100	146
Tunxis Technical College	Farmington, CT	3,412	-
University of Connecticut	Storrs, CT	13,251	6,142
University of Connecticut	Farmington, CT	-	486
University of Connecticut*	West Hartford, CT	916	1,207
University of Connecticut	Hartford, CT	-	581
University of Hartford	West Hartford, CT	5,367	1,528
Connecticut Sub-Region		45,743	15,302
Total Enrollment		100,396	25,536

Source: U.S. Department of Education

For more information, contact:

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^{*} Figures are from 1998. More recent numbers were unavailable.