

History of Boston's Economy

Growth and Transition

1970 - 1998



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Report #529

November 1999

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The City of Boston has always been central to the nation's history and its economy. Whether trading tea in the 17th century or mutual funds in the 20th century, Boston grew by being a leader in the industries that allowed the United States to prosper. Industries such as printing and publishing, finance, education and health care have been integral parts of the city's economy for centuries. Others, such as computers, bio-technology, and tele-communications are more recent additions that were pioneered here.

Early Economic History of Boston - A Tradition of Innovation

Immediately upon Boston's founding in 1630, enterprising Bostonians began to build a city around a port. Industries were created to respond to area needs, and innovations abounded. That tradition of innovation has consistently continued in Boston, making it the city it is today. Brief descriptions of the city's early history and the major industries of that time follow.

Geography

Boston's geography was key to its development as a commercial center. The city's harbor and its position at the mouth of three rivers extending inland made Boston an ideal location for trade. Boston became the capital of the Massachusetts Bay Colony and the commercial hub of New England. By the 1720's, Boston already looked like a city.

After the Revolutionary War, Boston's new government began to plan for the development of the city. Wrote Lawrence Kennedy in his book *Planning a City on a Hill*, "acutely aware of what they were about, [Boston's leaders and developers] created much of the Boston we know today. That these men achieved so much was inevitable; that they did it so well was not."

In the 1800's Boston's population grew significantly, as did its geographic area. Boston's physical expansion happened in three different ways. First, residential areas spread as population increased. Second, large portions of the city were man-made, as harbors, mudflats, channels and rivers were filled in with land from hills that were quarried or with fill from the suburbs brought in by rail. These man-made areas included the Back Bay, the South End, most of East Boston and a large portion of South Boston. Third, Boston also grew by annexing immediately adjacent towns, including Brighton, Charlestown, Dorchester, Roxbury, and West Roxbury. Hyde Park was the last town to be annexed, in 1912.

Trade

By 1740, the entire region looked to Boston for trade. The city found its niche not in agriculture or manufacturing, but in the packaging, purchasing and selling of the goods

of other areas. After the Revolution, when trade with the British declined, enterprising Bostonians established trade with ports all around the world. By the late 1700's, Boston had become the premier shipping and trading port in North America, with a volume of trade four times that of New York. As the shipping industry evolved, it was outgrowing Boston's inner harbor. In the 1830s, merchants began to use the waterfronts of South Boston and East Boston for trade and other maritime activities such as shipbuilding and fishing.

Boston's trading role not only established the city as one of the major centers of commerce in the U.S., but also brought for many Bostonians substantial wealth which would be used to fund burgeoning industries in Boston and elsewhere.

Finance and Insurance

Substantial personal fortunes earned from the trade industry combined with the entrepreneurial spirit of early Bostonians made Boston a major source of investment capital in the nation's early days. It was Boston investors who provided much of the funding for the building of railroads across the country. In addition, the American Telephone and Telegraph Company (AT&T) and General Electric are among the corporations that started up with Boston money and Boston management.

Boston's finance sector arose not only as a way of investing wealth earned from trade, but also as a way to support the city's trade industry. The Massachusetts Bank, Boston's first bank, opened its doors in 1784 and was created to support trade activities. The bank was the second in the nation, and it evolved into BankBoston of today. Other banks soon sprung up on State Street, which was near the city's port. The State Street area continues to be the heart of the city's financial community today.

Boston traders had initially been dependent on British underwriters to mitigate the risk of losing a ship or its cargo. But soon they realized that a more local source of underwriting would allow Bostonians to hold on to more of their profits, and would also allow more Bostonians access to insurance. Three years after the first American underwriting occurred in Philadelphia, a notary opened an insurance office in Boston. Over the years, the practice of underwriting became more sophisticated and grew to encompass other ventures, such as fire insurance for a home. By 1842, over 40 banks and insurance companies were located in Boston.

Manufacturing

Until the mid 1800's, the city of Boston was primarily engaged in trading activities. Boston's manufacturing sector before 1810 consisted mostly of small family-owned shops. Mechanized manufacturing was located in towns at

the outskirts of the city, many of which later became part of the city, such as Charlestown, Dorchester and Roxbury.

Like other Boston industrial sectors, Boston's manufacturing sector developed in large part out of a desire to be less reliant upon England. America had little manufacturing in its early years, and was dependent on England for cloth. Strained relations between the two countries in the early 1800s caused dire shortages of cloth in America. Bostonian and cotton importer Francis Cabot Lowell traveled to Britain to learn British textile manufacturing secrets, then returned home to establish the Boston Manufacturing Company. In 1814, the company's first mill opened in Waltham. Its tremendous success resulted in the company's expansion, through the now famous Lowell model of industrial towns located along the Merrimac River Valley and was led from Boston.

Publishing

Boston, along with New York and Philadelphia, was one of the major U.S. publishing centers from the late 1700s to the mid 1800s. Its role as a center of information was a natural outgrowth of its role as a center of activity. Printers were located near the old Massachusetts State House, to be nearer to important news such as ship schedules and legislative decisions, as well as to provide documents for government use. The area on Washington Street where the printers were located earned the labels "Publisher's Row" and "Newspaper Row."

Publishing, at this time, played a central role in the city's economy. It accounted for nearly one in ten manufacturing firms in 1832. The publishing industry was the city's fourth largest employer, after dry goods, nautical supplies and metalworking. More money was invested in publishing machinery than in machinery for any other city-based business. And forty-two percent of all city investment was in publishing capital.

With the onset of industrialization, publishers moved away from Publisher's Row. Bookstores moved down Washington Street to Downtown Crossing. Presses moved to huge factories in South Boston and Hyde Park. And in the late 1950's, Boston's two largest daily newspapers moved to sites which had more space -- the Boston Globe moved to Dorchester and the Boston Herald moved to the South End.

Health Care

Boston's role as a center of commerce evolved into its role as the place to which New Englanders looked for health care. While doctors could be found scattered around New England, many got their training in Boston, and serious procedures were performed in the city's hospitals. The clustering of hospitals and medical schools in the city would continue, and today people in the region, the nation,

and the world continue to look to Boston for cutting-edge health care.

Many of America's medical firsts occurred in Boston. From 1731, when the first public smallpox inoculations were given in Boston and 1799, when America's first Board of Health was established, the city has consistently been a major contributor to and at the forefront of the health care and medical research industry. Other medical firsts which took place in Boston include:

- the introduction of insulin to the U.S.;
- the invention of the iron lung;
- development of the external cardiac pacemaker;
- development of artificial skin;
- the first successful kidney transplant;
- first use of electric current to restore the heart's rhythm
- discovery of the gene for Alzheimer's disease; and
- the first cartilage transplant surgery in the U.S.

Education

Boston's strong education sector dates back to the earliest days of America. Boston Latin School, founded in 1635, was the first public school in the colonies. The Mather School in Dorchester, founded in 1639, was the first public elementary school, and Boston English High School, founded in 1821, was the first public high school. Across the river in Cambridge, Harvard College became the first post-secondary school when it was founded in 1636. In the 19th century, Horace Mann began the modern educational reform movement in Boston.

Many of the country's education "firsts" happened in Boston because Bostonians place a high value on education. So many schools, colleges and universities sprouted up in the city that Boston became known as the "Athens of America." Entering the 21st century, Boston retains its preeminence as an intellectual center, attracting people from around the country and around the world to its institutions of higher education.

Tourism

Boston's rich history stems largely from its role as a critical site in the Revolutionary War and the strong role it has played in the nation's commerce and culture from colonial times to today. Boston's leaders and citizens take great pride in the city's history, and have taken great pains to preserve that history and share it meaningfully with the world. People come from all over to visit Boston's important historical sites, such as Bunker Hill, the U.S.S. Constitution, the Boston Tea Party Ship, and the Old North Church. They also appreciate the many historical build-

ings and parks which have been preserved by the city.

While Boston's rich history is the foundation upon which the tourist industry is built, the city also draws people with vibrant attractions and events rooted equally in the present. For example, historic Faneuil Hall Marketplace is the second most popular shopping center in the larger metropolitan area. The Boston Marathon, over 100 years old, continues to draw large numbers of runners and onlookers. Boston is also the home of the John F. Kennedy Presidential Library and Museum, which honors one of the most recent in a long line of Bostonians who made an impact on the nation.

The Post-War Transition to Finance and Professional Services

In the years immediately following the Second World War, both population and investment began to flow out of Boston into its suburbs, a trend seen in nearly every American urban center during this era. Boston's population peaked in 1950 at 801,444 people but by 1970 the population was down to 641,071. Over the same period the rest of the SMSA grew from 1.62 million to 2.26 million. This suburbanization was largely the result of highways such as the Massachusetts Turnpike, Central Artery and Rt. 128 during the fifties and I-495 ring in the sixties. Federal policies such as the FHA mortgage subsidies, and income tax laws that tended to favor suburban over urban political jurisdictions also contributed to this explosive growth in the suburbs.

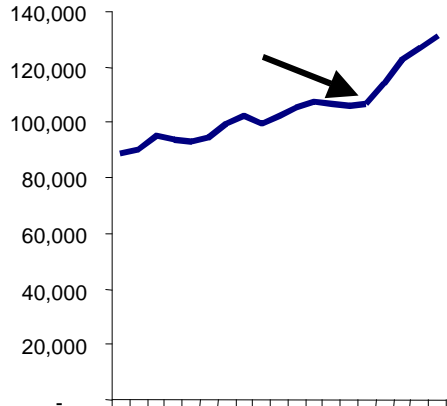
Boston's job base also declined as the suburban ring's increased. In 1947 the city had 561,854 jobs. By 1963 there were only 536,986 jobs in Boston, while employment in the suburban ring grew by 97,321 jobs from 595,330 in 1958 to 692,651 in 1963. Clearly, the region's economic growth was occurring in the suburban ring where there was easy Interstate Highway access and less expensive land. Furthermore, the manufacture and distribution of goods became dependent upon easy highway access rather than access to rail or port facilities, making Boston a less desirable location for what had once been its dominant economy.

To replace its shrinking industrial base the city needed to convert itself into a center of the service and finance based economy that was beginning to emerge nationwide. The concentration of world-class colleges and universities made the city a logical choice for the industries that were to eventually locate here. However, there were hurdles to the development of the needed office space. Most significant was the city's tax structure making the development and ownership of office buildings in Boston a risky and expensive endeavor.

The expansion of Chapter 121A in 1960 by the State Legislature enabled the city to give tax breaks on commercial office projects. This legislation encouraged development by allowing the city to share the financial risk of large commercial projects. The first application of this law was the construction of the Prudential Center. The Prudential Center and other office buildings that followed enabled the city to attract and capture the professional service and finance jobs that were to become the staples of Boston's economy. From 1947 to the completion of the Prudential Tower in late 1964 only 27,745 jobs in the services and F.I.R.E. sectors were created in Boston. In the four years following the completion of the Pru almost 32,000 services and F.I.R.E. jobs were added (See Figure 1.) In 1947 such jobs comprised barely a quarter of

Boston's jobs; in 1968 services and F.I.R.E. jobs made up 35 percent of the total jobs and today over 60 percent of the jobs in Boston are in these sectors.

Figure 1. Boston's modern service economy began with the opening of the Prudential Tower in 1965.



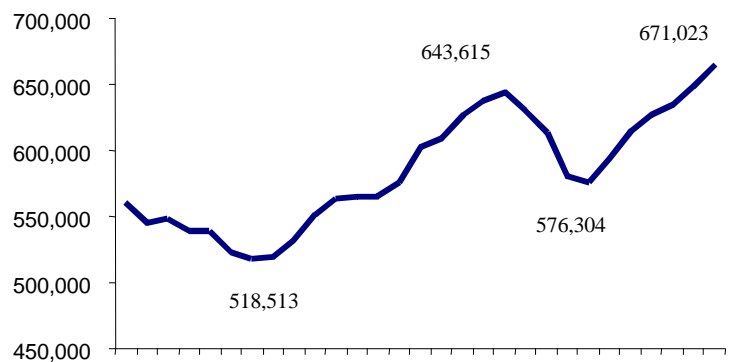
The Modern Era

The economy that has emerged is currently one of the strongest in the nation. Boston has completed its shift to a service based economy and, as a result, has high concentrations of professional service and finance jobs. Education and health care, traditionally associated with Boston, have continued to flourish in the city while blue collar jobs in manufacturing, wholesale trade and transportation, communications and public utilities (T.C.P.U.) also remain available. Tourism continues to strengthen the city's hotel, retail and restaurant industries.

Boston's place in the region

Today, Boston is the center of New England's economy, its importance to the region shown by its role as a generator of jobs and tax revenues. Although Boston accounts for only 9.5 percent of the state's population, Boston accounts for 17 percent of the state's jobs, 22 percent of total goods and services in the state, and nearly 18 percent of the state's tax revenues. Similarly, the city's economic impact is felt throughout the region as nearly one out of every 13 jobs in New England is in Boston. As home to so many of the region's important public and private institutions and agencies, Boston also serves as the educational, medical, cultural, and governmental center of the region. Clearly, Boston is a sizable portion of the regional economy and contributes substantially to that of the nation's.

Figure 2. The number of jobs in Boston is at an all-time high.



Boston's economy has fluctuated with the nation's and rest of New England's, often preceding the region into recession or leading the region into a period of recovery and growth. Boston's business cycles are also more pronounced than the region's and the nation's in terms of duration and employment showing dramatic job growth and prosperity in good times and deeper unemployment in

periods of slow economic activity. For example, with the exception of the 1980-1982 recession, the number of jobs in Boston began to drop in absolute terms the year before a nationwide recession and did not begin to rise until a year after the national downturn was over (See Figure 2.)

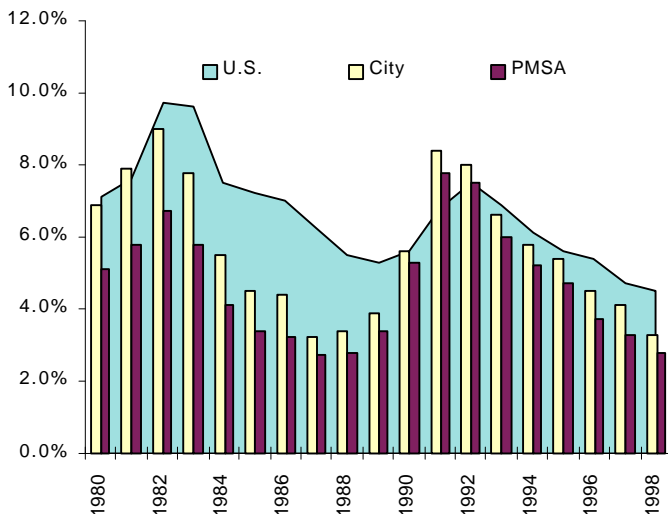
Conversely, the Boston unemployment rate was up to three percentage points lower than in the boom years of the 1980s. From 1989 to 1995 the city's unemployment rate was lower than the state's, in contrast to previous trends. From 1995 to 1998, the unemployment rate in Boston was higher than the state's (See Figure 3.)

Employment

The number of jobs in Boston peaked in 1969 at 564,906 after which the city entered into a seven year recession lasting from 1970 to 1976. In 1976, the lowest year of the recession, there were 518,513 jobs, a loss of over 46,000 jobs from 1969.

In 1977 the number of jobs in the city began to rise and employment numbers had reached their 1969 levels by 1981. Employment held steady at this level until 1983, setting the stage for the so-called "Massachusetts Miracle," a six-year period of phenomenal growth and prosperity. Between 1983 and 1988, employment grew at an annual rate of 2.3 percent to 643,615; an addition of 68,000 new jobs.

Figure 3. Six years of growth has pushed unemployment to a record low.



The most recent recession began in 1989, spurring a series of annual job losses that totaled 67,000 jobs by 1992. This loss represented over 10 percent of the total labor force, the largest decline of the last three decades. Nevertheless, in 1992, the lowest point of the recession, the 576,304 jobs in Boston were still more than in the peak years of the 1960s and 1970s.

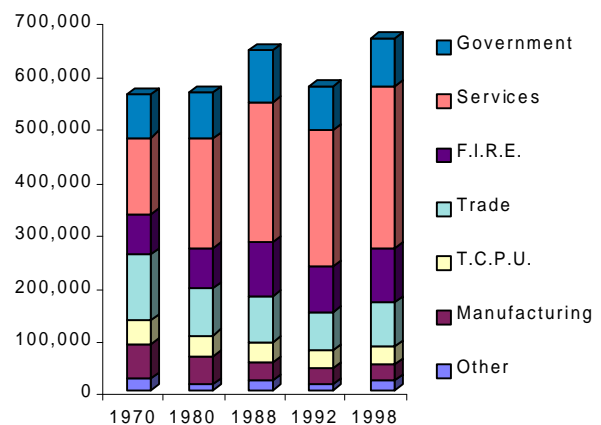
The recession also caused unemployment to hit a nine-year high of 8.4 percent in 1991. The drop in unemployment in 1992 was not due to a recovery in the number of jobs but more likely due to the combination of people moving out of the city and others stopping their search for employment.

Real estate development slowed resulting in no new major construction after 1992. Downtown office vacancy rates soared to 17.1 percent in 1991, up from 5.2 percent just four years earlier.

Since 1993, following a nationwide recovery, Boston has added over 89,000 jobs and grown at an annual growth rate of 2.4 percent to 665,401 jobs, a record high. The service and financial sectors have been particularly strong during this growth period prompting developers to begin the development process of new office towers in the Financial District, Back Bay and the South Boston Waterfront.

As of 1997, Boston had regained all the jobs lost during the latest recession, but there has been a structural change. Boston's economy is relying less upon manufacturing and industrial jobs in favor of white collar, knowledge based jobs, such as financial services, health care and other professional and business service industries.

Figure 4. F.I.R.E and Service jobs account for a growing share of Boston's employment.



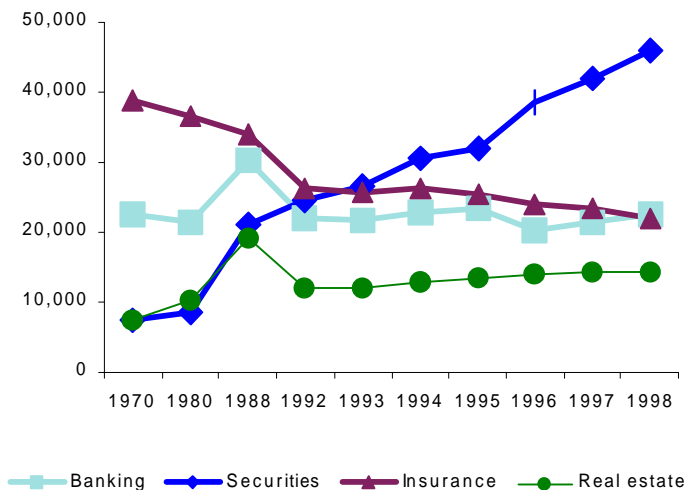
This change is occurring rapidly. At the time of 1988 peak, the service sector comprised 40.5 percent of the total jobs in Boston. By 1998, the service sector had grown to include just over 46 percent of all Boston jobs. In contrast, manufacturing jobs dropped from 5.3 percent to 4.4 percent over the same period (See Figure 4). Within the service sector, professional and business services and health care grew rapidly since the 1992 employment trough, adding a combined 41,068 jobs or 79 percent of the service sector growth from 1992 to present. Retail and educa-

tion continue to be strong while the government sector has yet to regain its losses since the recession.

Finance, Insurance, and Real Estate (F.I.R.E.)

The finance, insurance and real estate industries encompass some of the largest employers within the City of Boston. Fidelity Investments (FMR Corporation) employs over 8,000 people in the city, most of them in the Financial District. BankBoston employs many of its 5,400 Boston workers downtown as well. Two insurance giants find homes in Boston as well; Liberty Mutual and John Hancock Mutual Life Insurance Company. Each of these companies employs approximately 4,500 people. The F.I.R.E. sector lost 19,747 jobs in Boston between 1988 and 1992, more than any other sector, but has regained all of these jobs and now employs 104,961 people in 1998. Phenomenal growth in securities and brokerage industries should continue to drive growth in the finance sector (See Figure 5.)

Figure 5. The securities industry is driving growth in the F.I.R.E. sector.



Security and brokerage services are the fastest growing industries in the F.I.R.E. sector, mostly due to the popularity of mutual funds. In 1970 7,551 people worked in securities comprising less than 10 percent of the F.I.R.E. industry in terms of employment. Today, at 44,925 jobs, it is the largest and has been since 1992 and makes up 43 percent of the F.I.R.E. industry. Boston continues to be a global financial center as nearly one in twelve of the nation's securities jobs are in Boston and the city recently surpassed Tokyo to trail only New York City and London in institutional assets managed.

Within the City of Boston, the mutual funds industry generates \$3.2 billion in payroll and supports employment growth in producer and business services industries such

as telecommunications, computer technology, printing, advertising, law, and accounting.

Earnings for those employed in the securities sector are high. The average income for financial services workers is \$68,515, over double the median per capita income in Boston.

The Mutual Fund Tax Legislation changed the corporate tax structure for mutual fund service corporations operating in Massachusetts. The new law calls for taxes to be levied only on sales to investors who are Massachusetts residents. In addition, the tax law simplified the corporate tax by basing the levy exclusively on sales revenue.

Boston's **banking industry** has followed national trends of reducing employees because of mergers, the proliferation of ATMs and other automated functions. Technological changes have accelerated the Boston job loss in this industry sector because many back office functions can be moved into the suburbs where rent is often less. Nevertheless, Boston remains one of the nation's leading banking centers.

Employment in the **insurance industry** continues to decline as insurance needs and practices change. The most recent figures indicate 22,552 people work in the insurance industry in Boston. Insurance companies now operate more like security trading and brokerage firms than they did in the past. For example, the American Council of Life Insurance reports life insurance companies had 63 percent of their reserves backing life insurance. They had less than 30 percent of their reserves for this purpose in 1995. By 1995, two thirds of life insurance companies' reserves were invested in group and individual annuities.

The number of employees in **real estate** and other related industries has been increasing slowly since the employment low in 1992, employing 14,573 people, up over 2,600 since 1992.

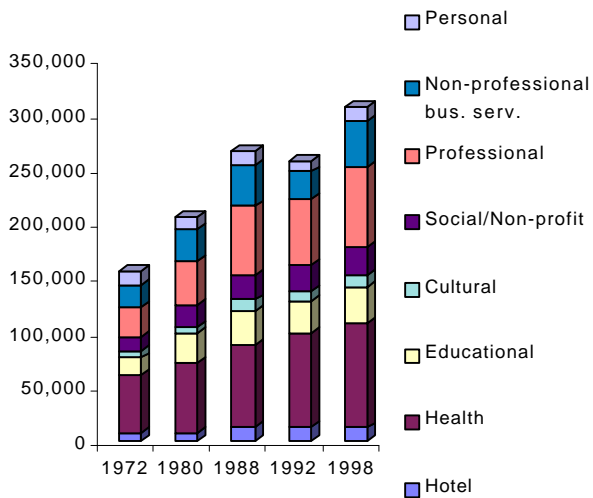
Service Sector

The service sector in Boston has been fastest growing industry in the last 25 years. In 1970 there were 145,080 service sector jobs, representing just over one-quarter of the total job market. Today there are 309,008 service jobs, or 46 percent of all the jobs in Boston. While it is true that the services industries were the largest employment sector in 1970, there were other sectors employing nearly as many people such as Trade and Finance, Insurance and Real Estate (F.I.R.E.). Today the next largest sector, F.I.R.E., is barely a third the size of the service sector.

The service sector is large and varied. It encompasses lawyers, health care providers, teachers, accountants, architects, consultants, barbers, janitors and hotel workers.

The two largest industries in the service sector are health care and professional and non-professional business services. Together, they account for 214,159 jobs in the city (69 percent of the service sector) (See Figure 6 and Figure 7).

Figure 6. Health care and professional and business services comprise nearly 70 percent of the service sector.



Professional and Business Services

The professional services sector in Boston employs 74,781 people in Boston. Consultants, lawyers, architects and engineers not only sell their services to other businesses in the Boston area, but also to other businesses outside the state and nation. Because firms in the professional services sector benefit from their proximity to producer and export businesses, many professional service jobs are located in the Financial District and Back Bay. Employment in professional services is closely tied to fluctuations in other industries such as securities and banking.

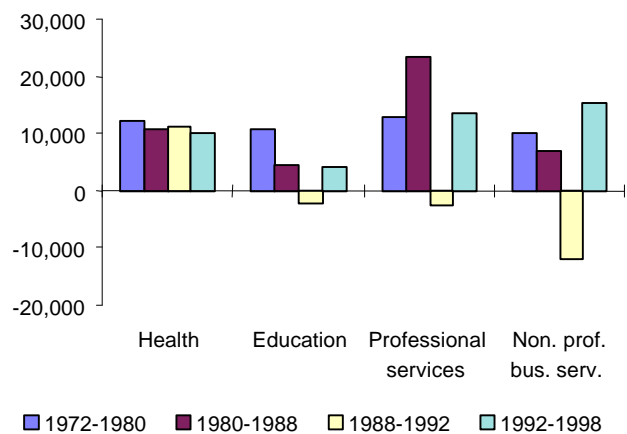
The professional services sector lost 2,475 jobs during the latest recession but has since gained 14,193 jobs, more than recouping the loss. During the latest recession, losses in professional and non-professional business services were offset by strong growth in the health care sector.

Law firms employed 19,000 people in 1996, up slightly from the 1992 trough. Growth in employment in law firms has leveled off since the 1988 peak. Consulting, engineering, accounting, and architectural firms together employ 5.8 percent of the city's workers, with a total of 37,000 workers among them. This is an increase of 30 percent from 1992 levels, partially resulting from an increase in engineering and architectural services related to the depression of the Central Artery following a period of slow growth. Robust growth in the F.I.R.E. sector and

other professional services has driven job creation in consulting and accounting firms.

Computer firms account for 1.0 percent of the city's jobs, with 6,500 employees. Employment in software and networking companies are also experiencing strong growth. Employment growth has been averaging 3.9 percent annually for the past decade, bringing the total employment to 6,500 workers.

Figure 7. Employment in health care grows steadily while professional and business services are more volatile.



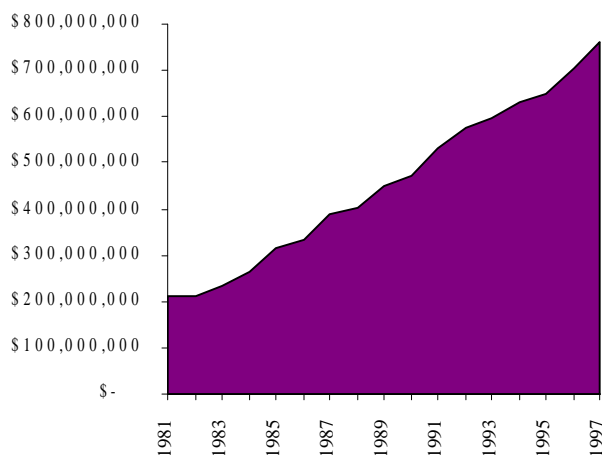
The non-professional business services sector provides support services such as temporary workers and graphic designers as well as copying, mailing, security and janitorial services to Boston's businesses. This sector employs 41,977 people in the city, representing about 13 percent of the service sector. The large number of temporary workers classified in this sector makes it very volatile during economic downturns. The sharp rise in employment in business services after 1992 is evidence to the growing use of these temporary workers. In 1992, there were 6,591 temporary workers in Suffolk County. By 1996, this number had grown to over 9,800.

Health Care

The most stable sector of the Boston economy is the health care industry. In 1998, there were 97,401 persons employed in health care in the city. Health care jobs represent about 1 out of every 7 jobs within the city. Growth in the health care sector has been steady, despite varying economic conditions and major changes nationally within the industry. Jobs in health related services grew nearly twice as fast during the economic downturn between 1988 and 1992 (3.5 percent annually) as they did during the boom years of 1980 through 1988 (1.8 percent annually). Growth since 1992 remains a strong 1.8 percent.

Hospitals still retain the a strong presence in Boston's health care industry, but the national trend toward Health Maintenance Organizations (HMOs), downsizing and mergers with other facilities has been felt here. Twenty-six in-patient hospitals are currently located within the city limits, including Beth Israel Deaconess Hospital, Boston Medical Center, Brigham and Women's Hospital, Children's Hospital, Massachusetts General Hospital, and the New England Medical Center. Five years ago, there were 30 hospitals, today there are 26 totaling over 4,600 beds. MGH is the largest employer in the city, employing 11,415 workers. The city also has approximately 34 long-term care facilities, 1 hospice and 14 rest homes and numerous private practices. Boston is also home to the Harvard, Tufts and Boston Universities' medical and dental schools and twenty-five neighborhood health clinics, not including health maintenance organizations and membership clinics.

Figure 8. Boston is the nation's leader in NIH Research Grants with \$760 million in 1997.



Health Maintenance Organizations (HMOs) are becoming a major employer in Boston. Harvard/Pilgrim Health Plan is the city's 20th largest employer with 2,375 employees. Other HMOs are headquartered in Boston and provide health care throughout the state. Latest figures show 11,188 people working in SIC 801 titled, "Offices and Clinics of Medical Doctors" (where HMOs are classified) in Suffolk County. This is up from 8,455 three years prior and 3,793 ten years prior. The number of establishments under this classification with 100 or more employees went from two in 1985 to 22 in 1995.

Boston's health care industry does more than provide first rate medical care to the populace, it is a major source of employment and funding. In 1994, when it surpassed New York City, Boston became the leading city in the nation in receiving National Institute of Health (NIH) funds. It has

been the nation's leader ever since then. By 1997, Boston was receiving \$760 million, \$63 million more than New York. If the Longwood Medical Area were ranked separately, it would rank just ahead of Philadelphia, claiming the number four spot in the nation in terms of NIH funding (See Figure 8.) These research grants have helped the city's hospitals add over 1.3 million square feet of research space in the past 8 years.

Education

The city's 35 universities, colleges and community colleges had a combined enrollment in fall 1997 of 135,530. In addition, graduate schools of Harvard University and Tufts University, whose graduate schools are in Boston, enrolled 5,098 students in the city in 1997. The students enrolled in Boston universities contribute between \$3.1 billion and \$3.4 billion to the Boston economy, according to the Association of Independent Colleges and Universities. Based on total graduate and undergraduate enrollment, Boston University is the largest university in Boston, with 29,387 students in 1996.

Latest figures show that 33,268 people work in the city's private elementary and high schools and colleges and universities. The city's public school employees and workers at the two public community colleges and one public university are counted under the public sector for statistical purposes. Private school employment represents 10.8 percent of the jobs in the service sector. Employment in the education sector dropped by 2,116 jobs during the latest recession but has regained almost twice that amount since the recession.

The economic impact of the educational institutions extends well beyond the number of people directly employed by the sector. Boston area colleges and universities are a source of new highly skilled professionals and innovation. According to the Massachusetts Institute of Technology, although only 10% of its enrollees over the decade of the 1980s were from the Boston area, 24% remained in the area after graduation, helping to attract firms needing highly educated workers. The intellectual capital also creates job opportunities for the Commonwealth and the city. According to a BankBoston study, firms founded by MIT graduates employ 125,000 people in the state (5 percent of total) and comprise 10 percent of the state's economic base.

The high concentration of intellectual capital has attracted venture capitalists to Boston. Venture capital firms contributed over \$1.2 billion to New England companies enabling entrepreneurs to create new businesses, jobs and opportunities. National Science Foundation (NSF) research and development funding to Boston's universities totaled \$17.3 million, augmenting the NIH grants to hospitals. Massachusetts is now the second largest recipient of venture capital, trailing only California.

Boston has ranked in Fortune Magazine's top 10 cities list four out of the last six years, including 1993's Top Knowledge Workers. In 1997, Boston distinguished itself as the third most improved city, in 1995, the city ranked as the fifth best city to live and work and in 1992 it was awarded the ninth best city for international business. Fortune cited the concentration of colleges and universities, the presence of knowledge-based firms and the high level of educational attainment as one of the prime reasons for these awards.

Other Services

Other service sector industries do well in Boston. The hotel industry employs 12,430 people, down from the 1990 peak of 13,380 but occupancy and room rates are near historic highs. Increased demand due to the soon to be built Boston Convention and Exhibition Center is spurring the development of new hotels, creating more jobs in this sector. The BCEC is also expected to improve demand for cultural and entertainment services, currently employing 10,789 people in the city.

Manufacturing

The manufacturing industry is important to Boston's economy because it diversifies the economy, produces goods for export to domestic and foreign markets and employs a wide range of skilled and unskilled workers within the city. Many jobs in the popular, growing industries such as finance, bio-tech and software development require advanced degrees. Manufacturing jobs, while usually requiring special training and skills, often do not require formal education beyond high school, giving those without college degrees more well paying employment opportunities. Manufacturing jobs are more likely to be held by Boston residents than jobs in any other sector.

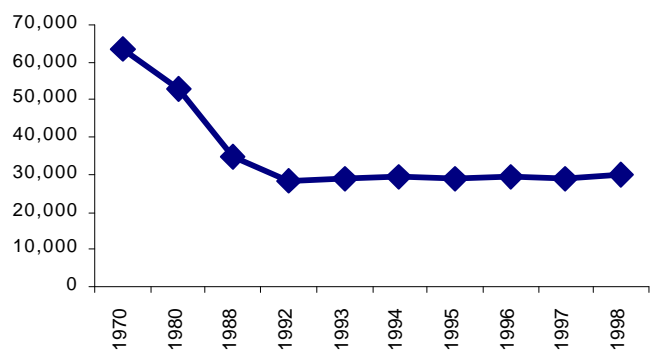
Boston has been able to maintain its manufacturing base since the end of the last recession while the rest of New England's employment in manufacturing has declined slightly over the same period. The manufacturing sector lost nearly 40,000 jobs since 1969, when it comprised 12 percent of the total jobs in Boston. Much of this decline is attributable not only to less expensive rents outside the city and development pressures on manufacturing sites within the city but also a national decline in manufacturing jobs due to increased productivity and overseas migration of manufacturing jobs (See Figure 9).

The number of jobs in manufacturing has hovered around 29,000 since 1992 despite the recent loss of jobs caused by the closing of the Digital Equipment plant in 1993 and Stride Rite in 1997. Gillette is the largest manufacturing company in the city, employing 3,400 people of which approximately 1,200 are involved in manufacturing at their South Boston plant.

Printing and publishing is the largest manufacturing sec-

tor, employing just over 10,000 people. This is up eight percent since 1992. Boston food processors have also grown in employment over the last five years. Over 600 new jobs have been created in this industry between 1991 and 1996. Increases in food processing industry could also translate into gains for Boston's food wholesalers, especially in the Newmarket area where many of the food related businesses are located. Employment in the manufacture of durable goods has also remained relatively steady. Employment in the manufacturing of plastic and rubber, electronic components, and transportation components has risen steadily in the last 5 years but has been offset by losses in businesses engaged in paper and both primary and fabricated metal production. Employment in chemical and apparel manufacturing has also declined.

Figure 9. Manufacturing jobs have held steady since 1992.



The BRA, through its Economic and Industrial Development Corporation (EDIC) arm, has an active role in the preservation and creation of manufacturing jobs. The EDIC acquired land in South Boston from the Massachusetts Land Bank in 1976 after the Economic Development Plan created a framework for the conversion of the Naval Annex, and later the South Boston Army Base, into the new Boston Marine Industrial Park (BMIP). The MIP is reserved primarily for industrial and marine uses. Over \$40 million in public investments in the park which has leveraged over \$150 million in private investment. Approximately 200 businesses, employing 3,500 people, are currently located in the BMIP's 191 acres in businesses such as food processing, ship repair, seafood distribution, light manufacturing, and importing. The BRA also manages other smaller industrial parks. Within the city-owned industrial parks, the BRA is working to maintain the number of blue collar jobs and the percentage of these jobs held by Boston residents.

A report by Cognetics, Inc. listing U.S. high growth companies gives promising news for Boston. The top five "Gazelle" industries in terms of company growth were manufacturing firms producing electrical components, rubber and plastics, primary metal products, paper prod-

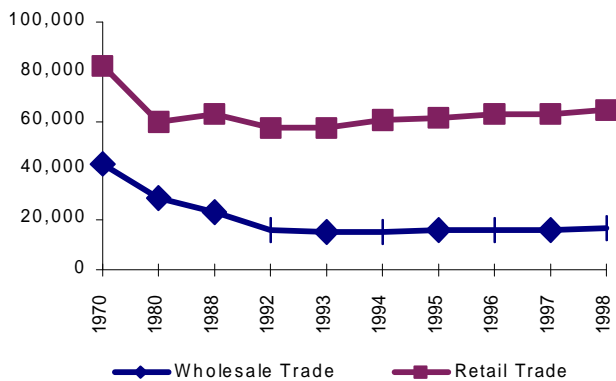
ucts, and instruments. Boston currently has strong electrical component manufacturing and measuring, controlling and optical instrument manufacturing industries; each employing roughly 2,400 people in the city. The rubber and plastics industry is smaller in terms of employment numbers but has grown by 121 percent since 1991. Primary metal and paper products manufacturers, both demanding large amounts of electricity and water, have been leaving the city for several decades.

Trade

Job growth in the wholesale trade industry has lagged behind the rest of the city's posted job gains. In 1970 there were 42,630 jobs in wholesale trade. Today there are only 16,610, up slightly from the 1994 low of 15,516. Despite this slight gain it is clear that wholesale traders are leaving the city for more accessible facilities in the suburbs where more large single-story facilities are available providing better access by truck for shipping and receiving (See Figure 10).

The Newmarket area has traditionally been Boston's food wholesale area. The area lost some of its jobs as the food distribution industry shrank in Boston by 50 percent since 1980. Today, the area is growing again with the uncertainty surrounding the failed Megaplex project resolved and the Big Dig underway. One-half of the workers in Newmarket live in Boston, two thirds of those coming from South Boston, Dorchester, Roxbury, or the South End.

Figure 10. Employment in Boston's retail establishments is strong while wholesale trade lags behind.



Retail trade continues to do well in Boston. Latest figures indicate that the number of retail jobs has surpassed the pre-recession level to now employ 89,212. Since 1974 the number of retail jobs has wavered but never exceeded 83,563 (1970) and never dipped below 56,513 (1991). The retail market is partially fueled by the large resident

student population. Newbury Street remains Boston's premier retail market and its trendy stores are tourist attractions in their own right. The presence of a strong downtown retail market is both a cause and testament to the continued vitality of Boston. The Scarborough Report lists Quincy Market/Faneuil Hall and Downtown Crossing as the second and third most popular shopping centers in the Metropolitan area behind the Burlington Mall.

A good indicator of Boston's neighborhood investment is the construction of nine new grocery stores in the past five years plus two expansions of existing supermarkets. Recent additions to the downtown and the Back Bay retail market include Border's Books, HMV Records, Lechter's, Marshall's and Tello's, and Niketown. Home Depot has opened a 114,000 square foot store in the Dorchester/Roxbury area; the company's first establishment in an inner city.

Boston is the first city to have a citywide Main Streets Program to revitalize its historic neighborhood retail centers. This program, a volunteer run program managed by the National Trust for Historic Preservation, has been very successful; creating 85 new businesses and almost 540 new jobs. Five additional Main Street Districts were added in 1996, bringing the total to 15 and there are plans to add five more.

Boston's restaurants are a major source of funding for the state, generating over \$60 million (17 percent of the Commonwealth's total) in meal tax revenue. Students, tourists and residents frequent Boston's approximately 1,700 restaurants. They also attract visitors from the suburbs, creating a vibrant street life in Boston's downtown and its neighborhoods and providing employment opportunities for nearly 30,000 people.

Public Sector

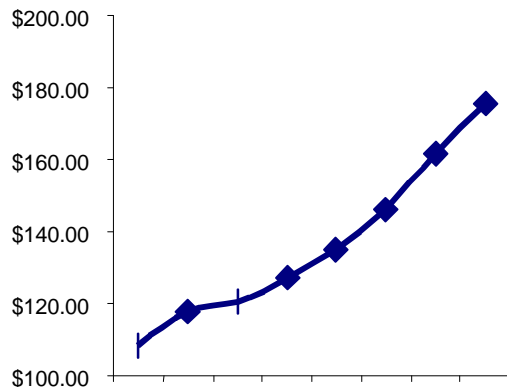
Boston is both the capital of Massachusetts and the regional capital for the federal government. As a result, many public sector jobs at all levels of government are located within the city limits. These government jobs include public school teachers and public safety personnel such as fire and police departments.

Between 1988 and 1992 the public sector lost 11,263 jobs in Boston. Only 3,607 of these jobs have been recovered since. Although this job loss occurred during a recessionary period, the decline is more due to a nationwide trend of reducing the number of government employees after a period of hiring in the public sector. Beginning in 1985 and continuing through 1988 the number of government jobs in Boston rose between 2.5 and five percent annually. In fact, the latest figure of 89,212 government jobs in 1998 is still above the 83,563 average in the 10 years preceding the recent spike in government employment beginning in 1983. The job loss was fairly evenly distributed across all three levels of government; federal, state and local.

Tourism

The tourist trade spans several industries including hotel services, restaurants, retail, transportation, cultural events and entertainment services. Visitors bring outside money into Boston and create demand for cultural and civic amenities that are enjoyed by city residents as well.

Figure 11. Tourists and business travelers are keeping Boston's hotels full.



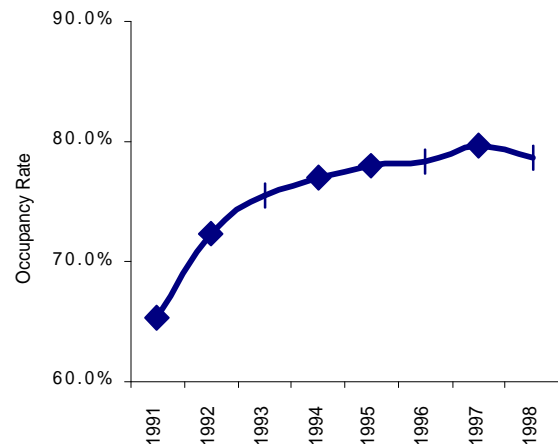
According to the Greater Boston Convention and Visitors Bureau, an estimated 11.5 million people visited the Boston metropolitan area in 1998, up 11.7 percent from the 10.3 million visitors in 1995. These visitors, measured as tourists, business travelers and convention and meeting delegates who traveled at least 100 miles to get to the city, had an estimated total economic impact upon the Boston metropolitan area of approximately \$7.1 billion in hotel accommodations, meals, entertainment, shopping, transportation and other services during 1998.

The city provides a venue for concerts, ice shows, circuses, plays, and other entertainment and sports events. The city is home to three major league sports franchises: the Boston Red Sox baseball team, the Boston Bruins hockey team and the Boston Celtics basketball team. The new FleetCenter, home to the Bruins and the Celtics, opened in September, 1995. Other events such as the Boston Marathon and the Head of the Charles Regatta attract even more visitors to Boston.

The hotel industry employed 12,430 people in 1998, down from the 1989 peak of 13,422. This change is simply due to organizational changes. For example, when a hotel restaurant is handed over to an independent operator, the jobs in that restaurant are re-classified as restaurant jobs. Boston's hotels had an average occupancy rate of 78.6 percent in 1998. The shortage of hotel rooms reflected by this high occupancy rate causes many visitors to Boston to find lodging outside the city.

More hotel rooms will need to be constructed to meet future demand created in part by the construction of the Boston Convention and Exhibition Center in South Boston. The BRA's 2,000 by 2000 hotel plan calls for the construction of 2,000 hotel rooms by end of the year 2000. This plan will create many employment opportunities for the city's residents as every two hotel rooms generate one construction job for the duration of their construction, and once completed every ten rooms provide nearly nine permanent jobs.

Figure 12. Strong demand for hotel rooms pushes the average daily room rate to new highs.



In Boston, 838 hotel rooms were added between July 1997 and the end of 1998. This brings the city's inventory of rooms in major hotels (50 or more rooms) to 12,974. Another 1,274 rooms are scheduled to be completed in 1999, resulting in a net increase of 761 keys after a scheduled hotel closing.

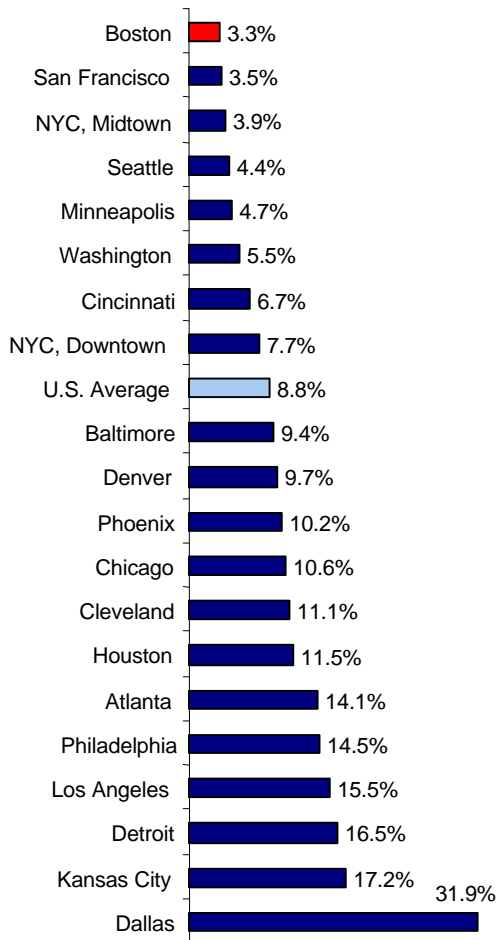
The Boston Convention and Exhibition Center in South Boston will be completed in 2003 with 600,000 square feet contiguous exhibition space enabling the city to attract major conventions and trade shows bringing more visitors to the city.

Real Estate

Commercial Market

During the last 35 years the public and private sectors have carried out a major expansion of capital construction and investment activity. Private commercial development investment has added over 25 million square feet of office space to the physical inventory of the city since 1962, making Boston's commercial market one of the strongest in the nation (See Figure 13.)

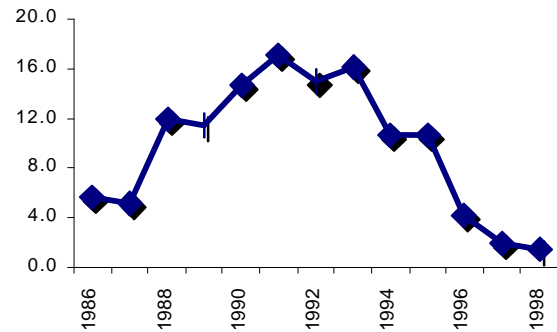
Figure 13. Boston's office market is the strongest in the nation.



The Massachusetts Miracle in the 1980s prompted a flurry of office construction. During the height of the boom 11.2 million square feet of office space were constructed, but that barely kept up with demand. Vacancy rates remained low through 1987 but began to rise as the economy slowed and office space continued to come on-line. The recession of 1990-1991 caused a loss of office jobs and slowed absorption rates resulting in vacancy rates in excess of 17 percent in 1991. In 1993, the resumption of

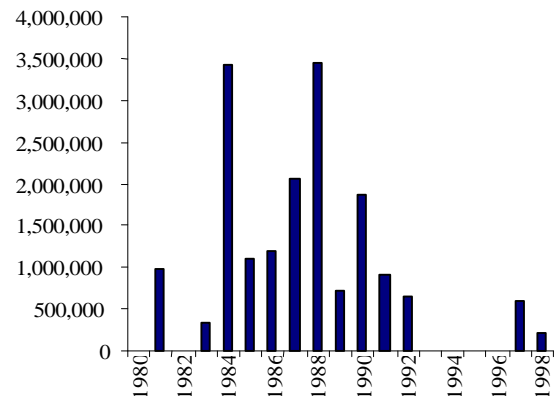
rapid growth in the professional and financial service industries pushed Class A vacancy rates down again record lows. At year-end 1998, the Class A vacancy rates was 1.5 percent and average asking rents towards a record high \$50.00 per square foot (See Figure 14). Some leases in the most desirable space approached \$70 per square foot.

Figure 14. Class A vacancy rates are at historic lows.



The renovation of 600,000 square feet in 28 State Street in September of 1997 and the 220,000 square foot renovation of 255 State Street were the only major additions to the Class A commercial market since 1992 (See Figure 15). Although developers and lenders are moving forward with more caution than in the boom years of the 1980s, several projects are under construction or in the planning and approval stages. These include 10 St. James Street, World Trade Center East, 33 Arch Street, One Lincoln Street, 131 Dartmouth Street, South Station and the Sears Landmark Building.

Figure 15. Only 820,000 square feet of office space have been added since 1992.



Hotel Market

Boston's hotel market is one of the hottest in the country. From 1980 through 1989, eighteen hotel projects, including sixteen new hotels and two additions to existing hotels, added 5,439 new rooms to the city's hotel stock. The number of hotel rooms in the city has risen from 6,907 in 1980 to 12,070 by 1991, an increase of 75 percent. The latest figures show that Boston's hotel market is strong. The average occupancy rate was 78.6 percent and an annual average daily room rate of \$175.59.

Three hotels totaling 310 rooms were constructed in 1997 and the new Seaport Hotel and four expansions of existing hotels added another 528 rooms in 1998. In 1999 four new hotels and one expansion will contribute another 1,274 new rooms but the net increase will be just 761 rooms since the Airport Hilton is intended to replace the original Hilton, which was built in 1975.

The year 2000 will see the completion of another 422 rooms in new hotels which are currently under construction. Sixteen more hotels are actively seeking approval in an attempt to open in time for the 2003 inauguration of the Boston Convention and Exhibition Center.

The approval of the Boston Convention and Exhibition Center by the state legislature creates the need for additional hotel rooms in South Boston. The convention center, along with the hotels and other developments in South Boston, will have a positive effect on the area and help bring the waterfront back into prominence. Clearly, the phenomenal performance of the hotel market in terms of occupancy and room rates has stimulated a lot of development activity.

Industrial Market

Boston has just over 21 million square feet of industrial space within the city limits. As of May 1997, over 10.2 million square feet of industrial space was surveyed and the vacancy rate was found to be 35.7%, with over 3.6 million square feet unoccupied. The average rent for quality industrial space was estimated to be in the range of \$5.00 to \$6.50 per square foot. In 1994, there were 3.9 million square feet of industrial research and development space in the city, which was 16% vacant with 619,000 square feet available. The average rent was estimated to be \$11 per square foot.

From 1983 through 1991, 5.5 million square feet were acquired and/or rehabilitated in the city for industrial use from 1983 through 1991. Among these projects were the multi-million dollar expansions by Teradyne, Inc., the Marine Industrial Park, and private investments in rehabilitation for industrial use of the Stonybrook Commerce Center, the Haffenreffer Brewery in Jamaica Plain and the Howden Sirocco (the former Westinghouse) plant in Hyde Park.

In 1992, Genzyme Corporation, a Cambridge-based biotechnology firm, began construction of an \$85 million bio-pharmaceutical manufacturing plant in Allston Landing. The company also plans to build further manufacturing, research and development and headquarters facilities on the site.

Three major losses to the city's industrial base came when the Digital Equipment Company's (DEC) vacated its Crosstown site in 1993 and the Stride Rite closed its plant in 1997. In 1995, the H.P. Hood consolidated its operations and closed its Charlestown Plant. The DEC building has since been partially leased by the Massachusetts Biotechnology Research Institute (MBRI) providing office and research facilities, access to venture capital, and a education and training program. To date the MBRI has utilized \$5 million in Federal funding to attract over \$20 million in venture capital. Thirty-five thousand square feet in the DEC building are still available for industrial use. The Stride-Rite facility consists of two buildings totaling 552,000 square feet on 9.8 acres. Private developers have already shown interest in the redevelopment of the site. The former Hood plant in Charlestown has been the site of some freight forwarder uses moving off of Logan airport, bringing several hundred jobs to the area.

There were seven major projects completed in the 1995-1997 period: the Advanced Electronics expansion to 110,000 square feet; the expansion of the Boston Freight Terminal in Fort Point Channel; the American Engineered Components move from Cambridge to Boston; the Zoom Telephonics building doubling in size to 150,000 square feet; Boston Ship Repair's expanded business in Dry-Dock 3 at BMIP; and The Harry Miller Company development of 36,000 square feet of space with assistance in Boston's Enhanced Enterprise Community; and, the completion of the New Boston Seafood Center, housing seven seafood companies in a 70,000 square foot in the Marine Industrial Park.

There has been recent industrial development activity as well. The Seafood Initiative in the Marine Industrial Park continue to be successful as seven companies have committed to build facilities that will help Boston retain its waterfront seafood industry. For example, North Coast is planning a 60,000 square foot processing plant.

In Newmarket, the BRA is creating and implementing an economic development plan in conjunction with property owners and other neighborhood groups. The plan also will include an analysis for the South Bay incinerator site for industrial reuse.

Another industrial project in the pipeline is the recently announced International Cargo Port. This development in the Marine Industrial Park is expected to create 900 new maritime jobs.

Housing Market

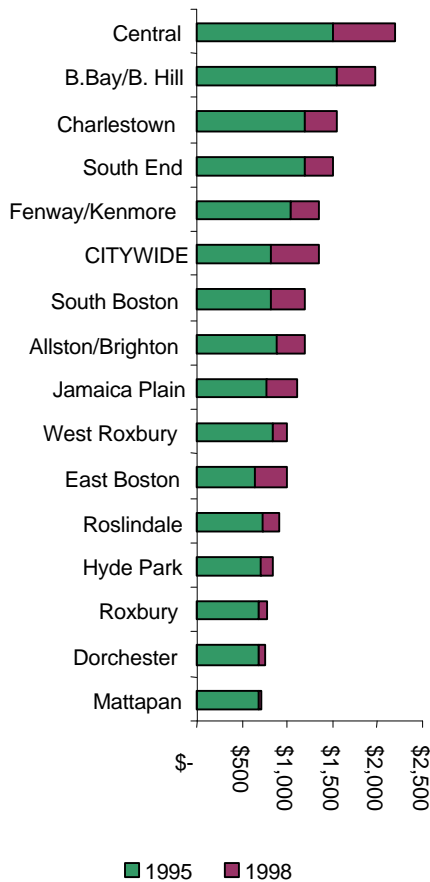
The housing market in Boston is one of the tightest in the nation. Low vacancy rates and a slowdown in multi-family housing production has pushed rents and sales prices to record highs in many areas of the city.

Rents

Rents in Boston continue to rise due to increased demand for rental housing, decreasing supply of rental units and increasing salaries. For example, in 1995 the citywide median rent for a two-bedroom apartment was \$825. Last year, the median rent had climbed to \$1,350, a 64 percent increase. The neighborhoods with the largest percentage increase were East Boston, South Boston, Jamaica Plain, and Allston-Brighton.

The rents near downtown Boston are the highest, for example, in the Back Bay and Beacon Hill and Central Boston, the median rent for two-bedroom apartments is around \$2,000 per month while in Mattapan the median rent is \$700 and in Hyde Park it is \$850 (See Figure 16).

Figure 16. Rents in Boston rose on average 64 percent from 1995 and 1998.



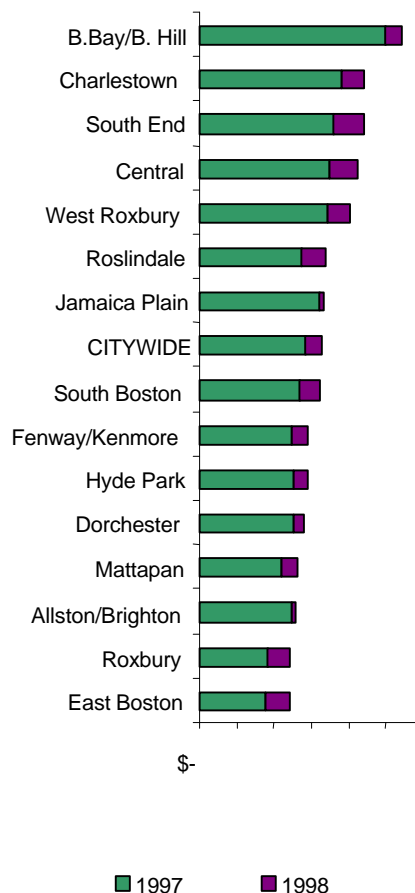
Sales Prices

Similarly, sales prices have escalated along with rents. The median sales price of all homes in Boston (including condominiums) in 1998 was \$163,000, up 15 percent from the 1997 figure of \$142,000 (See Figure 17). Neighborhoods with particularly sharp increases are East Boston and Roxbury; both neighborhoods' median sales price jumped over 30 percent. Sales volume also was up 23 percent.

The condominium market was especially active as 3,563 condos sold last year. The sales volume did serve to hold down price increases as the median condo price only increased 10 percent from 1997 to \$159,000.

Sale prices of single family homes were up 17 percent citywide in 1998. The Back Bay and Beacon Hill saw a 63 percent jump in median sales price but volume was low. Central Boston also experienced a sharp rise in prices but with few sales as well. East Boston was the hottest market for single family homes. Median prices were up 40 percent and volume was up over 50 percent. However, East Boston is still the only neighborhood with a median sales price below \$100,000.

Figure 17. Home sale prices increased 15 percent from 1997 to 1998.



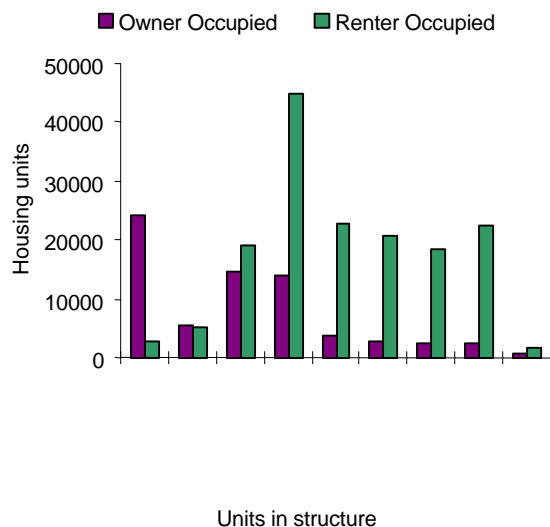
Tenure and Housing Types

The homeownership rate in Boston was 28.1 percent as of the 1990 census, up 2.4 percent from 1980. More recent data suggest that the ownership rate has risen since the census. The neighborhoods with the highest homeownership rate are West Roxbury, Hyde Park, and Roslindale, while those with the lowest are Fenway/Kenmore, Central Boston, the South End, and Allston/Brighton.

The statewide ownership rate is 62.3 percent (1997) and the metro area (excluding Boston) has an ownership rate of 62.6 percent of the total occupied units (1990). Clearly, the city has a greater portion of its housing stock available for rent than the state or metro region. In fact, Boston has one-third of the entire metro area's rental stock, but only one-fifth of the total housing stock.

Boston's primary housing type is the triple-decker. Units in 3 or 4 family homes comprise over 25 percent of the housing stock (See Figure 18). While only 23 percent of these units are owner-occupied, nearly 60 percent of the buildings have the owner occupying one of the units. In duplexes, over 70 percent of the buildings are owner occupied. In fact, the city is at 85 percent of its theoretical maximum homeownership rate of 36 percent. The theoretical maximum is when every building with less than 10 housing units has the building's owner living in one of them.

Figure 18. Renters occupy much of Boston's housing stock.



Approximately 16 percent of the housing in Boston is single family, of which 80 percent is owner occupied. In contrast, the 30 percent of the housing stock in buildings with 10 or more units is only about 3 percent owner occupied. This figure may go up due to recent condominium conversions.

Boston has one of the oldest housing stocks in the nation. According to the Census Bureau, 57.6 percent of the housing units in Boston were built prior to 1939 (See Table 1). The housing stock is dominated by rental units, especially those in three or four unit buildings (the famous Boston Triple Decker) and most of the housing units have three to five rooms.

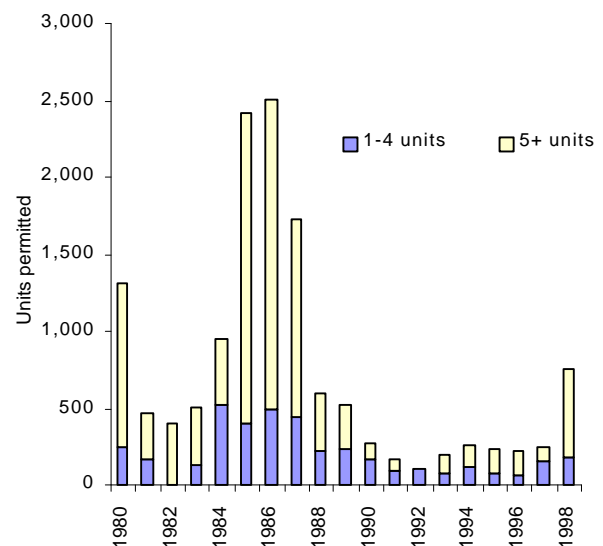
Table 1. Most of the housing in Boston was constructed before 1939.

Year Constructed	Number of Units	Percent of Housing Stock
1980-1990	18,966	7.6%
1970-1979	21,303	8.5%
1960-1969	23,266	9.3%
1950-1959	18,576	7.4%
1940-1949	24,144	9.6%
Before 1939	144,608	57.6%
Total	250,863	100%

New Housing Production

During the 1980s, Boston's housing growth (measured as new construction building permits) was only 12% of metro (less than the city's 22% share of housing stock). During the 1990s, Boston housing development has been just 4% of total metro development. At this rate, Boston will decline from 21.8% of metro housing supply in 1990 to 19.9% in 2010. But Boston housing construction revived strongly last year, as the number of new construction dwelling units permitted grew from 249 units in 1997 to 757 units in 1998. Boston's 1998 permits were 9.4% of the metro total.

Figure 19. Housing production has been slow in Boston since the recession.



Housing supply growth rates through new construction averaged less than one half of one percent annually in Boston during the 1980's "Massachusetts Miracle" and just about one tenth of one percent annually during the 1990s (See Figure 19.) In addition, adaptive reuse conversion on non-residential buildings added about half as many units as did new construction during the 1980s, but demolitions reduced net housing gain to just about two thirds of gross additions.

Affordable

"Affordable" housing: publicly subsidized, means-tested housing comprises about 18% of Boston's housing stock, or about 45,000 units. Boston Housing Authority (BHA) housing represents about 14,000 of these units.

Over 15,000 units in 103 privately owned multifamily housing projects are subsidized via federal and state programs such as mortgage subsidies, or Section 8 rental assistance. As a result, these units are protected as affordable to households making less than the region's median. Many of these units are in danger of losing their protected status because owners are opting to pre-pay the subsidized mortgages, therefore enabling them to rent their units at market rate.

Recent Trends and Issues

Single-family and Homeownership Opportunities

As noted before, housing prices are continuing to move upwards. This is a trend that can be expected to continue as a lull in housing production combined with a robust economy and low interest rates work to put more people and more money in competition for a limited number of housing units. Eighty percent of single family homes are owner occupied so the increase in prices is creating wealth for many Boston residents. However, the prices are increasing so rapidly that many young families cannot afford to buy a home in Boston and must look elsewhere or continue to rent.

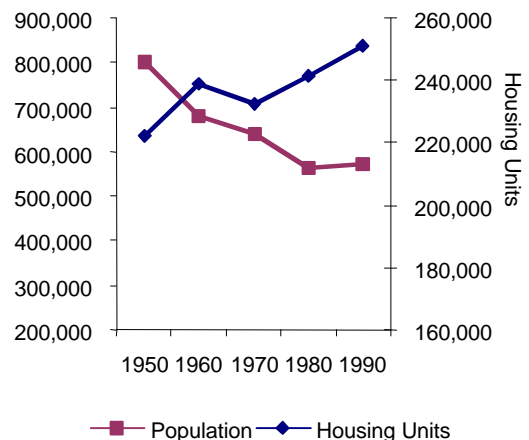
Multifamily and Rental Housing

Rents are also expected to continue to increase for the same reasons, but rents are increasing faster than housing prices. There are several phenomena that might explain this:

Slowdown in multifamily housing production - One major reason for the sharp decline in Boston housing production is the national decline in multi-family housing construction. While the national pace of housing production in smaller buildings (1-4 units) during the 1990s has exceeded one million units annually, beating the 1980s pace by 7 percent, national housing production in larger developments (5+ units) averaged less than a quarter million units annually, or just 52 percent of the 1980s average. In Massachusetts during the 1990s, housing production in smaller structures has averaged 74% of the 1980s level, but recent housing production in larger structures is just 18% of the 1980s annual average. In Boston during the 1990s, small structure housing has averaged 40% of 1980s levels, and large building

housing production is 19% of the previous decade's pace. Changes in U.S. tax law, reduced subsidies for production, and the reluctance of capital markets to finance large projects all contribute to the decline in multi-family housing production.

Figure 20. Housing units are increasing while population has declined over the past 40 years.



Demographic changes - Household size has been shrinking for the past several decades. In fact, in 1950, when the city of Boston's population hit an all-time high of 801,000, there were fewer housing units than there were in 1990. Statewide, the number of single person dwellings increased from 7.2 percent of all households in 1950 to 25.8 percent in 1990. Single person households are much more likely to occupy rental units in multi-family structures than single family dwellings. More demand is created for this type of housing as rising incomes allow more people to live alone.

Non-traditional households (single parent families and non-family households such as students) are also on the rise and frequently seek housing in rental units.

Condo conversion - The city actually saw a decline in the number of rental units from the 1980 census to the 1990 census, mostly as a result of apartments being sold as condominiums. Condo conversion was very prevalent in the Back Bay and Beacon Hill, neighborhoods that also experienced a decline in the number of housing units (rental and owner-occupied) during the 1980s. Central Boston, Allston/Brighton, and Jamaica Plain also experienced a loss of rental units due to condo conversions. While condo conversions create more homeownership opportunities, much needed rental housing is removed from the market (See Table 2.)

Students - Boston's colleges and universities are expanding their enrollment but have not added student housing. Until recently, the housing supply for students has not grown to match the growing number of students placing considerable pressure upon the housing markets in neighborhoods such as Fenway/Kenmore, Allston/Brighton, and Roxbury. In addi-

tion to driving up rents by increasing demand, rents are pushed up by students' ability to pay more for a housing unit by living two or more to a unit.

Since 1993 1,275 dormitory beds have been opened, 1,614 are under construction and another 350 have been approved. The BRA plans for another 1,500 beds to be constructed, further easing the pressure that students place upon neighborhood housing markets. The 4,700 dormitory beds will be a 26 percent increase in student housing over seven years.

Table 2 .The number of rental units in Boston is decreasing.

Neighborhood	Change in number of rental units (1980-1990)
Allston-Brighton	-297
Back Bay-Beacon Hill	-2,295
Central	-504
Charlestown	1,015
East Boston	434
Fenway-Kenmore	137
Hyde Park	356
Jamaica Plain	304
Mattapan	-354
North Dorchester	270
Roslindale	204
Roxbury	-449
South Dorchester	67
South Boston	-177
South End	196
West Roxbury	65
Total	-1,038

Subsidized and Affordable Housing

The housing crunch in Boston has created affordability problems for not only the city's poor. The 45,000 housing units (18 percent of the city's total) that are designated affordable through public ownership, subsidized mortgages, and Section 8 project-based contracts provide some relief, but the waiting lists for public housing and Section 8 vouchers are full, suggesting that the need for affordable housing is not met.

Compounding the affordability problem are the project-based mortgage subsidies and Section 8 certificates that are expiring over the next few years. The booming economy and housing market is making conversion of affordable units into market rate units very attractive. Many owners have pre-paid their subsidized mortgages, thereby ending the rent controls from affected units, in order to receive higher rents. As the housing prices and rents continue to rise, maintaining the number of affordable units becomes more important.

To date, 890 affordable units have been converted to market rate and another 1,798 are at risk. Another 2,183 properties have Section 8 property disposition contracts that are expiring in the next several years. Of these, 1,173 are the Granite Properties that have been preserved as affordable. This still leaves 1,010 Section 8 units at risk. All told, there are 3,698 affordable units that are at risk or have already been converted to market rate.

Population Characteristics

Population and Racial Distribution

Boston's population reached 574,283 according to the 1990 Census, registering the first gain since the decade of the 1940s. Boston was one of few U.S. central cities to grow during the 1980s and the city retains its position as the twentieth largest city in the United States. Population growth in Boston has been limited by the city's small physical size. At 48 square miles, Boston is the second smallest of the 20 most populous cities, behind San Francisco.

Population growth is also limited by Boston's household size. Household size has been declining since the 1970 census but is now holding steady as the children of baby boomers are beginning to have children. After the year 2000, the average household size will more than likely begin to fall again. In 1980, Boston's average household size was 2.40 down from 2.76 in 1970. The 1990 census reported that the average household size had dropped slightly to 2.37.

Boston is the core city in the Boston Primary Metropolitan Statistical Area (PMSA) which has 3.2 million people living in its 129 communities. The Boston PMSA is by far the largest PMSA in the Boston CMSA which includes communities from York, Maine to Thompson, Connecticut, including Lawrence, Lowell, Nashua and Worcester. Almost 5.5 million people live in the CMSA's 238 communities making it the seventh largest in the country

Table 3. Boston's population is becoming more diverse.

Race	Percent of Population	
	1980	1990
White (Non Hispanic)	70	59.1
Black	22.4	25.6
Native American	0.2	0.3
Asian	2.7	5.3
Other	4.7	6
Hispanic Origin*	6.4	10.8

*Hispanic Origin can be of any race

Boston has a diverse population, with minorities comprising 40.9 percent of the population. Of these minorities, blacks are the largest, comprising 25.6 percent of the total population, followed by those of Hispanic origin who make up 10.8 percent. Asians, American Indians, and Aleuts comprise the remaining population. Asians and Hispanics are the fastest growing racial and ethnic groups in the city (See Table 3).

Boston historically has been a city of immigrants. This

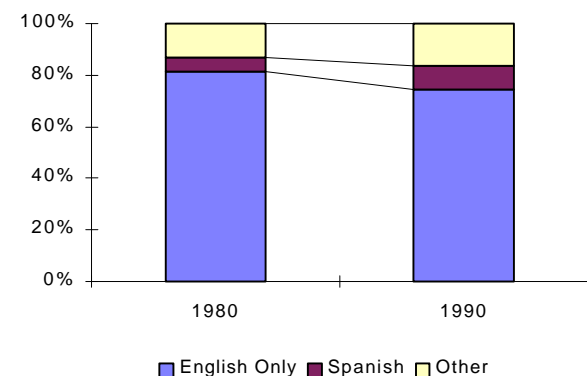
trend continues to the present. Nearly 115,000 people living in Boston in 1990 were foreign-born-over 63,000 of them arriving in the United States since 1980. The racial and ethnic groups with the fastest growth rates in Boston are Asians and Hispanics. There was an increase of 17,369 people reporting themselves as Asian between the 1980 and 1990 Census and an increase of 23,549 Hispanics over the same period. Although this represents natural increase as well as immigration, it gives a good picture of trends in Boston. A quarter of the growth in the Asian population occurred in the Allston-Brighton area with another 13 percent in the Fenway-Kenmore neighborhoods. Over 20 percent of the growth in Hispanic population was in East Boston. Allston-Brighton, Jamaica Plain Roxbury and Roslindale also experienced significant growth in their Hispanic population. The immigration act of 1990 has resulted in the largest declines in population in the past 15 years (See Table 4).

Table 4. U.S. immigrants comprise about one-fifth of Boston's population

Year of entry	Number of residents
-1950	9,282
1950-1959	5,632
1960-1969	12,825
1970-1979	23,493
1980-1986	36,187
1987-1990	27,178
Total foreign-born Boston residents	114,597

The number of people speaking languages other than English at home is also rising in Boston. In 1980, 81 percent of the people in Boston five years and older spoke only English at home. In 1990 only 74 percent did. Spanish is the second most common language spoken in Boston with over 51,000 speakers. Other languages include mostly Asian and Pacific Island languages, Portuguese and Russian (See Figure 21).

Figure 21. More Bostonians speak a language other than English at home.



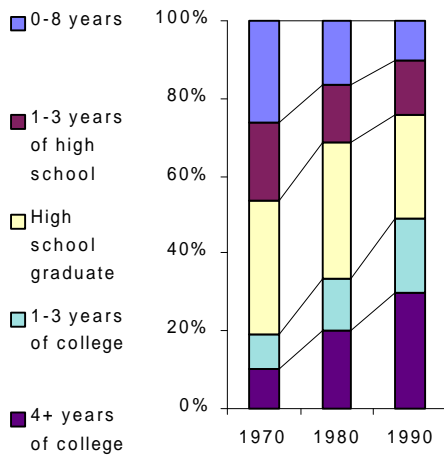
Educational Attainment

Boston is known as the Athens of America because of the strong presence of its colleges and universities. The city's colleges and universities provide jobs and attract businesses looking for a highly skilled workforce.

In response to the Education Reform Act, Boston has already introduced four new curricula in English, math, science and social studies and introduced standardized student tests. The number of full-day kindergarten programs is being expanded and the city is upgrading library services. Computers are also becoming an essential part of the curriculum as more schools get PCs and Internet connections in the classrooms. Students in Boston's public schools have increased their Massachusetts Educational Assessment scores since the passage of this legislation.

Over 63,000 students are enrolled in Boston Public Schools. Enrollment in kindergarten through eighth grades has increased by nearly six percent in the past five years, but high school enrollment has declined by one percent. The student population is more diverse than the city's population as a whole. Blacks comprise 48.4 percent of the student body and 25.2 percent is Hispanic. White students comprise 16.9 percent and Asians and other races make up the remaining 9.5 percent. Over 58 percent of graduating students plan to attend either a two or four college after graduation.

Figure 22. Thirty percent of Boston's residents have a college degree and fifty percent have some college.



The State has a strong secondary school system in terms of math and science. The Massachusetts Technology Collaborative reports that Massachusetts eighth graders have the among the highest National Assessment of Educational Progress (NAEP) scores in the nation surpassing other high tech and technology rich states such as New York, Texas, California, and Florida. Boston's schools are below the state's average in terms of test per-

formance but nevertheless, the city benefits from the high educational attainment of other towns in the Commonwealth.

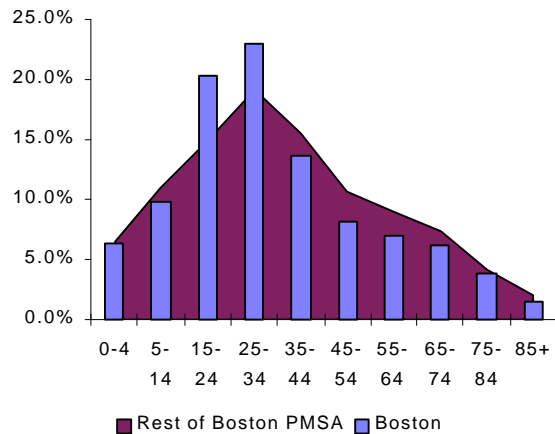
Residents of Boston increased their overall educational attainment between 1970 and 1980 and again between 1980 and 1990 making the city more attractive to businesses. In 1970, only 53.4 percent of the city's population aged 25 and older held at least a high school diploma. By 1980, this was up to 68.5 percent in 1980. The latest data show that over three-quarters of Boston's residents aged 25 or older have at least a high school diploma. Nearly half have at least some college experience and 18 percent have earned a bachelor's degree; 40 percent of these with a graduate or professional degree (See Figure 22).

Many Boston jobs require a high level of education and training. There are almost 290,000 employed people living in Boston and 648,120 jobs within the city limits. As a result, people living outside the city hold most of the jobs in Boston. Despite the high level of education of city residents, Bostonians are under-represented in industries more likely to have high paying occupations and positions. A Boston resident is more likely to hold a job in manufacturing, wholesale or retail trade, or construction than a suburban worker.

Age

Boston has a comparatively young population, with a greater percentage of persons aged 15-34 than the neighboring counties. People aged 25-34, who represent 19.2 percent of the population, increased as a percentage of the population by 4 percent between 1980 and 1990. Fifteen to 24 year olds declined as a percentage of the population between 1980 and 1990 but still make up over 20 percent of the city's population. Those under four years old are increasing as a percentage of the population, and 35-44 year olds are the fastest growing segment of the population (See Figure 23).

Figure 23. Boston's colleges and universities give the city a young population.



Daylong Population and Commuting Patterns

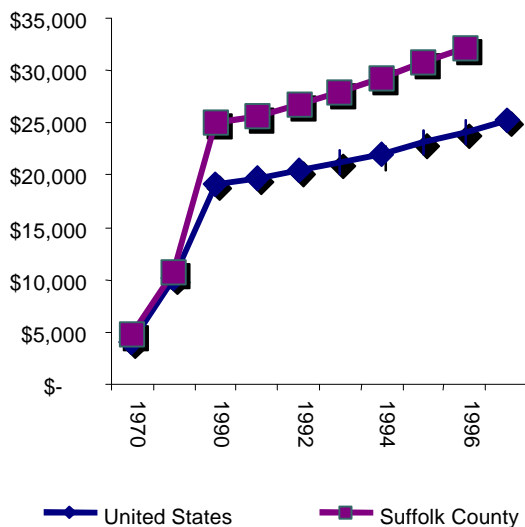
During a typical workday, Boston's population doubles to nearly 1.2 million, as people come to Boston to work, shop, go to school, receive health care or attend special events. The large number of people coming into Boston brings in business and money, adds to the vitality, and gives a telling picture of the true importance of the city and its impact upon the region.

Boston has a very accessible public transportation system, so there are many choices of commuting methods. Forty percent of Boston's residents drove alone to work while 32 percent took a bus, subway or train to work, according to the 1990 Census. Roughly ten percent carpooled and the remainder (18 percent) either walked, biked, or worked at home. Boston's average commute time is just over 23 minutes.

Income and Poverty

Per capita personal income for Suffolk County was \$30,716 in 1995, 32% above national per capita personal income of \$23,348, according to the U.S. Bureau of Economic Analysis. A historical summary of per capita income shows that, from 1980 to 1990, Suffolk County's per capita income grew at a rate greater than that for the nation. This is in contrast to the 1970-1980 period when it rose at a slower rate. Suffolk County's per capita income grew at a faster rate than the per capita income growth rates for the United States and Metropolitan Boston between 1990 and 1995 (See Figure 24).

Figure 24. Boston's per capita income is higher than the national average.



The city's median household income based on U.S. Census data, rose from \$18,202.52 in 1970, to \$12,530 in 1980 and \$29,179 in 1990.

In 1989 and 1993, the Census Bureau modeled the medi-

an household income at the county level. Suffolk County's median household income grew from \$25,227 in 1989 to \$30,143 in 1993, the latest available figures.

Boston was one of eleven of the fifty largest U.S. cities to see a decline in its poverty rate. In 1980, the city's poverty rate was worse than the largest fifty cities' average at 20.2 percent. By 1990, Boston had reduced its poverty rate to 18.7 percent and was better than the fifty-city average.

U.S. Bureau of the Census released the most recent county-level data on income and poverty rates in 1994. It should be noted that small sampling size makes more recent and reliable data on poverty unavailable at the neighborhood level and data at the county level are not as accurate as those at the national level. The poverty rate increased in Suffolk County between 1990 and 1994, but not as fast as the national or state rates. The percentage of children aged 5-17 in poverty has grown by 8.2 percentage points while the national rate stayed virtually the same. While there was an increase of 4,416 children in the city between 1980 and 1990, 9,171 children were added to Suffolk County's poverty rolls

Crime

Boston has been nationally recognized for its declining crime rate. As in most other large U.S. cities, the number of both violent crimes (homicide, rape, robbery, and aggravated assault) and property crimes (burglary, larceny, and vehicle theft) are down substantially in the past six years (See Table 5).

Table 5. Boston's crime rate is declining.

	1993	1994	1995	1996	1997	1998
Homicide	98	85	96	59	43	34
Rape	480	453	379	414	350	356
Robbery	4,081	4,245	3,597	3,470	2,728	2,334
Agg. Assault	6,184	5,881	5,496	5,211	4,765	4,703
Violent Crime	10,843	10,664	9,568	9,154	7,886	7,427
Burglary	7,982	6,799	6,671	5,052	4,301	3,610
Larceny	24,798	24,375	26,002	21,234	17,920	17,578
Vehicle Theft	11,932	11,240	10,036	9,271	7,731	6,366
Property Crime	44,712	42,414	42,709	35,557	29,952	27,554

A P P E N D I X

1. Employment in Boston, 1970-1998

Industry (SIC)	1970	1980	1988	1992	1993	1994	1995	1996	1997	1998
Agri./Mining (1-14)	977	996	1,387	1,218	1,314	1,453	1,232	1,248	1,312	1,322
Construction (15-17)	22,296	11,818	16,519	10,810	11,522	12,602	13,274	13,074	13,776	16,094
Manufacturing (20-39)	63,812	52,689	34,919	28,230	28,882	29,584	29,114	29,135	28,596	29,704
Trans/Comm./Pub. Util.(40-49)	44,826	38,799	37,820	35,644	35,706	36,515	36,382	36,328	37,232	37,301
Wholesale Trade (50-51)	42,630	28,786	23,282	16,191	15,671	15,516	16,393	16,385	16,242	16,610
Retail Trade (52-59)	82,457	60,053	62,714	56,954	57,211	60,371	61,309	62,736	63,350	65,397
Finance/Ins./R. E. (60-67)	76,343	76,643	104,324	84,577	85,940	92,820	94,188	97,118	101,256	104,194
Banking(60,61)	22,698	21,338	30,144	21,965	21,649	22,860	23,461	20,376	21,490	22,552
Securities (62)	7,551	8,469	21,240	24,464	26,670	30,594	31,980	38,724	42,171	44,925
Insurance (63,64)	38,780	36,513	33,871	26,200	25,621	26,412	25,449	24,046	23,422	22,141
R. E. /Other(65,66,67)	7,313	10,323	19,069	11,948	12,000	12,955	13,299	13,973	14,172	14,573
Services (70-89)	145,080	205,772	265,558	256,850	270,035	278,900	286,019	292,900	301,446	309,008
Hotel (70)	*	6,539	12,552	12,193	12,023	12,180	11,892	11,742	11,750	12,430
Health (80)	*	65,436	76,057	87,011	90,634	92,024	92,133	94,692	96,085	97,401
Educational (82)	*	26,386	30,934	28,818	29,520	31,190	33,167	33,321	32,739	33,268
Cultural (78,79,84)	*	6,216	9,592	9,339	9,523	9,657	9,333	9,982	10,536	10,847
Soc./Non-prof. (83,86)	*	19,994	23,158	23,087	24,726	23,688	24,374	24,261	25,115	25,529
Professional (73(p),81,87,89)	*	39,859	63,063	60,588	62,079	62,285	65,928	67,260	70,857	74,781
Non-Professional Bus. Serv.(73p)	*	30,415	37,335	25,492	30,685	36,927	37,587	39,855	42,003	41,977
Personal(72,75,76,88)	*	10,927	12,868	10,323	10,846	10,949	11,605	11,787	12,362	12,775
Government (90+)	81,571	88,756	97,093	85,830	87,939	87,135	91,625	89,058	89,589	91,392
Total	559,991	564,312	643,615	576,304	594,219	614,895	629,536	637,982	652,799	671,022

	1950	1955	1960	1965
Agri/mining	1,874	1,700	1,376	1,205
Construction.	19,978	16,851	17,908	18,369
Manufacturing	101,892	95,785	88,102	76,593
Trans/Comm./Pub. Util.	37,183	40,673	41,120	37,395
Trade	147,585	140,163	126,978	119,477
Finance/Ins./R. E..	51,917	55,755	57,980	61,504
Services	89,004	94,595	105,485	113,922
Propr	16,320	16,178	15,939	15,559
Govt.	84,966	98,890	95,673	97,586
Total	550,719	560,590	550,561	541,610

Job figures prior to 1969 use a different classification system and therefore may not correspond exactly to the currently used classification system.

2. Boston's Largest Private Employers

As of September, 1997

Massachusetts General Hospital	11,415	Marriott International	2,119
Brigham and Women's Hospital	8,661	Au Bon Pain	1,912
Fidelity Investments (FMR Corp)	8,000	Dana Farber	1,904
Boston University	7,410	Filene's	1,868
Beth Israel Deaconess	6,205	Teradyne, Inc.	1,650
BankBoston	5,429	Boston Edison	1,625
New England Medical Center	4,995	American Airlines	1,600
Children's Hospital	4,729	Thomson Financial Services	1,588
Liberty Mutual	4,657	Star Market	1,562
John Hancock Mutual Life Ins. Co	4,494	Blue Cross/Blue Shield	1,449
Boston Medical Center	3,628	Visiting Nurses Association	1,443
Gillette Company	3,404	Carney Hospital	1,333
Northeastern University	3,186	Stone and Webster	1,274
Stop and Shop	3,000	First Security Services Corp	1,233
Putnam Investments	2,946	Faulkner (Hospital) Corp.	1,212
St. Elizabeth's Medical Center	2,927	Federal Reserve Bank of Boston	1,202
Fleet Bank of Massachusetts	2,822	USAir	1,200
Harvard/Pilgram Health	2,375	Mass. Eye and Ear Infirmary	1,165
State Street Bank & Trust Co.	2,251	Liberty Mutual Cos, Inc.	1,075
Boston Globe	2,250	Delta Airlines	1,045
The New England	2,155		

Data as of September 1997. Several of the above employers have since merged or consolidated.

3. National Institutes of Health Research Grants, 1990-1997

City	1990	1991	1992	1993	1994	1995	1996	1997
Boston	471,844,087	530,001,990	576,278,369	597,795,761	630,109,153	650,732,173	704,142,555	760,357,060
New York	523,670,139	565,379,899	603,480,556	599,584,457	628,402,761	628,547,538	647,250,338	697,223,528
San Diego	218,709,590	235,712,517	256,472,091	269,684,562	279,490,389	411,551,266	425,394,337	473,150,023
Philadelphia	259,713,256	290,180,630	307,042,050	313,959,306	336,200,805	360,000,757	370,343,912	412,778,587
Baltimore	254,559,811	275,939,995	311,296,749	332,020,795	350,996,420	342,570,163	373,643,534	390,683,064
Seattle	209,109,541	236,630,074	278,764,732	253,214,477	278,475,276	321,987,894	319,839,820	366,672,197
Los Angeles	228,203,660	225,926,407	255,135,771	259,307,429	267,080,541	271,674,627	279,438,720	289,058,435
San Francisco	184,629,715	192,304,939	209,603,748	202,045,321	214,384,742	218,481,416	231,167,609	239,832,458
Chicago	160,816,628	170,197,472	181,173,012	184,948,152	198,940,079	213,107,851	227,744,382	238,861,910
Houston	139,408,238	160,669,369	165,577,352	184,537,296	206,422,019	195,910,625	220,359,912	232,159,312

4. Housing Costs

Median Sales Prices, 1997-1998

Neighborhood	1997	1998
East Boston	\$88,051	\$120,000
Roxbury	\$90,000	\$120,000
Allston/Brighton	\$124,000	\$127,950
Mattapan	\$110,500	\$130,000
Dorchester	\$125,000	\$140,000
Hyde Park	\$125,000	\$145,000
Fenway/Kenmore	\$122,000	\$145,177
South Boston	\$133,000	\$160,000
CITYWIDE	\$142,000	\$163,000
Jamaica Plain	\$162,000	\$165,000
Roslindale	\$137,500	\$168,000
West Roxbury	\$172,382	\$200,000
Central	\$174,000	\$211,000
South End	\$179,000	\$219,000
Charlestown	\$191,500	\$220,000
Back Bay/Beacon Hill	\$249,000	\$270,000

Median Rents, 1995-1998

Neighborhood	1995	1998
Mattapan	\$688	\$700
Dorchester	\$675	\$750
Roxbury	\$688	\$775
Hyde Park	\$700	\$838
Roslindale	\$725	\$900
East Boston	\$650	\$1,000
West Roxbury	\$850	\$1,000
Jamaica Plain	\$775	\$1,100
Allston/Brighton	\$893	\$1,200
South Boston	\$825	\$1,200
CITYWIDE	\$825	\$1,350
Fenway/Kenmore	\$1,050	\$1,350
South End	\$1,200	\$1,500
Charlestown	\$1,200	\$1,550
BackBay/Beacon Hill	\$1,548	\$1,970
Central	\$1,500	\$2,200

5. Population of Boston

Year	Population
1790	18,320
1800	24,937
1810	33,787
1820	43,298
1830	61,392
1840	93,383
1850	136,881
1860	177,840
1870	250,526
1880	362,839
1890	448,477
1900	560,892
1910	670,585
1920	748,060
1930	781,188
1940	770,816
1950	801,444
1960	697,197
1970	641,071
1980	562,994
1990	574,283

6. Sources of Data

The major statistical data relating to population, employment and income are derived primarily from four separate sources: the U.S. Census Bureau, the U.S. Bureau of Labor Statistics, the U.S. Bureau of Economic Analysis, and the City of Boston/Boston Redevelopment Authority, each of which is described below.

The U.S. Census Bureau publishes information about population, housing and the economy. Data from the 1990 Decennial Census of Population and Housing is now available for the city. In addition, some monthly and quarterly data are available through September 1998 on certain topics for the region, Massachusetts, and the Boston metropolitan area. The U.S. Census Bureau does not publish such interim data for the city.

The U.S. Bureau of Labor Statistics publishes data and reports about the workforce and related subjects including unemployment rates, area wages, and cost-of-living adjustments. Final data for 1996 are the most recent annual data available; the most recent monthly data are for September 1998.

The U.S. Bureau of Economic Analysis publishes quarterly and annual statistics on income and employment. The most recent annual figures are from the September 1998 revised series for the nation, New England, and Massachusetts and the August 1996 revised series for metropolitan counties and Suffolk County, which consists of the city plus the municipalities of Revere, Chelsea and Winthrop; the city comprises approximately 87% of the

County's population and approximately 96% of its employment.

The City of Boston and the Boston Redevelopment Authority prepare reports and compile data on the population and economy of the city and its neighborhoods. The BRA also provides data and trends from various local, regional, state and national sources on such topics as employment and occupation, large employers, city schools, universities and colleges, medical institutions, tourism and lodging, transportation, office and industrial markets, housing, building activity and urban redevelopment and infrastructure projects.

Statistical data do not necessarily reflect current activity because of delays resulting from the time required to collect, tabulate and publish such data. This report includes the most recent data available, but of such necessary delays, the data contained herein may not reflect current conditions or trends. Additionally, statistical data are approximations and generalizations subject to various sources of error inherent in the statistical process, and may be revised on the basis of more complete data. Within such limits, the statistical data contained herein describe past activity and are not presented with a view to predicting future economic activity either in particular categories or in general.

7. Other Sources

ACCRA
American Council of Life Insurance
Association of Independent Colleges and Universities
BankBoston
Banker and Tradesman
Boston Business Journal
Boston Consulting Group
Boston Housing Authority
Boston Police Department
Boston Tomorrow Conference
Bureau of Labor Statistics
C.B. Richard Ellis
Center for Labor Market Studies
Cognetics, Inc.
Coopers and Lybrand
Cushman and Wakefield
Department of Neighborhood Development, Boston
Federal Bureau of Investigation
Federal Reserve Bank of Boston
Fortune Magazine
Greater Boston Chamber of Commerce
Greater Boston Convention and Visitors Bureau
Initiative for a Competitive Inner City
James Howell (The Howell Report)
Lawrence Kennedy, Planning the City upon a Hill
Mass Insight
Massachusetts Department of Education
Massachusetts Department of Employment and Training
Massachusetts Institute of Technology
Massachusetts Technology Collaborative
Massachusetts Port Authority
Merideth and Grew
Metropolitan Area Planning Council
Michael Porter, The Competitive Advantage of Massachusetts
Mt. Auburn Associates
Municipal Research Bureau
National Assessment of Educational Programs (NAEP)
National Association of Realtors
National Realtors Board
National Trust for Historic Preservation
New England Board of Higher Education
New England Economic Project (NEEP)
Pinnacle Advisory Group
Rental Housing Association
Scarborough Report
Spaulding and Slye
U.S. Bureau of Economic Analysis
U.S. Bureau of the Census
Yolanda Kodrzycki, Federal Reserve Bank