

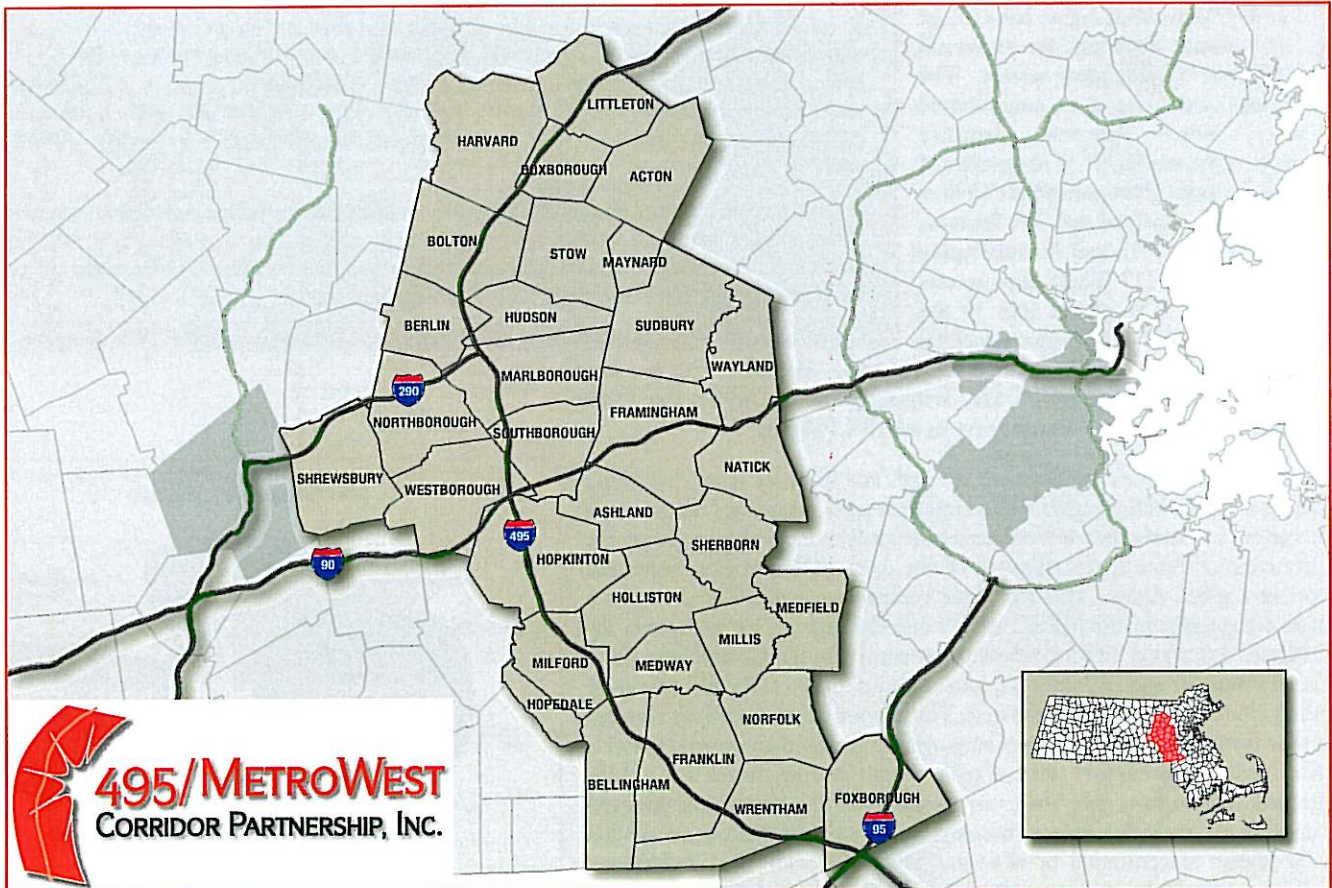


DIVERSE AND GROWING

A SUMMARY OF THE 495/METROWEST REGION'S ECONOMY

As the advocacy organization for the 495/MetroWest region, the **495/METROWEST CORRIDOR PARTNERSHIP** commissioned the **METROWEST ECONOMIC RESEARCH CENTER (MERC)** at Framingham State College to develop an ongoing analysis of our region's economic importance to the Commonwealth.

The second annual report from MERC for the 495/MetroWest Corridor Partnership, **2008 ECONOMIC INDICATORS FOR THE 495/METROWEST REGION**, offers a wide range of economic indicators assessing the region's growing role as an employment center for the Commonwealth. *Indicators* provides a continued examination of the economic characteristics of the region, unemployment data, labor force data, the types of jobs located in the region and the payroll they generate, and an examination of the region's housing characteristics. This document is a summary of the report intended to provide the highlights of their analysis; the full report is available online at www.arc-of-innovation.org.



JOBS/LABOR FORCE

The 495/MetroWest region has a labor force of 288,552 workers, a slightly larger number than the 285,500 jobs that exist in the region. Currently the region is an importer of labor but trends show a narrowing of the gap between jobs and the labor force. The shift from a net exporter of labor to a net importer of labor will bring with it several public policy challenges (see sidebar on *Jobs/Housing Balance*).

In 2006 employment in the 495/MetroWest region totaled 285,500, up 3,700 jobs from 2005 and just below its historical peak of 285,700 in 2001; the region has effectively recovered from the 2001-2003 recession (see Figure 1). Between 1980 and 2006, employment climbed from 180,000 jobs to 285,500 a gain of 105,500 jobs. Over twenty-seven years regional employment grew by 58.6%. The region has consistently outperformed the Commonwealth in job creation as its share of state employment now represents one out of every eleven jobs in Massachusetts.

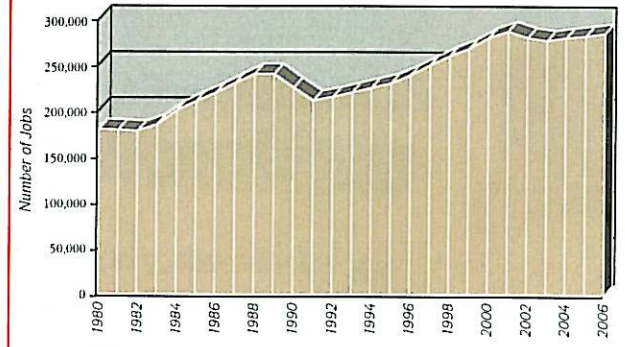
EMPLOYMENT DIVERSITY

The 495/MetroWest region has a robust and diverse economy across several different employment sectors. The 285,500 jobs in the region are concentrated in three North American Industry Classification System (NAICS) supersectors.¹ They include: Trade, Transportation & Utilities [TTU] (21%), Professional & Business Services [PBS] (18.8%), and Manufacturing (15.6%) (see Figure 2).² These three sectors total more than 55% of the jobs in the region. Between 2001-2006 major structural changes have occurred in these three supersectors. Manufacturing has lost 10,200 jobs in that time period, Trade, Transportation, & Utilities lost 1,000 jobs, while Professional & Business Services added 4,300 jobs.

Another way to examine employment strength and diversity is by comparing industrial sectors within a region with a larger reference economy. Location quotient analysis is a commonly utilized economic analysis method that gauges the relative concentration or specialization of one or more industries or industrial sectors in a given region. This technique compares a regional economy to a reference economy; in the MERC study's case the regional economy was the 495/MetroWest region and the reference economy was the Commonwealth of Massachusetts. A regional location quotient higher than 1.0 shows an industry concentration higher than that of the state. The location quotient analysis revealed that the region had concentrations of employment greater than existed statewide in five NAICS supersectors most notably Manufacturing, which has a 63% higher concentration of jobs than existed statewide, Professional & Business Services, which has a 24% higher concentration of jobs, Information, which has a 17% higher concentration of jobs, and Trade, Transportation & Utilities, which has a 16% higher concentration of jobs (see Figure 3).³

FIGURE 1

495/METROWEST TOTAL EMPLOYMENT 1980-2006
Region Adds Over 105,000 Jobs Since 1980.



Source: Massachusetts Division of Unemployment Assistance and MERC

Jobs/Housing Balance

Currently the 495/MetroWest region is a net importer of labor but trends clearly show a narrowing of the gap between jobs and the labor force. The shift from a net exporter of labor to a net importer of labor will bring with it several public policy challenges. The private sector and regional and state level policy makers must recognize that the balance between jobs and housing within 495/MetroWest is an essential feature in creating a sustainable future for the region.

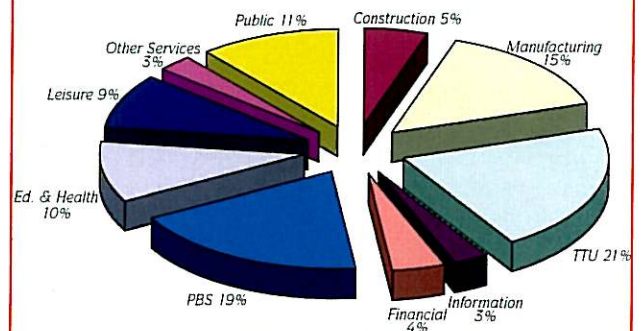
There are many dynamics that influence location choice for individuals and families including: two worker households, multiple jobs, job or career changes, and personal preferences such as neighborhood amenities, school quality, and proximity to family and friends. Obviously, the most considerable factor for residential location decisions is housing affordability. As housing costs grew rapidly throughout Greater Boston in the late 1990s and through 2005, individuals and families searched further afield for housing resulting in increasing numbers of workers commuting into the region from Central Massachusetts and beyond. Due to escalating fuel costs, the old adage of "drive until you qualify" is rapidly becoming an inappropriate measure of housing affordability.

Jobs/housing balance is a concept that advocates an appropriate balance between the jobs base and available housing supply within a geographic area. The notion of balancing jobs and housing goes well beyond trying to attain numerical equality. Ideally, housing available in a region should be available at prices, sizes, and locations suited to workers at different wage levels that wish to live in the area. The connection between land use patterns and transportation infrastructure is critically important in balancing jobs and housing.

The potential benefits of striking a better jobs/housing balance include a reduction in commuting distances, travel times, and personal transportation costs, reduced congestion and vehicle miles traveled (VMT), improved air quality, reduced public infrastructure costs, and, perhaps most importantly, maintaining the economic competitive advantage of the 495/MetroWest region.

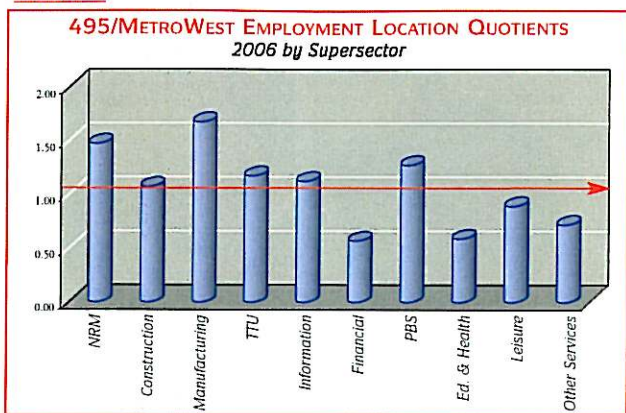
FIGURE 2

2006 495/METROWEST EMPLOYMENT BY SUPERSECTOR
Total Employment = 285,500



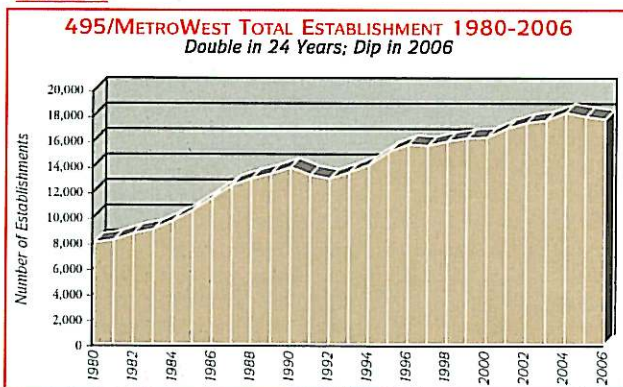
Source: Massachusetts Division of Unemployment Assistance and MERC

FIGURE 3



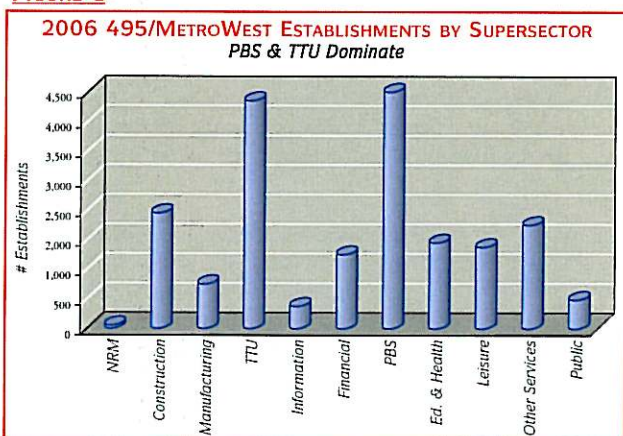
Source: Massachusetts Division of Unemployment Assistance and MERC

FIGURE 4



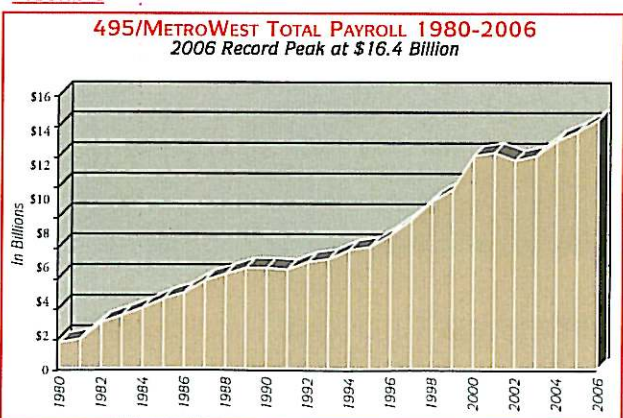
Source: Massachusetts Division of Unemployment Assistance and MERC

FIGURE 5



Source: Massachusetts Division of Unemployment Assistance and MERC

FIGURE 6



Source: Massachusetts Division of Unemployment Assistance and MERC



The number of establishments, or separate places of work, more than doubled in the region between 1980 and 2006, growing at a faster rate than the Commonwealth (see Figure 4). Rapid increases occurred during the 1980s as almost 6,000 were added to the region. Declines in the number of establishments occurred in 1991, 1992, 1997, and most recently in 2005 and 2006. The 495/MetroWest Corridor region's share of all establishments located in Massachusetts rose from 6.8% in 1980 to 8.5% in 2006 with one out of every twelve Massachusetts' establishments located in the region in 2006. Professional & Business Services (4,050) and Trade Transportation & Utilities (3,940) account for 45% of the total establishments in the region (see Figure 5). There is an average of sixteen jobs per establishment in the region. Not surprisingly, there is a wide degree of differentiation among supersectors in the average number of jobs per establishment. Manufacturing has the highest average with fifty-five jobs per establishment while supersectors like Professional & Business Services (thirteen jobs per establishment) and Financial Activities (eight jobs per establishment) were below the region's average.

REGIONAL PAYROLL

For the third year in a row the 495/MetroWest region generated a record payroll, \$16.4 billion, up \$800 million or 5.7% from 2005 (see Figure 6). The region provided one out of every 10 payroll dollars in the Massachusetts economy in 2006. The region's total payroll climbed from \$2.6 billion in 1980 to \$16.4 billion in 2006 a 540% increase as compared to a 368% gain for the state and a 244% gain for the nation during the same time period. Between 2001-2006, the region produced an overall net change in payroll of \$2.2 billion, a five year increase of 15.3%.

Nearly 50% of the region's payroll dollars are generated by the Manufacturing (\$3.7 billion) and Professional & Business Services (\$4.2 billion) supersectors (see Figure 7). This large percentage share is linked to the high employment numbers in each of these sectors but also to the high average wages that each sector generates. Due to job losses, the Manufacturing sector declined \$179 million from 2001-2006, a -4.6% decline. This net decline reflected a \$475

¹ NAICS is an industrial classification system used by the US Department of Labor that groups establishments into industries based on the activities in which they are primarily engaged. It is a comprehensive system covering the entire field of economic activities, both producing and non-producing. NAICS has twenty separate industrial sectors, which are grouped into eleven supersectors.

² Trade, Transportation and Utilities includes retail establishments. Professional and Business Services include professional, scientific, and technical services and management of companies and enterprises.

³ Five of the top twenty-five municipalities in the state in Manufacturing employment per 1,000 residents are located in the 495/MetroWest region. In Bluestone, Barry et. al. *Staying Power: The Future of Manufacturing in Massachusetts*. Boston: The Boston Foundation, July 2008. The full report can be retrieved at <http://www.tbf.org/utilitynavigation/multimedialibrary/newsdetail.aspx?id=8230>.

⁴ The Manufacturing Institute. *The Facts About Modern Manufacturing 7th Edition*. Washington: National Association of Manufacturers, October 2006.

⁵ Ibid.

⁶ Bluestone, 2008.

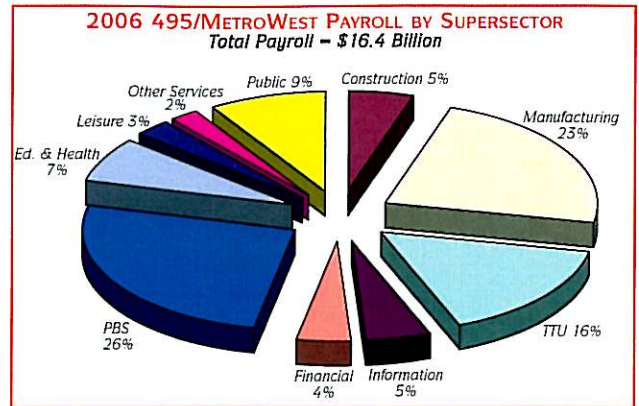
⁷ Ibid.

⁸ Ibid.

million loss from 2001-2003 followed by a \$295 million gain from 2003-2006. Likewise, due to job gains during the same time period, the Professional and Business Services sector's payroll grew by \$1.1 billion, a 36% increase.

In 2006 the region's average annual wage reached \$57,600, exceeding the Massachusetts average wage of \$52,400 by nearly 10% and the US average wage of \$42,500 by 35.5%. The three supersectors with the highest average annual wage include Information (\$88,400), Manufacturing (\$84,100), and Professional & Business Services (\$64,100). Manufacturing wages in the region significantly outpace average wages for that sector in Massachusetts. The average Manufacturing wage in the region of \$84,100 is 22% higher than the Massachusetts average wage in Manufacturing.

FIGURE 7



Source: Massachusetts Division of Unemployment Assistance and MERC

CONCLUSION

The 495/MetroWest region's economic strength and skilled workforce has helped buoy the overall Massachusetts economy during these economically turbulent times. The region's economy has a diverse depth and breadth with strengths in multiple sectors creating a synergy between these various components spurring economic success. The region faces challenges that could jeopardize its economic accomplishments. The shift from a net exporter of labor to a net importer of labor will bring with it challenges associated with housing and transportation. Massachusetts faces daunting financing challenges to address serious infrastructure limitations, which threaten economic competitiveness. For these and other reasons public policy makers must formulate sound policies and adequate infrastructure investments that can address these challenges and help ensure that the 495/MetroWest region and the Commonwealth's economy remain strong.

Manufacturing Strength in the 495/MetroWest Region

Despite the persistent perception that manufacturing is a dying industrial sector, it is clear from the *Indicators* report that manufacturing is a strong and critical component of the 495/MetroWest economy. One of the reasons manufacturing is often dismissed is due to the perception that it is a low wage and low tech sector of the economy and that due to global competition, a high cost state like Massachusetts will never succeed in manufacturing; this simply is not true. In fact, the region is a notable example of what successful manufacturing looks like in Massachusetts, a topic that was recently explored in the Boston Foundation report *Staying Power: The Future of Manufacturing in Massachusetts*. The Partnership provided support and guidance throughout the development of the report *Staying Power*.

The region's average manufacturing wage of \$84,100 is 32% higher than the region's overall average wage of \$57,600. Manufacturing wages in the region also outpace average wages for that sector in Massachusetts. Manufacturing located in the region created \$3.7 billion in payroll dollars in 2006.

Manufacturing is the engine of technology development and innovation; nationally, manufacturing is responsible for more than 70% of private sector research and development.⁴ Many of the cutting edge, technologically advanced industries that the Patrick administration is focused on such as life sciences, information technology, and alternative energy have significant manufacturing components. Firms like Creganna (life sciences, medical device manufacturing), Genzyme and Sepracor (life sciences, pharmaceutical manufacturing), EMC (information technology, information storage and retrieval technology systems manufacturing), Intel (information technology, microchip manufacturing), and Evergreen Solar (alternative energy, solar panel manufacturing) are indicative of the types of high tech manufacturing taking place in the 495/MetroWest region.

While manufacturing employment has declined in Massachusetts, manufacturing productivity has surged helping to keep manufacturing in Massachusetts competitive with other parts of the country and regions across the globe. Manufactured goods account for more than 60% of US exports.⁵ Between 1997 and 2006 manufacturing productivity has grown twice as fast in Massachusetts as the nation as a whole.⁶ There is little doubt that the manufacturing firms in the 495/MetroWest region have played a significant role in this productivity surge. During that same time period manufacturing output as a percent of total state output rose from 10.9% in 1997 to 13.3% in 2006.⁷

Despite the region's manufacturing strength there are clearly challenges ahead. Job losses continue to plague the sector as does a reduction in the number of manufacturing firms in the region. Due to an aging workforce, manufacturing firms across the state could be facing a substantial shortage of skilled labor regardless of projected job losses.⁸ While Massachusetts grapples with financing challenges to address serious infrastructure limitations such as water resources, competitors across the globe are investing heavily to revamp, replace, and develop new infrastructure to sustain and bolster economic competitiveness. These investments make global relocations increasingly attractive to manufacturing firms, many of which are internationally owned. For these and other reasons public policy makers must formulate sound policies and practices that can address these challenges and help ensure that manufacturing in the 495/MetroWest region and the state remain strong and vital.



495/METROWEST CORRIDOR PARTNERSHIP, INC.

200 FRIBERG PARKWAY, SUITE 1003, WESTBOROUGH, MA 01581

PHONE: 774-760-0495 FAX: 774-760-0017

WWW.ARC-OF-INNOVATION.ORG