

Comprehensive Economic Development Strategy FY 2015

Prepared for:
Economic Development
Administration

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Introduction



The Greater Boston region has an economy that is driven by innovation and knowledge and that values creativity in the development of new products. The region has many economic assets including a highly educated workforce, educational and medical institutions, and world class R&D capacity. The region also has a strong presence of financial institutions, including venture capitalists; a rich history; and a variety of unique places that attract residents and workers to our communities from around the world. Major companies continue to locate within the region because of the strong business development ecosystem that exists here.

The development community in Greater Boston is becoming more interested in investing and building in locations that are walkable, well served by transit, and that have a mix of residential and commercial uses with existing infrastructure in place. Our region is fortunate to be home to these kinds of places and new development in these areas is helping to create jobs and to attract highly educated workers who increasingly prefer to live and work in walkable and amenity rich areas. Since 2000, the Boston metro area has added approximately 52,000 people under the age of 34 with college degrees and around 69% of these people have located in either a walkable urban place or a walkable neighborhood¹. This highly educated workforce is a significant attractor for companies considering locating in the region and again helps to fuel economic growth.

¹Christopher Leinberger & Patrick Lynch, "The WalkUP Wake-Up Call: Boston," 2015. <http://www.smartgrowthamerica.org/documents/walkup-wake-up-call-boston.pdf>

The traditional measures of economic prosperity reveal a Metro Boston economy that is performing very well. The region has the third highest labor force participation rate among the top twenty five metropolitan areas in the country and regional job numbers in 2013 surpassed those of their previous 2001 peak. Bouncing back from the Great Recession, the region added 131,000 jobs between 2009 and 2013. Wages, too, are higher today than they were a decade ago. Adjusted to 2013 dollars, overall wages increased 6% between 2001 and 2013.

What these numbers do not reveal however is that not everyone is benefitting equally from the region's strong thriving economy. In fact, the Metro Boston region ranks among the worst in the nation in income inequality. The region also has persistent educational attainment gaps by race and ethnicity that limit potential job opportunities. Our regional urban center and inner core communities in particular are experiencing significant economic disparities. There is a growing body of research that shows a more equitable economy is a more resilient economy, better able to maintain long term growth.² The region needs to determine an economic path forward that opens up economic opportunities for residents from all different backgrounds.

The housing crisis in the Greater Boston region only serves to exacerbate equity concerns as low and middle income people are increasingly unable to find housing that they can afford. Because our region is a highly desirable place to live, prices continue to increase and supply is not keeping up with demand. According to MAPC's Stronger Region Population & Housing Demand Projections, the region will see a housing demand of 176,000 units through 2020. This population and household growth is likely to continue with a 12.6% increase in population and a corresponding housing demand of

² Chris Benner and Manuel Pastor, "Buddy, Can You Spare Some Time? Social Inclusion and Sustained Prosperity in America's Metropolitan Regions," 2013. brr.berkeley.edu

435,000 new units over the next three decades.³ If the region cannot adequately meet impending housing demand, Greater Boston will continue to lose talented workers to other regions as they look for more affordable places to live.

The region's economy faces other threats as well. As was epitomized by the effects of our most recent winter in 2015, our aging infrastructure has very real potential to cripple our economy. The American Highway Users Alliance estimated that due to the shutdown of roadways and transportation that resulted from the winter storms in 2015, the Massachusetts economy may have lost up to \$265 million a day⁴. It is critical that the region's policy makers and planners find a way to maintain and upgrade the connections and critical infrastructure on which our economy is so dependent.

Creating more jobs and effectively linking workforce development programs to these jobs also remains a priority in the Greater Boston region. We have made strides with collaborative community college workforce development initiatives.⁵ However, we need to continue to identify ways to decrease the skills gap and to train and educate the future and current workforce to fill available and emerging jobs.

Our region needs to focus on building not only a strong economy, but a resilient one that is dependent on a more diverse set of industries, that is built to endure the anticipated impacts of climate change, and that ensures that people from all different backgrounds have access to opportunity. Climate change impacts and downturns in the national economy inevitably impose unpredictable threats to the region's success. Creating an adept,

³ mapc.org/projections

⁴ "How much shutting down for snow costs Massachusetts businesses, economy." The Boston Globe. 2015, <https://www.bostonglobe.com/metro/2015/02/10/how-much-shutting-down-for-snow-costs-massachusetts-businesses-economy/4d7xZUVp6pL7vSQSEjpPOL/story.html>

⁵ "Statewide Grant Initiatives." Massachusetts Community Colleges, <http://masscc.org/partnerships-initiatives/statewide-grant-initiatives>

flexible, and equitable economy is the only way to ensure continued growth and success in Metro Boston.

Why a Regional Approach to Economic Development

As demonstrated through *MetroFuture*⁶, MAPC's 30 year plan for the region, economic development has important tie-ins with environmental issues, public health, education, housing, transportation, and infrastructure. None of these issues fall neatly within municipal lines and instead must be examined through a broader regional lens. In addition, municipalities in a region are interdependent because they are part of the same economy, sharing labor



and housing markets, transportation systems, educational institutions, cultural and scenic assets, and all of the other factors that make for a competitive region. Research into regional economic dynamics supports this theory that the health and prosperity of all municipalities in a region are linked⁷. The

⁶ *MetroFuture* serves as a guide for the work in all areas of the agency, including economic development. The plan supports a vision of smart growth and regional collaboration through the promotion of efficient transportation systems, conservation of land and natural resources, improvement of the health and education of residents, and an increase in equitable economic development opportunities for prosperity.

⁷ "Regionalism: Growing Together to Expand Opportunity for All," The Kirwan Institute. 2005, http://www.kirwaninstitute.osu.edu/reports/2005/05_2005_ClevelandRaceRegionalism_SummaryReport.pdf

suburbs cannot thrive with a failing center city and the city is dependent on the success of its suburban areas. It is also important to consider that from an international lens, metropolitan regions are generally considered the primary economic units of competition.

Public sector economic development planning and incentive programs, as well as private sector investments, will be most successful if guided by a shared regional vision that is deliberate and thoughtful. The greatest benefit to all municipalities in a region comes from working together, cooperating to build the economic assets of the region.

Why is the Comprehensive Economic Development Strategy Important?

Thoughtful and well planned economic development has the potential to help communities and individuals to thrive. Identifying strategies to maintain healthy economic growth and development has positive impacts on quality of life and the quality of our physical environment. Economic development can help increase equity by providing jobs and opportunities for those in need. It has also been demonstrated that job stability also has important links to better health.⁸ When new development occurs it can help to revitalize low income neighborhoods, but it is important to implement strategies to ensure that current residents and businesses benefit and are not displaced by associated rising market prices.

Critical thinking around what we develop, where we develop, and how we develop helps to ensure the longevity of important economic development investments and the resilience of our economy. Strategies to locate mixed use development in transit friendly locations or previously developed areas already served by existing infrastructure help to protect our environment by

⁸ Mattiasson, I, F Lindgarde, J A Nilsson, and T Theorell. "Threat of Unemployment and Cardiovascular Risk Factors: Longitudinal Study of Quality of Sleep and Serum Cholesterol Concentrations in Men Threatened with Redundancy." 1990, *BMJ : British Medical Journal* 301 (6750): 461–66.

reducing car trips and preserving open space that may otherwise be susceptible to development.

The Comprehensive Economic Development Strategy uses *MetroFuture* as a guiding lens to examine the strategies that the Greater Boston region can pursue in order to achieve smart and equitable economic development. This plan highlights the current state of the regional economy, discusses strengths and challenges that we face in greater detail, and outlines strategies that stakeholders working in various sectors and fields can adopt in order to address challenges and ensure continued economic prosperity for all in the Greater Boston Region.

Past CEDS Successes

The region has seen many successes emerge from previous Comprehensive Economic Development Strategies. Some examples are discussed below.

The CEDS became one of the primary vehicles to demonstrate the value, worth, and contributions of the Life Sciences sector in Greater Boston. Federal officials looking for a temperate and data-based look at local life science industries used the CEDS to inform funding decisions.

The CEDS played a crucial role in attracting federal funding for the Northeastern University School of Law to implement one program with two very different outcomes. The Community Business Clinic at the School of Law provides high quality, one-to-one business legal services immigrant entrepreneurs at no cost. Additionally, the data drawn from the Community Business Clinic is informing a groundbreaking longitudinal academic study examining the relationship between entrepreneurship, economic development, and poverty alleviation.

Projects throughout the region like North Shore InnoVentures, N², The North Shore Bio-Science Consortium, and Developing a New Marine Economy on Gloucester Harbor, received guidance and perspective from MAPC that

encouraged the creation of region-wide partnerships. These projects were able to leverage the collective strengths of the private sector, local government, universities and colleges, and business umbrella groups to focus on one priority mission.

The 2015-2020 CEDS builds on the successes of its predecessors and integrates new goals and strategies to specifically address threats and challenges to our regional economy.

Current Economic Conditions

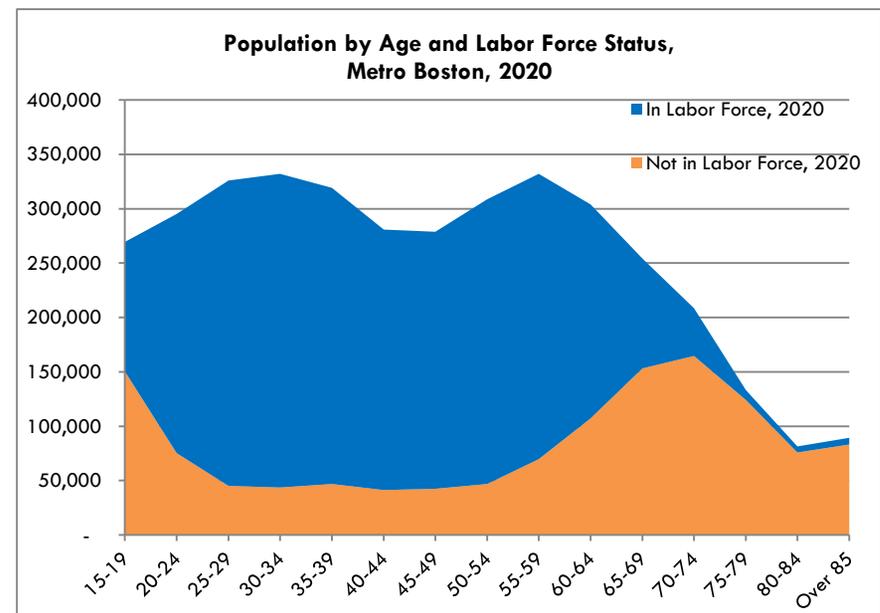
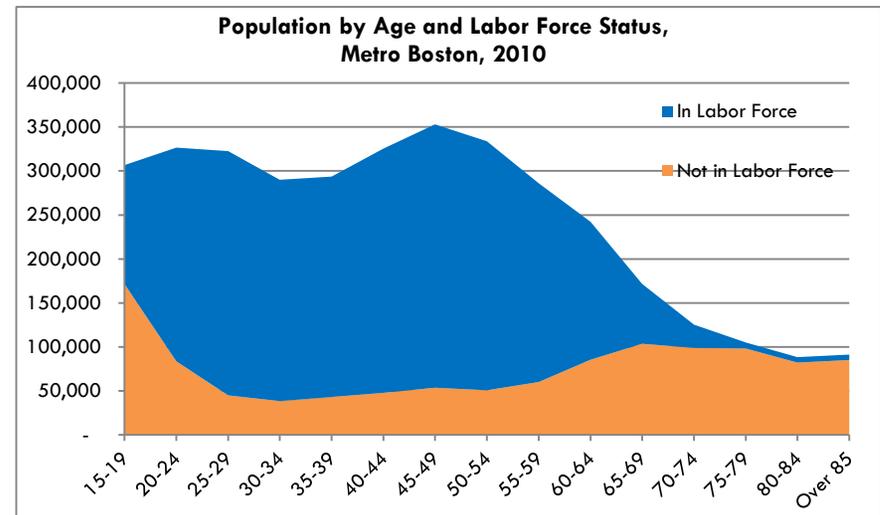
Demographics

In the coming years, the Boston Metropolitan region, along with the nation, is expected to experience major demographic changes. As baby boomers are aging, the region must prepare for an older population and the implications that these changing demographics will have on the region's workforce and our economic competitiveness. Baby boomers- those born between 1945 and 1970- made up 49% of the region's labor force in 2010. As they begin to retire, they will deplete one of our most critical assets: a skilled, well-educated workforce with deep institutional memory. Under current trends, there are not enough young adults to fill all of the positions that will be vacated by Baby Boomers, much less provide the labor force required for robust economic growth. It is important to note that at this particular point in time, we actually have more highly educated workers than high skill jobs in Metro Boston. However this has great potential to change as high skilled baby boomers retire and their jobs simultaneously open up.

If historical migration rates persist, the total labor force may grow by only 0.4% between 2010 and 2040, creating a substantial growth constraint. In recent years, we have seen greater attraction and retention of young workers, but we will have to continue to confront the challenges and the opportunities that an aging population poses for our economy. In the graphs to the right, you can see the trend of older populations leaving the labor force in 2020¹⁰.

Another important demographic trend that the region is experiencing is declining household size. With more single-person households (especially seniors), more single adult head of households, and fewer children per family, average household size is likely to decline 10% by 2040. Declining household size alone will result in approximately 86,000 additional smaller households

over the next ten years. This is an important demographic trend because the strong demand for housing and shortage of supply contributes to high market



¹⁰ Mapc.org/projections

prices in our region. If people cannot afford to live here, they will not be able to fill the number of jobs that are left open.

Recent research has found that not only are young people critical for filling the jobs that baby boomers are leaving, they also are an important indicator of the health and attractiveness of a metropolitan area. Nationally, the number of young people living within three miles of major city centers is increasing and is reinforcing the decision of many companies to locate in urban areas as young employees are continuing to prefer these types of environments¹¹.

Because of the numerous colleges and universities that are within the Greater Boston Region, we have a significant number of young people who live here. In 2012, the Boston metro area had the most highly educated 25-34 year old population living within close proximity to the city center¹². According to a recent research report conducted by the Boston Redevelopment Authority and the Umass Donahue Institute, 35% of the City of Boston is between the ages of 20 and 34, which represents the highest share of all major cities in the US. This same report cites that the city has approximately a 50% retention rate of recent college graduates¹³.

However when comparing the Boston-Cambridge-Quincy metro area to other major metropolitan areas throughout the nation, we are actually lagging behind. Between 2000 and 2010, San Diego saw a 90% increase in 25-34 year olds with a four year degree living in a neighborhood within three miles of the

central business district. Los Angeles saw a 94% increase. Philadelphia and DC both saw around a 75% increase, but the Boston metro area only saw a 36.4% increase¹⁴.

The region will need to provide more jobs in order to continue to attract young people and will also need to develop strategies to retain young people as they advance in their careers, begin to start families, and need to find affordable places to live within the region.

¹¹ "Young and Restless," The City Observatory. 2014, <http://cityobservatory.org/ynr/>

¹² "Young and Restless," The City Observatory. 2014, <http://cityobservatory.org/ynr/>

¹³ "Retaining Recent College Graduates In Boston: Is there a Brain Drain?" Boston Redevelopment Authority Research Division, 2014. <http://www.bostonredevelopmentauthority.org/getattachment/170db5fb-ad3b-4fbb-a143-82f7d7f4539e/>. The report acknowledges "the self-selecting and self-reported nature of the sample and cannot conclude that these data are statistically significant." Consequently, it is wise to treat these findings with some caution

¹⁴ "Young and Restless," The City Observatory. 2014, <http://cityobservatory.org/ynr/>

Race

The population of the region is expected to become increasingly diverse, led by the rapid growth of the Hispanic population, which could more than double by 2040. In fact, growth in the Hispanic population alone is likely to be greater than the overall population growth in the region. Meanwhile, outmigration, mortality, and low birth rates are expected to cause a decline of 16% in the population of Non-Hispanic White residents between 2010 and 2040. The diversification of the region will be especially pronounced among young people¹⁵. Ensuring that people from all different racial background have access to economic opportunities will be a critical consideration for the future of the Metro Boston economy.

Educational Attainment

Metro Boston is known for a strong supply of skilled and educated workers. Among the 25 most populous metropolitan areas in the U.S., Metro Boston ranks 3rd in share of adults over 25 years of age with a 2- or 4-year college degree. High-skill industries such as education and health services, finance, and professional and business services, are thriving in our region, where

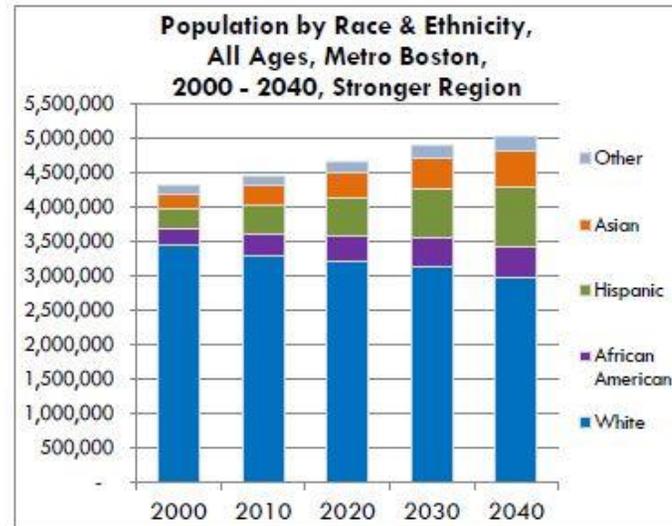


Figure 16. Population by Race and Ethnicity, All Ages, Metro Boston, 2000–2040, Stronger Region.

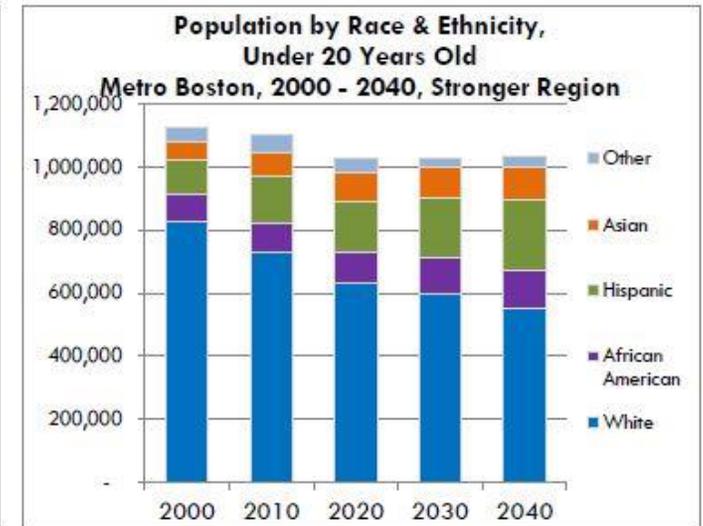


Figure 15. Population by Race and Ethnicity, Under 20 Years Old, Metro Boston, 2000–2040, Stronger Region.

employment in those sectors is 51% of regional employment – 15 percentage points above the national average.¹⁶

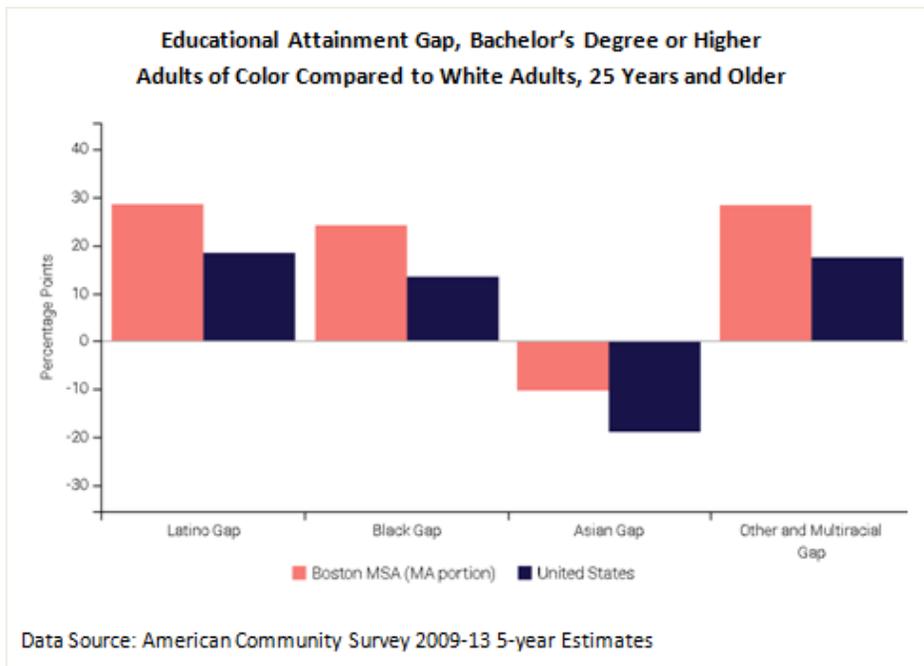
Yet the region requires a strategy to maintain this competitive edge. One million workers now over age 40 (nearly 40% of the workforce) are projected to leave the region's labor force by 2030 and skilled and educated workers must be available to fill these jobs or else they may leave the region.¹⁷ Although we are the home to many colleges and universities, the Metro area loses a significant number of residents between ages 25 and 40 to other parts of the country. We must find ways to retain these workers and to ensure even educational attainment across race and ethnicity so that everyone can fully participate in the region's workforce. Metro Boston's educational

¹⁵ MetroBoston Projections Final Report 1_16_2014.
http://www.mapc.org/sites/default/files/MetroBoston%20Projections%20Final%20Report_1_16_2014_0.pdf

¹⁶ Gittell and Lemos, "Executive Summary: Universal Economics? Boston's Role in the Regional Economic Network", New England Economic Outlook Conference, New England Economic Partnership, Boston, MA, November 14, 2013.

¹⁷ Mapc.org/projections

attainment gap by race is greater than the national average across all races.¹⁸The educational gap by race is displayed in the chart below.



Employment & Wages

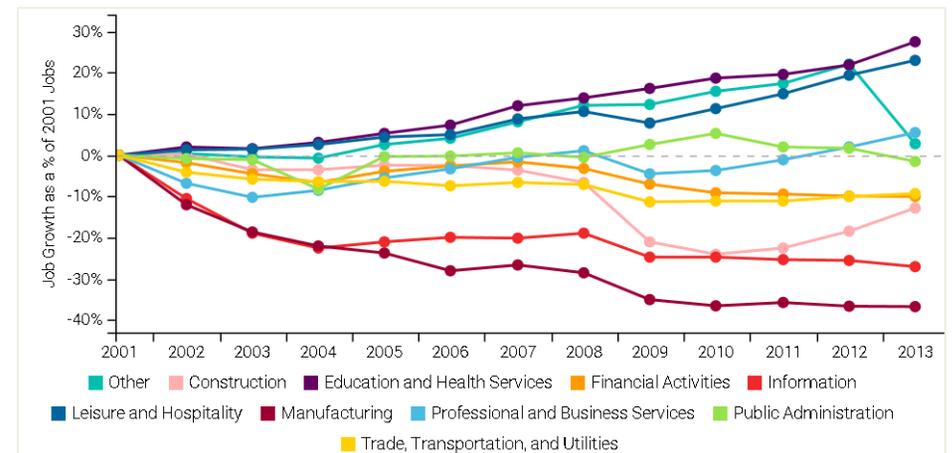
Metro Boston is home to 143,000 business establishments that provided employment for 2.42 million workers in 2013. Those workers took home \$163 billion in total wages,¹⁹ money that they put back into the region's economy through real estate, consumer goods, and investment.

Employment in Metro Boston firms is at an all-time high, as of 2013, and has inched above the previous 2001 peak. The region's recovery from the Great

Recession was fairly strong and since 2009, employment in Metro Boston firms grew faster than the rest of the nation.

In the below chart, employment in Metro Boston firms is broken down by industry. The data shows that certain industries are leading the way when it comes to economic growth in Metro Boston. The Education and Health Services sector posted year-over-year gains almost continuously between 2001 and 2013, adding 137,000 jobs for an increase of 27.5%. Leisure and Hospitality has also seen 23% growth since 2001 (45,000 jobs). Professional and Business Services and Construction industries have also all added jobs between 2009 and 2013 (post Great Recession). These trends are consistent with national patterns, though the region's rate of employment recovery was slightly faster than the nation overall.

Job Growth in Metro Boston Firms by Sector



Data source: Massachusetts Executive Office of Labor and Workforce Development ES-202 2001-2013

Note: In 2013, home health aid services were reclassified from "Other Services, Private Households" into Education and Health Services, which explains the large drop in Other employment in 2013 and amounts to approximately half of the job gains for Education and Health Services in that year.

¹⁹ Data Source: Massachusetts Executive Office of Labor and Workforce Development ES-202 for 164 Metro Boston municipalities.

While Metro Boston has slightly positive overall job gains between 2001 and 2013, job numbers in many individual industries declined over that period, especially in goods-producing industries. Manufacturing lost 95,800 jobs (37% decline) and Construction lost 13,800 (13% decline). Some of the service sectors also saw job losses with a 10% decline in Financial Activities, 27% decline in Information, and a 9% decline in Trade, Transportation, and Utilities. The timing of jobs losses and gains in different sectors since 2001 are related to the underlying causes of the two major US recessions experienced in recent history. The region lost almost five times more Information Services jobs between 2001 and 2005 than it did between 2005 and 2013, reflecting the central role that the dot-com bubble played in the recession of the early 2000s. Between 2001 and 2004, the Information sector lost jobs in every subsector within it, but since then, the only two subsectors that continue to lose jobs are the Newspaper/Book Publishing and Telecommunications subsectors. The Software Publishing & Other Information Services subcategory, which includes Internet Publishing and Broadcasting, has rapidly gained jobs in the region.

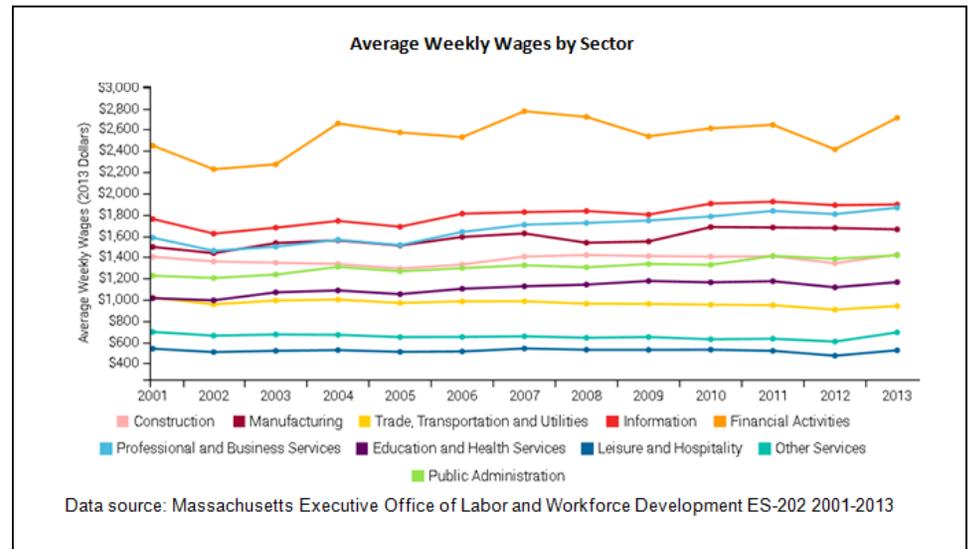
The Great Recession, which was partially caused by a housing market collapse, cost the region over eight times more Construction jobs than it lost in the first half of the decade. However, the depth of the housing crisis and the number of vacant units post-2008 was not as severe in Metro Boston as many other regions. This helps to explain why Construction resumed more quickly here, relative to the nation.

Other labor market changes, however, are related to longer-term structural and demographic trends. Job losses in Manufacturing, for example, led all sectors from 2001 to 2013. Statewide, Manufacturing declined from 15.4% of total jobs in 1992 to 6.8% of total jobs by 2013. Similarly, Trade, Transportation, and Utilities declined from 18.4% of the total to 16.7% over that same time period. These losses are related to globalization of manufacturing, increasing automation and efficiencies in the retail sector,

and the growth of internet commerce; all trends likely to continue into the future.

Wages by Industry

Overall in Metro Boston, wages in the region grew 6% (adjusted for inflation) between 2001 and 2013, despite a 2% dip during the Great Recession. Most individual sectors saw increased wages in this time period, but not all. Education and Health Services, the region's largest sector and its fastest growing, saw its average weekly wages increase 15% between 2001 and 2013, from \$1,010 to \$1,160. Professional and Business Service, the region's second largest sector, saw the largest increase in average weekly wages, at 18%, from \$1,580 to \$1,870. Although Manufacturing has seen steep declines in employment, average wages for the remaining jobs have increased substantially (11%), possibly due to increasing specialization in Manufacturing or higher skills needed. Construction wages increased only 2% over a decade.



On the other hand, the growing Leisure and Hospitality industry has been adding more jobs, but paying average wages 3% lower than in 2001. Trade, transportation, and utilities, the region's third largest (though shrinking) sector, saw the largest declines in wages, at 8% loss, from \$1,020 to \$940.

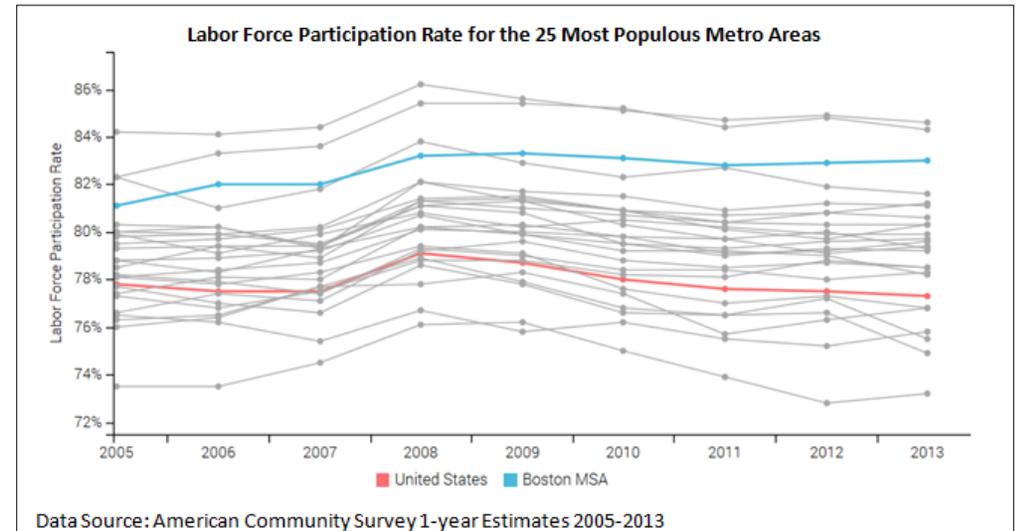
Labor Force

Metro Boston has the third highest labor force participation rates among the 25 most populous metropolitan areas. Nearly 83% of the region's residents age 25 to 64 are employed or seeking work. In the years since the Great Recession, national labor force participation has been slowly but steadily declining, a troubling trend for the national economy. In Metro Boston, however, participation has remained relatively stable. The participation rate in the region dipped slightly between 2009 and 2011, but increased in 2012 and 2013, all within the margin of error.²⁰ Relatively strong labor force participation rates are consistent with the Boston region's relatively strong employment growth over the same period of time.

Unemployment

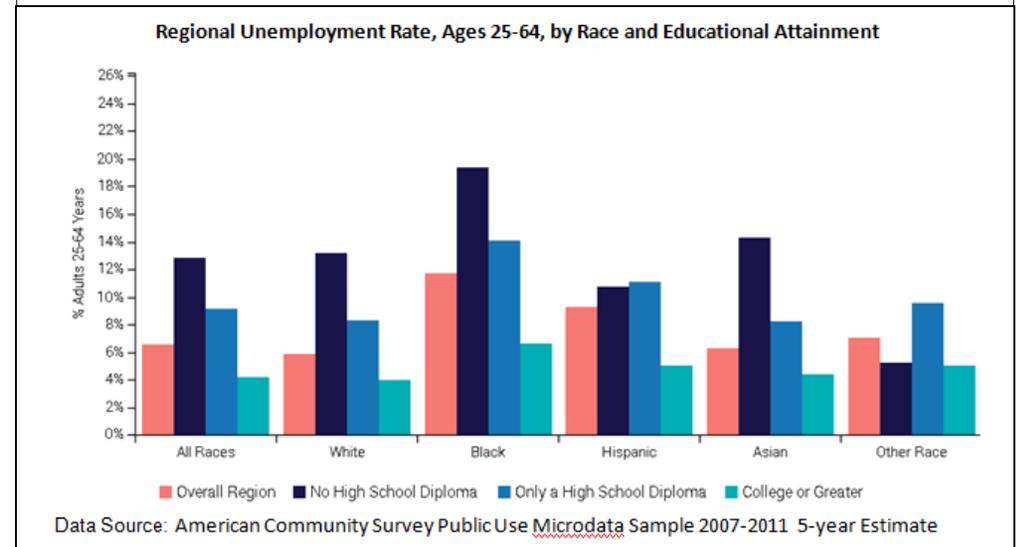
The annual unemployment rate in Metro Boston was 5.3% in 2014, lower than the 5.9% rate of Massachusetts, and the 6.2% rate of the nation. The region's annual unemployment rate has been consistently lower than that of the state and nation since the early 1990's except for in 2002, just following the 2001 recession, when the region and the state had the same annual rate.

However, the Metro Boston region experiences persistent gaps in unemployment rates by educational attainment and by race and ethnicity. For an adult in the region without a college degree, the unemployment rate is double that of an adult with a college degree; for an adult without a high school diploma, it is triple. Race is also a significant factor in employment outcomes, especially for Black residents: the unemployment rate for Blacks in the region is 6 points higher than that of Whites, a larger gap than it was a decade before at 4 points.



Data Source: American Community Survey 1-year Estimates 2005-2013

Note: In 2008 the American Community Survey changed the way it measures employment, resulting in systematically higher employment estimates. As a result, we cannot directly compare pre- and post-2008 rates.



Data Source: American Community Survey Public Use Microdata Sample 2007-2011 5-year Estimate

²⁰In 2008 the American Community Survey changed the way it measures employment, resulting in systematically higher employment estimates. As a result, we cannot directly compare pre- and post-2008 rates.

Unemployment is also particularly high in Inner Core and Regional Urban Center communities. Regional Urban Centers, in particular, have college attainment rates that are 16 percentage points below the regional average. Because of these significant economic disparities, it will be important to focus strategies to improve the economy in these types of communities.

Jobs Skill Mismatch

In addition to ensuring that the region's residents have low unemployment, it is also important that workers be employed in jobs that fit their educational qualifications. Although the proportion of high skill jobs is increasing as a share of total employment, the region still cannot support the number of workers with bachelor's and advanced degrees in jobs that require that level of education. In the high skill job category, there are over 383,000 more qualified workers than there are jobs that require a bachelor's degree or higher. There is surplus of middle skill jobs²¹ when compared with middle skill workers in the region and a relatively low unemployment rate of highly educated workers. This likely means that a certain number of higher skill workers are employed in jobs that require a lower level of education than they possess. In the low skill job category, those requiring a high school diploma or less, there is a surplus of 2,000 jobs, which is within the margin of error and indicates a relative balance of workers to jobs. However, the unemployment rate for low skill workers is triple that of high-skill workers, and one and half times greater than middle skill workers. In light of this, it is evident that overqualified workers are filling low-skill jobs as well. The region must continue to attract jobs that can employ highly educated workers in order to effectively address some of these issues.

Location Quotient Analysis

While Education and Health Services & Leisure and Hospitality are leading the way in terms of employment growth, when comparing Metro Boston's

²¹ Middle skills jobs are defined as those that require workers to have more than a high school diploma but less than a four year degree.

Gateway Cities

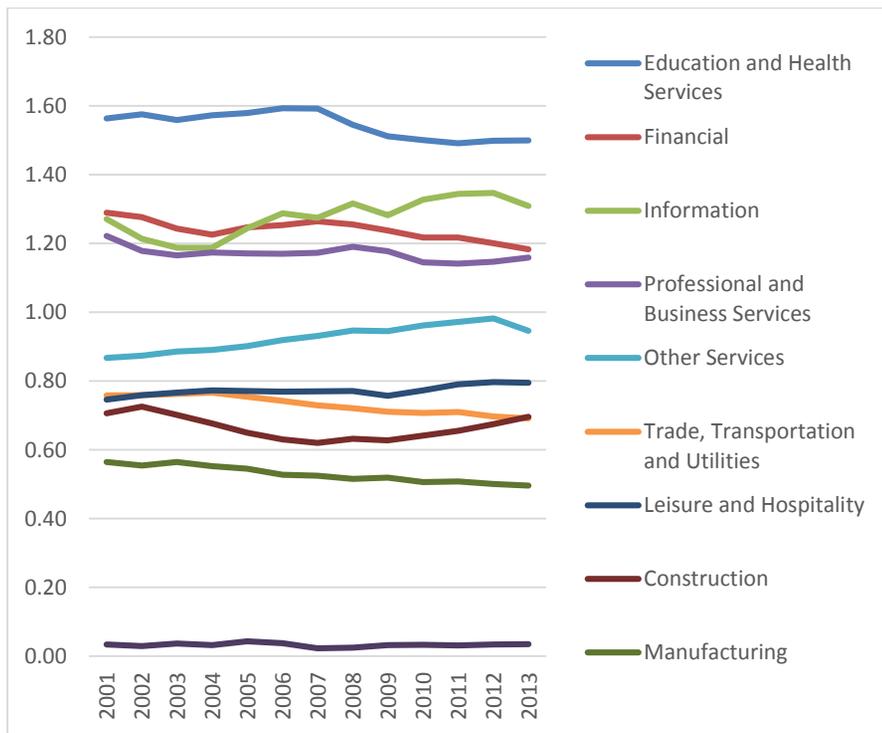


Inner Core Communities and Regional Urban Centers throughout our region are facing significant economic disparities and will need focused attention and additional investment in order to thrive. Gateway Cities, in particular, need help to renew their economies, attract more jobs and more educational opportunities.

Under M.G.L. c. 23A section 3A, Gateway Cities are small to mid-sized cities with a population of at least 35,000 and less than 250,000. They have a median household income below the state average and a rate of educational attainment of a bachelor's degree or above that is below the state average. Many of these communities are former manufacturing cities that are struggling to rebuild their economies after deindustrialization in the mid-1970s resulted in the loss of many blue-collar jobs. Gateway Cities have a number of opportunities and assets to build off of, including growing immigrant populations, and in many cases significant infrastructure with excess capacity. Many are home to colleges and important regional institutions. Helping to revive these cities is key to the economic health of the region.

relative strength in various industries with the nation overall, a slightly different picture emerges. Location quotient analysis allows us to quantify how concentrated a particular industry is in the region when compared with the concentration in the nation. If the location quotient is above 1, then the region has a higher concentration of employees when compared with the nation. Generally when the location quotient is around 1.25 or 1.5, it would be considered an industry that substantially contributes to the local economy. The chart below reinforces the fact that Education & Health Services and Professional and Business Services are important industries for the region. However, it also shows that Metro Boston has a relative strength in Information Technology, despite the fact that we have lost many jobs in this sector.

Location Quotient Analysis, MAPC Region 2001-2013



Although the leisure and hospitality industry has seen tremendous growth in employment since 2001, the location quotient analysis reveals that it is not highly concentrated in Metro Boston when compared with the nation. Perhaps most revealing is the fact that Education & Health Services and Professional and Business services also show a leveling off of relative strength when compared with the nation. The region has long relied on these industries to grow and support the economy. Considering that, as other regions throughout the nation become more competitive in these industries, Metro Boston will need to be strategic to continue to drive growth in these industries. In order to ensure that our economy remains resilient, it is also important to diversify the industries that are helping to drive growth in Metro Boston. Strategies to grow industries outside of Education and Health and Professional and Business Services will help to ensure this resilience.

Small Business

Small businesses are an important component of the regional economy because they form the heart and soul of many local business districts, not to mention that almost all start-ups must pass through a small business phase before growing to scale. 86% of all Massachusetts firms employ 19 or fewer employees; these businesses employ 17% of the Massachusetts workforce.²² Within our region, 26.7% of regional employment is within firms with 5-99 employees and 4.4% of regional employment is within firms with 1-4 employees. Small businesses are a critically important factor in our regional economy and identifying strategies to support small businesses will help to support jobs throughout the region.

²² "Small Business Community in Massachusetts," Massachusetts Executive Office of Housing and Economic Development, <http://www.mass.gov/hed/business/small-business-community-in-massachusetts.html>

There is no official definition of a small business, but they can be defined by number of employees. We define small businesses as those with 5-99 employees, and micro businesses as those with fewer than 1-4 employees. Employment in micro, small, and mid-size (100-499) businesses declined between 4-7% between 2003 and 2011. Employees in large firms are compensated at 12% above the regional average, while those in micro and small businesses are compensated at 18% below the regional average²³. These trends suggest that small businesses are having a difficult go of it in Metro Boston—unable to take advantage of the boom years preceding 2008, and also slow to recover from the Great Recession. More assistance and supports are clearly needed if growing small businesses are a key policy priority.

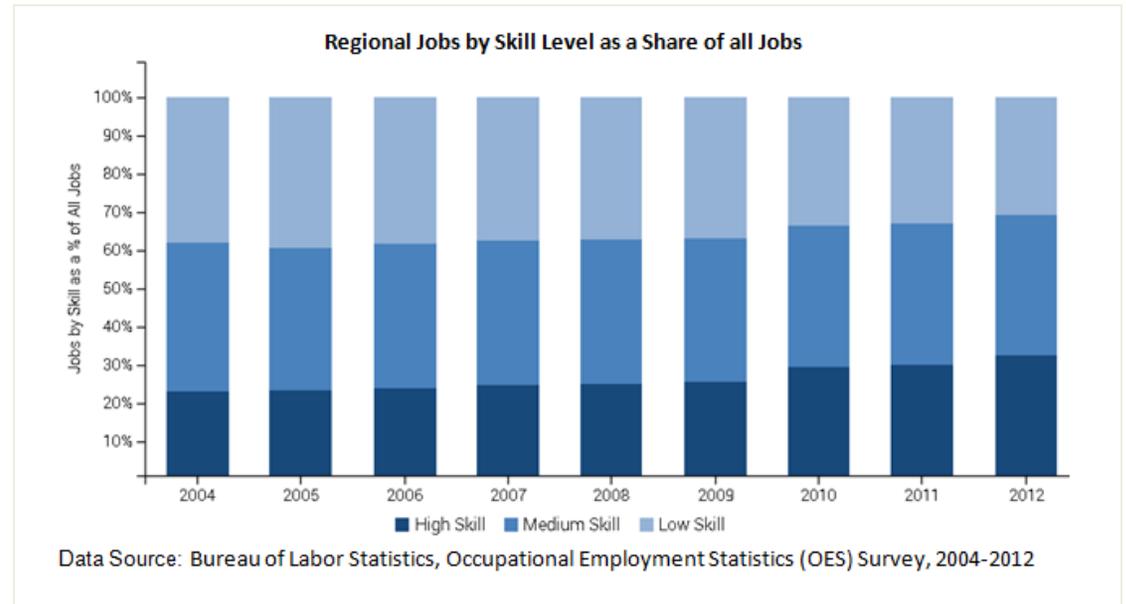
Knowledge Economy

Occupational employment trends demonstrate that Metro Boston’s economy is increasingly knowledge-based. Employment in high-skill jobs requiring a college degree or greater, as a share of total regional employment, has grown steadily over the last decade, and shifted from 23% of total jobs in 2004 to 32% in 2012.^{24, 25} However, the share of mid-skill jobs requiring some college or an associate’s degree declined over this period, from 39% in 2004 to 37% in 2012. Share of low-skill jobs requiring a high school diploma or less dropped more considerably, from 38% in 2004 to 31% in 2012. Interestingly, despite this growth in high skill jobs, there are still not enough jobs in the region to support the number of workers with Bachelors and advanced degrees.

²³ Mid-size businesses are those with 100-499 employees. Large businesses are those with more than 500 employees.

²⁴ 2004 is the earliest year for which occupational employment data is comparable with current data

²⁵ For tabulation purposes, the geography for this figure is the Boston-Cambridge-Quincy, MA NECTA Division, which is a smaller subset of the Boston-Cambridge-Quincy MA-NH MSA.

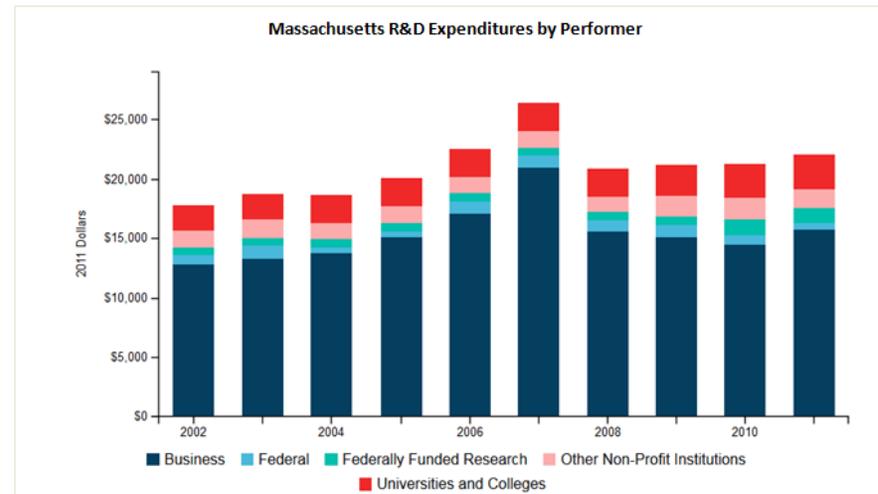


Innovation

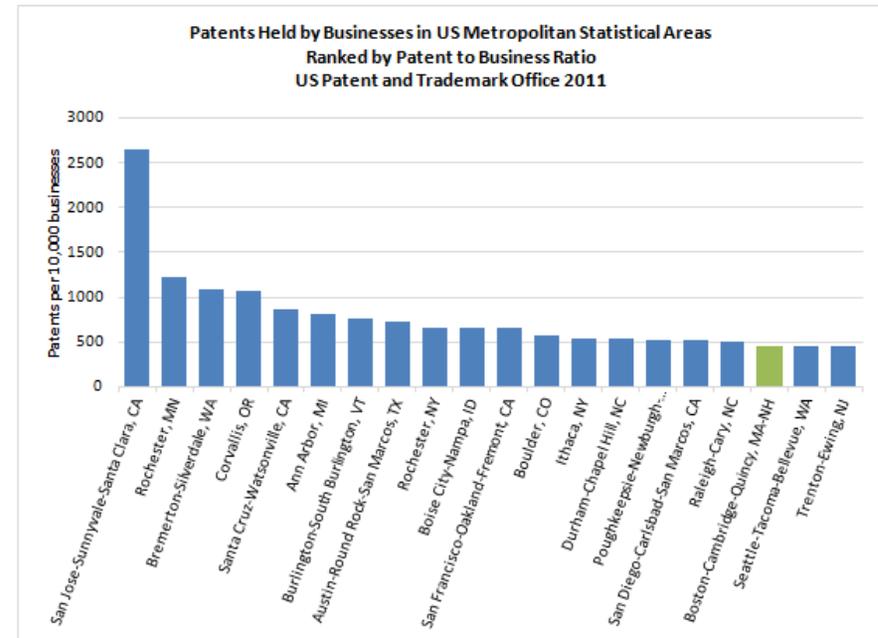
The economy in Metro Boston has thrived on the ability of entrepreneurs to innovate. The region’s economy was relatively resilient during the Great Recession thanks to its leadership and innovation in science and technology development. Indicators of knowledge-based economies, such as research and development expenditures and patents issued per business, showed positive growth through the recession.

Massachusetts is consistently a national leader in research and development. With \$22 billion in research and development expenditures in 2012, the state ranked second among states in overall expenditures.

The Metro Boston region is known for its research universities and technology companies. Massachusetts has ranked within the top 4 U.S. states in total R&D expenditures since 2002 and within the top 4 for R&D intensity (expenditures as a share of state GDP.) In 2012, Massachusetts ranked 2nd for placetotal expenditures and 3rd for intensity, among U.S. states. This chart shows expenditures by performer sector – meaning the sectors doing the research. Each performer sector receives money from multiple sources, including federal, non-profit, business, and others. The size of the state’s R&D industry is enhanced by the diversity in its performing sectors. The chart below shows that despite shrinking R&D expenditure in the business sector in 2009 and 2010 after the Great Recession,²⁶ the state was able to maintain positive overall growth in expenditures during these years, because of increased expenditures in universities and colleges, non-profits and Federally Funded Research and Development Centers. The rebounding of the business performing sector, as of 2011²⁷ is a positive sign for the R&D industry, especially as federal funding sources, such as 2009’s American Recovery and Reinvestment Act have started to taper off.



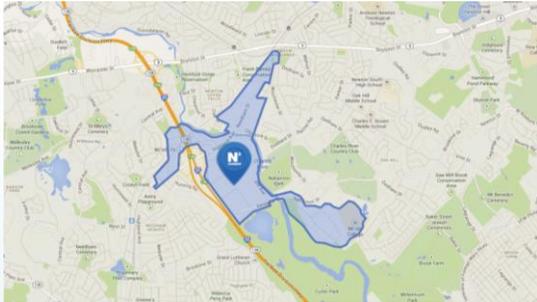
Data Source: National Science Foundation
 Notes: In 2008, National Science Foundation changed surveys for business performer sector data, so it may not be appropriate to compare data from 2007 and earlier directly to data from 2008 and later. For more information about this change and NSF’s other data collection methodologies, see http://www.nsf.gov/statistics/nsf14304/content.cfm?pub_id=4326&id=1. Current year estimates are subject to correction by NSF upon release of subsequent year data.



²⁶ In 2008, National Science Foundation changed surveys for business performer sector data, so it may not be appropriate to compare data from 2007 and earlier directly to data from 2008 and later. For more information about this change and NSF’s other data collection methodologies, see http://www.nsf.gov/statistics/nsf14304/content.cfm?pub_id=4326&id=1.

²⁷ Current year estimates are subject to correction by NSF upon release of subsequent year data

Building off of the above data, the number of patents is one measure of the intellectual productivity of the region's R&D community. More importantly, each patent represents an opportunity to profit from the development,



The N2 Innovation Corridor is a 500 acre area along the Needham-Newton line that includes two office parks and adjacent commercial streets. It has access to I-95 and is home to many innovation economy businesses, educational institutions, recreational areas, restaurants, hotels and retail shops. The N2 initiative is part of a public-private partnership designed to promote the area as a destination for technology companies, start-ups and other innovators.

MAPC has worked with the N2 initiative to secure funding through the Economic Development Administration to promote the areas as a place for new business attraction and formation, support the formation of and nurture new and innovative startup companies within N2, and to advocate for business and economic development interests in local municipalities and with state agencies within the area. The ultimate goal of this effort is to establish an economic development non-profit organization specifically to plan for and enable new business attraction and formation.

manufacturing, and sale of new inventions. In 2011, innovators in Metro Boston were issued over 4,500 patents, making the Boston area a national leader in innovation. Metro Boston ranks 5th among U.S. metro areas for

number of patents issued. The number of patents is often expressed as ratio of patents to businesses. In 2011, 459 patents were issued per 10,000 businesses in Metro Boston, up 40% from 2003. The region now ranks 17th in the nation for number of patents issued per business, up from 29th in 2003. While it is not possible to determine how many patented inventions came to the market or were manufactured in the region, the statistics make it clear that there are abundant ideas on which to base more advanced development and production activities.

The Boston Region is also home to a number of innovation districts²⁸. These districts facilitate new connections and ideas, accelerate the commercialization of those ideas, and support metropolitan economies by growing jobs in ways that leverage their distinct economic position²⁹. Established and growing innovation districts in the Boston area include Kendall Square/MIT and the Seaport District. Dudley Square is another area that has recently seen public investment and is being considered by the City of Boston as a potential hub for technology innovation. These areas continue to drive our economy forward as they produce business expansion, new ideas, and the kind of urban density that is necessary for smaller local businesses to also succeed.

The Boston region has significant potential to develop additional innovation clusters as there are many dense, walkable mixed use areas throughout our region in both urban and suburban areas. As Boston and Cambridge areas become more expensive, start-up companies look for space outside of these areas where they can further mature and prepare for growth. Innovation districts outside of the city can serve as a home for those growth stage companies that have outgrown smaller spaces in the urban core but that

²⁸ The Brookings Institute defines innovation districts as “geographic areas where leading-edge companies, research institutions, start-ups, and business incubators are located in dense proximity.

²⁹ “Innovation District Series” Brookings, 2015, <http://www.brookings.edu/about/programs/metro/innovation-districts-series>

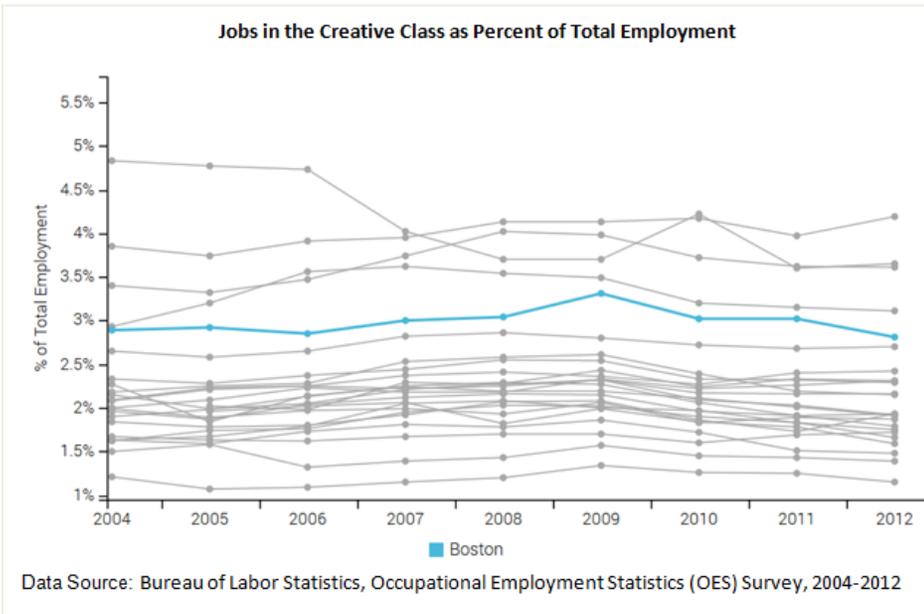
value the walkable amenity-rich environments that they know their employees will demand. Providing places, such as within regional urban communities that are currently struggling, for growth stage companies to locate within the region will allow us to add jobs and value to our regional economy and create a sustainable pipeline for start-up companies that want to stay within the region. They also provide a lower cost option with less gridlock than is experienced in the innovation sectors of the inner core.

Creative Economy

The creative economy is also an important contributor to both innovation and creativity. This sector includes professions such as visual and performing artists, advertisers, architects, and graphic designers. The Metro Boston region has 1.5 million creative economy jobs in the region and Boston ranks 5th in creative sector wages relative to average regional wages. Although it is a small percentage of the total regional economy, a strong creative economy helps to foster a vibrant community that attracts talented workers, brings in both tourists and dollars, and helps to keep the region globally competitive.

Metro Boston is full of artistic and cultural resources that contribute significantly to our economy. The region’s creative economy is made up of occupations and industries that focus on the production and distribution of cultural goods, services, and intellectual property, in accordance with New England Foundation for the Arts’ definition.³⁰ Workers in creative occupations cluster into three sub-classes – those who are involved in the direct production of cultural goods (e.g., artists, authors and artisans); those who are involved in the distribution or dissemination of creative goods (e.g., book stores, museums, and art dealers); and those who are involved in the production and distribution of intellectual property (e.g. book publishers, architects and graphic designers, advertising agencies, and media outlets.)

Employment in this diverse cluster of creative occupations accounts for 2.8% of total employment within Metro Boston, 5th among the top 25 metropolitan areas by employment. The average earnings among creative cluster workers is three times the overall average salary in the Boston region, behind only New York, Los Angeles, San Francisco, and Washington D.C. Creative cluster workers are prevalent in those metropolitan regions where they command a relatively high salary. This represents an opportunity for Boston to build on this sector.



³⁰ Douglas DeNatale, PhD, and Gregory H. Wassall, PhD, “The Creative Economy: A New Definition,” New England Foundation for the Arts, 2007, <http://www.nefa.org/sites/default/files/ResearchCreativeEconReport2007.pdf>

Clean Economy

The “Clean Economy” comprises industries and firms that provide goods and services directly related to protecting the environment, mitigating climate change, conserving energy, and generating clean power. According to The Brookings Institution, Metro Boston had 41,800 clean economy jobs in 2010, for a rank of 8th out of the top 25 largest U.S. metro areas³¹. The Brookings Institution reports that the clean economy was more resilient during the Great Recession than the economy overall,³² and that it is intensive in manufacturing and export activities. The study reports that Metro Boston’s strongest clean energy industries are public transit (MBTA), waste management & recycling, professional environmental services, and energy efficient building design and construction. The region’s fastest growing sectors include smart grid technologies and alternative energies such as solar, wind, and biofuels.³³

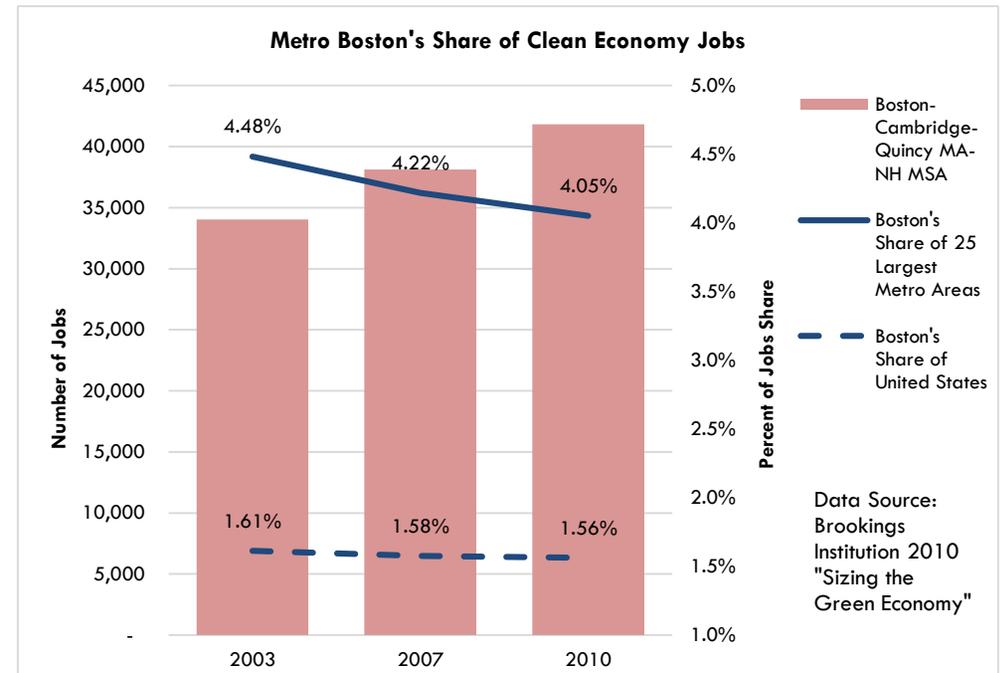
Clean economy innovations will likely be driven by a knowledge-based economy, but can also provide employment opportunities in middle-skill and advanced manufacturing jobs. In fact, manufacturing is the largest source of green jobs in the private economy. Examples of green manufacturing jobs are home energy-efficiency, energy efficient appliances, recycling, renewable energy generation, construction and transportation. While the clean economy sector has shown consistent growth in the Boston MSA since 2003, its growth has been outpaced by other metro areas and the U.S. overall, and its share of clean jobs in the top 25 metro areas and in the US has steadily declined since 2003. Continued investment in this sector will be necessary to ensure future growth.

³¹ For more details about The Brookings Institution’s selection methodologies, see their report “Sizing the Clean Economy,” Chapter 3. Defining and Measuring the Clean Economy in U.S. Metropolitan Areas.

http://www.brookings.edu/~media/Series/resources/0713_clean_economy.pdf

³² Brookings released their data for the years 2003, 2007 and 2010.

³³ “Sizing the Clean Economy,” p 26.



Clean Technology & Sustainable Energy

The Clean Technology & Sustainable Energy cluster in particular will be an important factor in creating a more resilient regional economy. The state of Massachusetts has strong policies and programs in place that have helped to facilitate growth in this sector. Legislation including the Green Communities Act, the Green Jobs Act and the Global Warming Solutions Act have helped to spur growth in clean energy³⁴. In fact, the American Council for an Energy-Efficient Economy ranks states on their energy efficiency policy and program efforts and Massachusetts was ranked #1 on this list.³⁵ Clean energy is also experiencing some success in the Greater Boston region because of high fossil fuel energy costs and continuing price declines of clean energy goods and services. The majority of clean energy businesses and workers are located in Eastern Massachusetts and the Metro Boston region although there has been growth throughout the state³⁶.

In 2014, the Massachusetts Clean Energy Center (MassCEC) put together the MA Clean Energy Industry Report which looked at the size and growth of the clean energy sector employment and businesses. The report shows that the MA clean energy industry has grown to 88,732 clean energy workers and 5,985 firms. Clean energy firms have added more than 28,000 clean energy workers to their payrolls since 2010, producing a growth rate of 47%. The clean energy workforce has grown more than 10 times faster than the statewide employment growth since 2010. The solar industry in particular has created thousands of new jobs in Massachusetts.³⁷

Massachusetts is the top ranked state per-capita for early stage clean energy investment (and second in absolute value), the total dollar amounts in early

³⁴ "Massachusetts Clean Energy Report," MassCEC. 2014, <http://images.masscec.com/reports/Executive%20Summary.pdf>

³⁵ "The State Energy Efficiency Scorecard," American Council for an Energy-Efficient Economy, 2014, <http://aceee.org/state-policy/scorecard>

³⁶ "Massachusetts Clean Energy Report," MassCEC. 2014

³⁷ "Massachusetts Clean Energy Report," MassCEC. 2014



The Massachusetts Clean Energy Center is the first state entity in the nation created with clean energy economic development as a primary goal. The center is dedicated to accelerating the success of clean energy technologies, companies and projects in Massachusetts- while creating high-quality jobs and long-term economic growth for the people of Massachusetts. MassCEC provides early-stage investments to startup companies, funds renewable energy rebates for residents and businesses and supports the development of a local clean energy workforce.

Since 2009 when MassCEC was created they have helped a number of clean energy companies grow, supported municipal clean energy projects and invested in residential and commercial renewable energy installations creating a robust marketplace for innovative clean tech companies and service providers.

stage investment from federal and private sources are shrinking and the state may want to consider if they have a role in filling that gap³⁸.

Massachusetts ranked second in the nation in 2014 for venture capital investment in the clean energy sector.³⁹

Local Agriculture

A shift to locally-sourced agricultural goods and organically-produced foods is another part of the clean economy that provides employment opportunities in middle-skill and lower-skill jobs, not only on the farm but also in the food

³⁸ "Massachusetts Clean Energy Report," MassCEC. 2014

³⁹ "The 2014 US Venture Capital Year in Review" CB Insights, 2015, <http://www.slideshare.net/CBInsights/2014-venture-capital-annual-report-final-cb-insights>

processing facilities necessary to bring goods to market. A strong shift to local and organic agriculture not only has economic benefits, but also environmental, food security, and equity impacts.

Total inflation-adjusted sales of agricultural products in Massachusetts rose less than 1% between 2002 and 2012, adjusted to 2012 dollars, and over the same time period Metro Boston producers saw agricultural sales grow 20%.⁴⁰ Sales increased despite a 7% decline in Metro Boston total farmland acreage, which fell from 133,000 acres to 124,000 acres. Despite the overall loss of acreage, the total number of farms increased during that time, and the acreage of smaller farms, those under 50 acres, increased by 43% in the state and 26% in the region. Small farm acreage now comprises 30% of all farmland acreage and 76% of all farms in the region, up from 20% and 71% in 2002. These statistics suggest a shift to a greater number of smaller farms growing higher-value specialty crops. As of 2007, there were 110 organic farms⁴¹ in Metro Boston, accounting for 34% of the state's organic farms and 14% of the state's organic farmland acreage. Organic products in Metro Boston had a value of \$4.8 million in 2007, accounting for 28% of the state's organic sales.

However, it is not clear how sustainable these gains in the agricultural sector will be. While the complete county-level data from the 2012 agricultural census have not yet been released, the 2012 state-level results indicate that farms and farmland acreage did not change appreciably, but statewide inflation adjusted sales of agricultural products dropped 8% since 2007.

⁴⁰ The Agricultural Census withholds data for records which could potentially disclose information about an individual farm or ranch. For this reason, some of the county level sales and acreage data is withheld.

⁴¹ Organic production in the 2007 Census of Agriculture was intended to represent production in compliance with National Organic Standards. Values were self-reported by respondents, and were not verified by certifying organizations, so may differ from other sources. For a more detailed description of survey and reporting methods, see Appendix B of the 2007 Census of Agriculture: http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_2_County_Level/Massachusetts/maappxb.pdf

Growing Sub-Sectors within Established Industries

Within established industries such as Financial Services, Life Sciences, and Tech there are also a number of specific emerging industry subsets including photonics (life sciences), digital IT, robotics, and cyber-security (Information Technology). Universities in particular are helping to drive the growth of these subsets. Boston University has a 15,000 square foot Photonics Center that provides companies with access to fully permitted laboratories, equipment, and other resources to ensure the success of growing companies in the field. There are also a number of universities that offer robotics R&D programs including the Harvard Robotics Lab, MIT, and Tufts University. Some of the largest cyber security companies are also located within the MAPC region.

Massachusetts is also a world leader in Big Data. Big Data is a term for “datasets whose size is beyond the ability of typical database software tools to capture, store, manage, and analyze”.⁴² This trend has really emerged from a new recognition across sectors that combining data from multiple sources could lead to better decisions and that “data silos” have been the key obstacle to getting data to work for us⁴³. The concept cuts across a number of different industries and has been used to efficiently solve problems for sectors ranging from agriculture to health care.

In a 2013 report, the MA Tech Leadership Council (MassTLC) identified nearly 100 companies in the Boston area currently engaged in Big Data technologies with around 20 startups. At that point in time, MassTLC estimates that these Big Data vendors employed about 12,000 people in Massachusetts. They also

⁴² “Big Data: The next frontier for innovation, competition, and productivity,” McKinsey Global Insight, 2011, http://www.mckinsey.com/insights/business_technology/big_data_the_next_frontier_for_innovation

⁴³ “12 Big Data Definitions: What’s Yours” Forbes, 2014, <http://www.forbes.com/sites/gilpress/2014/09/03/12-big-data-definitions-whats-yours/2/>

estimated an additional 58,000 people employed as data scientists and data-savvy managers in industries like healthcare, financial services, life sciences, consumer products, and on-line media. The projection was that this industry could add 50,000 jobs and bring the total across the state to as many as 120,000 Big Data jobs⁴⁴.

⁴⁴ "Big Data and Analytics: A Major Market Opportunity for Massachusetts," Mass Technology Leadership Council, http://c.ymcdn.com/sites/www.masstlc.org/resource/resmgr/press_releases/masstlc_report_delphi_web.pdf

Economic Development Challenges

Despite the many opportunities that are present within the Metro Boston region, the continued success of the region's economy also faces many challenges.

Income Disparity

Perhaps most challenging is the fact that our region's income disparity is among the top in the nation, and our taxes burden lower-income families at a higher rate than higher-income families. There are thousands of households that live below the federal poverty threshold and many more who make incomes above poverty yet still do not have enough income to support themselves or their families, let alone build wealth for their futures.

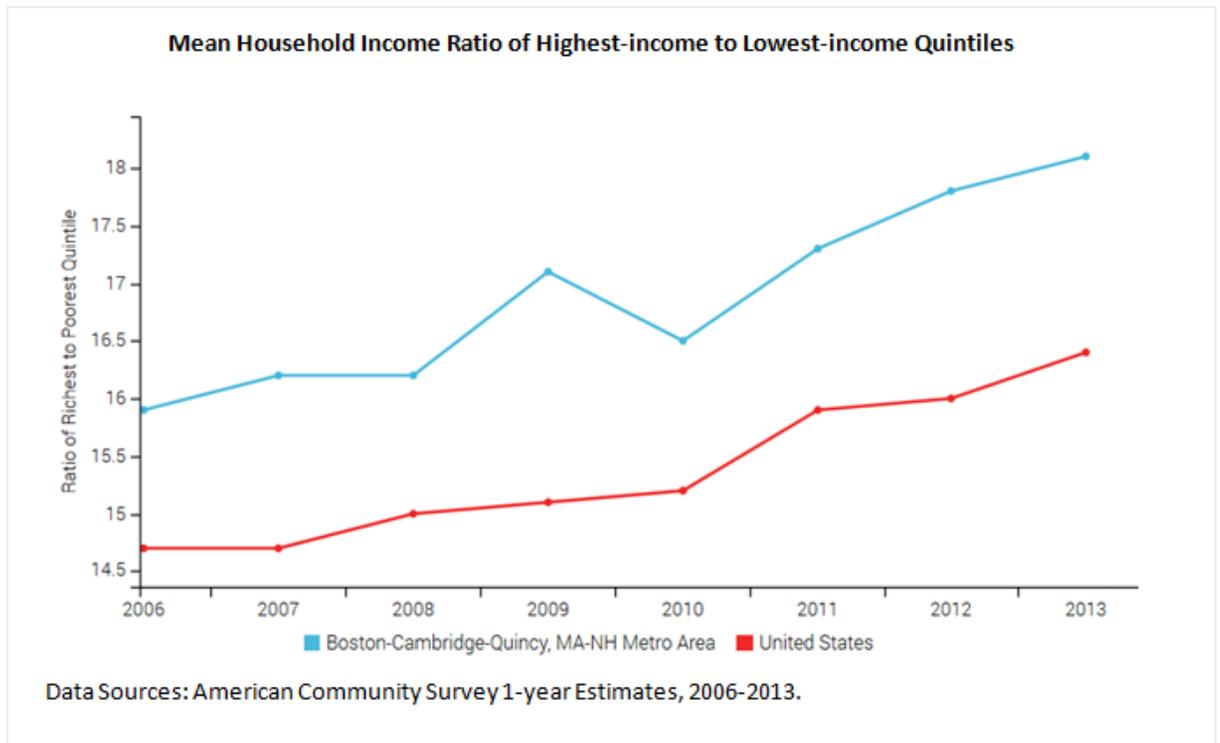
A living wage in Metro Boston- that is one that provides an individual or family with enough income to get by without public assistance- is significantly more than the federal poverty threshold. For a family of two adults with 2 children, it is close to \$80,000. For a single-worker family with one child, it is close to \$50,000. For a single worker with no children it is \$30,000, the equivalent of an hourly wage of \$14.

Four metrics that are influential in a household's capacity to build wealth are homeownership, family income, unemployment, and college degree attainment. In Metro Boston, there are racial disparities in each of these metrics that are greater than that of the nation. This indicates that the barriers to wealth building for families of color in Metro Boston are in fact greater than they are for families of color in the nation overall.

Persistent structural inequities in Metro Boston limit opportunities for families of color, and in turn limit the overall prosperity of the region⁴⁵.

Currently, Massachusetts' poorest families, those with incomes in the lowest 20%, pay 10% of their income in taxes while those with incomes in the top 1% only pay 5% of their income in taxes. The Massachusetts Constitution does not allow for a progressive income tax.

As you can see in the below chart, Metro Boston's ratio of the richest fifth to poorest fifth is higher than the national average of 16.0, and ranks 4th highest among the top 25 most populous U.S. metro areas. Both the region and the



⁴⁵ Median Family Income by Race and Ethnicity from the US Census is grouped by the race/ethnicity of the householder.

nation are also moving in the wrong direction. In 2006 Metro Boston's ratio was 15.9 and is now much higher.

Infrastructure

In order for the economy in Massachusetts to thrive, it is critical that we have updated and efficient infrastructure that can support the connections that are necessary for business and development to take place. Unfortunately Massachusetts has aging infrastructure with the need for major upgrades.

Infrastructure needs include water resource issues in suburban communities where Non-MWRA (Massachusetts Water Resources Authority) or partial MWRA communities face challenges supporting new development because of water supply and wastewater treatment issues. New EPA stormwater management regulations (MS4) will have major new regulatory and cost implications for communities in Metro Boston as well. The MS4 permit is likely to be finalized in December 2015, although this is subject to change. Some communities also struggle with not having enough electric power supply to support future development, although according to a recent report authored by A Better City this is generally not a large-scale issue in Metro Boston.⁴⁶

The Metro Boston region experienced a stark reality this winter that probably serves as the best recent example of just how intertwined our infrastructure and economy truly are. The harsh winter of 2015 literally shut down our aging public transportation system as the trains were not able to operate safely in the winter conditions. IHS Global Insight, an economic analysis firm, estimates

that the storms cost Massachusetts companies over 1 billion dollars in sales and productivity⁴⁷.

The MBTA does not directly serve every community in the Metro Boston region, but the snow illustrated the fact that regardless of whether or not a community has an actual T stop or commuter rail stop, the entire regional economy depends on a reliable and efficient transit system. Lost dollars affect every single community in the Commonwealth and more practically, even those who were driving to work, were affected as normal MBTA riders took to the roads instead. It will be critical for the region and the state to devise creative solutions to improve the state of repair, and to continue to strategically expand the system.

Some of the issues that the MBTA currently faces include a backlog of maintenance with some Red Line cars that are almost 50 years old and Orange Line cars that date back to the 1980s. The power and signalization systems need major upgrades, but the money that is programmed for these upgrades only covers about 8% of the need. The agency also has a high debt burden with more than \$5 billion in outstanding debt, some of which remains from expansions and improvements related to the Central Artery, or Big Dig, project. About a quarter of the T's budget this year will just go to servicing debt overall⁴⁸.

Regional urban and suburban areas also have a variety of transportation needs outside of those of the MBTA, including highway interchange improvements and local transit needs such as shuttle routes that will create

⁴⁶ "Infrastructure and Economic Development in Metropolitan Boston: A Regional Survey," A Better City, <http://www.abettercity.org/docs/Part%201%20-%20Regional%20Infrastructure%20Review.pdf>

⁴⁷ "Epic Snow Has Meant Economic Woes for Mass. Business," CBS Boston, 2015, <http://boston.cbslocal.com/2015/03/07/epic-snow-has-meant-economic-woes-for-mass-businesses/>

⁴⁸ "With Widespread Delays, MBTA's Long-Standing Issues Come Into Focus," WBUR, 2015, <http://www.wbur.org/2015/02/04/mbta-delays-maintenance-money>

connections between developments and nearby transit stations⁴⁹. These types of shuttle routes can help to facilitate first mile and last mile connections, allowing people who do not quite live within walking distance of public transit to use these services.

There are also many inequities and gaps that exist related to the transportation system as it functions now. The Dukakis Center found that, when compared with the White population, a greater percentage of Black, Asian/Pacific Islander, and Hispanics in Greater Boston depend on public transportation as the main mode of travel. The Dukakis Center also found that because of the location of transit stations, black riders actually spend more time commuting than white riders do. On average, a black bus commuter spends 66 more hours per year commuting than a white bus rider, and a black subway rider spends 34 more hours a year than a white subway rider commuting⁵⁰. The transit system should reliably serve and connect neighborhoods and populations of all races.

Housing

The MAPC region faces a shortage of housing that impacts the affordability of existing stock and directly impacts our economy as employees are increasingly unable to work in the region because they cannot afford to live here. MAPC projects that 176,000 new units of housing need to be created across the region to meet the expected demand for housing by both current and future residents in the next 5 years⁵¹.

The region is already feeling the effects of high priced housing. According to a recent Census Bureau report, people who are moving between states are

⁴⁹ "Infrastructure and Economic Development in Metropolitan Boston: A Regional Survey," A Better City, <http://www.abettercity.org/docs/Part%201%20-%20Regional%20Infrastructure%20Review.pdf>

⁵⁰ "Staying on Track," Northeastern University Dukakis Center for Urban and Regional Policy, 2012, <http://www.northeastern.edu/dukakiscenter/wp-content/uploads/2012/12/Staying-on-Track-Plenary-Presentation-FINAL.pdf>

⁵¹ [Mapc.org/projections](http://mapc.org/projections)

citing housing as the primary reason why they have chosen to re-locate⁵². According to a recent report by the Massachusetts Housing Partnership, Massachusetts lost 170 innovation workers to Texas, 180 workers to Florida, and 190 workers to Colorado for every 100 workers that it gained from these states⁵³.

Over the coming decades, the lack of affordable housing will likely have a direct effect on the quality of our labor force. As the Baby Boomers (born between 1945 and 1970) retire, the region will need new younger workers to take their place and fill their positions. If there is still a lack of affordable housing in the region, even young people who may be interested in taking these jobs, may not be able to afford to live here.

In particular, there is a need for multifamily housing that appeals to both young people in addition to the aging population. Occupancy of single-family homes by the 25 to 34 year old age group and the 65 to 69 age group decreased between 2000 and 2010. While the aging of the Baby Boomer generation will cause the number of seniors in the region to swell considerably, over time the same generation will need fewer homes- especially single family homes- than it does today as members downsize, move elsewhere, or pass away. MAPC Stronger Region Population and Household Projections anticipate that all cohorts born before 1971 will put 112,000 single family homes back on the market by 2020, enough to supply about 66% of demand from younger cohorts. Householders born between 1951 and 1970 will have a small net demand for condominiums in the next decade, but will free up even more single family homes in the subsequent

⁵² "Unlocking the Commonwealth: New housing and growth policies to help Massachusetts realize its full potential," Massachusetts Housing Partnership, 2014, https://www.chapa.org/sites/default/files/unlocking_the_commonwealth_nov2014.pdf

⁵³ "Unlocking the Commonwealth: New housing and growth policies to help Massachusetts realize its full potential," Massachusetts Housing Partnership, 2014, https://www.chapa.org/sites/default/files/unlocking_the_commonwealth_nov2014.pdf

decades. Meanwhile, the under-40 households critical to growing the labor force overwhelmingly prefer apartments and condominiums, but far fewer of these units will be freed up by older cohorts. As a result, nearly two-thirds of demand would be for multifamily housing⁵⁴.

Because of historical housing development patterns, the housing that is currently relatively affordable in the Boston region tends to be farther away from the city, which promotes long car commutes, high transportation costs, and the kind of low density development that can be damaging to our natural resources and environment. However, MAPC Stronger Region projections demonstrate that many signs point to the resurgence of urban communities. When compared to the 1990s, the years 2004-2014 saw more young people moving to urban communities and fewer of them moving out once they hit 30. An increasingly diverse population attracted by the job proximity, transit access, vibrancy, and cultural assets of urban areas is likely to drive continued population growth. To meet these preferences it will be critical for the Metropolitan Boston region to provide more affordable options in urban locations.

Workforce Development

The Greater Boston region has made some strides in workforce development. There are state programs that facilitate communication between colleges, training programs, employers and workers, such as the Workforce Competitiveness Trust Fund, and the Workforce Investment Boards. However, many issues remain. The Massachusetts Workforce Board Association cites some of these major workforce challenges as a workforce labor surplus and skills gap where available jobs are not aligning well with the skills of those applying for jobs. The Association also notes that there is still an insufficient amount of basic and technical skills programs⁵⁵.

⁵⁴ Mapc.org/projections

⁵⁵ "Ongoing Initiatives," Massachusetts Workforce Board Association, 2015, http://massworkforce.com/?page_id=1231

In 2012, the Boston Foundation convened the Coalition for Community Colleges, a statewide network of business, civic and community organizations, to advocate for stronger alignment among the 15 community colleges and with employers. Former Governor Deval Patrick also signed a budget which increased financial support to community colleges and helped to build alignment and accountability amongst the community colleges⁵⁶.

Massachusetts' 15 community colleges (many of which are located in the Greater Boston region) were awarded a \$20 million, three year grant (2011-2014) from the United States Department of Labor to implement the Massachusetts Community Colleges and Workforce Development Transformation Agenda. The initiative is designed to assist residents of the Commonwealth to attain degrees, certificates and industry recognized credentials in 2 years or less.⁵⁷

A consortia proposal submitted by 15 community colleges in Massachusetts has also been selected by the US Department of Labor for the final round of federal funding from the Trade Adjustment Assistance Community College and Career Training Grant. The colleges are advancing a comprehensive approach to addressing the training and educational needs of workers and employers statewide with a focus on articulated pathways to careers in high-growth STEM sectors (along with advanced manufacturing and healthcare). They are partnering with a number of public and private companies in these fields.⁵⁸

⁵⁶ "Workforce Development," The Boston Foundation, 2015, <http://www.tbf.org/understanding-boston/workforce-development>

⁵⁷ "Transformation Agenda Grant," Massachusetts Community Colleges, 2015, <http://www.masscc.org/partnerships-initiatives/transformation-agenda-grant>

⁵⁸ "Guided Pathways to Success in STEM," Massachusetts Community Colleges, 2015, <http://www.masscc.org/partnerships-initiatives/guided-pathways-success-stem>

Each community college will offer new or redesigned certificate and degree programs in healthcare, biotechnology & life sciences, advanced manufacturing, clean energy/sustainability, information technology, or financial services.

Metro Boston region needs to continue to work to attract high skill and middle skill jobs. At the same time, it is important to continue to efficiently train workers for the jobs that are currently available. Our highly trained pool of workers is currently one of Metro Boston's greatest assets and although we currently have more highly-skilled workers than high-skill jobs, there are still high skill jobs available for which highly educated job-seekers may not necessarily have the right training or qualifications.

Continued partnerships amongst community colleges, workforce development organizations, and nonprofits hold great promise to help close the workforce development gap. This is an issue that the region needs to improve upon in order to ensure that we have workers who are trained in the skills needed to fill available jobs.

Economic Resilience

Economic resilience is a critical consideration for major metropolitan areas. The ability of the region to respond to major disruptions to our economy (whether they are from climate change impacts, safety threats, social concerns, or downturns in core regional industries) will be a major factor in how well our economy performs in the future. Any prolonged disruption to

Spotlight on Climate Change

Climate change will have an impact on the built environment, natural resources and public health and these impacts will in turn affect the economy. Particular industries such as those based on natural resources such as fishing and agriculture will likely see significant impacts. Tourism and recreation are also in many cases are dependent on waterfront infrastructure and will need to adapt to the rising sea levels associated with climate change.

Transportation systems will also need to adapt to more severe weather events associated with climate change. Virtually all economic sectors rely on transportation in some aspect, from shipping to manufacturing of goods and services. Small businesses in particular are vulnerable to disasters because they have limited resources and often have not planned for a disaster. Labor productivity of those working outside will also be threatened. Examples of industries affected in this way include construction, utility maintenance, agriculture, landscaping.

Temperature increases will likely drive the need for additional energy sources and power generation capacity which will in turn cost residential and commercial ratepayers. For commercial ratepayers this is one extra added cost when trying to maintain a successful business.

enough to weather the storm.

economic activity, particularly during and after severe storm events, can result in long lasting damage to local and regional economies⁵⁹. The region is fortunate in some ways that our economy's core industries have proven somewhat resilient to weather-related shutdowns because employees in financial, health care, and IT sectors, universities often have the ability to work from home or spend time later on at the office in order to catch up.⁶⁰ However, as the winter storms of 2015 demonstrated, our region has vulnerabilities that need to be addressed. The storms caused people to stay at home, hurting retailers and restaurants, businesses that are particularly vulnerable to these kinds of weather events. Manufacturers experienced assembly lines that were shut down, work orders that were delayed or cancelled and in many cases were unable to transport finished products because of the state of both roads and rail lines. Our economy was severely crippled because our infrastructure was not resilient

⁵⁹ "Metro Boston Regional Climate Adaptation Strategy Report", MAPC & Tellus Institute, 2015, http://www.mapc.org/sites/default/files/RCCAS_full_report_rev_030515_clean.pdf
⁶⁰ "Epic Snow Has Meant Economic Woes for Mass. Business," CBS Boston, 2015, <http://boston.cbslocal.com/2015/03/07/epic-snow-has-meant-economic-woes-for-mass-businesses/>

A recent report led by World Bank economist Stephane Hallegatte and the Organisation for Economic Co-operation and Development (OECD), found that out of all world coastal cities, Boston is at the 8th greatest risk for damaging floods associated with climate change. Flooding alone could cause substantial economic losses⁶¹. The change in relative sea levels in Massachusetts is expected to be among the most rapid in the U.S. with 3 feet of potential sea-level rise by 2050, which will amplify the impacts of coastal storm events and storm surges⁶².

The Rockefeller Foundation, through its 100 Resilient Cities Network, has called out particular resilience challenges in Boston that are applicable to the region as a whole. These challenges include flooding (both coastal and rainfall), infrastructure failure, lack of affordable housing, rising sea level and coastal erosion, social inequity, and terrorism⁶³. The Metro Boston region has recently taken steps towards creating a more economically resilient region, but there is much more work to be done in order to truly achieve this goal.

Social inequity is also a major barrier to economic resilience that needs to be addressed in order to create a stronger, more resilient region. There is a growing body of research that shows that a more equitable economy is a more resilient economy, better able to maintain long term growth. Metro Boston is also heavily reliant on Education and Health Care Services & Professional and Business Services and can do more to diversify the industries on which it depends in order to become more resilient.

⁶¹ "Which Coastal Cities Are at Highest Risk of Damaging Floods: New Study Crunches the Numbers," The World Bank, 2013, <http://www.worldbank.org/en/news/feature/2013/08/19/coastal-cities-at-highest-risk-floods>

⁶² "Metro Boston Regional Climate Adaptation Strategy Report", MAPC & Tellus Institute, 2015, http://www.mapc.org/sites/default/files/RCCAS_full_report_rev_030515_clean.pdf

⁶³ "Boston's Resilience Challenge," 100 Resilient Cities, 2015, http://www.100resilientcities.org/cities/entry/boston#/-/_/

Although we have many challenges to tackle there are already some important initiatives and actions taking place that are beginning to attempt to address this work. The City of Boston is participating in the Rockefeller Foundation's 100 Resilient Cities Challenge. Through this challenge, they receive technical support and financial resources to understand more about how the city can become more resilient. The city is also working on a comprehensive plan to lay out strategies to address, adapt, and recover from any events or shocks that may disrupt the city and its economy. Boston has hired a chief resilience officer to ensure that the city does a comprehensive job and is particularly focused on social resilience, how to address the stark inequalities within our city that are also hampering the regional economy⁶⁴.

At the state level, the Massachusetts Emergency Management Agency is key to resiliency. They are the official state agency charged with ensuring the state is prepared to withstand, respond to, and recover from all types of emergencies and disasters, including natural hazards, accidents, deliberate attacks, and technological and infrastructure failures. The agency works to build partnerships with federal, state, and local governments along with the private sector in order to ensure the state's ability to prepare for, ensure effective response to, and recover from disasters. The state has a Comprehensive Emergency Management Plan, a Homeowner's Handbook to Prepare for Coastal Hazards, a Massachusetts Statewide Mass Care Shelter Coordination Plan in addition to other reports that outline strategies for resilience.

MAPC has worked with many partners on a Regional Climate Adaptation Strategy that identifies a wide array of strategies that cities and towns throughout the region can pursue to increase their resiliency. MAPC also works with individual cities and towns on Hazard Mitigation Plans to help

⁶⁴ Martin Walsh and Judith Rodin, "Building Boston's Resilience", 2015, <http://www.bostonglobe.com/opinion/2015/05/18/building-boston-resilience/yjIMZgrbJO5Z97c3IIZeMHM/story.html>

cities to plan for and strategize on ways to prepare for hazards including but not limited to floods, hurricanes, high wind events, winter storms and snow ice. The vast majority of MAPC communities have a Hazard Mitigation Plan in place.

MAPC's Metro Mayors Coalition also recently convened at the Metro Boston Climate Change Preparedness Summit and pledged to work together to prepare the region for climate change as well as to reduce the region's greenhouse gas emissions. The Coalition also launched a Taskforce to address infrastructure weaknesses as well as to coordinate efforts to protect shared infrastructure.

Strategies and Action Plan

Based on the above analysis and the input that we received from stakeholders throughout the region, MAPC has developed the following strategies. These strategies are not intended to be fully comprehensive, but rather represent those that we may be able to make significant headway on in the next five years. In many cases, MAPC has a direct role to play in the below strategies, but some strategies listed below are more appropriately carried out by other agencies. Other actors include individual municipalities, organizations, businesses, or state legislators.

Goal: Organizations and government agencies across the region will work together to develop state-wide and regional strategies that will help to grow the economy.

Strategy: Ensure active participation in the planning process for the Commonwealth's Economic Development Plan.

2015 marks the year of a new gubernatorial administration in Massachusetts and Jay Ash, Secretary, Executive Office of Housing and Economic Development, is creating a new comprehensive economic development plan for the state. The plan will involve an extensive public engagement process, including a number of economic development listening sessions that stakeholders throughout the region should actively participate in to create a robust economic development plan that is reflective of regional priorities.

Action: MAPC will actively participate in the formation of the new administration's Economic Development Plan.

Action: Economic development and community development organizations will contribute and actively participate in the process of developing the Commonwealth's Economic Development Plan.

Strategy: Align regional and statewide industry attraction and retention efforts to increase the region's global economic competitiveness.

The Executive Office of Housing and Economic Development has identified key industries for the state and many of these industries have a strong presence in the Metro Boston region. Key industries include financial services, information technology, creative industries, and life sciences, but also advanced manufacturing, maritime commerce, and renewable energy.

Action: MAPC will work with member communities to ensure that they are aware of statewide industry attraction and retention efforts.

Action: MAPC will work with the state to develop and align strategies that communities and organizations within the region can pursue in order to attract and retain key industries.

Action: MAPC will continue to work on Economic Development studies and strategies with individual municipalities that identify the competitive advantages of those municipalities and highlight strategies to attract and retain industries that are key to the region's economic success.

MAPC has developed market analyses with a number of communities throughout the region. Market analyses identify the type and amount of development that can be potentially supported by the market (housing, retail, office, residential, and/or mixed use). Market analyses provide the basis for more specific, targeted, achievable recommendations based on the real market trends that are supportable. This will be particularly important for regional urban centers, to make sure that these areas are able to attract good jobs for their residents.

Strategy: Pursue and support regional economic development planning projects throughout the region.



Image credits: 225 Centre Street: Mitchell Properties and the Community Builders; Orange line train: Andrew Tucker; Parcel 24: Asian Community Development Corporation

Action: MAPC will continue to support and pursue economic development studies along major corridors that involve multiple communities or neighborhoods as well as in town centers and other appropriate locations.

MAPC has worked on regional economic development projects and corridor studies, including along the Orange Line and in the Fairmount Corridor. We are also currently engaged with similar work along the Red Line. These studies look broadly at a number of communities and neighborhoods along transit lines and identify opportunities for appropriate economic development and housing. MAPC also works on economic development plans in downtown areas and in other highly suitable locations.

Action: MAPC will work through its subregions to provide models of regional economic development initiatives that have been able to successfully incorporate cross-sector participation.

The Middlesex 3 Coalition is one example of an innovative regional partnership. The coalition consists of nine Middlesex County Communities with a common goal of fostering economic development, job growth and retention, diversification of the tax

base and enhancement of quality of life. Through cross-sector collaboration, they have been able to work on a variety of initiatives that will help grow their economy such as a TMA (transportation management association) that offers new shuttle service along the Middlesex 3 corridor. Connecting other subregions of MAPC to groups like this will help to inspire similar regional coalitions and to provide models and best practices for economic development throughout the Greater Boston region.

Goal: Metro Boston will be globally competitive in the knowledge economy.

Strategy: Attract more high skill jobs to Metro Boston.

Continued growth of high skill jobs will help to grow the knowledge economy in Greater Boston. More high skill jobs will also help to close the high-skill employment gap by opening up more high education employment opportunities.

Action: MAPC will support initiatives to bring additional jobs to regional urban centers and Gateway Cities in particular where they are especially needed to help address regional economic disparities. Ongoing initiatives include the Transformative Development Initiative out of MassDevelopment, The Federal Reserve Bank of Boston's Working Cities Initiative and MassINC's Gateway Cities Innovation Institute.

Action: The Legislature should continue to fund initiative that target economic resurgence in Gateway Cities.

Strategy: Support the creative and innovative economy.

Action: Corporate leaders should be more civically engaged and push for innovations to support the region as efficiently as possible and will actively participate in regional discourse and decision-making.

Action: MAPC will encourage municipalities to work regionally to identify their creative economy assets and share best practices from groups already doing this kind of work.

The Creative Economy Association of the North Shore is a cooperative effort to increase revenues generated by the North Shore's creative economy and to make the creative economy an engine for economic growth in the region. The group includes 24 communities, the Enterprise Center at Salem State College, and the Salem Partnership. They have documented businesses that are part of the creative economy. They also hold networking events, and conduct other marketing efforts that bring attention to that sector in the economy.

Action: MAPC will support the creation of co-working spaces where professionals in creative industries can collaborate and build networks that will help support them in their future careers.

MAPC can help share best practices and identify funding sources for co-working spaces including Maker Spaces, and business incubators.

Action: The Department of Housing & Economic Development should continue to support the existing Creative Economy Council⁶⁵ and their work to explore and implement creative economy strategies.

Action: The Department of Housing & Economic Development should strengthen their Creative Economy Network⁶⁶ by continuing to expand membership and providing additional technical assistance,

training, and resources to member communities.

The Creative Economy Network provides a number of helpful resources and benefits to member communities including Creative Economy Toolboxes that outline resources and best practices related to Networking, Business Development, and Access to Capital, Visibility, Talent, and Space. These toolboxes are a great resource and should continue to be shared throughout the region.

Action: MAPC will particularly support innovation and the creative economy in Regional Urban Centers, as they face some of the largest disparity gaps.

Many of the regional urban centers and inner core communities within the MAPC region face significant disparity gaps. A renewed economic focus would help alleviate disparities in household income & educational attainment and to provide more economic opportunities to residents. In particular, many of Massachusetts Gateway Cities have wonderful assets that could be built upon to facilitate thriving creative economies. From older industrial buildings that could be adapted into artists' lofts to public beaches that can be used for creative events such as arts festivals, there are many opportunities.

Action: MAPC will continue to recommend that communities support and encourage public art initiatives and artists.

Creative developments that include live/work space and artist lofts is one way that communities can demonstrate their support for these initiatives.

Action: MAPC will provide technical assistance to municipalities interested in creating cultural districts to foster and encourage the arts within their communities.

⁶⁵ An advisory group to the Legislature and the executive office of housing and economic development, whose purpose is to develop a statewide strategy for the enhancement, encouragement, and growth of the creative economy in Massachusetts.

⁶⁶ The Creative Economy Network is a regional effort to accelerate the economic growth of the Commonwealth's creative industries. There are currently 6 participating regional entities.

A cultural district is a specific geographical area in a city or town that has a concentration of cultural facilities, activities, and assets. It is walkable and can serve as a center for artistic and economic activity. The designation of a cultural district can help the community to market itself and serve to attract creative industries.

Action: The Massachusetts Cultural Council (MCC) and MassDevelopment should continue to provide grants and support for the creative industries throughout the Commonwealth. The state should explore linking funding opportunities to Cultural District designations.

The MCC in particular helps to facilitate the arts through grants that go directly to non-profit cultural organizations, schools, communities, and individual artists. The funding helps to facilitate the creative economy and to support interesting places that further attract participants in the creative economy.

Action: The Legislature should explore measures that would ensure that non-compete clauses do not stifle innovation in the region.

Action: MAPC will continue to provide support to communities with walkable, amenity-rich areas, such as Gateway Cities, the Needham-Newton Innovation Corridor (N2 initiative) and Waltham Mill District, all which have potential to support innovative growth stage companies exiting innovation centers such as Kendall Square and the Seaport.

As growth stage companies outgrow small spaces in the urban core's innovation districts, they are looking for walkable, amenity-rich environments that they know their employees will demand but at prices that are more affordable. Many of the region's traditional suburban communities have walkable urbanized areas that could help facilitate this need while also providing an economic boost for these

communities. MAPC can work with these communities to continue to identify funding opportunities through EDA and other sources and provide technical assistance as needed.

Goal: Small Business owners and entrepreneurs will play a major role in the region's economy and innovation.

Small businesses are a critically important part of the region's economy. Small businesses mean more dollars staying within local communities. Statewide, 86% of firms have 19 employees or less and 17% of all employees in Massachusetts work for a firm with 19 employees or less.⁶⁷ Within our region, 26.7% of regional employment is within firms with 5-99 employees and 4.4% of regional employment is within firms with 1-4 employees.

Strategy: Create Policies and Programs that Support Current and Prospective Small Business Owners

Action: The Legislature should pass and capitalize An Act relative to Parking Advancements for the Revitalization of Communities, which would modernize statutes governing municipal parking and enable cities and towns to use parking management strategies for economic development.

One strategy is the establishment of one or more parking management districts where parking revenue is dedicated to improvements in one geographic zone.

Action: The Legislature should pass and capitalize An Act relative to Creating Community Benefit Districts (CBDs). These districts are public/private/nonprofit partnerships that provide supplemental

⁶⁷ "Small Business Community in Massachusetts," Massachusetts Executive Office of Housing and Economic Development, 2015, <http://www.mass.gov/hed/business/small-business-community-in-massachusetts.html>

services and management of important areas including downtown, town center, “Main Streets,” villages, or urban square.

Action: The Legislature should allow cities and towns to be given local control over liquor licenses.

Local decision-makers are capable of making responsible decisions about liquor licenses. The current licensing environment is a relic from decades past and too often slows economic development. This change would attract new businesses to our communities and enable predictability for those who are investing.

Action: MAPC will explore, develop, and integrate policies to mitigate small business displacement that may be related to redevelopment efforts in particular cities and towns within the region.

Strategy: Support and Grow Main Street Organizations throughout the region.

Action: Municipalities should encourage the formation of business neighborhood associations, merchants groups, and Main Streets Organizations.

Action: MAPC will actively partner with existing Main Streets organizations through our technical assistance work.

Action: The state should explore creating a state-sponsored Main Street initiative that would provide technical assistance and grants. There are a number of other states that offer this type of program.

Strategy: Support additional research in order to develop a more nuanced understanding of micro-businesses and sole proprietorship in Metro Boston.

Further research on the economic benefits of extremely small businesses (10 and under) would help to reveal the economic development benefits derived from this group and would help to develop nuanced strategies and policies tailored to their needs. Potential research topics could include: in what sectors are these entrepreneurs most common? How do they structure their contractual relationships with other businesses? How are they affected by tax programs and incentives? How are micro-business owners of different races and backgrounds affected differently?

Action: The Massachusetts Office of Business Development should help to support additional research on micro-businesses and sole proprietorships so that planners, including those at MAPC, can integrate best practices in our work with town centers throughout the region.

Strategy: Facilitate access to capital for small businesses.

While many programs exist that provide small business loans, including traditional bank loans and Small Business Association Loans as well as CDC’s and microloan programs through small community groups such as Main Streets organizations, there are still challenges that small businesses face when it comes to capital. These include the fact that many small business owners may be unaware of community lending programs, or there may be linguistic or legal barriers to borrowing.

Action: Conventional lending institutions should provide their expertise to help strengthen community lending programs and should make it standard practice to refer unsuccessful loan applicants to those programs.

Action: State lenders should do targeted outreach to communities with a large number of immigrant entrepreneurs to make them aware of opportunities.

Action: Community lending programs should collaboratively develop protocols for program evaluation in order to document the importance of these programs and identify best practices.

Action: MAPC should work alongside MACDC and academic institutions to establish a “community lending research agenda”

Strategy: Expand Access to appropriate technical assistance, business services, and training

Small businesses often have a great need for technical assistance and training, but the needs of different types of businesses vary widely. For example, design and media professionals may face intellectual property issues that are irrelevant to retail merchants. In order for the Greater Boston region to craft a more effective technical assistance system for small businesses, it will require service providers, entrepreneurs, and the public sector collaborating on the design and coordinated delivery of these programs. Service providers also need to evaluate and define best practices.

Action: The Massachusetts Office of Business Development (MOBD) should develop a region-wide inventory of technical assistance programs in order to increase access and reduce redundancy.

Action: MAPC will continue to assist organizations in developing “best practices” for delivery of technical assistance to small business owners.

Action: The Legislature should invest in successful and proven programs such as the Enterprise Center at Salem State College and the Community Business Clinic at the Northeastern University School of Law. These programs help to provide small business owners with

the help that they need as they are trying to start, grow, or maintain a business.

MAPC has worked with the Economic Development Administration to help fund successful efforts such as the Northeastern University School of Law, Community Business Clinic. The Clinic helps to provide business-related legal services to startups, entrepreneurs and small businesses.

Action: Municipalities will implement programs and policies to assist small business owners.

Examples include facade improvement programs, retail best practices programs, Buy Local Campaigns, streamlined permitting brochures and guides, city or town-wide branding and marketing campaigns, and programming and events in business districts. Municipalities can also hire one staff person to be the contact for small business owners who can proactively facilitate dialogue and build relationships.

Action: MAPC will continue to recommend that municipalities develop multi-family housing in their downtown areas to strengthen the customer base for small businesses.

Action: MAPC will work with municipalities to identify funding sources for activities and programs that support small businesses. One example of a funding program that cities and towns can participate in is the Massachusetts Downtown Initiative, a grant program through DHCD that provides technical assistance to help revitalize the downtown area. This can include retail best practices analysis, cultural district analysis, wayfinding programs, parking studies, etc.

Action: Municipalities should coordinate with relevant Workforce Investment Boards to continue to offer business development and training programs targeted to small businesses.

Action: Chambers of Commerce should link businesses to training and resources, and business services.

Strategy: Provide an adequate support network to facilitate the growth and success of Immigrant Entrepreneurs and Entrepreneurs from diverse racial backgrounds

Supporting immigrant and Black/Latino entrepreneurs throughout our region helps to bolster our economy and to ensure equity as we work to make sure that all entrepreneurs have equal access to business development and support opportunities. New research also suggests that immigrant populations in particular are helping to push innovative economies as they are both drawn to these economies and then reinforce innovation.⁶⁸ Immigrant entrepreneurs have helped to revitalize downtown areas, especially in many of the region’s Gateway Cities.⁶⁹ They also often take advantage of local markets in their home countries to export products and therefore are bringing new money in to the local and regional economics in Massachusetts and helping to create new jobs.⁷⁰

⁶⁸ NAIOP Conference/SIOR Annual Market Forecast. November 2014.

⁶⁹ MassINC defines Gateway Cities as midsize urban centers that were once home to industry that offered residents good jobs and a “gateway” to the American Dream. Over the past several decades, manufacturing jobs slowly disappeared. Lacking resources and capacity to rebuild and reposition, Gateway Cities have been slow to draw new economy investment.

⁷⁰ Benjamin Forman and Sandra Larson, “Going for Growth: Promoting Immigrant Entrepreneurship in Massachusetts Gateway Cities,” MassInc Gateway Cities Institute, 2014, http://www.massinc.org/~media/Files/Mass%20Inc/Research/Full%20Report%20PDF%20files/GoingforGrowth_PromotingImmigrantEntrepreneurshipinMassachusettsGatewayCities.ashx

Action: MAPC and non-profit organizations will develop a better understanding of immigrants and economic development to inform public policy.

Organizations such as The Immigrant Learning Center, MassDevelopment through their Transformative Development Initiative, and MassINC Gateway Cities Institute, have done excellent work related to the role of immigrants in our regional and local economies. Continuing to build this body of research and document the direct benefits that immigrant entrepreneurs provide for our economy will help to advocate for the additional tools, trainings, and financial supports that would help these entrepreneurs to succeed.

Action: Municipalities and Chambers of Commerce should coordinate to hold festivals, outdoor arts events, and multi-cultural celebrations.

According to a recent report by MassINC, research shows a link between successful downtowns in midsize US cities and artist and cultural organization activity. Immigrants tend to be very active in the arts and see art celebrations as a way to keep in touch with their cultural traditions and to introduce these traditions to their children.⁷¹

Action: MAPC will continue to integrate place making efforts and other events that celebrate local culture into our technical assistance and planning work.

⁷¹Ibid.



Salem Pop Up Market

Action: Municipalities should work alongside nonprofit organizations to invest in relationship building amongst staff and immigrant groups within their communities.

Through the HUD Sustainable Communities effort, MAPC funded a partnership between the Immigrant Learning Center, the City of Lynn, the Massachusetts Association of Community Development Corporations and MassINC to bring together local leaders to implement projects that would specifically assist Lynn’s immigrant entrepreneurs. A key lesson that came from this project was that significant time needs to be invested in building relationships before you can expect to see significant participation from the immigrant population.⁷²

⁷² Ibid.



Contrera's Grocery in Lynn

Action: MAPC will continue to support and partner with organizations like the Immigrant Learning Center and MassINC on projects that will bolster economic opportunities for immigrant entrepreneurs.

Action: MAPC will work with cities and towns to ensure that they have clear business permitting guides that explain step by step how to open a business in town. These guides should be translated appropriately for immigrant populations within each municipality.

Action: Community Development Corporations throughout our region should work with immigrants to bolster their participation in business development programs.

Action: The Executive Office of Housing and Economic Development should establish a program to provide targeted financing outreach to small businesses owned and operated by immigrants.

Access to capital, small business loans and trainings should be tailored to the needs of immigrant entrepreneurs.

Action: The state should explore expanded funding for Adult Basic education, including English for Speakers of Other Languages.

In the City of Boston alone, about 3,400 adults are enrolled in English to Speakers of Other Languages classes but another 4000 are waitlisted.⁷³

Goal: The Metro Boston region will continue to have a strong supply of educated and skilled workers-of all ages-that will encourage businesses to locate and expand here.

Although we currently have more high skill workers than high skill jobs in the region, it is critical to continue to improve the workforce development system to ensure that we are able to fill future high skill jobs that will be vacated by the Baby Boomer generation. Despite the fact that we have many high skilled workers, there are still jobs that are available that these workers are not trained to take on. It is critical to focus training to align with high demand jobs and growing industries in the region.

Strategy: Increase funding for workforce training programs.

Action: The Legislature should establish dedicated, recurring revenue for the Workforce Competitiveness Trust Fund (WCTF) and the Massachusetts High-Demand Scholarship Program.

Since 2006, the WCTF has provided 7,000 unemployed individuals with the skills needed to meet current workforce demands. An investment in the Massachusetts High-Demand Scholarship Program will pay tremendous dividends as well. This program awards scholarships to public higher education institution students who choose to major in high-demand fields such as engineering,

technology, and healthcare. The last investment in the Massachusetts High-Demand Scholarship Program was made in 2012 to the benefit of 800 scholarship awardees. We must continue to guide and encourage our college students to choose career fields that will provide future employment stability and match the needs of employers located in our Commonwealth and those we hope to recruit with the many advantages present in Massachusetts, the most appealing of which is our highly educated, skilled workforce⁷⁴.

Action: Municipalities should explore and implement innovative regulatory strategies that can require commercial developments of a certain scale to contribute linkage fees to expand training programs and facilitate jobs.

The City of Boston has a Neighborhood Jobs Trust that ties development fees with quality jobs and training programs. They have successfully used money paid into the trust to train workers who then go back and work at these same developments.

Strategy: Support educational reforms throughout the region.

Action: The state should allocate additional funding for state universities and consider actions that would forgive/reduce debt burden of graduates.

Student loan debt is overwhelming and can be a serious barrier to improving one's economic status. State colleges often offer a more affordable alternative than private colleges. Programs that help alleviate student debt burden can also help to increase economic mobility and ensure greater success for the region's workforce.

Action: MAPC will collaborate with nonprofit organizations to ensure that children have access to a strong system of early education

⁷³ Toussaint, Kristin. "Why It's So Hard to Learn English in Boston," Boston.com, 2015. <http://www.boston.com/news/local/massachusetts/2015/03/25/why-hard-learn-english-boston/rjkFiogz7GPCo4sauQWQHl/story.html>

⁷⁴ From a Metro Mayors letter supporting Economic Development legislation.

programs, after-school programs, teen centers, and youth organizations.

Action: Target educational reform and programs to Regional Urban Centers where the largest disparities exist.

Strategy: Community Colleges should continue to play a key role in workforce development training.

Community Colleges are key partners in providing education and training for careers in “middle skills” jobs (jobs requiring workers with more than a high school diploma but less than a four year degree). Many reforms were passed under the Patrick Administration to improve the accountability and strategic alignment of community colleges. The State should continue to push for additional alignment of curricula, a system-wide strategic mission, and more accountability and resources to ensure that more residents can receive the needed skills that would qualify them for better paying and in-demand jobs⁷⁵.

Action: Community Colleges should continue to collaborate to evaluate and adopt innovative service delivery models for workforce development trainings and programs.

Action: Community colleges should continue to work closely with workforce development agencies, government leaders and private sector employers in order to educate students in high demand fields and those fields that have successfully placed graduates in jobs.

Action: Community Colleges should focus on providing quality post-secondary education to the region’s workers to help build qualifications for middle-education jobs that make up a relatively stable portion of the region’s employment.

Action: Community Colleges should continue to support programs that address both education and employment such as Internships, On-the-job training, Apprenticeship programs, and Earn and Learn programs.

Bunker Hill Community College currently has a Learn and Earn program that enables students to work for a company, gain hands-on experience, and earn money. The Learn and Earn program has 15 corporate partners including Bank of America, Beth Israel Deaconess Medical Center, and Raytheon among others. The program places around 45-60 students per semester⁷⁶.

Strategy: Support research programs and public/private collaboration at public post-secondary universities.

Public/private research and development ventures on a public university campus help to support an innovative economy and also align higher education with industry needs and economic development goals.

Action: MAPC should take a lead role in encouraging and supporting the development of research and development capacity, such as the Venture Development Center, at public universities.

Strategy: Ensure that workforce development programs are nimble enough to continue to evolve and incorporate trainings that prepare workers for high demand jobs and growing industries.

Linking workforce training programs with specific employers helps to ensure that participants can successfully find employment upon completion of the program. Emerging industries with high projected growth, such as photonics, digital IT, robotics, and cyber security are industries that could potentially benefit from workforce training programs to help meet the demand for new jobs.

⁷⁵ MAPC State of Equity Policy Agenda Recommendation.

⁷⁶ “Learn and Earn,” Bunker Hill Community College, 2015, <http://www.bhcc.mass.edu/learnandearn/aboutlearnandearn/>

Action: Workforce development programs should develop annual work plans that tailor trainings to high demand jobs and identify partner employers with specific training needs.

Strategy: Support Financial Empowerment amongst Low Income Populations

Action: The state should continue to fund financial education training centers, particularly those that have integrated services.

In addition to providing general financial advice, these centers can help low income populations file taxes and ensure that they are claiming the Earned Income Tax Credit.

Action: Workforce development organizations should collaborate with legislators to explore creative strategies to continue to help low income populations build credit.

Action: Nonprofit organizations that offer assistance to low income populations should consider collaborating with one another to integrate a variety of services in one location.



CONNECT is a collaboration of six community based

nonprofits that are collaborating to offer traditional workforce development and employment support in coordination with asset development and housing services. Organizations involved include Career Source, Centro Latino, Bunker Hill Community College, The Neighborhood Developers, Metropolitan Boston Housing Partnership and Metro Credit Union. This model ensures that participants have support in the many aspects of financial stability. Bundled service program participants are at least three times more likely to achieve

financial stability than those accessing non-bundled services⁷⁷. This is a great model for other non profit organizations throughout the region to explore.

Strategy: Increase opportunities for youth to be civically engaged and to gain employment.

Studies have shown that a lack of exposure to the workforce inhibits the ability of young people to gain valuable employability and occupational skills. Youth programs should also include a combination of skill building, networking, mentoring, and internship placement. This is especially critical in low income, distressed locations.⁷⁸

Action: MAPC will support the City of Boston's Youth Summer Jobs Program in order to simplify the application and placement process in order to increase the number of youth served by the program.

Action: MAPC will actively engage with youth throughout our planning projects and encourage them to be engaged in civic life. Engaged youth create connections that could potentially lead to future job opportunities.

MAPC is committed to doing at least 12 youth-focused projects, or projects engaging youth through innovative strategies such as technology and/or art.

Action: The state and federal government should increase funding to local youth employment programs.

Action: Chambers of Commerce should work with area businesses and member towns to create internship opportunities for youth.

⁷⁷ Connect, 2015, Connectnow.org

⁷⁸ MAPC State of Equity Policy Agenda Recommendation.

Goal: The region will have a large population of young, educated, and talented workers.

Many young people are attracted to the Boston area because of the quality of life and job opportunities. Many young people also grow up in the area and would like the opportunity to stay here, pursue a career, and build a family. It is critical to continue to identify ways to keep younger people living in the region. The region needs to continue to attract and retain young people and to keep college graduates in the region. It is also critically important to retain these young people as they age, advance in their careers, are interested in starting families, and may have a hard time finding affordable housing options.

Strategy: Attract and retain young people in the region.

Action: MAPC will continue to encourage housing production at all income levels.

As previously mentioned, affordability remains a challenge within the region. As a young person there are opportunities to live with roommates which can help to alleviate the high cost of housing, but as younger people age and want to start families, they run into affordability issues. More specific strategies around housing can be found in the Housing Goal above.

Action: Businesses and universities should continue to collaborate to create programs that link students with employers as a part of their education.

Northeastern University provides a great model of how universities and businesses throughout the region can collaborate effectively through their cooperative education program. The program gives students hands-on experience, developing knowledge and skills and broadening their perspectives as students and future industry leaders. Students gain up to 18 months of professional experience

related to their major and have a full time, paid employment opportunity. Providing more programs similar to this with jobs that are located in the region would help to facilitate local connections between students and employers and will keep even more students living and working in the region after they graduate.

Action: The MBTA should continue to operate late-night train service.

Goal: Reduce income inequality and inequities in the Greater Boston Region

One of MAPC's strategic goals is to play a leading role in helping the region to achieve greater equity. There is a growing body of research that links a more equitable region with a more prosperous region. MAPC has done a significant amount of work on this issue including crafting a State of Equity Policy Agenda with recommendations for achieving greater equity throughout the region. It is particularly important to target these strategies and action items to Regional Urban Centers and to black/Hispanic populations who are disproportionately experiencing educational, wealth, and employment gaps throughout the region. Select goals from both the State of Equity and MAPC's Strategic Plan are listed below⁷⁹.

Strategy: Expand access to high-quality education.

Action Step: The Legislature should increase funding to ensure greater access to high-quality preschool education.

High quality early childhood education has been proven to be a major way of both increasing educational and economic outcomes. It has this effect in two ways: first, by improving the cognitive and social readiness of children to attend school, and second, by providing childcare that enables parents to work.

⁷⁹ The full set of State of Equity policy recommendations can be found at regionalindicators.org.

Action Step: Researchers, advocates, and educational leaders should seek strategies to eliminate the relationship between residential segregation and unequal educational opportunities.

In particular, there is a pressing need for better quality K-12 in Regional Urban Centers and low income neighborhoods.

Strategy: Ensure that all the region’s residents earn sufficient income.

Massachusetts increased the state minimum wage, which will increase incrementally, to \$11/hour by 2017 which is on track to be the highest in the nation.⁸⁰ Increasing the minimum wage is one important way to elevate low income families out of poverty, but other strategies should be considered as well.

Action: The Legislature should create a more progressive tax structure.

A more progressive tax structure would ensure a lesser tax burden on low income people and their families.

Action: The Legislature should target the Leisure & Hospitality industry in particular to ensure that they are paying fair wages.

Because this is a rapidly growing industry in the region, it is critical to ensure that wages are fair.

Goal: New development will be concentrated in locations served by existing infrastructure and transportation networks

By thoughtfully planning out our economic growth and where we choose to grow, we are helping to address other concerns around inadequate and aging infrastructure, protecting the environment, and ensuring access and opportunity to jobs. Compact commercial development can also allow traditionally separate industries to share services and resources due to geographic proximity. Shipping and handling facilities, parking, or renewable energy systems are all examples of services that could be potentially shared.

Strategy: Position communities to have development-ready sites in appropriate locations.

Action: MAPC will continue to help communities map priority development and priority protection areas, and this work should be supported by the state.

Action: MAPC will provide follow up technical assistance in areas where we have mapped priority development and protection areas.

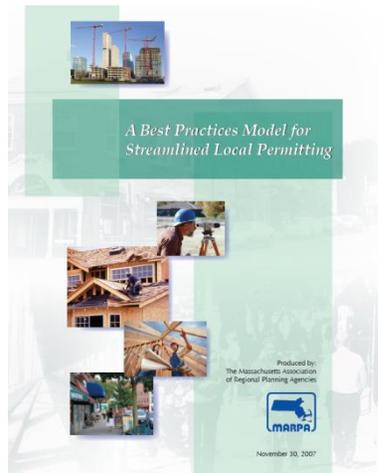
Action: MAPC will continue to explore land banking and land assembly as potential strategies that will assist municipalities in having development ready sites.

Action: MAPC will work with municipalities to develop zoning that encourages dense mixed-use development and to streamline their permitting processes.

Productive relationships between municipalities and the development community attract economic investment and support job creation. When the permitting process is equitable and efficient, the applicants, the public and the regional economy benefit.

⁸⁰ “Why are Pediatricians and Child Health Researchers Talking about Tax Policy?” Children’s Health Watch, 2015, <http://www.childrenshealthwatch.org/2015/01/pediatricians-child-health-researchers-talking-tax-policy/>

Action: MAPC will continue to work on Health Impact Assessments that demonstrate the critical link between appropriate development, health, and successful economic outcomes.



MAPC and MARPA developed *A Best Practices Model for Streamlined Local Permitting*. This guide establishes four broad categories of best practices: foster better communication, standardize forms and procedures, provide sufficient resources, and encourage

Action: MAPC will assist municipalities in streamlining their efforts to help attract quality smart growth development.

Municipalities can put together marketing strategies that include databases with information on developable sites, periodic economic development summits to showcase sites to developers, and by performing and showcasing market analyses. For example, the City of Newton currently maintains a database that allows developers to easily access information on their developable sites and the City of Revere recently held a successful economic development summit.

Action: MAPC will encourage municipalities to direct development to town centers and other built-out areas with available infrastructure.

Action: MAPC will encourage and facilitate strong community engagement to ensure that residents are actively participating in the future development within their municipalities.

Action: The Legislature should include additional funding for the Brownfields Redevelopment Fund.

The Brownfields Redevelopment Fund is critically important as more cities and towns across the Commonwealth look to underutilized or abandoned parcels as potential locations for development.

Strategy: Continue to encourage a smart growth and walkable urban preference in commercial and residential development.

According to recent research undertaken by LOCUS (Smart Growth America), Northeastern, Cushman & Wakefield, and MAPC, every real estate product in the region now has a price valuation premium in walkable urban places as compared with drivable suburban areas. This represents a significant shift away from the dominant development model for much of the late 1900s which saw a much more suburban approach to development. Walkable urban places attract and retain educated, talented workers and per capita GDP is strongly correlated to walkable urbanism⁸¹.

Action: MAPC will continue to participate in and convene conversations with developers to strategize around tools to encourage smart growth development in walkable areas.

Action: MAPC will help to facilitate dialogue amongst public, nonprofit, and private entities in order to encourage partnerships between these sectors.

It takes cross-sectoral participation and cooperation to achieve strong mixed use development. There have been great examples of public

⁸¹ Christopher Leinberger & Patrick Lynch, "The WalkUP Wake-Up Call: Boston," 2015. <http://www.smartgrowthamerica.org/documents/walkup-wake-up-call-boston.pdf>

private partnerships that have helped to achieve exemplary development in the region such as Assembly Square in Somerville. More partnerships of this nature will help to ensure quality economic and residential development for the region's residents in the future.

Action: MAPC will continue to provide input and review on development projects of regional significance through the MEPA process.

Action: Municipalities will adopt innovative transportation strategies, including congestion mitigation, shared and appropriately priced parking, streets that works for all users, and transit solutions for both cities and suburbs.

Action: The Legislature should pass An Act providing for the disposition of surplus state real property based on smart growth land use policies.

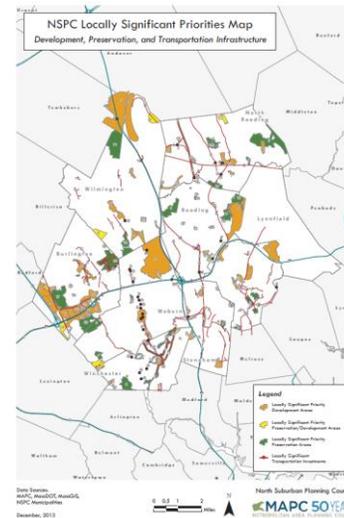
This bill includes surplus land reforms that encourage smart growth development, give municipalities a meaningful role throughout the disposition process, and allow the Commonwealth to meet critical housing, economic development, and environmental priorities.

Action: MAPC will continue to work with municipalities to plan for infrastructure upgrades and appropriate development to facilitate walkable communities.

There is a particular need for this kind of work in low-income communities where infrastructure upgrades and appropriate development can help to catalyze future investment and create additional job opportunities.

Strategy: Align state and regional efforts around Priority Development Sites.

Action: Massachusetts state agencies should align investment and assistance with Sustainable Development Principles and Priority Development and Preservation Areas as mapped by Regional Planning Agencies⁸².



MassWorks grants are one example of a grant program that has begun to integrate PDA/PPA criteria into their application for funding. MassWorks also coordinates with the RPA for review of the applications. This program could serve as a model for other state programs that are focused on economic development and housing.

Action: The Executive Office of Housing and Economic Development (EOHED) should modify the process for designation of Growth District to include coordination with RPAs

Under the Growth Districts Initiative, EOHED will partner with municipalities that have identified one or more areas within their communities as being appropriate locations for significant new

⁸² The MAPC process for mapping priority development and preservation areas involved intensive local outreach to staff and citizens as well as a quantitative GIS based model that evaluates specific sites identified by stakeholders. The model evaluated how these sites score against different indicator, including travel choices, walkable communities, open spaces, healthy watersheds, current assets (sewer service, populations and employment density, number of businesses), and growth potential (such as overlap with smart growth zoning districts and expedited permitting districts).

commercial, residential or mixed-use growth. EOHEd then works with the community and the property owners to make the district development ready with local permitting, state permitting, site preparation, infrastructure improvements, and marketing. EOHEd should coordinate with Regional Planning Agencies to ensure consistency amongst Growth Districts and designated Priority Development Areas.

Strategy: Implement State-wide Zoning Reform to incentivize more smart growth development

Massachusetts zoning is antiquated and has led to longer commutes, a lack of workforce housing, and a loss of natural resources. Zoning reform will help to create a more efficient permitting process that will help us to maintain and develop new jobs and homes. MAPC supports zoning reform that provides benefits to all municipalities through statewide legislative reforms and offers enhanced incentives and tools to communities that choose to “opt in” by changing select local regulations to meet economic development, housing, and natural resource protection goals⁸³.

Action: Municipalities and organizations throughout the region, including MAPC, should continue to advocate for zoning reform.

Action: The Legislature should pass An Act Promoting the Planning and Development of Sustainable Communities.

Goal: Our region will be served by reliable infrastructure, including vital transportation networks that will support continued Economic Development.

Without making necessary transportation improvements, including MBTA, road, and bridge upgrades and repairs, the regional economy will falter. Strong

transportation networks facilitate the exchange of both goods and ideas. Reliable infrastructure is also critical to enable dense mixed use development which in turn attracts jobs and additional economic development. Infrastructure improvement programs also directly create jobs and employ workers.

Strategy: Increase public education around and funding for infrastructure improvements in the region.

Action: The state will assist municipalities in implementing infrastructure upgrades by linking them to appropriate technical assistance and funding sources.

The MassWorks Infrastructure Program provides funding for municipalities and other eligible public entities for public infrastructure that can support economic development and job creation.

Action: The Legislature should provide additional state funding specifically to improve access and to support the maintenance and infrastructure needs of the MBTA, Regional Transit Authorities, and our transportation system as a whole.

While the Legislature took steps to invest additional resources to transportation in 2013, the law was partially eroded in November 2014 when voters repealed the provision indexing the gas tax inflation, which will result in a loss of over \$1 billion in revenue over the next decade. More investment is needed to ensure a stream of revenue for the region’s substantial transportation needs. Both the MBTA and the highway system are very old systems and have been under-maintained for too long. The amount of funding currently available to fix these systems is not enough. It is critical that, in

⁸³ “Fact Sheet: An Act Promoting the Planning and Development of Sustainable Communities,” MAPC, <http://www.mapc.org/sites/default/files/Zoning%20Reform%20Fact%20Sheet.pdf>

addition to maintenance, funding be set aside to improve access to public transit for low income populations and people of color.⁸⁴

Action: T4MA and other transportation advocacy organizations and coalitions throughout the region should continue to educate the public on the vital connection between a functioning and reliable public transit services and the health of our regional economy.

Action: MAPC will continue to advocate for value capture strategies as a tactic for financing infrastructure upgrades.

Value capture presents an opportunity to supplement state funding for infrastructure costs. One potential value capture strategy could be to capture growth in the property values generated by access to transportation to pay for transportation related costs.

Revenue generated from value capture strategies could potentially fund new transportation (lines, stations, vehicles, roads), station area improvements (roadways, sidewalks, facilities, trees, benches, park space, etc), transit operating costs, and smart growth redevelopment (dense, walkable, mixed use, housing). State owned land disposition policies could also be improved to encourage value capture. MAPC has a seat on the state's Value Capture Commission, which has not met recently but is due to present recommendations in the coming months.

Action: The Legislature should increase Chapter 90 funding to communities.

Chapter 90 funds Capital Improvement Projects for highway Construction, Preservation and Improvement Projects that create or

extend the life of Capital Facilities. Local municipalities could take advantage of additional Chapter 90 funding to make infrastructure improvements in their communities.

⁸⁴ "Maxed Out: Massachusetts Transportation at a Financing CrossRoad," T4MA, 2011, http://www.mbta.com/uploadedfiles/About_the_T/Panel/MaxedOut.pdf

Goal: The region will have an expanded supply of housing, with an emphasis on multi-family housing, smaller single-family homes, and homes that are affordable to a wide range of incomes.

Strategy – MAPC will assist municipalities to revise zoning, permitting procedures, and other local policies to encourage the development of housing, especially multi-family housing (both ownership and rental)

Action: MAPC and allies will encourage adoption of MGL Chapter 40R Smart Growth Overlay Districts or similar districts that encourage by-right housing production.

Action: The Legislature should secure a guaranteed long-term funding stream for the school-cost reimbursement programs (MGL c. 40S).

Action: MAPC and allies will encourage adoption of zoning that allows the development of homes and jobs in close proximity to one another.

Action: MAPC and allied organizations will develop a best practices model for streamlined permitting of housing development.

Strategy : MAPC will identify at least five (5) major opportunities for housing production, including surplus state parcels, former industrial sites, sites near transit stations, etc.

Action: MAPC will work with municipalities, state agencies, and other stakeholders to develop plans for these parcels that are consistent with smart growth principles and which contribute to housing production to meet regional needs.

Action: MAPC will work with its partners to implement these plans to the greatest degree practical.

A number of programs exist to facilitate housing production at the state level in Massachusetts. Brief descriptions of these programs are included below.

Chapter 43D creates specific districts that offer expedited permitting for commercial, mixed use, and housing opportunities (maximum of 180 days of local permitting process). As of February 2014, the 43D Program has been adopted by 86 municipalities on 179 sites.

Chapter 40R Smart Growth Overlay districts provide incentives to municipalities that adopt zoning “as of right” and at certain densities. As of August 2014, there were only 25 40R districts in the state.

Compact Neighborhoods is a tool similar to 40R Smart growth overlay districts that has slightly different residential and affordability requirements.

The Housing Development Incentive Program is intended specifically for Gateway Cities. The program provides two tax incentives to developers to undertake substantial rehabilitation of properties for lease of sale as multi-unit market rate housing. Only three of eight Gateway cities within our region have thus far applied for the Housing Development Incentive Program.
(mass.gov/hed/economic/initiatives/housingthatworks/housing-that-works.html)

Strategy: Ensure adequate funding for housing development throughout the region.

Action: The Legislature and Governor should provide \$200 million to \$250 million annually for housing development.

Action: MAPC will assist municipalities with set-asides in their municipal budgets, through use of Community Preservation Act and Municipal Affordable Housing Trust Funds, and other mechanisms to ensure funding for affordable housing.

Strategy: MAPC will continue to incorporate strategies for managing neighborhood change and minimizing displacement into our economic development plans.

Action: MAPC and allies will encourage the adoption of inclusionary zoning.

Goal: The region's economy will depend on a more diverse set of industries.

Through the Great Recession, the region was able to maintain positive labor force growth, despite increased unemployment, and the region's labor force participation rate held steady in the third position among the 25 most populous metropolitan areas around the country. However, job growth in the region since 2001 has been principally reliant on just three sectors (Education and Health Services, Leisure and Hospitality, and Professional and Business Services). With declining wages in Leisure & Hospitality, the growth in this industry may be contributing more to the region's growing income inequality than it's prosperity. It is critical to diversify the industries on which our economy relies in order to ensure more resiliency in the face of financial or other crises.

Strategy: Grow the Clean Energy and Clean Tech Economy in the region

A strong Clean Economy Sector will help Metro Boston meet its sustainability and climate change challenges while also positioning the region in the vanguard of this growing segment of the economy.

Action: MAPC will continue to collaborate with renewable energy and clean energy organizations in the Commonwealth and to work on energy projects, procurements, and workshops that advance markets for clean technology while reducing greenhouse gas emissions and dependence on fossil fuel consumption in the Commonwealth.

At MAPC, our Clean Energy staff are collaborating with a network of clean energy organizations throughout the region and providing services to communities that help to advance and support the market for the clean economy.

Action: MAPC will participate in and help convene environmental, labor and community organizations, including community colleges, union apprenticeship programs, grassroots organizations and non-profit organizations to hold conversations and coordinate efforts that focus on green-collar jobs and clean economic development.

We need to attract clean economy jobs with low and middle skill level requirements that pay livable wages in order to ensure that our clean economy consists of more than just high skills jobs. Right now, the Metro Boston economy has a higher percentage of clean jobs that are occupied by employees with a bachelor's degree or higher.

Action: Clean energy organizations should continue to facilitate coordination between workforce development agencies and clean energy industry employers⁸⁵.

According to the MassCEC, employers often have difficulty finding qualified clean energy workers. MassCEC and other agencies such as the Department of Energy Resources are already implementing training programs to prepare participants with the skills needed in clean energy jobs. This work should be continued to ensure that workers are properly trained for open positions⁸⁶.

⁸⁵ "Massachusetts Clean Energy Report," MassCEC. 2014, <http://images.masscec.com/reports/Executive%20Summary.pdf>

⁸⁶ Ibid.

Action: The state should incorporate bolder required goals into the 3-year energy efficiency plans mandated under the Green Communities Act.

The Green Communities Act currently requires the design and implementation of three-year energy efficiency plans for gas and electric utilities. The state should work to incorporate bolder required goals in their three year energy efficiency plans. This will demonstrate furthered state support for and use of energy efficiency as our “first fuel.” Energy efficiency is the cheapest form of clean energy.

Action: The state should continue to invest in the clean economy.

Although the clean economy sector is growing in Boston, other metro areas and the nation overall are outpacing our region. Continued investment from the public sector will be crucial for continued growth. The state should continue to invest in the clean economy and organizations that are helping to make the critical links that lead to successful clean energy technologies.

Strategy: Support and grow the Advanced Manufacturing industry within the region.

There are significant opportunities for this sector to provide well-paying jobs if partners throughout the region can work strategically to grow this industry. The industry offers careers in a sector with an average annual salary of \$75,000⁸⁷.

Action: MAPC will support regional collaborations around advanced manufacturing and provide value through helping to identify

⁸⁷ “Massachusetts Celebrates Advanced Manufacturing Week, September 9, 2014-October 3, 2014,” Massachusetts: It’s All Here, 2014, <http://www.massitsallhere.com/2014/09/29/governor-patrick-proclaims-advanced-manufacturing-week-massachusetts-september-29-october-3-2014/>

communities with opportunities to participate in this sector as well as specific development sites.

In 2011, former Governor Patrick launched the Massachusetts Advanced Manufacturing Collaborative, a group of leaders from industry, education and government, tasked with evaluating state policies and making recommendations to support advanced manufacturing in the state. The state should continue to facilitate a group that works to implement policies to support advanced manufacturing opportunities⁸⁸.

Action: MAPC will help to facilitate connections between municipalities and existing maker spaces.

Maker spaces are innovative areas where advanced manufacturing professionals can participate or rent incubator space, shared space, tools, ideas and skills in order to help foster innovation. MassDevelopment in particular has done a wealth of research on Maker Spaces, where they are located in the state, and what resources can help to support their growth. MassDevelopment also operates the Advanced Manufacturing Collaborative’s AMP it Up! Program which provides outreach to young adults about opportunities for well-paying jobs in advanced manufacturing⁸⁹.

Action: Workforce development organizations should collaborate with employers in the advanced manufacturing industry to develop additional training for specific advanced manufacturing industry sub groups.

The Massachusetts Advanced Manufacturing Regional Partnership Academy (AMRPA) was created by past Governor Deval Patrick in the

⁸⁸ Ibid.

⁸⁹ Ibid.

summer of 2013. It is an innovative effort that brings together manufacturers, workforce investment boards and academia to help ensure that there are adequate numbers of skilled laborers available to fill advanced manufacturing jobs⁹⁰.

Strategy: Identify and support maritime commerce opportunities throughout the MAPC region.



Action: MAPC will support maritime commerce opportunities throughout the region.

Although the majority of maritime commerce economic opportunities in the state exist outside of the

MAPC region, there are some communities within our region that may be able to participate specifically on aspects such as marine research and education. MAPC has worked with cities such as Gloucester to explore the potential of developing and revitalizing the Gloucester Harbor by developing industry connected to the new maritime port economy. Gloucester still works to implement this vision and MAPC should continue to support them and other coastal cities and towns within our region that may have these kinds of opportunities.

Strategy: Support Local Agriculture and the Agriculture industry in the region.

Action: State agencies, non-profit organizations, and businesses should implement action steps from the forthcoming Massachusetts Food System Plan.

The Food Plan aims to increase production, sales and consumption of Massachusetts-grown food; to create jobs and economic opportunity in food and farming, and improve the wages and skills of food system workers; protect the land and water needed to produce food, minimize the environmental impact of agriculture and ensure food safety; and reduce hunger and food insecurity, increase the availability of fresh, healthy food to all residents, and reduce food waste⁹¹.

Action: Food-related business should focus on sustainable practices, value added processing, and direct-to-consumer sales that leverage a growing appetite for local foods.

Action: The Legislature should provide funding for the recently established Massachusetts Food Trust Program.

Efforts in California, Pennsylvania, and New York to increase healthy food options in grocery stores have preserved or created thousands of jobs in addition to improving public health. The MA Food Trust Program will provide loans, grants, and technical assistance to support the development, renovation and expansion of healthy food retailers and food enterprises⁹².

⁹⁰ Advanced Manufacturing Regional Partnership Academy. <https://amrpa.wordpress.com/about-2/>

⁹¹ The Massachusetts Food System Plan, 2015, <http://www.mafoodplan.org/>

⁹² "Legislative Victory! Healthy Food Financing Passed!" Massachusetts Public Health Association, 2014, <http://mapublichealth.org/2014/07/31/legislative-victory-healthy-food-financing-passed/>

Goal: The region will be well prepared to mitigate and adapt to the impacts of climate change.

Strategy: The state and the region will implement action steps to reduce vulnerabilities to the anticipated impacts of climate change.

Climate change will have tremendous and varied impacts on the regional economy and it is critical that the municipalities in our region are prepared for these impacts. MAPC has prepared a regional climate change adaptation strategy that recommends local, regional, and state action to reduce vulnerability to the anticipated impacts of climate change. As part of this plan an analysis of key vulnerabilities was performed. This assessment analyzed natural resources, the coastal zone, the built environment and infrastructure, health and human welfare, and the local government and economy. Key recommendations from the local government and economy section are included below alongside climate change recommendations from the MAPC State of Equity.

Action: The state should release bond funds that support regional climate adaptation plans and implementation.

Action: MAPC will assist communities to identify effective municipal budgeting structures and apply for state and national funding for climate change preparedness efforts.

Action: MAPC will convene municipalities and regional entities in an effort to identify critical regional economic assets and systems, including key infrastructure that requires hardening to prevent disruption of economic activity.

Action: MAPC will work with communities to incorporate changes to building regulations that will better enable them to function before, during and after a severe storm events.

Key systems (electrical, HVAC, communications) in new buildings or renovations should be located on higher floors above flood zone levels to avoid internal service outages. A Better City recently released a report that recommended Special Improvement Districts to help to pay for flood barriers, bioswales, and other adaptation projects. Creative financing structures such as value capture and municipal incentives are worthwhile to explore in order to support this kind of infrastructure⁹³.

Action: MAPC will engage with communities and organizations throughout the region to create Resilience Networks and Cultivate Partnerships

Knowledge exchange with other organizations throughout the greater New England region can help identify regional solutions to climate change, and facilitate the organizations or a circuit rider assistance program for climate planning training programs.

Action: MAPC will continue assisting municipalities in identifying emergency preparedness planning and resource gaps and will work to address these gaps through technical assistance or regional procurement services.

⁹³ "Enhancing Resilience in Boston: A Guide for Large Buildings and Institutions," A Better City, 2015, <http://www.abettercity.org/docs/resiliency%20report%20web%20FINAL.pdf>

Action: MAPC will identify and prioritize cultural assets and historic sites most vulnerable to climate change impacts and assist municipalities in implementation strategies to protect these resources.

Cultural and historic asset play an important role in local economies, particularly as they relate to tourism, research and education sectors. Given that many MAPC communities hold significant cultural or historic resources, the economic impacts from climate change could be significant.

Action: MAPC will continue to work with municipalities to identify areas with increased hazard risk from climate change impact through Hazard Mitigation Plans.

Goal: Businesses throughout the region will be able to weather economic downturns with greater success.

Strategy: Organizations and businesses throughout the region will work together to ensure that practices are in place to ensure that businesses are more resilient to economic downturns and threats.

Action: Local and Regional Chambers of Commerce, Economic Development Agencies, and Small Business Support Organizations should provide resources and training to small businesses to ensure that they have risk management and disaster preparedness plans in place in order to cope with a potential disaster.

These plans should include a thorough assessment of the businesses' vulnerabilities, a plan of action, ensuring that staff are properly educated and trained in case of an emergency, ensuring adequate

insurance coverage as well as making sure to back up data and any important paperwork⁹⁴.

Action: Businesses should carefully explore strategies to diversify their products and/or service delivery to ensure resilience in the face of an economic downturn.

Action: Businesses should continually assess their own performance and update their business plans.

Action: Businesses should have a risk management plan that identifies threats to their business and strategies for responding to threats.

In particular businesses should have contingency plans for disruptions that may affect their supply chains. They should also have other sources identified for supplies, manufacturing or transportation when there is an interruption⁹⁵.

⁹⁴ "Disaster' Preparing Your Small Business for Disaster," San Francisco Small Business Commission and Mayor's Office of Emergency Services, <http://www.bomasf.org/pdf/news/smallbizdisaster.pdf>

⁹⁵ Paul Kleindorfer and Germaine Saad, "Managing Disruption Risks in Supply Chains," 2005. Production and Operations Management Society.

Evaluation Framework

The following indicators are related to the goals and strategies and will be measured every five years as part of the Regional Indicators program to evaluate progress toward *MetroFuture: Making a Greater Boston Region*.

- 1) Total employment in the region will continue to grow on par with or faster than population growth, throughout the region and across community types (with particular growth seen in Regional Urban Centers).
- 2) Sectors that require a more highly skilled workforce will grow faster than the region's employment overall.
- 3) Total research and development (R&D) funding, from both public and private sources, will grow at least 5% annually.
- 4) Metro Boston will be ranked in the top ten in the nation in number of patents per 10,000 businesses.
- 5) The region will have an increasing share of the nation's employment in clean energy and green technology industries.
- 6) Employment in micro-businesses and sole proprietorships will grow at a faster rate than overall regional employment.
- 7) An increasing number of municipalities will adopt 43D.
- 8) More working-age adults will have at least a 2- or 4-year college degree.
- 9) There will be an increase in workers in the labor force with a graduate degree.
- 10) The net outmigration rate for adults age 25-44 will slow.
- 11) The proportion of working-age Blacks and Hispanics with a 2 or 4 year college degree will increase.
- 12) The post-secondary attainment gap between Blacks and Hispanics versus Whites will decline.
- 13) Labor force participation rates for Blacks and Hispanics will increase, with the largest gains in cohorts without a high school diploma.
- 14) There will be a decreasing disparity of unemployment by race and by education.
- 15) There will be a steady decline in the proportion of residents, households, and families living in poverty.
- 16) The region will reduce income disparities between the top and bottom quintile of the population.
- 17) Wages will increase across all sectors.
- 18) More agricultural land in the region will be actively harvested cropland.
- 19) The total market value of agricultural products sold by the region's farms will grow faster than the regional economy.
- 20) The "Creative Cluster" industries will have an increasing economic impact.
- 21) Industries such as Clean Energy, Local Agriculture, and Advanced Manufacturing will grow as a percentage of our regional economy.
- 22) The number of businesses operated by Immigrant and Black/Latino entrepreneurs will grow throughout the region.
- 23) Measures of wealth among Blacks & Latinos will improve, including homeownership and median income.
- 24) The region will produce the necessary number of housing units through 2020 at a diversity of income types (176,000 units).