MAPC adopted MetroFuture, our long-range regional plan, in 2008. MetroFuture includes a vision for what we hope the region will become in 2030, created by engaging thousands of the region’s residents and workers. It also includes 13 highly detailed implementation strategies for how we, as a region, can get there. We organized the strategies by topic area and recommend a range of actions to a variety of audiences. There are recommendation for municipalities, others for state legislature, some for non-profits, and a set for the private sector, as well as recommendations for MAPC. Realizing the vision of a regional plan will require the actions, decisions, and investments of many individuals, organizations, and levels of government.

Now, 10 years since our Executive Committee adopted MetroFuture, we are updating the plan. The updated plan will be called MetroCommon 2050. While MetroFuture’s vision goes out till 2030, we have been asked by a variety of stakeholders to assess progress over the last ten years. In what ways are the region fulfilling the recommendations MetroFuture set forth? If not, what’s standing in the way of progress? And are there things that have emerged since we adopted the plan that we will need to address in the next plan?

We attempted to answer these questions for all 13 of the strategies. We were interested in identifying progress that we, as a region, have made, as well as the role, if any, that MAPC played in making the change. Unsurprisingly, we found that progress varied. In significant ways, the smart growth goals of MetroFuture have come to pass, which is reflected in the renewed interest and investment in urban and suburban downtowns. At the same time, efforts to make housing more affordable and to prevent residential displacement continue to be massive challenges facing our region. Similarly, we have seen new investments in public transportation, limited expansion of bus and subway service, and greater focus on accountability and management of our transit agencies. Yet the reliability, convenience, and improved access hoped for from our transportation system remain elusive.

We also uncovered new- or better understood- trends that we know we will need to dig deeper into for the next plan. Some of these topics include: climate change adaptation, disruptive technologies in transportation, and the changing nature of work.

To create this report, we interviewed staff and subject matter experts. We also posted drafts on our blog, inviting public comment. A companion effort, the Regional Indicators project includes a set of measures that allows us to monitor progress (or not) towards our goals. Examples from the Regional Indicators have been included in this report to help illuminate our findings. If you have suggestions on what else we can include, please let us know. And we hope that you will join us in creating the next plan.
1

STRATEGY ONE

Implemented Coordinated Plans
Adopted in 2008, MetroFuture is Greater Boston’s long term regional plan. The foundation of the plan is a well-defined vision\(^1\) for the region. Thirteen implementation strategies were included to support progress towards the vision. An extensive community engagement process ensured that MAPC constructed the vision and strategies from the hopes and dreams of the region. In anticipation of an update to the regional plan, MAPC is evaluating the extent to which regional actors, either intentionally or unintentionally, implemented these strategies. The authors gathered the information that follows through conversations with MAPC staff and content experts.

Strategy #1, **Implement Coordinated Plans**, sought to coordinate state, regional, and local plans that promoted equity and sustainability. Local planning departments in 2008 varied quite significantly both in regards to the existence of recent planning documents and in staff capacity. The Implement Coordinated Plans strategy offered recommendations to increase the capacity and coordination of planners and to reduce redundancy, contradictory efforts, and conflict.

The Commonwealth supported plan coordination, creating a number of state policies and programs to encourage collaboration between state, regional, and municipal entities. Examples include the state-sponsored Land Use Priority Plans (2013), which identified priority areas for development and for preservation, and followed these plans with investments. The state also sought to coordinate sustainable policies and programs. The MassWorks Infrastructure Program (2011), which consolidated six former grant programs into one to fund multi-family housing development, economic development in distressed areas, mixed-use development, and transportation improvements. While important initiatives, progress was somewhat piecemeal and advocates are asking that the state be more deliberate in coordinating future plans.

Regional initiatives offered training and tools to increase the capacity of municipal planning staff and to inspire more consistent planning and decision making. The Institute for Leadership and Equity in Development (ILEAD), created by MAPC and community-based partners, trains community members around creating policy change. Action for Regional Equity and the Mel King Institute train new civic leaders from under-represented communities to participate in decisions that will affect their neighborhoods. Efforts led by Citizen Planner Training Collaborative teach planners and volunteers the value of planning

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\(^1\) MetroFuture’s vision for a Greater Boston Region comprises a constellation of unique cities and towns, full of character and rich in culture. A regionally-minded population will make decisions based on informed civic engagement, political leadership, and proactive planning. The region will see growing regional diversity as an asset that can make the lives of all groups richer, and the region more attractive. The region will have more housing options that meet the diverse needs, especially those of seniors and families. Great schools in every community will help to create an educated populace, to provide opportunity, and to drive the economy. All people will live in healthy and safe communities, with local governments that have the resources they need to provide the services people expect. The region will retain its special landscape, unique to New England, and its environmental integrity, with healthy water, clean air, working farms, quiet forests, and beautiful coastlines. The region’s economy will be strong, supported by a well maintained transportation system that provides people with different ways to get around. Communities work together to find common solutions for common problems.
tools and planning coordination. MAPC created a suite of tools for planners to use including Local Access Score and Mass Builds. MAPC, and other non-profits, also provided technical assistance to municipalities and state agencies and in doing so championed a regional perspective.

The extent to which municipalities have embraced coordinated planning varies. Due to the power of home rule, municipalities are not obligated to think regionally and therefore mainly focus within their borders. In regards to municipal planning capacity, MAPC planners report that municipal planning staff size and resources have largely stayed the same. Many municipalities continue to under-resource their planning departments and while the majority of municipalities embraced modern planning tools, others continue to use outdated or inefficient tools.

**Sub-Strategy Review**

**Sub-Strategy A: Increase municipal planning capacity**

**EXAMPLES OF PROGRESS**

- The [Citizen Planner Training Collaborative](#) continues to be a critical resource for local planning and zoning officials. MAPC sub-regions host three sessions a year and train a variety of planners and citizens in smart growth planning strategies. MAPC also supports the annual spring CPTC training conference.

- MAPC's [Institute on Leadership in Equity and Development](#) began in 2012. To date, MAPC has conducted three ILEAD trainings where residents learn how to identify and solve sustainable and equitable development issues in communities, especially under-served communities.

- In 2018, the Massachusetts [Housing Choice Initiative](#) will also provide technical assistance funds for planning for housing production.

- Funding has increased to various pools of money that support developing municipal planning capacity in Metro Boston. Increases to District Local Technical Assistance (DLTA), assessment funds for MAPC, Community Compact and Energy and Environmental Affairs Planning Assistance Grants Program, mean that more municipalities have access to technical assistance.

- The [Mel King Institute](#), created in 2009, trains professional practitioners and volunteer leaders in community development to ensure that the field stays on the cutting edge of new information and practice.
MAPC trains municipalities in various planning tools. Some examples include:

- **CommunityViz**, which allows planners to envision planning alternatives and understand their potential impacts
- **Local Access Score**, developed by MAPC, which helps prioritize sidewalk and bike route improvements.
- MAPC's sub-regional meetings offer planners from across the region the opportunity to learn from MAPC and from each other. Sub-regional partnerships produced several multi-municipality planning initiatives, including:
  - MAPC's [North Suburban mobility study](http://www.mass.gov/hed/economic/eohed/pro/zoning-and-permitting/43d/chapter-43d-communities.html)

**BARRIERS TO PROGRESS:**

- Some municipalities still don’t fully value, or have the funding to support a local, professional planner. In some municipalities, planners are viewed as political appointments and therefore change when the administrations change.
- State government and municipal government does not provide enough dedicated planning funds to significantly impact planning capacity. Long-term planning suffers as planning staff are occupied with development reviews.
- Too frequently municipal planning does not account for issues that spill over town and city boundaries.

**Sub-Strategy B: Modernize planning and development tools**

**EXAMPLES OF PROGRESS:**

- **Chapter 43E Expedited State Permitting Program** (2006) and **Chapter 43D Expedited Local Permitting Program** (2006) promotes a streamlined and time sensitive review process, which makes development more predictable and therefore more attractive to developers.
  - According to state data\(^2\), the number of sites using 43D dropped from an average of fifty-five per year between 2007 and 2009 to an average of three per year since (See Figure 5). The state website notes fourteen 43E sites.
  - Within the MAPC catchment area, twenty-three municipalities have adopted sixty-two 43D sites, the majority of which occurred between 2007 and 2009.

MAPC produced a variety of tools to help planners make sustainable planning decisions, some MassBuilds and Local Access Score were already mentioned, others include:

- Parking utilization studies to help advocate for “right size” parking standards
- The Massachusetts Association of Regional Planning Agencies (MARPA), which includes MAPC, prepared "A Best Practices Model for Streamlined Local Permitting" in late 2007, and promotes these practices thought presentations, as well as in recommendations to municipalities.

**BARRIERS TO PROGRESS:**

- MetroFuture recommended that Massachusetts change the legislation that authorizes Transfer of Development Rights, which work to preserve rural areas and transfer their development rights to denser areas. The limited impact of the tool is partially due to the difficulties of inter-municipal transfers and partially due to the requirement for transfers to include density bonuses. MAPC is promoting a Revolving Loan Fund that would remove the timing barrier and make it easier for a municipalities to purchase and hold development rights for future sale to increase development density in designated areas.
Sub-Strategy C: Establish consistency of plans across all levels

EXAMPLES OF PROGRESS:

- In 2013 the Executive Office of Housing and Economic Development (EOHED) partnered with municipalities north of Boston and MAPC to align, prioritize and fund Priority Development Areas (PDA) and Priority Preservation Areas (PPA). Prioritizing growth and preservation in specific areas advanced the Sustainable Development Principles, Governor Patrick’s statewide housing goal, MassDOT’s mode shift goal, and MetroFuture goals.

- Since Priority Development Areas and Priority Preservation Areas planning began, MAPC has participated in planning around South Coast Rail, the I-495 region, the North Suburban Subregion and parts of the North Shore in addition to the MetroNorth study. These plans identify local, regional, and state-level land use and transportation priorities.

- The MassWorks grants program, established in 2011 by combining a number of state grant programs, provides awards to municipalities to prepare for long-term strength and sustainability, with particular emphasis on projects that support multi-family housing development, economic development in distressed areas, mixed-use development, and transportation improvements. Regional planning agencies review MassWorks applications for consistency with regional plan priorities.

- MAPC helped 10 cities and towns produce Master Plans that update and integrate previous local planning efforts as well as state and regional priorities and, as of March 2018, 5 master plans are in progress.

- In 2017 the Metro Mayors Coalition launched a regional housing initiative that established a regional housing production goal and strategy for achieving the goal over time.

- MAPC, through its subregions, encourages unified subregional comments on priorities for the Transportation Improvement Program (TIP), Regional Transportation Plan, and Unified Planning Work Program (UPWP).

- MAPC uses MetroFuture to assess projects under Massachusetts Environmental Policy Act (MEPA) reviews.

- MAPC undertakes a review of all draft open space and recreations plans submitted in the region and encourages the municipalities undertaking these plans to include discussion of regional resources and cross-municipal issues.

BARRIERS TO PROGRESS:

- Because there is no statutory requirement for plan consistency, coordination depends on willing collaboration between levels of government. As administrations change, previous priorities may not be observed. For example, the Land Use Priority Plans have not continued under the Baker Administration.
• There is no mechanism to measure the consistency of plans across all levels, which is something MetroFuture called for.

• The strength of home-rule and the lack of a county level of government has made consistency of plans across levels difficult to organize, much less implement.

• Municipal finance is largely dependent on raising local revenues, which can result in municipalities competing amongst themselves for new revenues.

• There is no incentive for adjacent municipalities to coordinate their planning efforts even for parcels at or straddling their borders.

**Sub-Strategy D: Coordinate sustainable state policies and programs**

**EXAMPLES OF PROGRESS:**

• The Sustainable Water Management Initiative (SWMI) passed, overhauling water permit issuance, restricting overuse of certain stream flows, and using larger scale models that encompass a larger impact area, which MetroFuture called for.

• Since the Romney Administration, there has been some degree of high-level state agency coordination on development and preservation issues. With Romney, the state established the Office for Commonwealth Development that was a “super-secretariat”, which included economic development, housing, transportation, and environmental agencies.

• Commonwealth Community Compact, established in 2016, champions municipal interests across all executive secretariats and agencies, and develops, in consultation with cities and towns, mutual standards and best practices for both the state and municipalities. As of September 2017, 300 signed Compacts are in place representing over 600 best practices.

• Since MetroFuture was adopted, 116 towns in the state have completed Housing Production Plans (HPPs) in Massachusetts and 48 within MAPC’s region. MAPC consulted on twenty plans, all of which advocate for diverse housing production that takes local and regional housing supply into account. Examples of outcomes of those HPPs include stronger inclusionary zoning policies and more liberal accessory dwelling unit ordinances, but plan implementation is inconsistent.

• In 2017, MAPC worked with the state to prepare guidance for how municipalities should undertake the 40B 1.5% land area calculation. This will bring consistency to a process that has long been contentious and undertaken in an inconsistent manner.
BARRIERS TO PROGRESS:

- The Massachusetts Water Resources Authority (MWRA) resisted considering land use regulations as part of determining new water service because they did not believe land use planning and development was within their mission.

- Legislative improvements to agencies like MEPA or laws like Chapter 40B may indeed increase sustainability and coordination, but once changes are possible, there will be an equal if not stronger push against coordination and sustainability, and all that was previously gained will be at risk.

Sub-strategy E: Foster private sector demand for sustainable development

EXAMPLES OF PROGRESS:

- Cities and towns, on the advice of MAPC and other planning firms, are using Chapter 43D designations to streamline permitting requirements and making permitting by right where available. From 2009 to the present there have been 9 additional 43D communities.

- MAPC convened a Developers Roundtable in 2016 and 2017 where local developers learned about MetroFuture’s vision for the region and discussed barriers the industry faced in creating mixed-use and higher density developments in smart growth locations.

- In 2016 and 2017, the U.S. Green Building Council named Massachusetts the top state for LEED development in the country.
• A Better City, a diverse group of business leaders working to enhance the region’s economy and quality of life, works with many private sector partners to implement and track sustainable building technologies and management practices.

• TOD plans, developed by MAPC and others, help cities and towns plan for growth around transit, which is a sustainable method for growth.

BARRIERS TO PROGRESS:

• Zoning is antiquated in many municipalities. In order to promote redevelopment in downtowns and other smart growth locations, updated zoning is needed (e.g. by-right permitting, density, expanded uses). The governor’s Housing Choice bill (introduced 2017) would have reduced zoning adoption votes to a simple majority, but it failed to pass in the legislative session that ended summer 2018.

• Beyond the metroBoston area, municipalities have begun to change downtown zoning to encourage sustainable development, but developers have been slow to respond in some locations.

Emergent Themes

• MAPC encourages municipalities to incorporate more than just traditional plans into their portfolio of coordinated plans. Health plans, arts and culture plans, clean energy plans are all important aspects of a sustainable and desirable municipality and MAPC now includes this type of planning within their more traditional Master Plans, Economic Development Plans, and Transit Oriented Development plans.
2

STRATEGY TWO

Democratize Information
Adopted in 2008, MetroFuture is Greater Boston's long term regional plan. The foundation of the plan is a well-defined vision for the region. Thirteen implementation strategies were included to support progress towards the vision. An extensive community engagement process ensured that MAPC constructed the vision and strategies from the hopes and dreams of the region. In anticipation of an update to the regional plan, MAPC is evaluating the extent to which regional actors, either intentionally or unintentionally, implemented these strategies. The authors gathered the information that follows through conversations with MAPC staff and content experts.

Strategy #2, Democratize Information, envisioned how data and information at the local, regional, and state level could inform a coordinated, proactive and efficient approach to achieving MetroFuture's regional vision. This was a response to limitations in data availability and capacity, which resulted in reactive policy responses to crises rather than pro-active, data informed strategies. Ten years later, access to data has significantly improved and more municipalities are taking advantage, but challenges persist.

Since the release of MetroFuture, the Commonwealth transitioned from having data and technology embedded in state departments to creating a data and technology department (MassIT), and then to creating a data and technology secretariat in the Executive Office of Technology Services and Security (EOTSS). In doing so the state embraced the increasingly powerful role of data in decision making, both in regards to increasing public access to data and using technology to increase efficiency and effectiveness.

Regional entities and non-governmental organizations also contributed to democratizing data. Agencies, including MAPC, collected a variety of critical datasets, making them available to the public, and using them to inform policy and decision-making. MAPC has built a variety of data tools, which agencies, municipalities, consultants, and citizens use to make policy and planning decisions.

The embrace of data is also apparent at the local level, but progress varies. Boston and Cambridge are national early adopters of open data and many other Inner Core communities followed suit. In other parts of the region municipal planners often strive to publish data predictably and uniformly, but due to lack of incentives and limited capacity, data is published frequently. Still, every municipality in the region has a website and nearly all of those websites offer online services as well as access to government documents, studies, and meeting minutes, which greatly increases transparency and information sharing.

A factor unaccounted for in MetroFuture was the industriousness and curiosity of private citizens to make data public. A number of individuals proved instrumental, either by advocating for public data and/or by publishing it themselves, in pushing local and state government agencies to commit to open data. Another emerging topic in Democratizing
Data is unconventional data sources, like administrative records (DOR Tax filings) and online resources (Craigslist or Uber), which have great data, but are not necessarily conducive to analysis.

**Sub-Strategy Review**

**Sub-Strategy A: Align data collection and policymaking**

**EXAMPLES OF PROGRESS**

- The [Massachusetts Travel Survey](#) collected information on residents' travel patterns, and preferences. The data is used for determining travel needs, projections of highway traffic, and transit ridership.

- As part of its [Clean Energy Climate Plan](#) the state used the [greenhouse gas emissions reduction targets](#) included in the [Global Warming Solutions Act of 2008](#) to set greenhouse gas (GHG) benchmarks. Using the annual [GHG Emissions Inventory](#), the Massachusetts Department of Environmental Protection tracks the state's progress across different sectors and coordinates with state and regional entities on strategies to ensure the benchmarks will be met.

- MAPC identified the 10 Most Wanted Data Sets list, ‘rounded up’ four of those datasets, and made substantive progress on another four. This greatly expanded the universe of useful datasets for policy making. Of particular note is the [Development Database](#) (now MassBuilds) a MAPC-led effort to collect data and build a public platform for maintaining and accessing it. MassBuilds is a go-to resource for public agencies, consultants, and the private sector, and is an integral part of MAPC's forecasting and planning. MassBuilds allows MAPC and the public to understand development trends at the local and regional scale. For example, Figure 1 uses MassBuilds data to show development in relation to transit station areas.
BARREIERS TO PROGRESS:

- Collecting, cleaning, and analyzing data is very time consuming, which makes it expensive to maintain accurate, current, and comprehensive data about the region.
- Municipalities store and maintain their own data and that data is generally not available in a machine-readable and standardized format.
- Municipalities are not incentivized to create their own data and, in some cases, are outright opposed to making data available.
- Lots of useful data exists in inaccessible and unconventional platforms, such as administrative records and online sources. The administrative records platforms are not conducive to collecting clean data nor data that researchers could track change over time. Accessing data from entities like Uber and Airbnb could have huge policy implications, but other than a one off data exchange between the City of Boston and Uber, private companies heavily guard their data.

Sub-Strategy B: Improve state and local capacity to utilize planning and decision support tools

EXAMPLES OF PROGRESS:

- The See Click Fix system allows residents to inform municipalities of public works issues and then track the complaint through resolution. The system has greatly increased the timeliness and efficiency of fixing infrastructure issues.
- MAPC has led the charge in offering data tools to support decision making on the state and local levels.
  - MAPC’s Regional Indicators Program, including the State of Equity Indicators report details how the region is progressing towards or away from the goals of MetroFuture. The findings of the indicators inform MAPC’s legislative agenda and policy priorities at the local and state level.

![Figure 2: Example of MAPC’s Commonwealth Connect app](image-url)
• **Local Access Score** helps MAPC, consultants, and municipalities prioritize sidewalk and bike route improvements. MassDOT has identified it as a Complete Streets ‘best practice’.

• MAPC's Priority Area Screening tool supports collaborative efforts by identifying priority areas for development and preservation. The tool has been used in multiple sub-regional planning efforts.

• MAPC has used GIS-based scenario planning tools to guide master plans and local area plans in Hingham, Ashland, Marshfield, Manchester, and Woburn. This tool provides an integrated forecast of land use, water demand, transportation needs, tax revenue, and school enrollment under various user-specified zoning and growth assumptions.

• MAPC's **Commonwealth Connect** app is a mobile application that allows residents to report non-emergency issues to their municipal government. The system, modeled off Boston's highly successful Citizens Connect app (now Bos:311), logged 65,000 issues in 76 municipalities from 2013 to 2015 and is an important example of how technology can radically transform and improve the relationship between residents and government.

• MAPC's **Population and Housing Projections** are used as key inputs to the Boston MPO's Long Range Transportation Plan, MassDEP water demand forecasting, development of housing policy, and many other decisions.

**BARRIERS TO PROGRESS:**

• Despite verbal commitments to be more data driven in making decisions, municipalities have taken limited action. Political agendas/imperatives and individual crises still drive local policy agendas.

• The inconsistency of state commitment to the Priority Area framework has also undermined the utility of the screening tools and process.

• Some municipal planning departments are not only under-staffed and under-resourced, but in many cases lack technical expertise.

• Some data resources and analytical tools are highly relevant and useful at the regional level, but not at the municipal/neighborhood level.
**Sub-Strategy C: Support State and Regional Data Intermediaries**

**EXAMPLES OF PROGRESS:**
- The creation of MassIT which transitioned into the secretariat level Executive Office of Technology Services and Security, establishes data collection and analysis as a central tenet of state government and created a place to join data, digital, GIS, etc.
- MassGIS sets standards and manages geospatial information across state agencies.
- Following the adoption of MetroFuture, MAPC consolidated its data capacity in a new Data Services department, creating a robust data intermediary for the region.

**BARRIERS TO PROGRESS:**
- MassIT faced substantial barriers in standardizing data and making it available.
- MAPC Data Services has limited core funding to support its role as a data intermediary.
- The region lacks public resources dedicated to design and visualizations. MAPC increased effectiveness after bringing design in-house, but many agencies do not have this capacity, which makes it difficult to effectively communicate findings.

**Sub-Strategy D: Build and maintain strong “information infrastructure”**

**EXAMPLES OF PROGRESS:**
- Massachusetts was at the forefront of the open data movement. Boston was among the first in the nation to adopt an open data policy.
- In 2013, MassGIS established digital standards for parcel and assessors’ data, and enlisted contractors to upgrade records from every city and town to meet those standards.
- The Massachusetts legislature made all municipal and state data public record. Many municipalities complied, but capacity issues prevent 100% compliance.
• The state established parcel data standards, which has increased consistency and allowed for more opportunities to analyze trends across the region. Unfortunately, fully-maintained data are only available for about half of the state's cities and towns.

• MAPC built and maintains its own “information infrastructure,” in the form of a centralized database and made it accessible to 3rd party websites.

• Many municipalities publically track the performance of their various departments both to show what they've accomplished and how much it costs to accomplish what they've accomplished. This increased transparency increases the effectiveness of services rendered and increases government accountability.

• In 2017 MAPC began the Perfect Fit Parking initiative to develop the data and tools that communities need to establish informed, sustainable, and economical parking policies.

**BARRIERS TO PROGRESS:**

• Data sharing is not “mission critical” to the day to day mission of cities, towns, and companies.

• We still lack the digital applications and software needed to support the management and analysis of data resources. Commercial solutions are often user-friendly but excessively expensive. Open source models are cheaper, but require more expertise.

• Technology advances extraordinarily quickly resulting in cities and towns using distinct platforms that don't work well together.

**Emergent Themes**

• Unconventional and proprietary data sources developed into critical repositories of information, but are largely inaccessible due to expense or access.

• The growth of the sharing economy, whether it be shared cars, housing, or bikes and their reluctance to make their data accessible. It arose so precipitously that agreements were overlooked. Developing ways to inexpensively and frequently access these data sources would enable policy makers the foresight to make better informed policy decisions.

• In 2008, MetroFuture overlooked the roll or the potential of an enterprising individual, or group of individuals, to move into the public realm to design and/or to implement data platforms and to publish data.
3

STRATEGY THREE

Strengthen Municipal Finance
Summary

Adopted in 2008, MetroFuture is Greater Boston’s long term regional plan. The foundation of the plan is a well-defined vision for the region. Thirteen implementation strategies were included to support progress towards the vision. An extensive community engagement process ensured that MAPC constructed the vision and strategies from the hopes and dreams of the region. In anticipation of an update to the regional plan, MAPC is evaluating the extent to which regional actors, either intentionally or unintentionally, implemented these strategies. The authors gathered the information that follows through conversations with MAPC staff and content experts.

Strengthen Municipal Finance, the 3rd implementation strategy, offered recommendations to ensure that all municipalities possessed a strong financial foundation. MetroFuture acknowledged the dilemma Massachusetts municipalities face when trying to make sustainable and equitable decisions and offered strategies to help resolve them. Home rule\(^1\) makes cities and towns responsible for most all aspects of land use and many services, but the state places severe restrictions on a municipality’s ability to raise revenues. The result is significant municipal autonomy, but limited funds for services and programs. And with increasing fixed costs, little remains for new investments or initiatives. MetroFuture’s Strengthen Municipal Finance Strategy offered recommendations that would help stabilize and strengthen municipal finances while increasing incentives and processes that encourage municipalities to plan regionally and equitably.

MetroFuture posited that one way in which municipalities could strengthen their finances was to modernize municipal charters and governance. MetroFuture advocated for strong executive authority, a legislative authority with clear authorizations on broad policies, and a system for governing public education that encourages excellence, efficiency and accountability. Since MetroFuture’s release in 2008, only Framingham, Everett, and Bridgewater enacted major charter change and a small group of municipalities enacted minor charter changes. Some of these changes included town administration, where municipalities moved from administrators to managers. Framingham exhibited the biggest transition, recently moving from a town form of government to a city with a strong mayor.

MetroFuture also encouraged municipalities to better understand and control their costs while increasing transparency to constituents. Programs like Open Checkbook and public works service requests attempt to make finances and services more transparent and accountable. Budget document information should be as robust as capital planning, but while a handful of municipalities have significantly improved the quality of their budget documents, many have budget documents that provide minimal information. Many municipalities joined the Group Insurance Commission (GIC), a state agency that provides and administers health insurance to that state’s employees and retirees, which cut down on redundancy among municipalities and leveraged better services, at lower cost. The state retirement system has $16.3 billion in unfunded liabilities. The Public Employee Retirement Administration Commission (PERAC) estimates that Massachusetts has an

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\(^1\) The Home Rule Amendment in the Massachusetts Constitution grants and confirms “to the people of every city and town the right of self-governance in local matters.”
unfunded liability for post-employment benefits (OPEB) of roughly $46.7 billion as of September of 2016. 

MetroFuture advocated that the state increase local aid to municipalities through a new needs-based formula. Municipalities relied too heavily on property taxes, which resulted in land use decisions that maximize revenues often to the detriment of sustainability and equity objectives. Unfortunately, ten years later, those conditions remain largely unchanged and municipal reliance on the property tax has actually increased. MetroFuture also advocated for maintaining the income tax rate to take some of the pressure off property taxes, but after voters approved a reduced rate, legislative triggers have stepped it down from 5.3% to 5.1% in the intervening years. A further reduction to 5% is possible. The state did increase its Community Preservation Act match and the meal tax, but neither one drastically altered overall revenues for municipalities.

### Sub-Strategy Review

#### Sub-Strategy A: Modernize municipal governance structures and practices

**Examples of Progress**

- There generally has been a positive trend towards updating municipal governance, with a collection of towns moving from Town Administrator to Town Manager structures, and the largest town in the region, Framingham, becoming a city with an elected Mayor.
- Many municipalities increased transparency. Budgets and other municipal documents are increasingly available online and public works activities can be requested and tracked through apps. Additionally, most every municipality publishes meeting minutes and town information on their website, if not through social media.

**Barriers to Progress:**

- MAPC advanced a variety of bills that would allow more flexibility for municipalities to raise funds. The Legislature has consistently been reluctant to delegate additional taxing authority.
- Some municipalities lag behind in modernization, maintaining a “if it ain’t broke, don’t fix it” mentality that limits advances in municipal capacity.
- The Massachusetts constitution prohibits municipalities with populations less than 12,000 from converting to city form of government and prohibits those with less than 6,000 from representative town meeting (meaning their only option is open town meeting).

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2 https://pioneerinstitute.org/blog/blog-better-government/blog-pensions/underfunding-opec-losing-strategy/
Sub-Strategy B: Control municipalities’ fixed costs: Health care, pensions, and debt

EXAMPLES OF PROGRESS:

• Most of region’s municipalities take part in Medicare and the Group Insurance Commission (GIC), which offers more robust coverage than individual municipalities could afford.

BARRIERS TO PROGRESS:

• The state retirement system has $16.3 billion in unfunded liabilities related to other post-employment benefits (OPEB). The Public Employee Retirement Administration Commission (PERAC) estimates unfunded actuarial liability for OPEB benefits across the state, including municipalities, to be roughly $46.7 billion as of September of 2016. Many municipalities have not established a trust fund to cover future costs.

RELEVANT INDICATORS

Massachusetts cities and towns provide many services to residents, from schools and parks to public safety, trash collection, and clean streets. Municipalities pay for these services by levying taxes on homes, businesses and personal property, which together provided nearly two-thirds of local revenue in the MAPC region in 2017. Other revenue comes from state aid, excise taxes, and optional hotel and meal taxes. Steep increases in the cost of employee health insurance and rising pension obligations have eaten a greater share of local tax revenue in recent years. This has negatively affected the ability of cities and towns to provide basic services without raising taxes. And, local tax increases are capped at 2.5% per year, unless voters approve an “override” of that limit. As a share of local revenue, the property tax increased steadily from 55% in 2000 to 63% in 2017 (see Figure 1).

Figure: 1: Percent of municipal revenue from property taxes by community type (2000 to 2017)
Data Source: Massachusetts Department of Revenue, aData

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3 https://pioneerinstitute.org/blog/blog-better-government/blog-pensions/underfunding-opeb-losing-strategy/
4 While not directly tied to the success or failure of a sub-strategy, indicators show how the region has changed in the face of the aforementioned actions or inactions.
Some places are almost entirely dependent on property taxes or residential property taxes, while others are almost entirely dependent on state aid (see Figure 2). Either of these extremes is dangerous. When state aid is cut, cities and towns like Lawrence (~72% of budget) suffer greatly, while a place like Carlisle (~5% of budget) much less so. However, in Carlisle, which gets 97% of its budget from property, discussions about new municipal expenditures—schools, public safety facilities, etc.—are often shaped more by concerns around growing tax bills than the long-term benefits to the community. Without diversification of revenue sources, such as increasing state aid, or encouraging more communities to adopt local taxes on meals and hotels, municipalities may find themselves unable to provide stable services in years to come.

**Sub-Strategy C: Enable more cost-effective service delivery**

**EXAMPLES OF PROGRESS:**

- A number of communities, mostly larger cities and towns, have instituted performance management practices and so-called "CitiStat systems" for tracking the quality of services provided to their residents, notably Somerville through their SomerStat system.

- There are a number of examples of communities sharing services to provide more cost-effective delivery. Areas where this takes place include veteran’s services, inspectional services, animal control, information technology, emergency dispatch, and public health.
• Cities and towns are regularly using collective and cooperative purchasing arrangements to procure goods and services – which saves them both staff time and money in running procurement processes and reduces the costs of the procured goods and services.

• The Collins Center reports that capital planning for cities and towns is currently one of their biggest areas of technical assistance. They have worked with several dozen municipalities on it over the last few years. Much of this is funded by the Community Compact program.

• The state expanded enterprise funds, which establish a separate accounting and financial reporting mechanism for municipal services, in 2017. From 2006 to 2016 the number of municipalities using enterprise funds increased 23% from 199 to 244.

• Many communities have adopted the senior citizen tax write off program, whereby seniors receive a property tax relief in exchange for dedicating time to support municipal functions.

• While no municipality created a new municipal electric utility, the State adopted commercial Property Assessed Clean Energy (PACE) financing to promote energy efficiency and make it more affordable. Also, MAPC assisted municipalities in purchasing programs for aggregated electricity and clean energy.

**BARRIERS TO PROGRESS:**

• The biggest barrier to progress is resources and capacity. The upfront investment in time and money required to reform the way services are delivered is often not available for many cities and towns.

• Municipal leaders and residents often are concerned that shared services will not be as accountable to their management and needs – having to juggle needs across multiple communities and not being responsive to a single chain of command.

**RELEVANT INDICATORS:**

“Municipal aggregation” is when customers band together to buy their electricity. With aggregation, a city or town contracts with an electricity supplier on behalf of all residents and businesses who have not already selected one. By entering into long-term contracts and leveraging significant buying power, aggregations can provide cost savings and more price stability than the utility. Figure 2 details Massachusetts Green Municipal Aggregation Program.
Sub-Strategy D: Ensure that state assistance to local government is sufficient and predictable

EXAMPLES OF PROGRESS:

• Local aid has again started to track to levels of state revenue growth, but the cuts that occurred during the great recession have not been made up.

BARRIERS TO PROGRESS

• Reform to local aid would result in winners and losers, which forms a significant barrier to change. To change the local aid formula would likely require strong revenue growth that would allow the losers in any formulaic change to be relatively unharmed in the short-term. And despite Massachusetts’ very strong economy, revenue growth has not kept pace.

• Aversion to new taxes from Governor and House leadership keeps new revenue initiatives in check.

• The Strengthen Municipal Finance strategy supported maintaining the 5.3% income tax rate, but since 2011 the rate has declined annually and currently sits at 5.1%.
**Sub-Strategy E: Provide cities and towns with flexibility to raise local revenues**

**EXAMPLES OF PROGRESS:**

- The Community Preservation Act (CPA) is a smart growth tool, which allows municipalities to create a local Community Preservation Fund for open space protection, historic preservation, affordable housing and outdoor recreation, continues to be a resource for municipalities. While the number of communities receiving CPA funds reached a new high (157) in 2016, the number of projects and money distributed from the state match fell to an all-time low as did percent of the distribution from the base fund (17% in 2016 versus 67% in 2008). Legislative change would be required to increase the state matching funds.

- Examples of payments in lieu of taxes increased across the state.

- The legislature increased the meals tax in 2009 to 6.25% from 5% and passed a law to allow local option hotel and meals taxes, which municipalities have actively pursued.

- Legislative proposals to allow for regional ballot initiatives to fund multi-municipal transportation projects and allowing expanded value capture have been introduced into the legislature, but have not yet passed.

**BARRIERS TO PROGRESS:**

- General opposition to new local taxes from those industries that would potentially be impacted thwarts efforts to expand revenue raising powers.

- The Supreme Judicial Court rejected the "Fair Share" ballot question that would have increased income tax rates over $1million, in order to fund transportation and education.

**Sub-Strategy F: Reduce the burden of education funding.**

**BARRIERS TO PROGRESS:**

- Chapter 40R, the smart growth housing law, and its companion, Chapter 40S, which covers any net increases in school costs, has resulted in only a modest number of new housing units. Concern over long-term funding availability leads some municipalities to be reluctant to take part in the program. As of May 2018, only five towns have applied and the state granted awards to three. However, experts think that some municipalities would have qualified if they had applied.

- The regionalization of certain school systems is raised periodically, but it would require the elimination of certain local governance structures, control, and jobs and the resulting economies of scale are never compelling enough to overcome these losses.
Emergent Themes

- Experts warn that municipal finance faces a wave of retirements and lacks a robust pipeline to fill it.
- Capital planning and financial forecasting are still limited in many municipalities. This is just recently starting to change.
- Many municipalities have major unfunded capital costs in the form of buildings, vehicles, and equipment that are past their useful life and will have to be replaced.
Strategy Four

Build Regional Collaboration
Adopted in 2008, MetroFuture is Greater Boston’s long term regional plan. The foundation of the plan is a well-defined vision for the region. Thirteen implementation strategies were included to support progress towards the vision. An extensive community engagement process ensured that MAPC constructed the vision and strategies from the hopes and dreams of the region. In anticipation of an update to the regional plan, MAPC is evaluating the extent to which regional actors, either intentionally or unintentionally, implemented these strategies. The authors gathered the information that follows through conversations with MAPC staff and content experts.

The intent of the 4th strategy, Build Regional Collaboration, was a response to Metro Boston limited efforts to work collaboratively across municipal boundaries to take collective action. While there are a number of regional entities such as the MBTA and the MWRA, most programs, policy, projects, and initiatives are either at the local or state level. With so many regional systems and markets, such as housing, the economy, watersheds, and transportation, greater regional collaboration will be necessary to address our shared challenges and to meet the opportunities.

Strategy #4 offered recommendations meant to encourage and support municipalities towards regional collaboration and consolidation. As a regional planning agency, the Metropolitan Planning Committee (MAPC) is uniquely positioned to provide that encouragement and support. Therefore, this strategy recommended that the state government strengthen MAPC as a regional resource. Increasing MAPC's and other regional entities' capacity would increase opportunities for regional collaboration and in doing so create a path towards increased safety and robust regional development.

This strategy recommended the two things. First, Strategy #4 suggested that the state incentivize regional collaboration. In 2016 the state created the Efficiency and Regionalization grant program, which offered financial support for governmental entities to regionalize services. Under the Patrick Administration, the state funded Land Use Priority Plans, developed in partnership with municipalities, RPAs, state agencies, and stakeholders. The plans identify, at a local, regional and state level, places which are appropriate for growth and preservation, known as Priority Development Areas and Priority Preservation Areas (PDA/PPAs). The Municipal Modernization Bill also prioritized regional applications for existing grant funds and established a joint powers act that would further enable regionalization initiatives through a streamlined process. While these opportunities mark progress along the path towards collaboration, a more decisive, better funded regional mandate by state, would greatly hasten our pace. The second recommendation was increase the capacity of Regional Planning Agencies (RPAs). MAPC member communities increased their assessment that provides grants under the Planning for MetroFuture Technical Assistance (PMTA) program. And the state has consistently funded District Local Technical Assistance (DLTA), which allow MAPC to provide technical assistance to municipalities consistent with MetroFuture’s vision. Additional funding sources, like the Community Compact and Efficiency and Regionalization Grants, further increased MAPC’s capacity and reach. The Legislature passed the Municipal Modernization
Bill which both allowed state agencies to contract with RPAs for municipal services and technical assistance

In the presence of consistent and in some cases increased state funding, MAPC significantly expanded staff and the amount of projects undertaken each year. Equally important was MAPC’s ability to fundraise outside of traditional RPA funding sources. The Sustainable Communities grant from the US Department of Housing and Urban Development and significant support from foundations allowed MAPC to greatly expand its impact and in doing so the potential of realizing MetroFuture’s vision. MAPC was able to launch a variety of new practice areas in Clean Energy, Public Health, and Arts and Culture. Within established practice areas like land use and transportation planning, MAPC developed expertise in urban design, neighborhood change, and community engagement. While MAPC became a stronger regional resource, there is still room for municipalities to utilize MAPC more often and to more frequently implement the plans MAPC creates with them.

Many municipalities took part in the previously mentioned funding opportunities and in doing so worked with their municipal neighbors to plan and implement collaboratively. There were also cases of municipalities collaborating proactively. The North Suffolk Public Health Collaborative seeks collective, multi-disciplinary solutions to systemic health issues. Municipalities also took collaborative approaches to emergency planning efforts and implementation for emergency preparedness, hazard mitigation, and climate change. Many of the same entities also pursued regional greenway, park, and trail planning. MetroFuture recommended more ambitious collaborations and even consolidations of municipal services. However, municipal consolidation and even top-down approaches to municipal efficiency are unpopular. The belief is that improvement will come more from efficient coordination rather than from consolidation.
Sub-Strategy Review

Sub-Strategy A: Strengthen MAPC as a regional resource

EXAMPLES OF PROGRESS

- MAPC advocacy resulted in additional grant programs and increased grant funding now available for municipal technical assistance: the Planning for MetroFuture Technical Assistance (PMTA); Direct Local Technical Assistance (DLTA) increased; and the Community Compact and Efficiency & Regionalization Grant were created.
- MAPC staff, areas of expertise, and departments grew, including the addition of Clean Energy, Arts and Culture, and Public Health.
- The Baker administration revised regulations to provide clear, uniform authority allowing state agencies to contract with RPAs in the Municipal Modernization Bill, which was passed in June 2016.
- MAPC sub-regions created collaborative opportunities including:
  - Vetting ideas on legislation, including zoning reform and lowering speed limits;
  - Giving MAPC a venue to provide information on grant opportunities, state funding, and programs that the communities can access;
  - Collaborations and information sharing within communities, e.g. a Hazmat day among SWAP municipalities; and
  - Discrete projects such as the MAGIC Stormwater Partnership, MAGIC Climate Resilience Plan, and Regional Age-Friendly planning.

BARRIERS TO PROGRESS:

- Towns with limited capacity are not sending representatives to sub-regional meetings nor are they participating in regional projects because they are under-resourced and working on many other projects. MAPC and other regional entities must find a way to support these towns so they can participate, perhaps through non-municipal staff participation.
**Sub-Strategy B: Support regional collaboration, purchasing, and service delivery**

**EXAMPLES OF PROGRESS:**

- Opportunities for regional collaboration expanded with the passage of the [Municipal Modernization Bill](#), which prioritized regional applications for existing grant funds and established a joint powers act that would further enable regionalization initiatives through a streamlined process.

- The state launched Land Use Priority plans in which regional planning agencies, state agencies, and stakeholders, to identify, at a local, regional and state level, places which are appropriate for growth and preservation, known as [Priority Development Areas](#) and [Priority Preservation Areas](#) (PDA/PPAs).

- The [South Coast Rail Economic Development and Land Use Corridor Plan](#) will reopen rail lines in southeastern Massachusetts. Governor Patrick issued an Executive Order on implementation to make investments and technical assistance (TA) consistent with the plan.

- MAPC provided $40-$50 million per year in sales from collective regional procurement services, instead of municipalities needing to make purchases individually and at greater cost.

- Successful regional public health entities like the North Suffolk Public Health Collaborative and the six-community North Shore/Cape Ann Public Health Collaboration were formed to connect local public health agencies, health care providers and community organizations to work collaboratively to address systemic health issues, like youth mental health and substance use disorder.

- MAPC led a regional IT project in the MAGIC region, which led the region to hire a shared network administrator.

**BARRIERS TO PROGRESS:**

- Local governments are not always willing to share services and regionalize functions; incentives for collaboration aren’t strong enough, and it is often politically difficult.

- Consolidation and top-down approaches to municipal efficiency are perceived as outdated. Many believe that the issue is less about consolidation and more about efficient coordination.

- Fixed consortiums amongst sub-regional leaders, as proposed in this strategy, did not take off. The current best practice is to implement need-based collective purchasing and improve service delivery.

- Municipal mergers are an extremely contentious and politically infeasible at this time.
Sub-Strategy C: Work together to make the region better prepared for emergencies

EXAMPLES OF PROGRESS:

- MAPC worked with the Massachusetts Executive Office of Public Safety and municipalities to coordinate and improve homeland security initiatives, aggregate purchasing of public safety equipment, and emergency response dispatch systems. Regional cache sites supported by the Northeast Regional Advisory Council (NERAC) for homeland security in Framingham, Lexington and Beverly were established and serve as a repository for equipment needed during a crisis.

- MAPC built successful collaborations around stormwater management, including the Neponset River Stormwater Collaborative.

- Several partnerships worked towards climate change resiliency, including the Metro Mayor’s Climate Task Force and the MAGIC climate resiliency plan.

- The state’s Safe and Successful Youth Initiative (SSYI) and the MAPC-administered Shannon Community Safety Initiative (helping communities create comprehensive plans for tackling youth gun violence) were noted for helping reduce gun violence in Massachusetts; state gun homicide rates fell 35% from 2010-2015.

BARRIERS TO PROGRESS:

- Due to strict federal requirements and restrictive funding sources, Hazard Mitigation Plans for climate resilience have not been successful on a regional level, but have succeeded with 2-3 municipalities working together.

- Fire, police and public safety functions are seen as core municipal functions, which makes mergers very difficult. The unionization of public employee can also complicate proposed mergers.

Sub-Strategy D: Plan together for regional development

EXAMPLES OF PROGRESS:

- The Metro Mayors Housing Task Force is now working to create a regional housing production target, and then strategies for achieving this goal for 15 cities and towns in the Inner Core.

- MAPC created the concept for a regionally connected network of trails and greenways, the LandLine project, including a LandLine coalition to bring partners together and serve as a resource for discussing connections and moving forward individual projects with cities and towns to build out the network.

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1 The report “Investing in Intervention: The Critical Role of State-Level Support in Breaking the Cycle of Urban Gun Violence” by the Gifford’s Law Center flagged these two public safety initiatives as critical to reducing gun violence rates.
• MassDOT, the MWRA, and municipalities worked together to develop trails and greenways. They studied and built regionally significant trail segments that connected communities, including a MetroWest connectivity study and opening of the aqueduct trail network.

• MAPC created regional open space plans, including the MetroWest Open Space Plan and Lower Mystic Plan.

• MAPC completed regional housing studies and facilitated regional collaboration in the MetroWest sub-region to encourage shared staff and services.

**BARRIERS TO PROGRESS**

• Few border developments were big enough to employ an advisory review processes as suggested in this strategy. The Union Point (formerly the South Weymouth Naval Air Station) redevelopment project spans three towns and included the formation of a formal commission and advisory board plus a cooperative process with financial agreements with each town. During the development of University Station in Westwood, neighboring towns were asked to comment on the process.

• This strategy recommended building a regional dispute resolution system, which did not occur, but there may be opportunities to better leverage internal MAPC staff capacity to improve regional collaboration around dispute resolution, such as community engagement training.

• Municipalities have no incentives to elevate new development proposals to the sub-regional level.

**Sub-Strategy E: Share costs and benefits of development**

**EXAMPLES OF PROGRESS:**

• The cities of Cambridge and Somerville were asked to contribute to the Green Line Extension project to supplement state and federal funds, which they did.

• The Municipal Modernization Bill made changes to the District Improvement Financing (DIF) statute, making it easier to calculate the revenue to be set aside for the financing, taking into account new property growth.

**BARRIERS TO PROGRESS:**

• Further research and evaluation is needed on the tax sharing recommendations in this strategy. There are few successful examples nationwide and it would be politically challenging to implement.

• Tax sharing initiatives on large developments such as the Union Point were not particularly successful due to ownership changes, zoning and land use difficulties, and the economic recession.
• Value capture is not commonly used in Massachusetts, but there are legislative proposals that would encourage this technique.

• Development impact fees, a commonly used technique in most other states that mitigates capital impacts from new development, are not authorized in Massachusetts state law. Legislation has been introduced as part of the zoning reform campaign to allow municipalities to levy reasonable impact fees after conducting a study.

**Emergent Themes**

• Partnerships between local governments and nongovernmental activities (hospitals, universities, institutions etc.) are promising supplements for municipal collaborations.
Strategy Five

Enable Compact Growth
Summary

Adopted in 2008, MetroFuture is Greater Boston's long term regional plan. The foundation of the plan is a well-defined vision for the region. Thirteen implementation strategies were included to support progress towards the vision. An extensive community engagement process ensured that MAPC constructed the vision and strategies from the hopes and dreams of the region. In anticipation of an update to the regional plan, MAPC is evaluating the extent to which regional actors, either intentionally or unintentionally, implemented these strategies. The authors gathered the information that follows through conversations with MAPC staff and content experts.

Strategy #5, Enable Compact Growth, offered policy, advocacy, planning and development efforts to discourage sprawling, low density development, and incentivize growth in city and town centers and near transit and infrastructure. The strategy focused on providing communities with the resources and opportunities necessary to plan for and implement compact growth. Specifically it called for providing technical assistance to communities, ensuring communities increase transportation accessibility, removing barriers to development, and increasing the vitality of existing centers.

The state instituted a variety of incentives that encouraged municipalities to plan for compact growth. Funding opportunities like Chapter 40R, MassWorks' Infrastructure program, and Energy and Environmental Affairs' Planning Assistance grants all encourage applicants to plan for compact growth. The Community Preservation Act continues to support preservation and reuse, but as more municipalities have joined, the state matching funds have been stretched amongst more and more communities.

Regional government agencies and non-governmental organizations have advocated for compact growth and provided municipalities with technical assistance that supported compact growth. One example is the Massachusetts Smart Growth Alliance. With MAPC and a range of partners, they are lobbying to pass the Great Neighborhoods Bill, legislation that would encourage compact growth and promote multi-family housing in smart growth locations. MAPC used its technical assistance fund to support many of the region's municipalities in creating and updating plans that allowed for and encouraged compact growth.

Residents in the region continue to have reservations about growth. They worry that infrastructure limitations will quickly result in overcrowded streets and schools. At the same time, municipal governance is growing increasingly dedicated to smart growth practices. In some municipalities, residents and government officials have united to pass a variety of smart growth policies and programs and to take advantage of state programs. A growing problem is displacement and neighborhood change that prices lower income residents and businesses out.
**Sub-Strategy Review**

**Sub-Strategy A: Plan for compact growth to serve community needs**

**EXAMPLES OF PROGRESS**

- Chapter 40R, Smart Growth Zoning Overlay Districts, were created by law in 2004 and encourage communities to create dense residential or mixed-use smart growth zoning districts, including a high percentage of affordable housing units, to be located near transit stations or in areas of concentrated development. From 2006 through the beginning of the recession the state approved seven districts per year, which included zoning for 2600 units. From 2011 to 2017 the yearly average fell to 3 new districts and zoning for 730 units per year\(^1\). In 2017, DHCD approved five districts, the most since 2010.

- In 2016, legislation created a new 40R category for smaller, single-family homes on smaller lots (Starter Home Zoning Districts). So far, no applications have been submitted to establish a Starter Home District.

- In September 2010, the MassWorks Infrastructure Program was created to provide a one-stop shop for municipalities and other eligible applicants seeking public infrastructure funding to support economic development, housing creation, and roadway safety improvements in rural communities. This has streamlined economic development and multifamily housing investments by the state. The administration has created smart-growth consistent investment targets for this funding, including:
  - 50% for projects consistent with regional land use and development plans;
  - 50% for support of developments that contain a mix of residential and commercial uses, with a residential unit density of at least four units to the acre;
  - 50% for development in Gateway Cities;
  - 67% for developments located within one-half mile of a transit station;
  - 80% for developments that are re-using previously developed sites;
  - 100% for housing (or mixed use including housing) be in support of developments with a residential unit density of at least four units to the acre.

- State agencies provide an array of other funding and technical assistance programs that support redevelopment and revitalization, including EEA's Planning Assistance Grants and DHCD's Downtown Initiative.

- In 2017, MassDOT issued its first TOD policy around disposition and development of public parcels in station areas. The transit oriented development disposition policy seeks to stimulate compact growth and affordable housing creation in transit-served locations.

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\(^1\) [https://www.mass.gov/doc/40r-districts-activity-summary/download](https://www.mass.gov/doc/40r-districts-activity-summary/download)
MAPC used scenario modeling to help municipalities better understand the implications of planning and zoning decisions. MAPC uses this tool to estimate the positive long term impacts of compact growth.

Since MetroFuture was released in 2008, MAPC assisted many of the region’s communities in developing plans and zoning for denser developments, including TOD plans, downtown plans, and Master Plans.

**BARRIERS TO PROGRESS:**

- The overall supply of housing (particularly multi-family) is not high enough to meet demand and most of the supply of multi-family is in the Inner Core, which leads to higher home prices and rent pressures. Since significant new growth outside the Inner Core is limited, those who are looking for housing they can afford are often limited to either Gateway Cities (compact) or more distant suburbs.
- Redevelopment and infill are more costly than building in farm or forestland.
- It is often easier to obtain approval for low-density developments than for compact developments. State law, through Approval Not Required (ANR) subdivisions, make roadside development much easier and less expensive than standard subdivisions. Often, open space residential developments or cluster faces more difficult local permitting requirements than standard subdivisions.
- Local opposition to increased density, congestion, and increased school-age children is a frequently cited objection, leading to failed compact growth rezoning and development proposals. This opposition is a serious and persistent barrier to compact growth.
- State policies and programs have been inconsistent in their commitment to compact growth and have varied from Administration to Administration. Some states have laws promoting/requiring smart growth, but Massachusetts is mostly reliant on the Executive Branch. And some agencies, historically, have been unwilling to lead or pursue smart growth issues.
- While Chapter 40B, the state’s affordable housing law, has been the primary method of producing mixed income housing in suburban communities, it does not include smart growth criteria. In some cases, 40B projects have been built in locations completely inconsistent with smart growth goals.

**RELEVANT INDICATORS**

- An objective of MetroFuture was that population and job growth would be concentrated in municipalities already well served by infrastructure, with slower growth in less developed areas where infrastructure is more limited. Figure 1 tracks population growth by community type. Since 2000-2009 all community types increased population. The population of the Inner Core increased the most, with but Maturing Suburbs a close second.

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2 While not directly tied to the success or failure of a sub-strategy, indicators show how the region has changed in the face of the aforementioned actions or inactions.
Employment growth during 2009-2015 more than doubled when compared to the growth in jobs between 2004 and 2008. This tremendous growth increased employment in all of types of communities. However, the most impressive growth occurred in Regional Urban Centers, which increased 5 times over and as a proportion of total employment growth in the region moved from 8% to 17%.

MetroFuture produced targets for population and employment growth, which can be see in Figure 3. Growth in Metro Boston's Inner Core very closely tracked MAPC's targets. Regional Urban Centers and Maturing Suburbs did not keep up with targets especially with respect to population growth in Regional Urban Centers and employment growth in Maturing Suburbs. Developing Suburbs greatly exceeded targets for population and jobs. It is likely that this growth is more auto-dependent and required new infrastructure, such as roads, sewer/septic, and water service.
MassBuilds allows MAPC and the public to understand development trends at the local and regional scales. The analysis of MassBuilds in Figure 4 shows development south of Boston in relation to transit station areas, and suggests that of housing units constructed since 2000, 48% are located within a 1-mile buffer of a transit station.
Sub-Strategy B: Ensure good design and access

EXAMPLES OF PROGRESS:

- MAPC is building the Perfect Fit Parking Toolkit, which will calculate “right-sized” parking requirements based on a number of criteria. We are finding that local regulations consistently require too much parking for new developments.

- The City of Cambridge’s Transportation Demand Management Ordinance is a national model for improving mobility and access, reducing congestion and air pollution, and increasing safety by promoting walking, bicycling, and public transit.

- MetroFuture referenced the ability of car sharing to provide expanded transportation options in denser areas. Car sharing usage increased significantly since 2008, while regional numbers are difficult to find, we do know that in 2006 there were 117,600 members in the North American car share market. In 2016, there were 1.8 million members in North American car sharing programs.3

- Through the MAPC Technical Assistance Program, much planning has been done in town centers seeking economic revitalization. Adaptive reuse and preservation are always a part of the recommendations MAPC provides to towns with busy town centers, as a way of stimulating economic development by defining or redefining a New England sense of place.

- The Community Preservation Act (CPA) is a smart growth tool, which allows municipalities to create a local Community Preservation Fund for open space protection, historic preservation, affordable housing, and outdoor recreation. While the number of communities receiving CPA funds reached a new high (157) in 2016, the money distributed from the state match fell to an all-time low as did percent of the distribution from the base fund (17% in 2016 versus 67% in 2008).

BARRIERS TO PROGRESS:

- Form based codes are an increasingly popular way to ensure good design, but municipalities in Massachusetts have been slow to adopt them and they are not explicitly authorized by state statute. They tend to be very costly codes to establish and communities in the region are not familiar with them. Instead MAPC has promoted by-right codes with strong design guidelines, but there is resistance to by-right permitting as well, as many communities prefer the discretion that Special Permits afford.

- In 2008 MetroFuture advocated for car sharing services like Zipcar as a tool for compact growth, but other ride-sharing services like Uber and Lyft saw much more expansion adding thousands of vehicles to the road.

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Sub-Strategy C: Encourage market response to district plans

EXAMPLES OF PROGRESS:

- Chapter 43E Expedited State Permitting Program (2006) and Chapter 43D Expedited Local Permitting Program (2006) promotes a streamlined and time sensitive review process, which makes development more predictable and therefore more attractive to developers.

- According to state data, the number of sites using 43D dropped from an average of fifty-five per year between 2007 and 2009 to an average of three per year since (See Figure 5). The state website notes fourteen 43 E sites.

- Within the MAPC region, twenty-three municipalities have adopted sixty-two 43D sites, the majority of which occurred between 2007 and 2009.

BARRIERS TO PROGRESS:

- The popularity of Special Permits rather than by-right zoning adds uncertainty and expense to the permitting process. Instead of the system used in many other states that couples by-right permits with development impact fees, the Special Permit approach remains most popular here.

- MetroFuture advocated for impact fees as a way to offset development impacts and to fund the expansion or construction of municipal facilities and infrastructure that serve the development. Impact fees are not currently authorized by state law, despite repeated legislative efforts to change this. They have been vigorously opposed by the real estate trade associations that worry that municipalities would “double dip” by continuing to exact mitigation funds and apply development impact fees.

RELEVANT INDICATORS

- As a higher cost region, attracting more firms requires providing a streamlined process for starting new businesses. As previously mentioned, Chapter 43D, passed by the legislature and signed into law in 2006, supports an expedited municipal permitting process for development on Priority Development Sites (PDS). Participating communities define these Priority Development Sites for targeted economic and housing development, by cutting the permitting process for projects in these areas down to 180 days. Defining a site as a PDS allows the municipality to encourage economic and housing growth in designated locations, though these locations are not always the most advantageous alternatives with regard to transportation options and environmental impact. In Metro Boston, twenty-three municipalities have taken advantage of the opportunities provided by this law by defining 62 Priority Development Sites. Municipalities adopted the majority of those sites in 2007, 2008, and 2009. Municipalities adopted very few 43D sites since 2009.

Sub-Strategy D: Remove barriers to development

EXAMPLES OF PROGRESS:

- MetroFuture noted that brownfields were difficult and expensive to redevelop, which steers development to cheaper greenfield sites less well served by infrastructure. The EPA provided millions of dollars to assess and remediate brownfields in Massachusetts, which resulted in many development projects that were previously infeasible.


- In 2013, the Patrick-Murray Administration extended the Massachusetts Brownfields Tax Credit (MBFTC) program five years. The MBFTC offsets the financial burden of decontamination.

BARRIERS TO PROGRESS

- The 2017 recapitalization included an adjustment to the program that increases repayment from municipalities that benefit from economic development as a result of brownfields funding via tax collections on revenue-producing sites. This may discourage wider use of this program.

- Shared septic systems and small wastewater treatment facilities would create opportunities to add density, but many municipalities do not allow these systems, often in an effort to limit development. It has been noted that Title V, which governs wastewater disposal, typically renders mid-size housing developments without sewer economically infeasible.
Sub-Strategy E: Increase vitality of existing centers

EXAMPLES OF PROGRESS:

- The cities of Cambridge and Somerville were asked to contribute to the Green Line Extension project to supplement state and federal funds, which they did.

- The Municipal Modernization Bill made changes to the District Improvement Financing (DIF) statute, making it easier to calculate the revenue to be set aside for the financing, taking into account new property growth.

BARRIERS TO PROGRESS:

- MetroFuture advocated for Business Improvement Districts (BID), special districts in which property owners vote to initiate, manage and finance supplemental services or enhancements, but currently only Hyannis, Springfield, Boston, Taunton, and Amherst and Westfield have BIDs. In 2012, a change to the BID statute, eliminated a voluntary opt-out clause that was stifling BID creation.

- MetroFuture also advocated for increases to the Main Streets program. The City of Boston boasts 20 Main Streets Districts. Boston, Somerville, and Beverly are the only municipalities in Massachusetts that have this particular kind of program.

- MAPC has used its Technical Assistance Program to encourage cities and towns to adopt more mixed use districts.

- MAPC is working with towns, like Dedham, to help them develop so-called secondary business districts, not immediately adjacent to the existing, traditional town center. These districts have a history of residential density and economic vitality that has become stagnated. These secondary business districts can be themed around arts and culture, recreation, education, or newer innovation economies.


- The Municipal Modernization Act (2016) allows Massachusetts cities and towns to create parking benefit districts. Parking benefit districts are a specified geography in which the parking revenues raised are reinvested back into the district for transportation-related improvements (parking meters, walking and biking infrastructure, street trees, benches, and lighting).

- The 2014 Economic Development Bill authorized the Transformative Development Initiative (TDI) to be managed by MassDevelopment. TDI provides the following
services targeted to Gateway Cities:

- Technical assistance program that provides and manages professional services, community-building place-making projects; and a fellows program through which a MassDevelopment employee is embedded in and works with a TDI District’s local partnership.
- Equity investment program through which MassDevelopment makes equity investments in real estate within TDI Districts.
- Business growth tools program that supports collaborative workspaces
- Small grants program initiated to pilot grants to help support local market development.

**Emergent Themes**

- Mixed use zoning in city and town centers has become increasingly popular.
- Cities are beginning to look for new mixed-use development opportunities in industrially-zoned areas.
- New mixed-use districts and developments can result in increased prices and displacement of existing residents and businesses. More effective strategies at the local and state levels are needed to ensure that new development benefits everyone.
Improve City Life and School Quality
Summary

Adopted in 2008, MetroFuture is Greater Boston’s long term regional plan. The foundation of the plan is a well-defined vision for the region. Thirteen implementation strategies were included to support progress towards the vision. An extensive community engagement process ensured that MAPC constructed the vision and strategies from the hopes and dreams of the region. In anticipation of an update to the regional plan, MAPC is evaluating the extent to which regional actors, either intentionally or unintentionally, implemented these strategies. The authors gathered the information that follows through conversations with MAPC staff and content experts.

One precursor to the vision taking place meant ensuring a high quality of life for all residents, but particularly for those living in urban areas. Strategy #6, Improve City Life and School Quality, offered strategies intended to address these inequities, ensuring that urban education was improved, municipal services were made more effective and efficient, and local vitality was highlighted and pursued.

Federal funding for parks, education, and housing diminished or was precarious in many of these areas, which left the state and municipalities to fill in gaps. The state invested and expanded urban parks. Many of these programs required local partnerships and matching funds, requiring municipalities to plan for urban improvements. The state, with incentives from the federal government, also made important innovations in the pursuit of education reform. However, housing policy environment stayed relatively constant and as housing prices and rents continue to rise, more assistance will be needed to keep people in their homes.

On a regional level, there was a focus on partnerships to increase public safety and emergency preparedness, resulting in multi-jurisdictional efforts to reduce violence and crime. A variety of non-profits pursued preservation or extensions of urban greenspace. Local non-profits fill important educational services gaps, particularly when it comes to out-of-school youth or connecting youth to employment opportunities. Locally, municipalities enacted the Community Preservation Act, which provided additional funds to improve urban landscapes and culture. Municipalities like Arlington, Norwell, and Marblehead invested in key revitalization efforts such as complete streets, parks, and waterfront access. Local data and technology innovations were leveraged to improve decision-making and streamline municipal services.

As more and more people move to urban areas, displacement continues to be an unintended consequence of improving city life. Discretionary municipal resources are dwindling and residents are being priced out of their urban neighborhoods. More focus on vulnerable residents and on the unintended consequences of redevelopment, technology, and urbanization will be needed to ensure a high quality of life for all residents.
Sub-Strategy Review

Sub-Strategy A: Ensure high quality educational opportunities in urban communities

EXAMPLES OF PROGRESS

- The state was already in the process of strengthening its education policy in 2008 and the launch of the Obama Administration's Race to the Top program (2009) fast forwarded policy improvements in Massachusetts. Joining Race to the Top meant more liberal rules for charter schools, which included increasing the charter school cap.

- The Massachusetts Legislature passed An Act Relative to the Achievement Gap (2010), which included many significant shifts in education policy:
  - Lifted the hard cap on charter schools and introduced an alternative cap based on need;
  - Privileged proven providers and streamlined their applications for more schools and students;
  - Allowed for innovation schools, which are not charter schools, but have similar levels of autonomy;
  - Enabled initiatives like the Springfield Empowerment Zone, which extended autonomy of innovation schools to larger areas;
  - Provided the state with the ability to more aggressively intervene in underperforming schools. It also enabled the district to intervene outside of the collective bargaining agreement or school committee and to get additional state resources to do so.

- Massachusetts has taken proactive steps to restrict the use of zero-tolerance policies within its public schools. In 2012, Massachusetts legislature adopted Chapter 222: An Act Relative to Student Access to Educational Services and Exclusion from School, which established mechanisms to consider alternatives to suspension for non-serious offenses and mandated additional mechanisms for supporting youth in achieving and maintaining academic success.

- The Massachusetts Comprehensive Assessment System (MCAS) 2.0, released in 2017, was the state’s most recent assessment test and it emphasized standards that rely less on memorization and more on conceptual learning.

- The Massachusetts Early College Initiative, developed by the Massachusetts Board of Higher Education (BHE) and the Board of Elementary and Secondary Education (BESE) provides grants of up to $80,000 to districts and schools to grow and sustain high quality early college partnerships with state colleges.
• The Baker-Polito Administration also awarded $1.25M in grants to launch new college access and completion programs. Through the Department of Higher Educations' Performance Incentive Fund, the largest share of the fund is being used to launch new programs to allow high school students to take college courses before graduating from high school.

• 100 Males to College was created in 2015 to increase college access, enrollment, retention, and success for low-income males and males of color and particularly young, low-income Latino and African American men so that their prospects for success in college and careers are more attainable. The grant funding supports curriculum development, recruiting students, cultivating partnerships with community groups and identifying community resources, and delivering high impact activities for family engagement to support student success.

• In early 2017 the State was awarded $2M from JP Morgan Chase to improve career education and expand career pathways for students.

• The MA Legislature established the Extended Learning Time (ELT) initiative, providing $1,300 per pupil in grants to add 300 hours of annual education to transform learning. In 2014-2015, 22 schools in MA were participating. Massachusetts had 80 charter schools as of 2015, 66 of which had longer school days and/or years than average.

BARRIERS TO PROGRESS:

• Funding for new initiatives is very rare.

• Since 2008, there have been few local attempts at significant changes to education.

• The majority of MA public high school students attend public Massachusetts universities, but funding for public higher education has decreased by about $1,000 per student since 2008.

RELEVANT INDICATORS

• Overall, reading proficiency for the third grade student population in the region increased by 1 percentage point to 62% between the 2008-09 and 2013-14 school years. The results also show (see Figure 1) persistent educational disparities based on race and ethnicity, English language proficiency, and special education status, though there were some improvements. Despite gains in reading proficiency among 3rd grade Black (up 5 points to 37%) and Latino (up 1 point to 34%) students, their scores remain 25 and 28 points below the regional average of 62% proficient in the 2013-14 school year.

• Proficiency in math for 10th graders increased more substantially than reading for third graders. Black students saw the biggest gain, increasing nearly ten percentage points between 2008-09 and 2013-14. English Language Learners were the only group to not see significant improvement on the 10th grade test.

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1 While not directly tied to the success or failure of a sub-strategy, indicators show how the region has changed in the face of the aforementioned actions or inactions.
Sub-strategy A documents the ways in which policy makers prioritized or failed to prioritize educational opportunities in urban areas. In the map below, representing 3rd grade English MCAS scores by municipality, it is evident that the suburbs continue to outperform the more urban Inner Core.

Map 1: Percentage Advanced or Proficient in 3rd Grade English MCAS Scores (2013-2014)
• The region's high school graduation rate has increased 1.4 percentage points and continues to increase across racial and ethnic groups and for English language learners and low-income students. The 4-year graduation rate has increased the most for Latino students at 5.1 percentage points and has increased 3.3 percentage points for Black students. However, there continues to be a stark difference between the graduation rates of Latino and Black students compared to Asian and White students. Both the Black and Latino graduation rates are below the regional average of 88.8% at 73.3% and 77.5%, respectively. The graduation rates for English language learner and low-income students are both below the regional average, with English language learner students graduating at the lowest rate of all subgroups at 61.9%. Municipalities with some of the lowest graduation rates are also decidedly urban including Chelsea (60.9%), Boston (70.7%), and Lynn (74.9%).

Figure 3: High School 4-Year Graduation Rate (2008-09 to 2013-14)
• The region's in-school suspension rate declined from 1.5% in 2012 to 1.4% in 2015. Over the same period, the out-of-school suspension rate declined from 3.4% to 2.4% of all students. Despite overall decreases across districts, the rates of disciplinary action continue to remain the highest within majority student of color school districts. In school year 2015, the rate of in-school suspension (2.1%) within majority student of color districts is 1.1 percentage points higher than in school districts which are more than 75% White. For out-of-school suspensions, the rate of out-of-school suspensions in majority student of color districts (4.8%) is 3.7 percentage points higher than in districts with 25% of fewer students of color.

Figure 4: Percent of Students Receiving In-School Suspensions (2005-06 to 2015-16)

Figure 5: Percent of Students Receiving Out-School Suspensions (2005-06 to 2015-26)
Sub-Strategy B: Improve urban public safety

EXAMPLES OF PROGRESS:

- Community engagement and relationship-building for community policing has increased. Boston is seen as a national model for police-community relations.
- The state's Safe and Successful Youth Initiative (SSYI) and the MAPC-administered Shannon Community Safety Initiative (helping communities create comprehensive plans for tackling youth gun violence) were noted for helping reduce gun violence in Massachusetts; state gun homicide rates fell 35% from 2010-2015.
- Anti-gang activity has grown in the region:
  - The North Shore Gang Task Force formed in the 2000s as a partnership with the FBI, Middlesex and Essex County law enforcement, and local police in Chelsea, Lynn, Lawrence, Haverhill, and Everett.
  - The Joint Juvenile Gang Unit between Revere, Lynn, Chelsea and Boston is another collaborative formed in the 2000s to tackle increasing youth gang activity.
  - The 71-member gang unit in Boston, formally known as the Youth Violence Strike Force, takes a three-pronged approach to policing: prevention, intervention, and enforcement. This includes playing basketball with youth and providing wraparound services to keep youth off the street.
- Emergency preparedness has increased:
  - The Urban Area Security Council built collaboration for emergency preparedness between cities, police, fire, public health, and transit groups.
  - The Northeast Homeland Security Regional Advisory Council (NERAC) convened a regional, multidisciplinary school threat response team, provides coordination for regional SWAT teams, and built hospital emergency management capacity.

BARRIERS TO PROGRESS:

- Shannon Grant funding has decreased in recent years. The program could benefit from more research and funding.
- Gang activity has been increasing in Revere and surrounding North Shore communities since the 2000s.
- NERAC funding has decreased from a high of $6.5 million in 2004 to $1.1 million in 2017.

RELEVANT INDICATORS:

- In the Metro Boston region, the areas with high poverty and high concentrations of people of color tend to be municipalities in the Inner Core and they experience
higher crime rates. Throughout the state, both violent crime and property crime rates have decreased steadily each year from 2009-2015, however geographic inequity in the distribution of crime remains. Violent crime has decreased 14.4% with 3.9 violent crimes occurring per 1,000 residents; and property crime has decreased 26.5% with 16.9 property crimes occurring per 1,000 residents. Chelsea, Lynn, and Boston continue to have the highest violent crime rates in the region with 10.8, 7.8, and 7.1 violent crimes committed per 1,000 in 2015. Adjacent Inner Core communities such as Somerville, Cambridge, and Everett had violent crime rates per 1,000 of 2.4, 3.0, and 3.4 respectively. By contrast more affluent municipalities in maturing and developing suburbs such as Weston, Hanover, and Wayland continue to have much lower rates at under 0.1 crimes per 1,000 people.

- Findings: Between 2000 and 2015, property crime decreased in all community types, most dramatically so in the Inner Core (-43%), where rates fell from 3,338 per 100,000 in 2000 to 1,896 per 100,000 in 2015. Property crime also decreased 37% in Developing Suburbs, 36% in Regional Urban Centers and 35% in Maturing Suburbs.

- The disparities in property crime rate in 2000 were high for the Inner Core, with a property crime rate of 3,338 per 100,000, and Regional Urban Centers, with a rate of 2,712 per 100,000, compared to the 1,404 per 100,000 in Developing Suburbs. The disparity decreased by 2015 for the Inner Core 48%, falling from a difference of 1,934 to 1,006 per 100,000. The disparity in property crime rate in Regional Urban Centers compared to Developing Suburbs also decreased 35%, falling from a difference of 1,308 to 852 per 100,000.

Figure 6: Property Crime by Rate by Community Type

![Property Crime by Rate by Community Type](image-url)
The state incarceration rate has decreased nearly 12% from 11,361 on January 1, 2010 to 10,014 in January 1, 2016. However, despite noticeable decreases, disparities still persist as Native American, Black, and Latino populations continue to have above average incarceration rates. Within our region, the Inner Core receives the highest number of returning former prisoners in the state, while Developing Suburbs receives the lowest. Boston, Lynn, and Quincy received the highest number of returning formerly incarcerated people on average from 2009-2016. The state's average three-year recidivism rate has decreased 7 percentage points from 2008-2012 to 32%.

Findings: Between 2000 and 2015, violent crime decreased in all community types, substantially so in the Inner Core (-37%), Developing Suburbs (-39%), and Maturing Suburbs (-37%), and by a smaller margin in Regional Urban Centers (-5%).

The disparities in violent crime rate in 2000 were high for the Inner Core, with a violent crime rate of 754 per 100,000 in 2000, compared to 185 per 100,000 in Developing Suburbs, and in Regional Urban Centers, where the rate was 487 per 100,000. The disparity decreased for the Inner Core compared to Developing Suburbs by 37%, so that in 2015, the rate in the Inner Core was 473 per 100,000 and 113 per 100,000 in Developing Suburbs. For Regional Urban Centers, however, the disparity increased 16%, because the decline in violent crime rate in Developing Suburbs outpaced the marginal decline in Regional Urban Centers.
Sub-Strategy C: Foster sustainable neighborhood redevelopment

EXAMPLES OF PROGRESS:

- The Community Investment Tax Credit program was created and brings more funding to Community Development Corporations to develop affordable housing, with a cap of $6 million per year allocated to community organizations across the state. Over 30 community-based organizations in MAPC’s region received CITC funding in 2018.

- Vacant commercial properties in downtown areas were revitalized, and zoning was modified to incentivize filling vacant spaces. For example:
  - Arlington passed a bylaw which established a vacant storefront inventory that imposes a fee on vacant storefronts and requires landlords to provide proof they are attempting to fill the storefront.
  - Norwell, with assistance from MAPC, initiated a downtown revitalization project in 2015 to improve intersections, increase access to outdoor space, plant trees, and increase economic activity.
  - Marblehead and Swampscott worked with MAPC to “repair” a sprawling square, improving pedestrian access and bringing more businesses into the area.

- MassHousing’s Planning for Housing Production grant program allows municipalities to implement housing development strategies; one focus is on infrastructure planning and improvements, which will help facilitate redevelopment.
• The Community Preservation Act (CPA) continues to be a tool for local land acquisition, allowing municipalities to create a local Community Preservation Fund for open space protection, historic preservation, affordable housing, and outdoor recreation. The number of communities receiving CPA funds reached a new high (157) in 2016.

BARRIERS TO PROGRESS:

• Federal funding cuts to the Department of Housing and Urban Development reduced Community Development Block Grant funding to CDCs and eliminated the Housing Trust Fund.

• Concerns about insufficient funding for 40R/40S deters communities from adopting 40R Smart Growth Overlay Districts (SGODs), which are targeted to under-utilized industrial land and other smart growth locations, incentivizing residential and mixed-use development.

• Municipalities are concerned that there is not enough CPA funding now that a majority of communities, including Boston, have adopted it.

• Concerns around development impacts (infrastructure – roads, sewer; congestion; schools) exist and are used as reasons not to redevelop at higher densities using smart growth strategies.

• High housing costs are putting some urban residents at risk for displacement.

Sub-Strategy D:
Improve urban services, maintenance, and accessibility

EXAMPLES OF PROGRESS:

• MAPC helped twenty-two cities and towns purchase smart parking meters, while municipalities like Malden, Maynard and Arlington implemented smart parking programs using data-driven parking solutions.

• Numerous municipalities in the region implemented the see-click-fix program, allowing people to submit online photos/descriptions of infrastructure and public safety and quality-of-life issues.

• The complete streets program has expanded to hundreds of municipalities across the state and has improved street, pedestrian, and biking infrastructure through funding and safer, more accessible streets.

• More funding for Safe Routes to School was established in 2012 with the Transportation Alternatives Program administered by the Federal Highway Safety Administration. The program works with school communities, law enforcement, and public health departments to increase biking and walking among elementary and middle school students.
• Numerous municipalities in the region transitioned to online bill-pay and permitting systems to allow for easier, faster services.

• MAPC worked to increase urban mobility services by helping to launch the Hubway (now Blue Bikes) bike share program, with over 1,600 bikes across 170 stations in Boston, Brookline, Cambridge, and Somerville. Similarly, dockless bike share from two vendors will bring these mobility services to 13 more communities in the region this year.

• Public works technology has improved, including the use of sensors to evaluate pavement quality and determine where repairs are needed.

BARRIERS TO PROGRESS

• Municipal funding for new investments and services continues to shrink and municipalities are over-reliant on property tax revenue

Sub-Strategy E:
Foster urban vitality: arts, culture, shops, and services

EXAMPLES OF PROGRESS:

• Mass Cultural Districts, authorized by the legislature in 2010 and launched in 2011, help local arts, humanities, and science organizations improve the quality and range of their public programs through grants and services. Since 2011, municipalities have created forty-three cultural districts, eleven of which are in the MAPC region.

• Arts and culture features, like the Boston Greenway, are being used to activate spaces in and around Boston, but examples grow more infrequent outside of metro Boston.

• The creation of MAPC Arts and Culture division has resulted in numerous arts and culture plans and creative place-making workshops to connect arts, culture, and planning. MAPC hired an artist-in-residence to develop more arts and culture projects in the MAPC region. Some municipal arts and culture examples of progress include:

  • MAPC, Everett Community Growers, and the City of Everett developed Earthwork Offering, a community-based public art and urban agriculture engagement project.

  • A Cultural District was implemented in Beverly to promote the arts. Beverly also established Great Estates zoning to preserve historic sites.

  • Wakefield and MAPC implemented the Downtown Wakefield Arts and Culture District.

  • MAPC is working with the City of Boston on the revitalization of the Strand Theatre in Boston's Upham's Corner, which is in the process of being designated an Arts Innovation District.
• The Point Neighborhood in Salem was added to the National Register of Historic Places in 2014.

• MAPC worked with the City of Cambridge to develop Small Business Emergency Preparedness curriculum and workshops for small business owners to develop more resilience to disasters.

BARRIERS TO PROGRESS:

• Funding is limited for arts and culture planning and installations. National funding is at risk for the National Endowment for the Arts.

• While the importance of arts and culture is growing, it is still not universally accepted as a planning principle. More can be done to communicate the benefits that arts and culture planning can provide.

• Increasing real estate costs are displacing artists, such as in the Fort Point neighborhood of Boston.

RELEVANT INDICATORS:

• Businesses that embrace art and creativity in their work provide jobs and careers in an ever-growing creative economy. About 4% of jobs in the MAPC region are in the creative economy, defined as occupations and industries with a focus on the production and distribution of cultural goods, services, and intellectual property.

Figure 11: Number of Employees in Arts and Culture Businesses in Massachusetts (2016)
Sub-strategy F: Improve urban parks and the urban environment

EXAMPLES OF PROGRESS:

- The state’s previous environmental bond bill, "An Act Providing for the Preservation and Improvement of Land, Parks and Clean Energy in the Commonwealth," was reauthorized in 2014. This was the largest environmental bond in state history with $2.2 billion in funding. Over $350 million was earmarked for land conservation programs, including $111 million for a new urban park program for underserved neighborhoods and matching grants for cities and towns. In the past three years, Fitchburg, Somerville, and Medford have received grants to build community gardens as a part of a larger park renovation. CPA funds, mentioned above, have also been used to reinvest in urban parks.

- There are many more urban farms in the region today than in 2008 - 35 compared to 2. Boston, Somerville, Cambridge, Arlington, and other cities in the Metro Boston area have implemented or are in the process of implementing urban agriculture policies. In 2017, MAPC provided technical assistance to Cambridge in support of its urban agriculture policy development. These improvements build off the Massachusetts Food System Plan and the Municipal Food Access Strategies toolkit (developed with CLF Ventures), which provides guidance on zoning and other strategies for agriculture, food access and food systems.

- Inner core contiguous open space and recreation plans were completed in Chelsea, Revere, Everett, and Malden. Many of MAPC’s Open Space and Master Plans contain recommendations on parks and urban climate impacts. For example:
  - The City of Chelsea Waterfront Vision Master Plan will improve public access to the waterfront.

- A Low Impact Development toolkit was developed by MAPC and Commonwealth of Massachusetts EEA as part of the Smart Growth toolkit, which encourages cities and towns to identify critical natural resources for preservation and utilize green stormwater practices. LID has been implemented in developments in Boston, Plymouth, Lincoln, and Acton. The Massachusetts Municipal Stormwater Separated Sewer (MS4) program, established in 2015, encourages more groundwater filtration through the use of green stormwater practices as well.

- The "Greening the Gateway Cities" is a statewide tree-planting initiative, which has increased the urban tree canopy by 8,000 trees. Chelsea was the first city to pilot the program.

- Hundreds of miles of trails were constructed in the region over the past 10 years:
  - Construction began on the Northern Strand trail connecting Everett, Malden, Chelsea, Saugus and Revere; the governor announced $1.5M to complete the trail through these gateway cities and improve bridges and drainage.

- The Newton Upper Falls Greenway trail/linear park was completed.
• Construction began on the tri-community bikeway through Winchester, Stoneham, and Woburn.
• The Watertown Greenway between Watertown and Cambridge was completed.
• Construction began on the Mass Central Rail Trail’s first segment between Cambridge and Belmont.
• Increased data availability helps cities and towns establish targeted green space in urban areas. For example, a partnership between the Trust for Public Land and the Metro Mayors Climate Smart Region developed a geospatial decision support tool to use parks, open space and green infrastructure for climate resilience and park equity. Additionally, the Trust for Public Land and MAPC hired the University of Vermont to complete 1-meter resolution data analysis on the tree canopy layer in the Metro Mayors Region to do forest management in the future.

**BARRIERS TO PROGRESS:**
• The cost of land and potential contamination are major barriers to developing urban agriculture.
• Gateway City Park funding has decreased in recent years.
• There is significant uncertainty around federal funding related to capital improvements for climate resilience, which supports greening and improving cities.
• Political leadership and some constituents in certain cities and towns are unsupportive of trail development.

**Emergent Themes**
• Improving education proved difficult for MAPC given its lack of expertise and partnerships in this arena.
• Technology has played a far more significant role in changing municipal services and accessibility than predicted.
• The increased vitality of urban centers has led to displacement of residents and businesses. Stronger policy and regulatory responses are needed to minimize displacement moving forward.
STRATEGY SEVEN

Protect Natural Landscapes
Summary

Adopted in 2008, MetroFuture is Greater Boston’s long term regional plan. The foundation of the plan is a well-defined vision for the region. Thirteen implementation strategies were included to support progress towards the vision. An extensive community engagement process ensured that MAPC constructed the vision and strategies from the hopes and dreams of the region. In anticipation of an update to the regional plan, MAPC is evaluating the extent to which regional actors, either intentionally or unintentionally, implemented these strategies. The authors gathered the information that follows through conversations with MAPC staff and content experts.

To fight sprawl and conserve our natural resources, MetroFuture included Strategy #7 Protect Natural Landscapes, which recommended a strong focus on planning for and funding land preservation with particular emphasis on maintaining the region’s agricultural heritage. It also sought to protect undeveloped areas: areas that provide habitats for wildlife, aquifer recharge, recreation opportunities, and cultural benefits. Conversion of these resources to low-density residential and commercial development threatens this vision for the region.

Support for protection from the federal government dwindled, but Massachusetts established itself as a leader in legislating and funding for land preservation. The state provided the Metro Boston region with a series of multi-million dollar funding packages, which supported the region in preserving more land than it developed.

MetroFuture advocated for regional land preservation planning, but this remains difficult due to the local nature of preservation funding and planning, which focuses largely in-municipal projects rather than pursuing regional plans. Nonprofit organizations filled the gap in preserving land that crossed municipalities and added valuable data to help municipalities, the region, and the state plan for land conservation and climate resilience. Locally, municipalities took advantage of funding mechanisms such as the Community Preservation Act and ongoing PARC and LAND grants to create and protect green space. A handful of municipalities enacted zoning changes to allow for less sprawling suburban developments, with support from the state on technical assistance and funding. Climate resilience emerged as one of the most pressing issues affecting the region, increasing the role open and natural land will play in adapting to and mitigating the impacts of climate change. As population continues to increase in the Greater Boston region, increasing the cost of land and demand for more housing, stronger efforts must be made to protect natural landscapes. But the same forces that make protecting natural landscapes so important, make it difficult to protect. Doing so will require innovative solutions to ensure our region preserves and reclaims land for farming, recreation, ecosystems, and climate resilience.
Sub-Strategy Review

Sub-Strategy A: Plan for land preservation on a state and regional basis

EXAMPLES OF PROGRESS

- Over 200 miles of the Bay Circuit Trail were completed in the region, along with other linear trails connecting municipalities.
- The Western Greenway in Waltham and Belmont used state surplus property to construct a 10-mile loop trail and preserve surrounding lands.
- 77 additional acres of natural land were preserved in the MAPC region between 2005 and 2013, bringing the region to 3,746 acres of protected natural land.
- Several North of Boston Open Space and Recreation Plans (OSRPs) are being updated, and efforts are underway to provide regional context and promote awareness of regional open space networks and opportunities.
- To promote climate resilience, The Nature Conservancy (TNC) developed the Northeast Resilience Analysis to inform priority planning and conservation actions in the Eastern U.S. TNC collaborated with the Massachusetts Department of Fish and Game to develop a geospatial analysis to prioritize and establish indicators for land conservation across the Commonwealth.
- The MA Food Policy Council contracted MAPC to lead the Massachusetts Food System Planning Process which included analysis of existing rural and urban farm land and sites for potential expansion of both. The analysis is available in the Massachusetts Local Food Action Plan.
- Similarly, MAPC, Land for Good, Sudbury Valley Trustees, Tufts New Entry Sustainable Farming, and the Massachusetts Farm Bureau, CLF and CLF Ventures and other partners created the MAGIC Comprehensive Agricultural Planning Program to protect existing agricultural lands.

BARRIERS TO PROGRESS:

- There is resistance from some cities and towns to protecting more land from development. Some municipalities already have 40% of their land conserved, which impacts local finances as that land does not generate tax revenue.
- During the 2008-2009 economic downturn and real estate crash, progress around land preservation slowed. It was difficult for municipalities to invest in land protection while people, including municipal employees, were losing jobs.
- There have been efforts to repeal the MA Endangered Species Act. One lawsuit was filed by a private landowner who wanted to subdivide land and was required to avoid, minimize, and mitigate impacts on endangered species. The Act was upheld by the MA Supreme Court in 2014.
• There is a lack of integration between the carbon capture value of preserved land and land use deals, which could help bolster land preservation as its role in reducing greenhouse gas (GHGs) is recognized.

**Sub-Strategy B: Increase funding for priority land acquisition**

**EXAMPLES OF PROGRESS:**

• The [Community Preservation Act](#) (CPA) continues to be an important tool for local land acquisition, allowing municipalities to create a Community Preservation Fund for open space protection, historic preservation, affordable housing, and outdoor recreation. Since 2008, 481 projects in the MAPC region received CPA funds for open space.

![Figure 1: CPA Open Space Projects in MAPC Municipalities](#)

**Figure 1: CPA Open Space Projects in MAPC Municipalities**

Source: www.communitypreservation.org/pprojects?qid=22&dbid=bec5qwrk

• The state's [Smart Growth Planning Assistance Grant](#) provides funding for a range of activities, including zoning that results in permanent land conservation (e.g. Natural Resource Protection Zoning or Transfer of Development Rights). This state grant program is administered by EEA and distributed $1,296,219 to 37 applicants in 2017.

• The state environmental bond bill, "[An Act Providing for the Preservation and Improvement of Land, Parks and Clean Energy in the Commonwealth](#)," was reauthorized in 2014. This was the largest environmental bond in state history with $2.2 billion in funding. Over $350 million was earmarked for land conservation programs, including $111 million for a new urban park program for underserved neighborhoods, matching grants for cities and towns, and opportunities for nonprofit partners to leverage local, federal and private investments to protect critical natural resources. This continues support to Local Acquisitions for Natural Diversity (LAND) and Parkland Acquisitions and Renovations for Communities (PARC) grant programs with funding, offering individual grants of up to $400,000.
In the past three years, Fitchburg, Somerville, and Medford have received grants to build community gardens as a part of a larger park renovation. The state also offered Conservation Partnership grants of up to $85,000 for nonprofits to conserve land.

- Massachusetts built a Landscape Partnership Grant Program, offering up to $2 million for land restriction, preservation, or park/playground construction. This enabled a 500-acre preservation project on the North Shore within Essex, Hamilton and Wenham.

- The Agricultural Preservation Restriction program has over $10 million in funding and provides grants of $25,000 - $100,000. The program offers to pay farmers the difference between the “fair market value” and the “agricultural value” of their farmland, in exchange for a permanent deed restriction which prevents uses of the property that will have a negative impact on its agricultural viability.

- In 2011 Massachusetts established the Commonwealth Conservation Tax Credit, funded for up to $2 million per year. An estimated 11,000-12,000 acres of land have been protected through the program.

**BARRIERS TO PROGRESS:**

- State funding diminished for the Agricultural Preservation Restriction program due to limited federal government funding. Some farmers want the freedom to do activities not allowed in the APR, making them not inclined to participate in the program.

- Matching funding for the Community Preservation Act has dropped from 100% at its inception to 11.5% on the state level.

- There has been a general decrease in state and federal funding; Governor Patrick promised $50 million per year in funding for land conservation through state agencies, but was the only governor to date to commit that level of funding.

**RELEVANT INDICATORS:**

- The Trust for Public Land completed a Return on Investment (ROI) analysis on parks and open space in MA to build support for the 2014 environmental bond bill: Massachusetts conserved an average of 9,350 acres per year, including parks, natural areas and working land from 1998 to 2011 (131,000 acres total). Every dollar invested in land conservation initiatives returned four dollars to the state.\(^1\)

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\(^2\) THE RETURN ON INVESTMENT IN PARKS AND OPEN SPACE IN MASSACHUSETTS, The Trust for Public Land, 2013
Sub-Strategy C: Support private sector conservation initiatives

EXAMPLES OF PROGRESS:

- Land trusts and preservation groups like the Trustees of Reservations and other local and regional land trusts continue to conserve land alongside individual towns. The Trustees preserved over 500 acres of land in Greater Boston in 2017.

- Public-private partnerships are analyzing land conservation options. For example, the nonprofit Trustees of Reservations and Boston Harbor Now are partnering with the Barr Foundation and Boston Mayor Marty Walsh’s administration to analyze, parcel by parcel, opportunities to create open space on Boston’s waterfront.

BARRIERS TO PROGRESS:

- Land conservation often requires a combination of public and private agencies alongside localities. Sometimes state agencies require a local match to participate in the program.

- There are not many large landowners in Metro Boston so it is difficult to do major private land acquisitions.

- There is a lack of funding for land conservation, especially as land prices rise in the region.

- Grant funding, including the state’s competitive grants for open space and recreation planning, is mostly set up for local communities and does not encourage thinking beyond municipality borders.

- Municipalities are often unaware of neighboring communities’ open space plans, which could present an opportunity for collaborative land conservation.

Sub-Strategy D: Create a new generation of farmers through training, technical assistance and access to capital

EXAMPLES OF PROGRESS:

- The Massachusetts Food Policy Council commissioned MAPC and partners to create the Mass Local Food Action Plan, which advocates for farmer support through a strong network of research, educational, and technical assistance. It also included plans to attract public and private investment for food distribution innovation through a new economic development fund, coordinating operations of the proposed fund with MassDevelopment’s efforts to increase distribution efficiencies and innovations.
• The Massachusetts Department of Agricultural Resources (MDAR) launched the Urban Agriculture Program in the fall of 2013, one of the nation's first state-wide programs to support and promote commercial urban farming enterprises. Funding through the program targets infrastructure needs, innovative food production, zoning ordinances, technical assistance, land acquisition, and youth leadership development.

• Multiple farming training programs have been developed throughout Greater Boston, including the New Entry sustainable farming program, the Urban Farming Institute of Boston, the Carrot Project, and The Food Project. These programs partner with MDAR, which provides grants to support informal education and youth programming, programs for beginning farmers, and capital grants to help programs acquire land and train more new farmers.

BARRIERS TO PROGRESS:

• Funding for training and technical assistance and access to capital is always a challenge. Staffing a farm takes a significant portion of its budget, especially on urban farms without the ability to use machines like tractors, which is difficult to find funding for. The Carrot Project is advocating on the state level for increased funding for this need.

• Site control and land acquisition continues to challenge urban farmers in greater Boston. Site control, local regulations and ordinances (or lack thereof), and bureaucracy make acquiring and utilizing land difficult.

• Land values are increasing, meaning buying land for farming is increasingly difficult. Particularly in the Metro Boston area, the cost of land makes it challenging to encourage entry into farming.

RELEVANT INDICATORS:

• The number of acres of land in farms in Massachusetts increased from 2007 to 2012 (see Figure 2). However this does not necessarily correlate with increased land dedicated to harvesting edible products. Over the same time period, the number of acres of harvested cropland fell from 153,993 to 137,039 acres.
• 97% of Massachusetts farmers are White. From 2007 to 2012 there was relatively no change in who farms despite the most modest of increase among farmers of other races.

• The average age of the farming community increased from 55.2 to 56.7 from 2007 to 2012. The biggest growth in farmers came from farmers 55 years old and older (see Figure 4). The number of farmers aged 35 to 44 fell 33% and the 45 to 54 population fell by 14%. And while ages under 25 to 34 rose by 22%, that only resulted in 78 new farmers.

Figure 4: Average age of the farming community (2007 - 2012)

Sub-Strategy E:
Build a stronger market for local agricultural products

EXAMPLES OF PROGRESS:

• The [Boston Public Market](#) opened in 2015, which has sold $5 million of local products since opening, including 300 different types of farm goods that traveled an average of 30.6 miles to the market.

• Massachusetts is a leader in markets for local agricultural products. The local seafood industry is building distribution and markets for MA seafood products.

• There are now over 100 farmers markets in the MAPC region³. Over the last ten years, farmers markets have increased 200% across the state.

• DAR grants have helped growers bring products to market and build relationships between with local consumers and restaurants. DAR grants have funded vans and mobile markets, smaller versions of Community Supported Agriculture (CSA) programs delivered by bike, investments in wash stations and packaging, and programs at nonprofits such as Commonwealth Kitchen to develop value-added product lines.

³ Massachusetts Department of Agricultural Resources (MDAR), [https://massnrc.org/farmlocator/map.aspx](https://massnrc.org/farmlocator/map.aspx)
BARRIERS TO PROGRESS:

- More support is needed to build larger local demand for our seafood since much of the seafood harvested ends up in international markets.

RELEVANT INDICATORS:

- Since 2002, the total sales of Metro Boston agricultural products rose $37.3 million dollars. At the same time, total Metro Boston farmland fell by 8,710 acres. Another bright spot is that the total acreage of farms under 50 acres rose.

Metro Boston schools, state institutions, restaurants, and health care facilities represent potential large-scale buyers for the region’s local food market. The more food these types of institutions buy from local producers, the better the local agricultural economy will be able to flourish. In 2013 the U.S. Department of Agriculture implemented its first Farm to School Census. This Census was intended to provide baseline data on public school engagement and spending in farm to school activities, in order to inform the development of goals around increasing the availability of local foods in public schools. The Census questionnaire was opt-in, and had a response rate of 73% in Massachusetts school districts. All data was self-reported, and the USDA did not delineate a specific definition of local foods, so the answers were subject to the interpretation of each responding school district. According to results of the survey, Massachusetts public schools invest approximately $8.1 million, or 16% of their district food budgets on foods that they consider local.
Sub-strategy F: Remove regulatory and labor-related barriers to agricultural expansion/diversification

EXAMPLES OF PROGRESS:

- Food policy councils have been established at the state level and in three cities in the region (Boston, Cambridge, and Waltham) to expand agriculture and access to healthy food.

- Boston has passed an Urban Agriculture zoning code. Boston, Somerville, Cambridge, Arlington and other cities in the Metro Boston area have implemented or are in the process of implementing urban agriculture policies. In 2017, MAPC provided technical assistance to Cambridge in support of its urban agriculture policy development. Further, the Municipal Food Access Strategies toolkit provides guidance on zoning and other strategies for agriculture, food access, and food systems.
  - The City of Cambridge proposed ordinances that would allow for keeping hens and bees on residential properties. The beekeeping ordinance was finalized.
  - The City of Everett has also proposed ordinances to allow chicken-keeping.

- The MAGIC Comprehensive Agricultural Planning Program hosted a subregional forum with the USDA that identified the top regional concerns for the municipal and agricultural sectors, of which regulatory barriers was number two. As a result, the program’s final report included regulatory strategies for communities to promote agriculture.

- The Community Land Trust model has been utilized to obtain and protect land for future farming. Boston’s Dudley Trust and The Food Project are models for Community Land Trusts supporting farming.

- Massachusetts is a national leader for state investment in urban agriculture – over $2M has been invested over 4-5 years into urban agriculture, financial support, technical assistance, and convening farmers.

BARRIERS TO PROGRESS:

- Zoning restrictions on agriculture in more urbanized municipalities make it challenging. Some cities and towns in the region have allowed farming on a case-by-case basis.

- Article 89 to legalize urban agriculture in Boston passed, but is still bureaucratic. Applicants are required to go through multiple stops including navigating various city agencies, i.e. water and sewer, inspectional services, and the Department of Neighborhood Development (DND).

- Prohibitive MA agricultural regulations make it difficult for farmers to expand food processing facilities, driving up prices for animal husbandry and food distribution. Local regulations and lack of continuity from town-to-town make distribution and processing costly and prohibitive. This especially affects small-scale farmers.
- Rising land prices and gentrification are threatening urban farming.
- There is a lack of green space created for productive growing space, especially in new development.

**Sub-strategy G: Adopt sustainable land use controls in natural landscape areas**

**EXAMPLES OF PROGRESS:**
- Natural resource protection zoning (NRPZ) has been utilized in a number of communities and funding to advance this zoning is provided by the state’s Smart Growth Planning Assistance Grant. The state developed an accompanying Smart Growth toolkit to help municipalities implement NRPZ bylaws. See examples in sub-strategy H for municipalities using OSRD, a sublet of NRPZ.

**BARRIERS TO PROGRESS:**
- Attempts to pass Approval Not Required (ANR) reform over the past ten years has failed due to political opposition.
- “Down-zoning” to allow more open space is typically resisted by property owners who are concerned about negative effects on property values.

**Sub-strategy H: Increase the use and impact of Open Space Residential Design**

**EXAMPLES OF PROGRESS:**
- Open Space Residential Design (OSRD) bylaws to protect open space have passed in a handful of communities. Other communities have implemented it in the form of “cluster development”.
- Legislative efforts around zoning reform have been advocated by MAPC, the environmental community, and the real estate development associations to make open space residential zoning more standard and widely used.

**BARRIERS TO PROGRESS:**
- Many developers are not familiar with the concept.
- Often, local regulations for OSRD are overly burdensome and impractical, making the standard, cookie-cutter subdivision process a more attractive option for developers.
- Regulations sometimes specify land requirements for septic systems that are excessive; package treatment plants and shared septic systems are expensive and/or not allowed in certain municipalities, which then prohibit OSRD as an option.
• Package treatment plants for septic systems are further complicated by a complex approval process through the Department of Environmental Protection (DEP), which is prescriptive about wastewater technologies.

• Septic systems within OSRD developments can be expensive to maintain. This responsibility often falls on Homeowner Associations (HOAs), which find it hard to finance these costs.

**Emergent Themes**

• MetroFuture did not connect land conservation to carbon absorption. Experts suggest that sustainability and climate change strategies should be connected to land conservation and greenhouse gas absorption.
Expand Access to Housing
Adopted in 2008, MetroFuture is Greater Boston’s long term regional plan. The foundation of the plan is a well-defined vision for the region. Thirteen implementation strategies were included to support progress towards the vision. An extensive community engagement process ensured that MAPC constructed the vision and strategies from the hopes and dreams of the region. In anticipation of an update to the regional plan, MAPC is evaluating the extent to which regional actors, either intentionally or unintentionally, implemented these strategies. The authors gathered the information that follows through conversations with MAPC staff and content experts.

Strategy #8, Expand Access to Housing, called for the development of a significant amount of housing. MetroFuture estimated that the Metro Boston region would need to develop 349,000 new housing units between 2000 and 2030 to accommodate projected population increases in the region. It is critical, the plan argues, that this production not be limited to market-rate housing, but address diverse housing needs, including those of low- and moderate-income residents, seniors, young households, and others. MetroFuture laid out strategies to reach this goal, highlighting the unique roles of local, state, and regional housing entities to advance policies that promote a range of housing types and affordability, expand programs that connect residents with housing opportunities, and ensure equitable access to these opportunities.

MAPC released MetroFuture in the early stages of the Great Recession. The recession not only severely altered growth prospects, but put many Massachusetts homeowners, particularly, minority homeowners into enormous debt. Ten years later, foreclosures are down and housing production is up, but limited to specific locations and is still not meeting overall demand, leading to extremely expensive housing stock. The negative perception of new housing (increased traffic congestion, density, and students) can derail development proposals. With limited production, investors and wealthier families are displacing long-standing residents who are often low- or middle-income people of color. To meet the long-term housing demand projected in MetroFuture, Massachusetts would need to average at least 17,000 new housing units permitted each year between 2010 and 2040. As of 2016, the state has fallen short of that goal in six out of the last seven years.

Governors and Legislatures have tried to incentivize and encourage housing production. Chapters 40B, 40R, and 40S incentivize housing production through local zoning overrides or through funding initiatives, but municipalities often argue that there is not enough assistance to encourage meaningful production. The Baker-Polito Administration recently launched the Housing Choice Initiative (2017), an initiative that proposed to lower the voting threshold for some pro-growth zoning measures and created incentives to encourage municipalities to build housing. The legislative proposal did not advance in the Legislature. The Community Preservation Act (2000) has enabled communities to raise funds for affordable housing, but the state match is diminishing.
MAPC has long advocated for changes to local laws that restrict housing production, especially affordable housing. In coalition with the Massachusetts Smart Growth Alliance (MSGA), Massachusetts Alliance of Community Development Corporations (MACDC), and Citizen Housing and Planning Association (CHAPA) MAPC is helping to spearhead the Great Neighborhoods Campaign, which seeks to remove barriers to production and increase the opportunity for more housing. The housing production proposals have been politically challenging to say the least. A variety of organizations including MAPC provided municipalities and non-profits with technical assistance designed to encourage plans for diverse housing production in appropriate areas.

Housing production is primarily fueled by the market and responds to municipal regulatory frameworks. Inclusionary zoning, which requires that a certain percentage of all new residential developments have affordable units is becoming more popular. Many cities and towns adopted Housing Production Plans (HPP), many of which MAPC created. Despite increased planning for housing, many municipalities continue to maintain restrictive zoning policies that severely limit if not eliminate the potential for housing production, particularly affordable multi-family housing. This forces middle and lower income families further afield from the inner core to find homes and apartments in their price range. The cost pressures are also leading to displacement from a growing band of communities.

An emerging concern among practitioners is that while housing data, and data driven decision-making, is becoming more prevalent among municipalities, some residents are dubious and are actively opposing any development proposals. The update to the regional plan must then not merely advocate for better data systems, but for ways to communicate them successfully. Also, MetroFuture did not account the rise of short term rentals like Airbnb. Studies demonstrate that short term rentals, along with a variety of other factors, depress the rental market supply and raise both rents and home sale prices. Both the state and municipalities are creating regulations to limit and tax short term rentals.
Sub-Strategy Review

Sub-Strategy A: Develop coordinated regional and local plans for diverse housing production

EXAMPLES OF PROGRESS:

- Since Metro Future was adopted, 116 towns in the state have completed HPPs in Massachusetts and 48 of them were within MAPC’s region. MAPC consulted on 20 plans, all of which advocate for diverse housing production that takes local and regional housing supply into account. Examples of outcomes of those HPPs include stronger inclusionary zoning policies and more liberal accessory dwelling unit ordinances, but plan implementation is inconsistent.

- Since 2008, 42 of the 101 municipalities in the region updated or created a master plan, all of which include plans for housing production. 25 municipalities have master plans from before 2008. Leaving thirty-four municipalities having never completed a master plan.

- Residential market analyses are a growing trend in the region. These analyses ensure that inclusionary zoning by-laws are sustainable in current market conditions. They take into account regional supply and demand and use that information to show how many affordable units a municipality can develop and sustain.

- In 2018, the MBTA released new requirements for how they would dispose of MBTA owned land. In the past these requirements centered on what the MBTA deemed to be “the highest and best use”. Now the requirements encourage uses and plans that incorporate equitable transit oriented development, including affordable housing.

Figure 1: HPPs Adopted in MAPC Region since 2008
Source: “HPPPlansApprovalExpiration.doc” downloaded from https://www.mass.gov/service-details/chapter-40-b-housing-production-plan 5/1/2018
• 14 municipalities in the region completed transit oriented development plans with MAPC, all of which include recommendations to address housing demand through facilitation of multifamily and mixed-use development.

• MAPC convenes the Metropolitan Mayors Coalition of Greater Boston, a collaborative, problem-solving group of 14 municipal leaders from Boston and the surrounding cities. The group recommends changes to zoning, local policies, and other tools to address the housing affordability crisis together. In 2017 the members announced that they created a regional housing partnership and in 2018, they announced a new regional housing production goal.

**BARRIERS TO PROGRESS:**

• Many communities resisted HPP recommendations due to concerns over the impact of production on school capacity, traffic, and parking.

• An effort to compose a "Regional Housing Advisory Committee" as suggested in MetroFuture was formed, but was not sustained.

• MAPC convened sub-committees and created the Fair Housing and Equity Assessment, which could inform fair housing at the local level, but municipalities are not consistently using the assessment because it did not come with any funding to operationalize it.

• Planning does not have teeth in Massachusetts. In other places, zoning must be consistent with plan, but in Massachusetts, plans are advisory in nature.

**RELEVANT INDICATORS**

Figure 2: Massachusetts Housing Production Compared to Projected Demand (2011-2016)
Source: https://www.mhp.net/about-us/data

• To meet the long-term housing demand between 2010 and 2040 projected by MetroFuture, Massachusetts would need to permit, on average, at least 17,000 new housing units each year. The state failed to reach the goal in six of the last seven years.

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1 While not directly tied to the success or failure of a sub-strategy, indicators show how the region has changed in the face of the aforementioned actions or inactions.
At this pace, Massachusetts will fall more than 90,000 units short of demand by 2030.

While housing construction is happening, especially in and around downtown Boston, annual housing production is about half of production 1960s, 70s and 80s. The Commonwealth permits 36% less new housing per capita than the national average and is ranked 38th out of the 50 states.

Larger than necessary minimum lot size requirements are a key impediment to building denser housing. The chart below shows that a number of communities require well over an acre per unit (just over 40,000 sq. ft.). Other local regulations that can inhibit production include local wetlands and septic rules that go beyond the state minimum controls.

Sub-Strategy B: Increase affordable housing production in appropriate locations

EXAMPLES OF PROGRESS:

- **Chapter 40R** provides a way for municipalities to zone for mixed-income housing developments if at least 20-25% of the units have long-term affordability restrictions. 40R encourages communities to create dense residential or mixed-use smart growth zoning districts near transit that include a high percentage of affordable housing units.
  - Between 2006 and 2017, the state created forty-four 40R districts. Twenty-six (60%) of those were created between 2006 and 2008.\(^2\)
  - 34% of the districts created since 2008 were in MAPC municipalities and 18% of the units permitted in 40R Districts happened in MAPC municipalities.
  - In 2016, legislation created a new 40R category for smaller, single-family homes on smaller lots called Starter Home Zoning Districts.\(^3\)

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\(^3\) Ibid.
• The Massachusetts Housing Partnership provides technical assistance in the form of staff time and consultants and financing for projects that advance affordable housing in appropriate locations.

• The Community Preservation Act allows municipalities to create a local Community Preservation Fund for open space protection, historic preservation, affordable housing and outdoor recreation. This continues to be an important resource for municipalities, but despite more and more communities joining, funding for the state match is decreasing.
  
  • Municipalities completed 157 CPA projects in 2016, an all-time high, but the percentage of state matching funds (15% this year) have dropped 50% from the 2008 match and will only be at 11% in FY19. Legislation has been filed to raise the percentage back up to between 30-50%.
  
  • Between 2001 and 2006 CPA 54% of CPA projects occurred in the MAPC region. Since then 38% of CPA projects occurred in the MAPC region.

• The Massachusetts Smart Growth Alliance, with support from MAPC and others, have consistently advocated for zoning reform. So far, legislative efforts have failed to gain traction in the House. The legislation passed the Senate in 2016.

• MAPC assisted in developing three Regional Housing Services Offices, which monitors a municipality's affordable housing stock relative to the threshold they are required to maintain.

• The Baker-Polito Administration recently launched the Housing Choice Initiative (2017), an initiative that awards municipalities who produce certain amounts of housing and implement best practices while also providing funding priority to certain grant programs.

• The Baker-Polito Administration authorized the Planning Assistance Towards Housing fund (2014), which awards money to support multi-family housing development efforts near existing infrastructure, community services and public transportation. Within the first two years of the program, the state granted 25 awards between $10,000 and $30,000.
• MassHousing launched a Planning for Production grant program (2017), which provides cities and towns with additional technical capacity to implement their own housing production goals, and deliver new mixed-income housing by resolving problems with implementing their housing plan.

• An increasing amount of municipalities are implementing progressive parking strategies like reducing parking requirements or allowing for spaces that host car sharing services to count as multiple parking spots. High parking requirements not only attract households that tend to be car-reliant, but also adds costs to development projects.

• The Executive Office of Energy and Environmental Affairs (EEA) offers Massachusetts cities and towns technical help to improve their land use practices. Priorities include zoning for sustainable housing production and other smart-growth consistent practices. In 2017, EEA awarded $1.2 M to 37 applicants.

• The Community Investment Tax Credit (CITC) is designed to enable local residents and stakeholders to invest in community development corporations (CDCs) that partner with nonprofit, public, and private entities to improve economic opportunities for low and moderate income households and other residents in urban, rural, and suburban communities across the Commonwealth. In 2016, they allocated $5.9M.

• In 2018, CHAPA launched the Municipal Engagement Initiative to build support for affordable housing production in Massachusetts. CHAPA staff works with local municipalities to conduct public education efforts that support housing production that emphasizes affordable housing.

BARRIERS TO PROGRESS:

• Public opposition to housing, particularly affordable housing, remains strong throughout our region, which often leads to failed zoning amendments and reductions in the amount and type of affordable units provided.

• State agencies sometimes approve comprehensive permits in areas not appropriate for growth. Sites far from public transportation or in areas with vulnerable natural resources are examples of areas MetroFuture deemed inappropriate for growth.

• The federal government defines affordability based on the area median income (AMI). The wealthy communities around Boston drive up AMI resulting in inflated levels of housing “affordability” that many low-income families in the region cannot afford.

• At times during the program’s history, Chapter 40R funds have run out before the end of the fiscal year, which has resulted in some municipalities choosing to not pursue 40R districts.
• Chapter 40S, additional state funding to cover the net increased costs of educating any school-age children who move into 40R districts, was not fully funded. As of May 2018, only five towns have applied and the state granted awards to three. However, experts think that some municipalities would have qualified if they had applied⁴.

• State law still prohibits groups of municipalities from contributing to a regional affordable housing trust fund.

• Increasingly, some municipalities and residents express concerns that Transit Oriented Development (TOD), particularly the creation of multi-family residential units around transit, would cause more traffic than the area could sustain. And some fear that public transportation routes have reached capacity during peak commuting periods and could not handle a significant increase in riders.

• Laws tend to favor abutters in conflicts around prospective developments. The threshold for damages are very low and an abutter committed to legal suits and appeals can often outlast a developer who does not want to lose money on a vacant parcel or underperforming property.

⁴ Ibid..
RELEVANT INDICATORS:

- Metro Boston has some of the highest housing costs in the nation, which are burdensome for many families. Economists and public policy makers are concerned that high housing costs present a significant impediment to long-term economic growth. To illuminate the challenges, MAPC and the Urban Land Institute analyzed property sales and rentals from 2014 and 2015 to determine which homes would be considered affordable to middle-income working households. Rentals can be seen in Figure 6 and sales in Figure 7. Unfortunately, concerns about schools, safety, and quality of life—both real and imagined—may discourage middle-income families from taking advantage of these opportunities. These findings suggest that middle-income housing choices can be expanded not only by producing moderately priced housing in exclusive communities, but also by making affordable communities more attractive to the middle class.

Sub-Strategy C: Support private sector conservation initiatives

EXAMPLES OF PROGRESS:

- The Commonwealth continues to administer the state-wide Affordable Housing Trust Fund, a federal program which provides resources to create or preserve affordable housing throughout the state for households whose incomes are not more than 110% of median income.

- As of 2018, there are currently 96 Municipal Affordable Housing Trusts in Massachusetts and 17 trusts organized before the enabling legislation in 2005.

- More communities have adopted accessory dwelling unit bylaws, but it will be important that the same communities make sure their bylaws actually lead to construction of such units. This is a low-impact way to introduce more diversity of housing types.
• The state continues to offer an Open Space Design/Natural Resource Protection Zoning (OSD/NRPZ) module, which includes elements of conservation subdivision regulations and cluster development bylaws and is used to regulate new subdivisions of land in a manner that maximizes the protection of natural resources while providing for new construction and adequately compensating landowners.

• The City of Boston created zoning to allow for micro-apartments, very small apartments (<500 sq. ft.) that offer shared living space.

• A number of business-centric organizations are focused on growth as a productive pathway towards more employees and consumers:
  • The South Shore Chamber of Commerce' South Shore 2030 economic and community development plan included recommendations to increase housing in its assessment of how to generate more revenue for area businesses.
  • City Awake, a program of the Greater Boston Chamber of Commerce, offers programming intended to build community and foster dialog about pressing regional issues such as housing and workforce development.
  • The Boston chapter of the Alliance of Business Leadership hosted a Leaders Learning series on housing as an economic driver.

BARRIERS TO PROGRESS:

• Many zoning codes limit or outright ban zoning for multifamily units and updating municipal codes can be an uphill battle due to fears about growth and the impacts of growth.

• MAPC, in coalition with the MSGA and others, have consistently advocated for zoning reform. Strong opposition to certain elements of the legislation remain.

• Many municipalities include restrictions on who is eligible to occupy an accessory dwelling units.

• Inclusionary zoning provisions are often a recommendation in MAPC produced plans, however, local adoption and implementation is mixed.

• Federal funding for affordable housing subsidies continue to diminish and while the state continues to support affordable housing creation, funds are always at risk.

• The demand for middle income housing has gone unmet due to the lack of incentives for developers to build anything except upper income housing or, to a much lesser degree, low income housing.

RELEVANT INDICATORS:

• Through the 1960s, 70s, and 80s, Massachusetts produced roughly 30,000 housing units per year. In the subsequent three decades, production was nearly cut in half (see Figure 8).
• An additional MHP analysis suggests that the state is 38,000 units below the current housing demand. Figure 9 shows the number of rental and ownership units needed by county to achieve what is considered a balanced vacancy rate for rentals and owner occupied units.

• Half the region’s renters are housing cost burdened, meaning they spend more than 30% of their household income on rent, and 30% of the region’s homeowners are cost burdened. While the overall rate of housing cost burden is slightly down since 2005, more recently, the rate of housing cost burden has been trending on divergent paths, up for renters and down for homeowners. Disparities in homeownership by race continue to persist, limiting opportunities for families of color to close the racial wealth gap.

• Severe cost burden entails spending more than 50% of household income on housing. The share of homeowners estimated to be cost burdened has decreased 5.5 percentage points between 2005-09 and 2011-15. This decline may be attributed to depressed sale prices which in many locations have not yet recovered the losses suffered during the Great Depression, or to historically low interest rates which reduce financial costs substantially. While the rate of cost burden held fairly steady between 2005 and 2011 for both renters and owners, since 2012 the rate of cost burden has been trending up for the renter population and down for the homeowner population, indicating a growing housing cost burden gap between homeowners and renters and underscoring the vulnerability of the region’s renters.
In the Inner Core, deed-restricted and affordable housing has remained above 10% of housing stock since 2002 (see Figure 10), according to records from the Subsidized Housing Inventory maintained by the Massachusetts Department of Housing and Community Development. The share in the Inner Core did decrease, however, from 13.6% in 2002 to 13.3% in 2014. The high rate in the Inner Core is driven by Boston, Chelsea and Cambridge, where more than 15% of housing stock is affordable. Malden has 10.2% affordable units, and the remaining 12 municipalities have less than 10%.

As of 2014, Regional Urban Centers’ deed-restricted, affordable housing stock was 10.2% of all stock, an increase of half a percentage point since 2002, when the rate was 9.7%. Eight Regional Urban Centers have affordable housing at more than 10%, 13 have less than 10%. Norwood and Marlborough have added the most affordable housing relative to their total housing stock, increasing 2.5 and 2.2 percentage points, respectively.

In the Maturing Suburbs, the share of affordable housing increased from 4.8% in 2002 to 8.0% in 2014. Just 15 out of 50 Maturing Suburbs have 10% or more affordable housing, but all but six have increased their share since 2002. Bedford, Lynnfield, North Reading, and Concord have each increased their share by more than 7 percentage points.

In the Developing Suburbs, the share of affordable housing increased from 4.0% in 2002 to 6.2% in 2014. Just five out of 77 Developing Suburbs have 10% or more affordable housing, but all but 14 have increased their share since 2002. Northborough and Cohasset have each increased their share by more than six percentage points.
Sub-Strategy D: Connect residents to housing opportunities

EXAMPLES OF PROGRESS:

- **Home Modification for the Disabled** program is a lending program that finances housing adaptations or modifications to improve accessibility for seniors and individuals with disabilities. The program is funded through a state-bond and most loans are secured by a mortgage in order to guaranty repayment. Repaid loan funds will be lent out to other similar borrowers in the future.

- MassHousing and MHP continue to offer their first-time homebuyer programs, including a newly launched 2018 program designed to lower the barriers to achieving homeownership, which finances up to 100% of the purchase price of a first home for low-, moderate-, and middle-income buyers.

BARRIERS TO PROGRESS:

- Homelessness in and around Boston persists and is getting worse. In 2016 it was up 29% from 2007. In order to afford rent and utilities and spend only 30% of income for housing, a household needs to earn $56,967 annually/$27.39 an hour. The average renter’s wage is $19.70. Still, Massachusetts ranks among the states with the lowest percentage of homeless people who are unsheltered, at 3.9%.

- In other parts of the nation, employers play a more active role in assisting their employees with housing needs. This has not been the case in Massachusetts.

RELEVANT INDICATORS:

- Through an online survey and in-depth phone interviews, Northeastern University and the Massachusetts Housing Partnership sought to better understand the experiences, expertise, and challenges of Greater Boston businesses. Despite significant progress since the Great Recession, economic stagnation is still the norm for many Greater Boston residents due to increasing income inequality and extreme housing prices for both buyers and renters. Of the survey’s 87 respondents, over 72% of companies say they have found it “Extremely or Somewhat Difficult” to recruit and/or retain talent in the past five years. In addition, over 67% claim home prices and rental costs have affected their ability to recruit qualified candidates. While the allure of Greater Boston’s professional and cultural offerings is substantial, the cost of housing is an omnipresent barrier for current and potential residents alike⁵.

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Sub-Strategy E: Ensure Fair and Accessible Housing

EXAMPLES OF PROGRESS:

- Municipalities are creating Fair Housing Assessments, including the Fair Housing and Equity Assessment that MAPC completed for Metropolitan Boston.
- MAPC assisted with the Analysis of Impediments to Fair Housing with the South and the West Metro HOME Consortiums.
- A number of organizations such as Metro Housing Boston and the Fair Housing Center of Greater Boston provide research, testing, advocacy, and legal support to end discrimination in housing.

BARRIERS TO PROGRESS:

- The Obama Administration passed the Affirmatively Furthering Fair Housing rule in 2015, which incentivizes municipalities receiving federal entitlements such as Community Development Block Grants (CDBG) and HOME Investment Partnerships Program (HOME) to complete a comprehensive Assessment of Fair Housing planning process to ensure that no local racial discrimination in housing exists and to ensure that local governments are working to desegregate their communities. However, Housing and Urban Development Secretary Ben Carson slowed the release of data available to grantees and extended the deadline to finish the assessment to 2020. Advocates worry this indicates that HUD may weaken the assessment tool and the action plans.
- Legislation aimed at curbing displacement and gentrification was proposed by the City of Boston and endorsed by MAPC, but the bills stalled in the legislature. The proposals would have given tenants the right to an attorney in an eviction proceeding and the right of first refusal in the event that their rental property was being sold.
- Practitioners report that residents in places discussing multi-family housing projects have become emboldened to publically voice anti-immigrant, anti-minority, anti-low income sentiments.

RELEVANT INDICATORS:

- Every decade the MAPC region becomes more racially and ethnically diverse, yet discrimination and segregation continue to impact residents of color in negative ways. Buying a home is a cornerstone of building wealth in America, yet mortgage data show Black and Latino home loan applicants in the MAPC region—even those with higher incomes—are denied at rates double that of White applicants. The data also show successful residential mortgage applications for Black and Latino applicants are concentrated in limited areas. In the MAPC region, Boston, Randolph, and Lynn account for 50% of total home-purchase loans to Black borrowers, while Lynn, Boston, Revere, Chelsea, Everett, and Framingham account for 53% of home-purchase loans to Latino borrowers (See Figure 13).
The data reveal discrimination during the mortgage process, but this alone does not explain these patterns. Historical de jure segregation and the relative affordability of different locations may explain some of it. However, discrimination prior to the mortgage process—by agents, neighbors, and sellers—may unfairly steer prospective homeowners of color to or away from specific locations. Planners, real estate professionals, lenders, advocates and municipal officials have a legal and moral responsibility to ensure residents of color have the opportunity to purchase a home in any part of the region they choose.

Figure 13: Eastern Massachusetts Home Purchase Loans by Race in 2015

Discriminatory lending practices remain a significant barrier to homeownership, even for high-income people of color. Regionally, denial rates for all high-income applicants (those with incomes over 120% of the Area Median Income, or approximately $118,000 in 2015) dropped from 9.9% to 9.1% between 2009 and 2015. Denial rates for high-income applicants who are Black and Latino are substantially higher than their White or Asian counterparts, though the gaps have narrowed in recent years (see Figure 14). For high-income Black applicants, the denial rate dropped 4.7 percentage points, from 25.3% to 20.6%, but remains more than double the overall rate. For high-income Latino applicants, the denial rate dropped 3.3 points from 18.3% to 15.0%. As a result, high-income applicants who are Black or Latino are denied a mortgage at rates that are 7 to 12 percentage points higher than high-income applicants who are White.
Sub-strategy F: Preserve, maintain, and upgrade existing affordable housing stock

EXAMPLES OF PROGRESS:

- Housing authorities in the region have regionalized, centralizing administrative services in an effort to become more efficient, transparent, and to increase procurement power.

- The Boston Housing Authority and Corcoran Group have proposed a redevelopment of the Bunker Hill Housing Development. 1,000+ affordable units will be rebuilt, along with 2,000 new market rate units with commercial spaces at ground level.

- Similarly, the 125 Amory Street project in Egleston Square is reconstructing affordable units, by incorporating market-rate units into the project.

- CDCs, such as Somerville Community Corporation and Allston Brighton Community Development Corporation are buying then deed-restricting homes to ensure they remain affordable.

- All of the HPPs that MAPC assisted on contain recommendations on how to preserve long term affordability.

BARRIERS TO PROGRESS:

- Affordable housing rehab programs are few and far between and where they exist, they do not have much capital to effect large scale improvements.

- The federal government reduced funding for maintaining and preserving affordable housing even before the Trump administration, who are now proposing even more drastic cuts.

- Some local housing authorities lack the capacity and resources to successfully manage their housing stock.
Emergent Themes

- Evidence suggests that the rise of short term home rentals is further reducing affordability in large cities by repressing the supply of apartment to renters. A variety of municipal and state rules are under consideration to limit and tax short term rentals.

- While MetroFuture sought to minimize residential displacement, these trends have only intensified in Boston and surrounding urban areas.

- Housing production costs continue to rise, further elevating housing costs.

- There is a growing Yes In My Backyard (YIMBY) movement that was not as prevalent as it was in 2008. These are pro-growth residents who champion housing development at the local level.

- The increase in non-traditional housing groups who approach housing as a fundamental piece of economic growth.

- Hospital networks in the Boston area are developing affordable housing as a way to address social determinants of health.
Support Healthy Families
**Summary**

Adopted in 2008, MetroFuture is Greater Boston’s long term regional plan. The foundation of the plan is a well-defined vision for the region. Thirteen implementation strategies were included to support progress towards the vision. An extensive community engagement process ensured that MAPC constructed the vision and strategies from the hopes and dreams of the region. In anticipation of an update to the regional plan, MAPC is evaluating the extent to which regional actors, either intentionally or unintentionally, implemented these strategies. The authors gathered the information that follows through conversations with MAPC staff and content experts.

**Strategy #9: Support Healthy Families** envisioned how to provide all families with healthy, clean, and supportive environments. Achieving a healthy environment means ensuring that the youngest among us are healthy and educated, that the oldest among us are cared for, and that both groups and everyone in between has access to good food, open space, and high quality health care.

The Obama Administration’s 2010 Affordable Care Act (ACA) required community health needs assessments (CHNA) and implementation strategies to be developed by tax-exempt hospitals. These assessments and strategies create an important opportunity to improve the health of communities. On the state level, a number of grants funded positive health and safety outcomes. Mass in Motion and Safe Routes to School funded local interventions for healthy eating and active living. Significant federal investments in early education expanded Pre-K availability, but more is needed. Statewide coalitions built local food plans and are beginning to implement them through the newly-funded Massachusetts Food Trust. Many municipalities bolstered local food access by opening farmers markets, which have more than doubled in the region in the past ten years.

Regionally, municipalities worked together to create dozens of elder housing villages and to host age-friendly programming. Nonprofit organizations and universities established many successful education interventions that target out-of-school/out-of-work youth. Municipalities began integrating health elements into planning documents ranging from master plans to climate resilience plans. MAPC formed a Public Health Department to integrate public health perspectives into regional planning. Mass in Motion incentivized collaboration between municipalities, boards of health, and planning boards to encourage healthier lifestyles for their constituents.

Early education is an important aspect of setting children on the path to a healthy life. While some individual municipalities strongly support early education, a statewide commitment to early education is still missing. Municipalities, particularly Boston, enacted a variety of educational interventions to support children, including efforts to add healthy food options at school.
An emerging perspective that MetroFuture did not fully acknowledge is the impact of social determinants on health outcomes. Poor health can stem from unpredictable or low quality housing conditions, violence inside and outside the home, pollution, etc. In the next regional plan, it will be important to link health outcomes to these social factors. Recent changes to the Attorney General’s Community Benefit program moves some of the dollars from free programming towards addressing social determinants of health. Experts often advocate for a longer term, systemic approaches as the only way to truly improve health in the United States.

**Sub-Strategy Review**

**Sub-Strategy A: Link health and planning**

**EXAMPLES OF PROGRESS**

- Cities and towns are incorporating health outcomes into planning documents. Wellesley, Hudson, Middleton Master Plans and the plan for Medford Square featured health, as did the South Salem transit-oriented development plan.

- Coordination between Boards of Health, Health Departments, and Planning Departments as part of Mass in Motion built programs to improve healthy eating and physical activity, which MAPC helped facilitate.

- CAFEH, the Community Assessment of Freeway Exposure and Health Study, serves as the larger umbrella for five related community-based participatory research (CBPR) air pollution studies. These projects have full participation of the community partners in all aspects of the science including: developing the proposal, leading the study, and collecting, analyzing and interpreting the data.

- Mass Safe Routes to School data and safe routes to school planning tool help link active transportation planning with children’s health and safety.

- MAPC formed a Public Health Department with goal of integrating public health into regional planning to increase access to open space, healthy food, and active transportation, to sustain violence-free communities with safe and stable housing, to support equal access to health services, and to limit exposures to pollution and environmental contaminants.

- The Obama Administration’s 2010 Affordable Care Act (ACA) required community health needs assessments (CHNA) and implementation strategies to be developed by tax-exempt hospitals. These assessments and strategies create an important opportunity to improve the health of communities. They ensure that hospitals have the information they need to provide community benefits that meet the needs of their communities. They also provide an opportunity to improve coordination of hospital community benefits with other efforts to improve community health. While the Attorney General in MA had guidance around CHNAs, this change formalized the process.
• The ACA funded Community Transformation Grants, one of which was awarded to MAPC and the Massachusetts Department of Public Health for Middlesex County. Middlesex County will use the $1.57m grant to prevent chronic disease such as heart attack, stroke, and other leading causes of death and disability through evidence-based policy, environmental, programmatic, and infrastructure changes that support healthy living.

• The Inner Core Community Health Improvement Coalition (ICCHIC) unites seven municipal coalitions to address unhealthy diets within Boston’s Inner Core region by improving access to healthy food. ICCHIC seeks to strengthen distribution networks to support healthy food retail initiatives and work with grocery stores to offer and promote healthy foods.

  • Housing Productions Plans in Millis, Arlington, and Rockland.
  • The Revere Open Space and Recreation Plan (OSRP).
  • The Everett OSRP (food planning/food systems).
  • Climate resilience plans (e.g. the MAGIC Climate Change Resilience Plan) to address potential environmental health risks from rising temperatures, increasing precipitation, and disease vectors (e.g., mosquitos).

• As of 2011, the Public Health Accreditation Board (PHAB) requires Community Health Assessments (CHAs) for public health departments seeking national accreditation. Similarly, in 2014, the IRS mandated that nonprofit health centers must conduct Community Health Needs Assessments (CHNAs) every three years. Since 2012, over 60 CHAs/CHNAs were conducted across the region on a neighborhood, municipality, regional, and state level. Many of these assessments include Community Health Improvement Plans (CHIPs) guide community benefit investments for these communities.

BARRIERS TO PROGRESS:

• Some planning staff and public health departments lack awareness and/or understanding about health connections to planning and vice versa.

• Planning departments are not funded or required to incorporate health elements into their planning processes.

• There is no mandate for broader involvement of local health department staff and board members in planning and permitting decisions.

• Lack of awareness of science and evidence linking planning actions to outcomes (e.g., transportation impacts on health behaviors and outcomes).

• Abbreviated project timelines and budget make adding an additional perspective, such as health or addressing the impacts of climate change, difficult.

• There is a severe lack of local health data available for use in planning and decision making.
• The standard format for plans set by the state (e.g., the required elements of OSRPs) does not include health sections.

**Sub-Strategy B: Broaden universal early education and care**

**EXAMPLES OF PROGRESS:**

• The state legislature has increased the budget for early education and care every year since 2013, the historic low point during the Great Recession.

• In 2014, the U.S. Department of Education awarded Massachusetts a four year Preschool Expansion Grant for $15m per year (the maximum amount). The program funds a free year of high quality preschool for 850 4-year old children in the state.

• In 2017 the Baker-Polito Administration, in collaboration with the Legislature, announced $46 million in funding awards to multiple initiatives that support the quality and availability of early education and care programs serving young children across the Commonwealth. This was in addition to a 6 percent pay rate increase, worth more than $28 million, for all early education and care programs that provide care for low-income families. Rate increases support salaries of early educators working in subsidized programs. The 2017 funding represents the largest rate hike for subsidized early education and care programs in 10 years.

• In 2012, the Patrick-Murray administration signed into law, An Act Relative to Third Grade Reading Proficiency, which focuses state attention and resources on children's language and literacy development. Despite leading the nation on national assessments, Massachusetts has a large and persistent achievement gap.

• In 2010 the Board of Early Education and Care (EEC) adopted the Quality Rating and Improvement System (QRIS) to measure the factors that experts believe make the difference between programs that work for children and those that do not. EEC is currently updating QRIS standards based on results of a validation study and feedback from programs.

• Experts report that the most innovative early education work is happening at the local level. For example, Boston K1DS is a mixed provider approach to pre-K. Children attend public schools as well as private schools, but teachers must have certain salaries and qualifications, and receive coaching tied to a curriculum. Studies found this structure resulted in huge gains in school readiness both in math and reading.
BARRIERS TO PROGRESS:

- The early childhood field suffers from low teacher pay and high turnover, which makes it difficult to attract and retain the most qualified individuals.

- Unlike K-12, funding for early education is based primarily on high parent fees and federal child care funding for low-income or priority populations (i.e. DCF-involved children). There is insufficient funding in the system to meet access demands and quality expectations.

- The state does not fund early childhood education in accordance with the impact it has on the region. Funds have disproportionally gone to primary/secondary and higher education. The state must allocate more resources to improve the quality and quantity of early education opportunities, ideally through new flexible funding streams.

RELEVANT INDICATORS:

- A high-quality early education is often characterized by personalized and individualized approaches; access to quality early education, especially for at-risk students, makes it more likely that our youngest learners will have a solid foundation for academic and social-emotional development. 55% of children aged 0-5 and eligible for a subsidy were enrolled in high-quality early education programs, down 2% from 2015.

- In Massachusetts, a community based early education teacher earns on average $29,020 per year. A kindergarten teacher in Massachusetts, by comparison, draws an average salary of $71,790 per year. This gap indicates that the majority of early educators do not receive a livable wage. Although data on turnover in the early education field is not up to date, experts estimate that 30% of early educators leave their position in a calendar year.

While not directly tied to the success or failure of a sub-strategy, indicators show how the region has changed in the face of the aforementioned actions or inactions.

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2 https://www.barrfoundation.org/blog/five-lessons-from-two-decades-of-early-education-grantmaking

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**Sub-Strategy C: Improve access to after-school and out-of-school programs**

**EXAMPLES OF PROGRESS:**

- Boston After School and Beyond is an umbrella organization that coordinates with Community Based Organizations that provide after school programs where children can earn skill badges in college and career readiness.

- In 2016, Harvard’s Education Redesign Lab launched “By All Means: Redesigning Education to Restore Opportunity”, aimed at developing comprehensive child wellbeing and education systems that help eliminate the link between children’s socioeconomic status in Salem, Somerville, and Newton (as well as three other communities nationwide). This connects mayors, superintendents, heads of health and social services, recreation, cultural and arts activists, and other key community leaders to deliver better outcomes for children and youth.

- “Photovoice” projects were conducted in eight municipalities as part of the Middlesex County Community Transformation grant; this approach embodied a community based participatory research element, that in some cases was linked with place-making, as part of intervention aimed at youth social and emotional wellness.

**BARRIERS TO PROGRESS:**

- While some success examples exist at the municipal level, there was limited regional and state investment in after-school and out-of-school programs.

- School district priorities often do not support expansion of out-of-school programs.

**Sub-Strategy D: Use school-based programs to help children establish healthy lifestyles**

**EXAMPLES OF PROGRESS:**

- Mass in Motion, which began in 2009 and has administered over $600,000 in grants, promotes healthy eating options by setting policy standards for competitive food and beverage contracts in schools in 2010. Community use agreements through Mass in Motion established safer playgrounds, parks, and outdoor spaces in more than 170 communities.

- Work under the MA Local Food Action Plan addressed school-based food programs, including goals for farm-to-institution programming and gardening and nutrition curriculum with schools. MAPC manages the contract for over 10 school districts to assist in joint procurement of fruits, vegetables, and mushroom beef burgers for farm-to-school purchasing.
MAPC conducted a Health Impact Assessment (HIA) with the Massachusetts School Building Authority (MSBA) focused on school reconstruction at Plymouth South High School.

More funding for Safe Routes to School, was established in 2012 with the Transportation Alternatives Program administered by the Federal Highway Safety Administration. The program works with school communities, law enforcement, and public health departments to increase biking and walking among elementary and middle school students.

**BARRIERS TO PROGRESS:**

- Not enough agencies are approaching this topic from a social determinants of health perspective⁴, which targets the root structures and systems that create inequities, overlapping social and economic structures.
- The failure to address or account for the influence of environmental changes on behaviors, outcomes, and educational status.

**RELEVANT INDICATORS:**

- In Massachusetts, obesity rates declined among 2- to 4-year-olds enrolled in WIC from 2010 to 2014 dropping from 17.1% to 16.6%. However, rates in Massachusetts remain among the highest in the nation.

**Sub-Strategy E: Ensure access to healthy food**

**EXAMPLES OF PROGRESS:**

- The Massachusetts Food Policy Council commissioned MAPC and partners to create the Mass Local Food Action Plan to build a more sustainable and equitable food system. Upon completion of the Plan, the Massachusetts Food System Collaborative was established, and is coordinating implementation of recommendations in the Plan.
- The Massachusetts Food Trust is working to ensure better access to healthy food and has been funded this state fiscal year (2018) for the first time to provide financial and technical assistance to support new and expanded healthy and local food retailers in low and moderate income communities, improving food options and economic development in underserved communities.

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⁴ The Center for Disease Control defines social determinants of health as “the complex, integrated, and overlapping social structures and economic systems that are responsible for most health inequities. These social structures and economic systems include the social environment, physical environment, health services, and structural and societal factors.”
• **Mass in Motion** support (through the Community Transformation grant) and grants from the American Planning Association and American Public Health Association worked to increase healthy food access in our region, especially through healthier offerings at corner stores and markets. Within the region, Cambridge, Everett, Melrose, New Bedford, Plymouth, and Wakefield established Mass in Motion “Healthy Markets and Corner Stores.”

• The number of **farmers’ markets** throughout the region has increased to over 100, reflecting a 200% increase in farmers markets statewide.

• Chelsea became the first city in the country to ban artificial trans fats, which increase the risk of Type 2 diabetes, heart attack, and stroke, in 2015.

• MAPC helped expand availability of EBT machines at farmers markets

**BARRIERS TO PROGRESS:**

• Funding for healthy food access programs is limited.

• MAPC and the Department of Transitional Assistance partnered on the **Healthy Incentives Program** (HIP) financial matching for Supplemental Nutrition Assistance Program (SNAP) purchases, but the program was suspended until further notice in 2018.

• Many of these interventions impact the environment and we lack evidence that shows how these environmental changes will result in behavior change.

• Healthy food is a difficult change to make and sustain with local small businesses; the connection with local economic development needs to be built out to strengthen efforts and partnerships and increase involvement. An implementation-ready framework for a small business association for independent grocers was developed and received seed funding (in Beverly and Revere) with APHA funds to promote healthy food access, but the grant ended without the opportunity for implementation.

**RELEVANT INDICATORS:**

• On a statewide level, the model of food access in Massachusetts highlights the general dependence people have on cars as a means of assessing food retailers. Within a ¼ mile walkshed, no community types reached an average food access score of over 3.5\(^5\). In fact, the average of the 4,979 block groups was 1.9 out of 15. At this same network distance, over 50 percent of block groups had food access scores of 0, illustrating that on the statewide level, people generally do not live within ¼ mile of food retailers. Increasing the walkshed to ½ mile increases average food access scores to 4 for the state; however, this score is still very low – under no circumstance would this score allow for access to a large grocery store, and about 33 percent of block groups had food access scores of 0 at this distance.

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\(^{5}\) Very high (12-15) index scores indicate guaranteed access to at least one large-scale grocery store or supercenter within the specified network distance. Very low (0-3) index scores indicate guaranteed lack of access to a grocery store of any scale. Low (3-6) index scores indicate likely access to a smaller-scale grocery store, farmers market, or fruit and vegetable market. Moderate (6-9) and high (9-12) index scores indicate increasing likelihood of access to a large scale grocery store or super center.
On behalf of 10 school districts, MAPC manages a produce contract with distributor A. Russo and Sons, supporting school food directors and helping to streamline purchasing (see figure 5). Our contract helps schools source more local produce, through Russo's partnerships with farms across Massachusetts and New England. These efforts support the health and academic performance of nearly 50,000 students enrolled in participating schools, including more than 12,000
economically disadvantaged students who qualify for free meals. The schools' purchases also support the New England farm and food economy and encourage sustainable practices throughout the food supply chain.

Figure 6: Massachusetts Farm to School Program Map 2017

**Sub-strategy F: Reduce exposure to environmental contaminants**

**EXAMPLES OF PROGRESS:**

- MAPC worked the MA Department of Housing and Community Development (DHCD), along with other partners, to promulgate a statewide policy that has resulted in more and more local housing authorities (LHAs) to go smoke-free, such as Boston in 2014. In 2016, the U.S. Department of Housing and Urban Development declared that all public housing in the country must become smoke-free within 18 months.

- MAPC partnered with the Prevention and Wellness Trust Fund (PWTF) to provide smoking cessation resources in relation to smoke-free LHAs.
Chelsea (along with Cambridge and Everett) won the Robert Wood Johnson Foundation's Culture of Health prize in 2016 for their work reducing diesel pollution, cleaning up waterfront access along Island End River, and working with youth to engage the community on environmental health issues and develop environmental justice curriculum for Chelsea schools.

Environmental contaminant exposure reduction was addressed in Plymouth South High School school-building HIA.

The Massachusetts Municipal Stormwater Separated Sewer (MS4) program, established in 2015, encourages more groundwater filtration to reduce exposure to fecal coliform and other contaminants, improving water quality.

MAPC partnered with the Community Assessment of Freeway Exposure and Health (CAFEH) team at Tufts University to address exposure to near roadway traffic pollution, analyze potential zoning changes, identify populations at risk, and link them to interventions. MAPC also engaged in HIAs regarding traffic and accompanying pollution changes in the vicinity of the I-93 corridor in Somerville and Boston's Chinatown.

BARRIERS TO PROGRESS:

- Funding for environmental contaminant remediation and reduction is insufficient.
- Availability of local health data is limited.
- The lack of developable land in the Metro Boston area may lead to new development sites that have known or unknown contaminant issues.
- The LHA smoking ban is not a mandate only an encouraged policy.

RELEVANT INDICATORS:

- Asthma is very sensitive to environmental factors, such as air quality. How well a parent or guardian is able to manage symptoms and seek treatment for their child is dependent on their access to healthcare. Within the region, the youth asthma hospitalization rate has increased by 22 hospitalizations per 100,000 from 2003-2007 to 2008-2012.

- This uptick in youth asthma hospitalization rate is driven by significant increases in the Black and Latino rates. Both the Black and Latino youth asthma hospitalization rates are above the regional average. The youth asthma hospitalization rate for the Black population is highest and has risen to 614 hospitalizations per 100,000, while the Latino rate is currently at 387 hospitalizations per 100,000. The gaps between the Black and White youth asthma hospitalization rate and the Latino and White youth asthma hospitalization rates have increased by 42 hospitalizations per 100,000 and 62 hospitalizations per 100,000 respectively.
• Overall, MAPC region’s average annual rate of childhood lead poisonings fell from 5.06% in 2006-2010 to 1.92% in 2011-2015. There were significant decreases in the prevalence of blood lead levels, however disparities still persist geographically and racially.

• From 2005-2009 to 2010-2014, the rate of low birth weight (among singleton, or non-multiple births) has remained relatively constant at 5.4% in 2005-2009 and 5.3% in 2010-2014. The percentage of White low birth weight births were below average and experienced a slight 0.1 percentage point decrease, while the share of Black low birth weight babies remains the highest of all race/ethnicity groups. Despite, having the largest share of low birth weight babies, the Black population saw the greatest percentage point drop in low birth weights from 9.8% in 2005-2009 to 8.8% in 2010-2014. Black and Latino populations experienced a decrease in low birth weight births across all educational attainment levels during this timeframe. However, the White population as a whole experienced a decrease in low birth weight births, White mothers with less than a high school education experienced the greatest percentage point increase in low birth weight from 7.1% in 2005-2009 to 8.1% in 2010-2014.
Sub-strategy G: Ensure equitable access to quality health care

EXAMPLES OF PROGRESS:

- The Attorney General’s Community Benefit Guidelines for Non Profit Acute Care Hospitals and Community Benefit Guidelines for Health Maintenance Organizations took effect in October 2009. These updated guidelines reflected the increasing financial burden of accessing quality health care and the growing role of Health Management Organizations in providing health care.

- MAPC worked on a Prevention and Wellness Trust Fund project in Lynn and MetroWest to expand access to health care. MAPC connected state and local health departments, health care centers, and community organizations (community-clinical connections) to provide shared services to communities and healthcare access.

- MAPC helped more municipalities become part of the General Insurance Committee which gave municipal workers better and less expensive health benefits.

BARRIERS TO PROGRESS:

- Consolidation within the health care system, e.g., closing of hospitals and health centers.

- Federal health care policies and funding (e.g., funding for Medicaid).

RELEVANT INDICATORS:

- Residents of Metro Boston have been insured at 95% or more since at least 2008 (when data is earliest available). Between 2008 and 2013, Metro Boston’s health insured rate was ten percentage points higher than the national average. Starting in 2010, Metro Boston’s insured rate began slowly to increase, so that between 2010 and 2015 the rate had increased two percentage points to 97%. In the nation, the rate rose very slowly starting in 2010, and then in 2013 jumped up from 85% so that by 2015 91% of Americans were insured.

Figure 9: Health Insurance Coverage in Metro Boston and the US
Data Source: American Community Survey 1-Year Estimates
Sub-strategy H: Coordinate policies to create an elder-friendly region

EXAMPLES OF PROGRESS:

- There are now sixteen elder-friendly “Villages” in Massachusetts, providing assistance in living, referral services, and community events for seniors. Since 2008, the MAPC municipalities of Brookline, Cambridge, Bedford, Newburyport, Jamaica Plain in Boston, Newton, Reading, and Wellesley established elder villages, with many of these open to residents of surrounding municipalities.\(^6\)

- Housing Production Plans for Hudson and Needham looked specifically at creating housing that is more accessible to older residents.

- MAPC completed an [Age Friendly Trails](https://www.mma.org/metrowest-communities-boost-services-those-dementia-0) project in Natick to ensure trail access to elderly residents.

- In 2016, [Hudson, Marlborough, and Northborough](https://mahealthyagingcollaborative.org/wp-content/uploads/2017/12/Village_directory_10202017.pdf) received a collective $20,000 grant to support residents with dementia by training citizens on the best ways to interact with those with dementia, building dementia-friendly social spaces, and making public transportation easier to use\(^7\).

- [Brookline](https://mahealthyagingcollaborative.org/wp-content/uploads/2017/12/Village_directory_10202017.pdf) and [Boston](https://www.mma.org/metrowest-communities-boost-services-those-dementia-0) were accepted into the World Health Organization Age-Friendly Cities and Towns network. In addition to social programs designed for those with dementia through local nonprofits and centers in Brookline, the police department offers tracking bracelets for people with dementia, and the town opened its own memory cafés. MAPC worked with the MAGIC subregion to submit a proposal for “Age Friendly” designation for the subregion.

BARRIERS TO PROGRESS:

- Availability of affordable and appropriate housing for seniors in the region is limited and unaffordable to many.

- Funding for age-friendly projects is limited.

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\(^7\) [https://www.mma.org/metrowest-communities-boost-services-those-dementia-0](https://www.mma.org/metrowest-communities-boost-services-those-dementia-0)
RELEVANT INDICATORS:

- As the Baby Boomer generation ages, the region will experience substantial growth in the senior population, which may grow by 75% between 2010 and 2030. Above-average premature mortality rates for White and Black residents declined between 2003-2007 and 2008-2012, while rates for Asian, Latino, and Native American residents remained statistically unchanged. Black residents continue to have the highest premature mortality rate (348 per 100,000.) Grandparents responsible for their grandchildren have a poverty rate of more than 15%, double that of grandparents not responsible for their grandchildren. Older adults are more housing cost burdened (meaning that they pay more than 30% of their income on housing) than younger adults. Nearly 60% of renter households headed by an older adult are cost burdened, and more than a third of households where the homeowner is an older adult are cost burdened. Despite a 5% drop in the total number of housing cost burdened young home owners, the renter and owner housing cost burden rates for the elderly remained unchanged between 2005-2009 and 2011-2015.

- Approximately 9.8% of the region’s older adults live in poverty (see Figure 10), just below the regional poverty rate. Between 2005-09 and 2011-15 there has been no significant change in the percentage of older adults living in poverty throughout the region. Even if this poverty rate for older adults holds steady, the substantial growth in the older adult population in the coming decades (projected to grow 75% from 2010 to 2030) will result in a much larger number of older adults in poverty.

Emergent Themes

- Social determinants of health have an outsized effect on long-term health incomes and interventions need to be developed as early in life as possible. They are also widely recognized as an important driver of positive educational outcomes.

- The healthcare system is getting increasingly complex and expensive. Expanding access to healthcare must include both the social determinants of health and an understanding of the changes in the healthcare landscape.

- In early education, the mixed provider system is taking root statewide, particularly via the Preschool Expansion Grant and additional 13 preschool planning communities. Mixed-provider local work features district and private, community-based programs working side-by-side.

- MAPC is exploring the re-establishment of the State Health Disparities Council.
Invest in a Skilled Workforce
Summary

Adopted in 2008, MetroFuture is Greater Boston's long term regional plan. The foundation of the plan is a well-defined vision for the region. Thirteen implementation strategies were included to support progress towards the vision. An extensive community engagement process ensured that MAPC constructed the vision and strategies from the hopes and dreams of the region. In anticipation of an update to the regional plan, MAPC is evaluating the extent to which regional actors, either intentionally or unintentionally, implemented these strategies. The authors gathered the information that follows through conversations with MAPC staff and content experts.

MetroFuture’s tenth strategy, Investing in a Skilled Workforce, addressed the shortfall of skilled workers projected through 2030 and the lack of equity regarding who has access to the region’s economic opportunities. To bridge these gaps, this strategy recommended an aggressive expansion of training and the removal of barriers to economic opportunity for underserved members of the region.

MetroFuture recognized public higher education as a prominent actor in developing a skilled workforce, especially among underserved populations in the region. It was vital, MetroFuture posited, that the state actively pursue resources and strategies to increase the capacity of public higher education to better prepare residents for work. In some areas, the state fulfilled this recommendation. The Massachusetts Department of Higher Education (DHE) and Executive Office of Education (EOE) funded programs to increase the preparedness of college freshmen and improved the process by which students seeking associates degrees transfer to 4 year schools.

However, key capacity issues continue to go unresolved. Despite a recent increase in higher education spending, Massachusetts currently spends less per pupil than in 2006. This puts Massachusetts in the bottom quarter of public higher education spending\(^1\). The Baker-Polito Administration established the Workforce Skills Cabinet and through it awarded $24 million in grants to vocational schools, community colleges and public high schools. Experts suggest that while connections exist, the workforce sector must still be convinced that a more formal relationship with higher education is worth the effort it would take build it.

MetroFuture called for stronger connections between colleges/universities and workforce partners. Bright spots exist, but in general the higher education to work pipeline is inconsistent. The Trade Adjustment Assistance Community College and Career Training federal grant program provided $54M to sixteen Massachusetts community colleges to build the capacity of community colleges to create or enhance program of study that lead to industry-recognized credentials. Metro Boston’s robust medical community partners with colleges and universities to ensure that graduates are prepared to enter the health workforce.

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\(^1\) It’s worth noting that the predominance of private higher education opportunities in Massachusetts means less reliance on the public higher education system, but that dynamic unfairly benefits those who can afford private higher education.
MetroFuture recommended improvements to performance management within the education industry. The state developed performance based measures for community college funding related to enrollment and student success. The state also added infrastructure to more accurately measure various education programs such as Adult Basic Education (ABE) programs and their ability to move students into employment or higher education. While efforts to share data across institutions were effective, consensus on the permissible level of data sharing varies not only within the system, but sometimes within institutions themselves.

**Sub-Strategy Review**

*Sub-Strategy A: Increase capacity and sustainability of public higher education*

**EXAMPLES OF PROGRESS**

- The legislature spent significantly on campus infrastructure, but spending has been disproportionately allocated to the university system and not the community college system.
- While the legislature did not increase support of higher education per the recommendation in MetroFuture, a state capital campaign resulted in upgrades to a number of high schools in the region.

**BARRIERS TO PROGRESS:**

- Higher education is significantly underfunded and despite a net increase from 2012 to 2017, 2017 funding is still down 14% from 2001. Massachusetts continues to spend less on public higher education than leading states. Budgetary pressure is to blame, experts say, which all state programs felt since the early 2000s including local aid, early education, and public health.
- MetroFuture advised that the Division of Capital Asset Management and Maintenance (DCAMM), which is responsible for planning and constructing facilities as well as real estate services, improve processes and procedures, but experts suggest the organization’s processes are still burdensome.

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3 Ibid.
RELEVANT INDICATORS

- Per capita support for higher education averages $285 nationally and ranges from $93 in New Hampshire to $705 in Wyoming. These comparative statistics reflect interstate differences in wealth, population characteristics and density, postsecondary enrollment rates, the relative size of the public and independent higher education sectors, student mobility, and numerous other factors. Poorer states may lag the national average in per capita support, but exceed the national average in support per $1,000 of personal income. Similarly, sparsely populated states sometimes exceed the national average in both per capita support and per $1,000 of personal income.

Figure 1: Higher Education Support Per Capita by State (2015)

- Since 2001, the state has cut spending on higher education by 14% (see Figure 2). These cuts are a primary driver of increasing student debt in Massachusetts. Cuts, in combination with increases to tuition and fees are forcing students to take on more and more debt if they want a college degree.

Figure 2: Massachusetts State Spending on Higher Education 2001 to 2017 (adjusted for inflation)


4 While not directly tied to the success or failure of a sub-strategy, indicators show how the region has changed in the face of the aforementioned actions or inactions.
Sub-Strategy B: Reduce financial and transportation barriers to public higher education

EXAMPLES OF PROGRESS:

- There has been increased alignment so that students can transition smoothly from high school to community colleges and from community colleges to four-year degree programs, but students sometimes still lose credits in the process.
- The Commonwealth Commitment, created in 2016, commits every public campus to providing 10% rebates at the end of each successfully completed semester to qualifying undergraduate student. While promising, to date not many students have taken advantage of it.
- The DOE also streamlined transfers from community colleges to four-year degree programs without repeating credits.
- The Open Education Database, an organization that catalogs free online courses reports that Massachusetts online course availability "creates an easy-to-access, flexible option for students who already reside in Massachusetts to study online, as well as those looking to explore out-of-state learning."
- In collaboration with the governor’s office, Mayor Walsh funded the Boston Bridge, which covers gaps in Pell Grants for graduating Boston high school students who meet Pell grant income standards and enroll full time at Bunker Hill Community College, Roxbury Community College, or Mass Bay Community College.

BARRIERS TO PROGRESS:

- There has been significant innovation and creativity in making continuing education more effective and accessible, but funding barriers prevent scaling to a degree that would have a significant impact on the region.
- While every year approximately 25,000 individuals take Adult Basic Education (ABE) programs funded by the Massachusetts Department of Elementary and Secondary Education (DESE), nearly the same amount are currently on waiting lists that can last 2 to 8 months.

RELEVANT INDICATORS:

- Massachusetts’ economy is dependent on a highly educated workforce and more and more students are forced to use loans to pay for post-secondary education. Figure 3 shows the percentage of public four-year Massachusetts college graduates with student loans rose from 54% in 2001 to 75% in FY 2014. Cumulatively, student debt rose 55% on average.
Sub-Strategy C: Coordinate and align public higher education curriculum with local workforce actors

EXAMPLES OF PROGRESS:

- When the state colleges became universities, they added graduate level programs in curriculum areas they recognized as high demand occupations areas.
- MAPC advocated for post-secondary groups, such as Life Sciences Consortium of North Shore, which is composed of public and private post-secondary institutions sharing grades, credits, and tuition and fees across four institutions.
- Governor Baker’s Workforce Skills Cabinet, created by an Executive Order in February 2015, is responsible for developing and implementing regional strategies to develop workforce skills to meet the varying needs of employers in the Commonwealth's regions, today and in the future.
- The most successful partnerships are in the health care industry:
  - The Emergency Medical Careers Partnership (EMCP), a partnership between ambulatory companies, the Boston Private Industry Council, and Northeastern University, seeks to address the employment needs of the emergency medical services industry in greater Boston, while providing new opportunities for low-skilled individuals to move into medium-skilled, higher paying jobs.

BARRIERS TO PROGRESS:

- While some success examples exist at the municipal level, there was limited regional and state investment in after-school and out-of-school programs.
- School district priorities often do not support expansion of out-of-school programs

Sub-Strategy D: Adopt new strategies to improve student performance, graduation rates, and employment outcomes

EXAMPLES OF PROGRESS:

- In an effort to increase transparency and incentivize participation, the state moved to performance-based funding for community colleges. 50% of each college's allocation is based on performance metrics related to enrollment and student success, with added incentives for "at-risk" students completing certificates and degrees and those graduating in disciplines that fuel that state's economy.
- The Massachusetts Early College Initiative, developed by the Massachusetts Board of Higher Education (BHE) and the Board of Elementary and Secondary Education (BESE) provides grants of up to $80k to districts and schools to grow and sustain high quality early college partnerships with state colleges.
• The Baker-Polito Administration also awarded $1.25M in grants to launch new college access and completion programs. Through the Department of Higher Educations’ Performance Incentive Fund, the largest share of the fund is being used to launch new programs to allow high school students to take college course before graduating from high school.

• In early 2017 the state was awarded $2M from JP Morgan Chase to improve career education and expand career pathways for students.

• DESE introduced college and career readiness indicators, which give districts timely data on enrollment in developmental courses to more successfully monitor a student's path to college readiness.

• The state also created a measurement system for Adult Basic Education programs including transition from programs to higher education.

• Many new strategies exist at the municipal level, but have not spread throughout the region:
  • Success Boston, a collaboration between the Boston Foundation, the Boston Public Schools the City of Boston, 37 higher education institutions, and local non-profits, is a successful college completion initiative.
  • Boston Workforce Investment Network (Boston Wins) is a State Street funded, multi-year partnership between five non-profit partners (the Boston Private Industry Council (PIC), Bottom Line, College Advising Corps, uAspire, and Year Up) that advances college completion and job readiness.
  • Triangle, Inc supports people with disabilities in Malden, Winchester, and Medford along specialized tracks to employment.

RELEVANT INDICATORS:

• Educational attainment plays a significant role in employment, earnings, and wealth-building outcomes. Metro Boston residents with a college degree have higher rates of employment, earn higher wages, and are better able to build wealth than those who do not. Across Metro Boston, educational attainment is on the rise. Today, 54% of the region's working age adults have a 2- or 4-year college degree or greater, a 5 percentage point increase since 2000.

Figure 4: Adults with a College Degree in the Region
Source: http://www.regionalindicators.org/topic_areas/1#an-educated-workforce

• Metro Boston consistently ranks high among the top 25 most populous U.S. metropolitan areas for share of adults ages 25 and over with an associate’s or bachelor’s degree. In 2013 the region was third highest, after Washington D.C. and San Francisco.
While college attainment rates have improved for all racial and ethnic groups over the past decade, stubborn gaps in educational attainment persist and have worsened since the year 2000. The college attainment gap (the percentage point difference in working age adults with a 2- or 4-year college degree) between Black and White working-age adults is 23 points, up from 21 points in 2000; between Latinos and Whites the gap is 33 points, up from 30 points in 2000.

**Sub-Strategy E: Remove barriers to labor force participation**

**EXAMPLES OF PROGRESS:**

- In 2014, the Obama administration passed the [Workplace Innovation and Opportunity Act](https://www.whitehouse.gov/administration/innovation-and-opportunity) to bring about increased coordination among federal workforce development programs.
- [MassHire Workforce Boards](https://www.mass.gov/workforce boards) continue to support the region's jobseekers through training and job matching.
- A new economic development law was passed, [An Act Relative to Job Creation and Workforce Development](https://www.ma.gov/gov/laws/chapter-79.html) (2016), which sought to connect residents to economic opportunities, strengthen community and housing development efforts, and invest in emerging technologies and included $45m in workforce skills capital grants.
- In 2016 the Massachusetts Rehabilitation Commission (MRC) partnered with local service providers in the [Transition Pathway Services](https://www.mass.gov/transition-pathway-services) program to enhance competitive integrated employment and post-secondary enrollment for high school students living with significant disabilities.
- Programs that have helped:
  - In 2013 the [Paul and Phyllis Fireman Charitable Foundation](https://www.firemanfoundation.org) in collaboration with the state government, seven regional partner organizations, and many direct service agencies, launched the Secure Jobs program which provides participants with resources to combat barriers to childcare, transportation, and transitional assistance.
• In April 2015, U.S. Department of Housing and Urban Development (HUD) announced a $2 million grant for the next four years to the Boston Housing Authority to fund a Jobs Plus program in Charlestown, which aims to increase education levels, job search and placement and financial literacy assistance for public housing residents.

• ROCA in Chelsea has become a national standard for how to transition youth from gang involved into the workforce.

BARRIERS TO PROGRESS:

• CORI reform occurred, which MAPC actively advocated for, but evidence suggests that reform has not led to the level of change expected and additional reform is under consideration particularly for individuals who have been sentenced to and have completed their term of incarceration.

RELEVANT INDICATORS:

• Black and Latino workers have closed the labor force participation gap by roughly 10 points since 2000, due to increasing participation rates among Blacks and Latinos and not much change among Whites. Compared to national averages, the participation gap in Metro Boston between Blacks and Whites is smaller by 3 percentage points. For Latinos and Asians compared to Whites, however, the gap is larger by about 4 points relative to the nation.

Figure 7: Participation Gap, Black to White
Source: http://www.regionalindicators.org/topic_areas/7#making-a-good-living

Figure 8: Regional Labor Force Participation Rate, Ages 25-64 by Race and Educational Attainment
Source: http://www.regionalindicators.org/topic_areas/7#making-a-good-living

• Between 2008 and 2013 the region gained 64,700 workers ages 25-64. The positive growth has been primarily among workers with a college degree or higher degree. In fact, the region has lost workers ages 25-64 across all educational attainment levels except for those with a college degree or more. Combined, the region lost 26,200 workers ages 25-64 in the labor force with less than a college degree and gained 91,100 with a college degree or more.
The Bureau of Labor Statistics calculates alternative measures of labor underutilization at the statewide level to capture discouraged and underemployed workers. While the underutilization rate is inherently greater than the unemployment rate, and the trends for both rates in Massachusetts more or less track with each other, there was a significant jump in the gap between the underutilization rate and unemployment rate during the Great Recession that the state has not yet been able to close. In 2007, just before the recession, the underutilization rate, at 7.3% was 2.7 percentage points greater than the unemployment rate. In 2009, the gap jumped to 6.1 points, and in 2014, with an underutilization rate of 11.5%, the gap remains stubbornly at 5.7 points. Of course, the gap would decrease if the underutilization rate held steady and the unemployment rate went up, so it is important to watch the trends of all three indicators: official unemployment rate, underutilization rate, and the gap between the two. Relative to the rest of the 50 U.S. states and the District of Columbia, Massachusetts ranks around the middle for all three of these measures.

Sub-strategy F: Position immigrants as key assets to the region’s economy.

EXAMPLES OF PROGRESS:

- The Patrick-Murray Administration launched the New American’s Agenda as well as the Governor’s Advisory Council for Refugees and Immigrants, which sought to successfully integrate immigrants and refugees into the Massachusetts’ economy and communities.

- In 2011 the Massachusetts Immigrant and Refugee Advocacy Coalition (MIRA) launched the New American Integration Institute with support from The Boston Foundation in an effort to promote civic integration, economic integration, and social integration.

- Many MassHire Workforce Boards support immigrants and their pursuit of work through collaborations with English as a Second Language (ESL) providers.

- In 2017, the Baker-Polito Administration established the Latino Advisory Commission, which is intended to address the concerns of the Massachusetts Latino community and promoting economic prosperity and well-being.

- Jewish Vocational Services continues to offer free ESL classes and job training for refugees and unemployed residents looking for work.
• The **Global Entrepreneur in Resident Program** (GEIR) was established in the 2014 Jobs Bill. Through the GEIR, universities provide part-time work and cap-exempt visas for graduates with advanced degrees who want to grow their companies but cannot due to a lack of available visa slots. GEIR quickly became a national model, but the Trump Administration’s immigration policies have put its future into doubt.

• **The Immigrant Learning Center** issued a series of briefs, webinars, and workshops to address the most pressing issues related to U.S. immigration policy and opportunity.

**BARRIERS TO PROGRESS:**

• Although the budget line item for Adult Basic Education for immigrants has not significantly changed, current programs are much more career focused than previous iterations.

• ESL classes have been cut every year under DESE and redistributed to other programs.

• The Trump Administration’s decision to severely reduce both the number of immigrants allowed to enter the United States and the length of their stay negatively impacts the potential of the immigrant community.

**Sub-strategy G: Support older workers and lifelong productivity**

**EXAMPLES OF PROGRESS:**

• In April of 2017, the Baker-Polito administration established the Governor’s Council to Address Aging in Massachusetts. The Council, in partnership with AARP, published a report in 2018 that a variety of working groups will seek to implement, aided by a grant from Tufts Health Foundation.

• The Massachusetts Council on Aging is piloting the 50+ Job Seekers Networking Group which offers those 50 and older opportunities to network with peers and develop new relationships, skills, and strategies to help in their career transition

**BARRIERS TO PROGRESS:**

• The majority of programs and funding in the workforce training sector goes to youth.

• Employers have not committed to hiring the 50+ population.

• Employers are also hesitant to offer flexible hours to the 50+ community.
RELEVANT INDICATORS:

• Approximately 9.8% of the region’s older adults live in poverty, just below the regional poverty rate. Between 2005-2009 and 2011-15 there has been no significant change in the percentage of older adults living in poverty throughout the region. Even if this poverty rate for older adults holds steady, the substantial growth in the older adult population in the coming decades (projected to grow 75% from 2010 to 2030) will result in a much larger number of older adults in poverty.\(^5\)

Figure 10: Poverty Rate for Adults 65 and Over

<table>
<thead>
<tr>
<th>VALUE AS OF 2011-2015</th>
<th>CHANGE SINCE 2005-09</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.75%</td>
<td>▼ 0.2%</td>
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• Adults over the age of 65 are continuing to work through their retirement years more and more. Across all races and ethnicities, the post-recession labor force participation rates are trending up for adults over 65, although rates are still much lower than those of “working-age adults”. Older adults may be working more because we are living longer because they are happy at their place of employment, or because they are facing financial pressures that force them to maintain a reliable source of income. Within the region, Older White adults have the highest labor force participation rates, at 23%, and older Asian adults have the lowest at just under 17%.\(^6\)

Figure 11: Labor Force Participation Rate Amount Adults 65 and Over by Race in Metro Boston
Source: [http://www.regionalindicators.org/topic_areas/7#poverty](http://www.regionalindicators.org/topic_areas/7#poverty)

• The unemployment rate among older adults (5.4%) is lower than that of the population 25 to 64, though only by about one percentage point. Unemployment gaps by race among older adults are also smaller for older Black adults than working-age Black adults, but they are about the same for older Latino adults.\(^7\)

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5 [http://www.regionalindicators.org/topic_areas/7#aging-in-place](http://www.regionalindicators.org/topic_areas/7#aging-in-place)
6 [http://www.regionalindicators.org/topic_areas/7#aging-in-place](http://www.regionalindicators.org/topic_areas/7#aging-in-place)
7 [http://www.regionalindicators.org/topic_areas/7#aging-in-place](http://www.regionalindicators.org/topic_areas/7#aging-in-place)
Sub-strategy H:
Support individual asset building and financial literacy

RELEVANT INDICATORS:

- The trend of growing income inequality is consistent throughout most metro areas, including Metro Boston, where the rich are getting richer, the poor are getting poorer, and the middle class are stuck in place. Adjusted for inflation, mean income for the top fifth of households increased by 10% between 2006 and 2013, while for the bottom fifth, it decreased 3%. Households in the middle fifth of the income range saw little change in income over this time. The mean income of the richest fifth of Metro Boston households is $258,300, 3.5 times greater than the $73,400 mean income of the middle fifth, and 18 times greater than the $14,300 mean income (barely above the poverty line) of the fifth of households with the lowest income. This top-fifth to bottom-fifth ratio (or 20/20 Ratio) is 2 points higher than it was in 2006 (see Figure 13). Metro Boston’s 20/20 ratio has been consistently higher than the national average since 2006 (see Figure 14), and in 2013 ranks 5th highest among the top 25 most populous U.S. metro areas.
Emergent Themes

- Online college is a reliable and flexible option for those in pursuit of higher education.
- Training programs, like Per Scholars and Resilient Coders, offer shorter training programs that deliver occupationally relevant skills.
- The Innovation Schools initiative, a signature component of An Act Relative to the Achievement Gap signed into law by Governor Patrick in January 2010 allows some schools to operate with increased autonomy and flexibility with the goal of establishing the school conditions that lead to improved teaching and learning.
- A shift is occurring where educational experts now acknowledge that it is unreasonable to assume all young people should go to college and pursue a 4-year degree.
- Increases us of a systems-planning approach to sector-based workforce strategies. For example, instead of just churning out new nurses, Bunker Hill Community College brought the hospitals together to discuss how many were needed locally and what skills they need.
- The apprentice model moved from time-based to skill based to ensure that apprentices were adequately trained.
- Experts suggest that instituting a Guided Pathways model, which has been shown to increase graduation rates by requiring students to choose a program and develop an academic plan, would improve educational outcomes.
- Industry experts recognize a lack of data for some educational indicators. The state could implement a longitudinal data system like the ones existing in over 30 states now that provide timely data on the employment and earnings of college graduates.
Summary

MetroFuture, Metro Boston's 2008 regional plan, provided thirteen comprehensive strategies believed essential to realizing its progressive vision for the region in 2030. What follows is an evaluation of the extent to which the region embraced Strategy #11: Focus Economic Growth. The driving principle of the Focus Economic Growth strategy was robust, sustainable economic growth distributed equitably throughout the region. Many MetroFuture strategies articulate preconditions for growth, such as a well-educated and healthy workforce (Strategies 6 and 7), diverse housing opportunities (Strategy 8), an efficient transportation system (Strategy 12), and coordinated public policy (Strategy 1). The recommendations in Strategy #11 seek to ensure that the growth that results is focused in appropriate locations and that the diverse population of Massachusetts residents benefit from that growth. This includes supporting job creation in smart growth-consistent locations, capitalizing on existing institutions, and supporting small businesses and entrepreneurs.

Since the release of MetroFuture, the state created a variety of incentives and programs to promote job creation in locations served by infrastructure. Growth Districts, Priority Development Areas (PDA), and 40R smart growth districts sought to assist municipalities in planning compactly and stimulating job growth. Through the Workforce Skills Cabinet, the state funded the development of Workforce Regional Labor Market Blueprints to coordinate the work of the regional Workforce Investment Boards. The Executive Office of Housing and Economic Development (EOHED) and Labor and Workforce Development (EOLWD) funded and supported a number of programs. While these are great examples of intentional job growth and development, programs like Economic Opportunity Area Credit (EOA), which do not take location into account, are still being rolled out. MAPC, along with a collection of non-governmental organizations, advised many municipalities on economic development plans that targeted growth in areas that could already support it, which include opportunities for small businesses. Co-working spaces continue to thrive making space more affordable for small businesses. Also, the state supports incubators, providing capital and networking to those supporting startups and entrepreneurs.

The state was largely supportive of existing institutions, especially in the medical and education sectors. Medical institutions partnered with community colleges to make employment pipelines more efficient. Universities took advantage of state and city programs to spin out startup companies in the Boston area. The Boston Chamber of Commerce, in partnership with Eastern Bank and others, are supporting women and minority owned businesses in pursuing contracts with medical and university anchor institutions.

The state offered a variety of programs to support small businesses and entrepreneurs, offered through the Massachusetts Office of Business Development, the Executive Office of Housing and economic development through the MA Downtown Initiative, Mass Growth Capital, MassEcon, MassVentures, and the Mass Office of International Trade &
Investment. While many state programs exist to support small businesses, limited funding restricts the amount of entrepreneurs that can participate. Businesses also report being confused about the array of programs. Lastly, affordable retail/office space in the Greater Boston continues to be very hard to find for small businesses.

In the ten years since MAPC wrote Strategy #11, new concepts have developed. The Blueprint, a regional workforce skills planning initiative is a recent and promising vehicle for increasing employment in prominent occupation areas like health care and tech where the barriers of entry tend to be higher. Municipalities are in the process of developing regional workforce development strategies. Somerville and Boston have municipal level workforce development programs, Somerville’s having just started in 2017. Lastly it will be important to track the success of prospective or impending large-scale commercial developments like GE, Amazon, and Encore Casino. Co-working spaces continue to thrive making space more affordable for small businesses.

Sub-Strategy Review

**Sub-Strategy A: Create jobs in MetroFuture-consistent locations**

**EXAMPLES OF PROGRESS:**

- The Patrick Administration, via the EOHED, created a Growth District designation where EOHED would work with the community to make the district “development ready” with respect to local permitting, state permitting, site preparation (including brownfields remediation), infrastructure improvements, and marketing. Twenty-three communities took advantage of the program, most doing so in 2008. The Baker Administration did not continue the program.

- Chapter 43E Expedited State Permitting Program (2006) and Chapter 43D Expedited Local Permitting Program (2006) promotes a streamlined and time sensitive review process, which makes development more predictable and therefore more attractive to developers.
  - According to state data, the number of sites using 43D dropped precipitously from an average of 55 per year between 2007 and 2009 to an average of 3 per year since. The state website notes fourteen total 43 E sites.
  - Within the MAPC region, up to and including 2008 there were thirteen 43D Expedited Local Permitting communities. From 2009 to the present, there have been nine additional 43D communities.

- Chapter 40R, Smart Growth Zoning Overlay Districts, were codified in 2004 and encourage communities to create denser residential or mixed-use smart growth zoning districts, including a high percentage of affordable housing units, to be located near transit stations and in other areas of concentrated development. From 2006 through the beginning of the recession the state created seven districts per year, which included zoning for 2600 units. From 2011 to 2017 the yearly average

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1 http://www.mass.gov/hed/economic/ehed/pro/gdi/
fell to 3 new districts and zoning for 730 units per year. In 2017, DHCD approved five districts, the most since 2010.

- In 2016, legislation created a new 40R category for smaller, single-family homes on smaller lots (Starter Home Zoning Districts). There have been no proposals to create such a district at this point.

- In September 2010 the MassWorks Infrastructure Program was created to provide a one-stop shop for municipalities and other eligible applicants seeking public infrastructure funding to support economic development, housing creation, and roadway safety improvements in rural communities. This has streamlined economic development and multifamily housing funding as well as incentivized applicants to meet a variety of smart growth targets including:
  - 50% in support of projects consistent with regional land use and development plans;
  - 50% in support of developments that contain a mix of residential and commercial uses, with a residential unit density of at least four units to the acre;
  - 50% in support of development in Gateway Cities;
  - 67% in support of developments located within one-half mile of a transit station;
  - 80% in support of developments that are re-using previously developed sites; and
  - 100% in support of housing (or mixed use including housing) be in support of developments with a residential unit density of at least four units to the acre.

- In 2017, MassDOT issued its first TOD policy around disposition and development of public parcels in station areas, which seeks to stimulate compact growth in transit-served locations, including affordable units.

- The 2014 Economic Development Bill authorized the Transformative Development Initiative (TDI) to be managed by MassDevelopment. TDI provides:
  - Technical assistance for professional services, community-building place-making projects, and a fellows program through which a MassDevelopment employee is embedded in and works with a TDI District’s local partnership.
  - Equity investment program through which MassDevelopment makes equity investments in real estate within TDI Districts.
  - Business growth tools program that supports collaborative workspaces.

- EOHED’s Urban Agenda grants offer flexible funding to support creative local partnerships in select municipalities. The program is for neighborhoods across Massachusetts that have developed partnerships that leverage existing economic assets, target specific workforce populations, define their economic development and quality of life goals, and deliver on those goals.

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3 https://www.mass.gov/doc/40r-districts-activity-summary/download
• Workforce Skills Capital Program: Provides funding for the purchase and installation of equipment and any related improvements and renovations necessary for installation and use of such equipment to support vocational and technical training to upgrade and expand career technical education and high quality career pathway programs that are aligned to regional economic and workforce development priorities for in-demand industries.

• The Advanced Manufacturing Training Program provides funding to qualifying consortia to develop, coordinate, and maintain comprehensive manufacturing workforce development systems. Regional systems will provide workforce development services in advanced manufacturing, such as recruitment, job training, placement activities, and supportive services. The program focuses on providing training to unemployed and underemployed individuals, and underrepresented populations including: veterans, minorities, and women.

• The Community Compact Program is a voluntary, mutual agreement between the Baker-Polito Administration and individual cities and towns. In a Community Compact, a community agrees to implement at least one best practice that they select from across a variety of areas, with several connecting to Economic Development. For example, a municipality could commit to creating an Economic Development Plan that engages diverse stakeholders, leverages local and regional economic strengths and assets, encourages innovation and entrepreneurship, and/or promotes workforce development planning and implementation. And the state provides funds or technical assistance to make it happen.

• The Massachusetts Technology Collaborative supports advanced manufacturing projects and discovery centers, advancing innovations and job growth within the state through cross-collaboration among companies, universities, national labs, government, incubators and other academic and training institutions. These projects specifically support projects from the federal Manufacturing USA program.

• The Workforce Training Fund Program administered by Commonwealth Corporation provides resources to Massachusetts businesses to fund training for current and newly hired employees.

• Mass Development Finance Agency’s Site Readiness Program aims to boost the Commonwealth’s inventory of large, well-located, project-ready sites; accelerate private-sector investment in industrial and commercial projects; and support conversion of abandoned sites and obsolete facilities into clean, actively-used, tax-generating properties

• Economic Opportunity Area Credit, now the Economic Development Incentive Program (EDIP) sought to stimulate the economy of distressed areas. While positive, it would have been even stronger if it took into account locational criteria of the Sustainable Development Principles.
BARRIERS TO PROGRESS:

- While many programs focus their investments in smart growth-consistent locations, others solely focus on job growth regardless of location. To re-invigorate existing centers, conserve open space, and maximize options for public transportation, all state economic development programs should focus in investments in appropriate locations.

RELEVANT INDICATORS:

- Total jobs in Metro Boston firms have increased by 5.7% since the depths of the Great Recession in 2009. In 2013, Metro Boston hit 2,417,000 jobs, finally inched above the previous peak in 2001. When the Recession hit, Metro Boston’s job market had not yet fully recovered from the losses sustained during the recession of the early 2000s, in the wake of the dot-com bubble of the late 1990s and early 2000s. Fortunately, the Metro Boston economy has proven more resilient in recent years than the labor markets of most other major metropolitan areas. Since 2005, employment in the region grew by 5.0%, fifth-highest over that period among the twenty five U.S. metropolitan areas with the most employment. Only Houston, Dallas, Seattle, and San Francisco metropolitan areas grew more since 2005. Job recovery after 2009 was particularly pronounced in businesses located in the Developing Suburbs, with an increase of 8.1% between 2009 and 2013. Job growth over this time in the Inner Core was 6.3%, in Regional Urban Centers it was 4.3%, and in Maturing Suburbs it was 4.6%. Over 40% (57,000) of the jobs added in Metro Boston since 2009 were added in Inner Core municipalities.

- It is clear 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 was close behind at 23% growth (adding 45,000 jobs). Nearly every industry was affected to some degree by the Great Recession, though some recovered faster than others. The Leisure

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4 While not directly tied to the success or failure of a sub-strategy, indicators show how the region has changed in the face of the aforementioned actions or inactions.
and Hospitality, Professional and Business Services, Education and Health Services, and Construction industries all added jobs between 2009 and 2013. Meanwhile, Manufacturing, Financial Services, and Information continued to slide. These trends are generally consistent with national patterns, though the region’s rate of employment recovery was slightly faster than the nation overall.

- While Metro Boston had 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). The service sectors were not immune to job losses either: Financial Activities (10% decline), Information (27% decline), and Trade, Transportation, and Utilities (9% decline) sector employment all declined during this period.

![Figure 2: Job Change in Metro Boston Firms by Industry (2001-2013)](http://www.regionalindicators.org/topic_areas/1#job-growth-by-sector)

- A higher share of jobs in the Metro Boston, compared to the top 25 MSAs and the US overall, are occupied by employees with a bachelor’s degree or higher. Though nearly 64% of all Metro Boston clean tech jobs are considered green collar, or occupations paying mid-level wages, this is lower than the national average, and the region ranks 20th in green collar jobs share out of the top 25 MSAs.

- And employment in the cluster of creative occupations accounts for 2.8% of total employment within Metro Boston, 5th among the top 25 metropolitan areas by employment. Boston also ranks 5th in terms of how much the creative sector earns relative to the overall workforce. The average earnings among creative cluster workers is 3 times the overall average salary in the Boston region, behind only New York, Los Angeles, San Francisco, and Washington D.C.
Sub-Strategy B: Capitalize on existing medical and educational institutions

EXAMPLES OF PROGRESS:

- In 2008, the Patrick Administration passed the Act to Promote Cost Containment, Transparency, and Efficiency in the Delivery of Quality Health care, which established the Health Care Workforce Center, to assure optimal supply and distribution of primary care and other health professionals.

- The Commonwealth Corporation has continued its history of strengthening the skills of Massachusetts youth and adults by investing in innovative partnerships with industry, education, and workforce organizations.

- Massachusetts received a grant from the Robert Wood Johnson Foundation to advance the work of increasing the percentage of the RN workforce who hold a Bachelor of Science in Nursing (BSN) or above. As part of this initiative, the Department of Higher Education established the Nursing Education Transfer Compact (NETC) Working Group to create a seamless, cost effective, timely and transparent pathway for students to progress from community college Associate Degree in Nursing (ADN) programs to the BSN degree at a state university or UMass.

BARRIERS TO PROGRESS:

- Experts report that community colleges are not incentivized to partner. Partnering around economic development outcomes could create more resources for students and further their chances of becoming employed.

Sub-Strategy C: Support small businesses and entrepreneurs

EXAMPLES OF PROGRESS:

- Community Development Capital Program (2016): EOHED and Mass Growth Capital Corp (MGCC) provide matching grants to eligible non-profit lenders including Community Development Financial Institutions (CDFIs) and Community Development Corporations (CDC), which enable these community based organizations to leverage federal and/or private funds for the purpose of extending credit to small businesses.

- In FY2017, EOHED and MGCC awarded grants of up to $250,000, to eligible nonprofit community-based lenders. Funding is subject to appropriation. MassDevelopment is playing this role statewide. The Community Development Capital Program seeks to increase the flow of capital into Massachusetts's small businesses. MGCC also expanded their loan programs to include micro-loans as well as contract-based financing for small businesses doing business with anchor institutions.
• EOHED through MODB created Regional Economic Development Organizations that support regionally based efforts to nurture and facilitate economic growth and prosperity in the Commonwealth including, but not limited to, the identification of regional competitive strengths, challenges and opportunities, support of small businesses, and regional cluster development strategies.

• Expanded access to appropriate technical assistance that supports small businesses and entrepreneurs:
  • Colleges across the Commonwealth now offer courses that support small businesses and entrepreneurs.
  • MAPC’s partnership with the Community Business Clinic at NU School of Law is now doing this, as well as the Immigrant Resource Center, and others.

• The Collaborative Workspace program administered by the MassDevelopment Finance Agency is designed to accelerate the pace of new business formation, job creation, and entrepreneurial activity in communities, by supporting infrastructure that fuels community-based innovation. Eligible collaborative workspace applicants may apply for either Seed Grants for predevelopment and feasibility work, or Fit-out Grants for building improvements and equipment purchases.

• The MA Downtown Initiative (DHCD) provides small grants to municipalities to improve their downtowns through market analysis, small business technical assistance, and other initiatives.

• The State also provided Seaport Economic Council Grants Administered by the Executive Office of Housing and Economic Development that offer flexible funding to empower communities to bring forward the best ideas and projects for cultivating and stimulating the maritime economy.

• Entrepreneur-In-Residence Program Administered by MassTech Collaborative: In partnership with UMass Boston, the Global Entrepreneur-in-Residence program helps international entrepreneurs stay in the U.S. and continue to build their startup companies. UMass acts as the “sponsor” for filing cap-exempt H-1B petitions, enabling the entrepreneur’s start-up company to apply for the entrepreneur’s work authorization, and ultimately will allow the company, and new high-skill jobs, to grow here in Massachusetts.
RELEVANT INDICATORS:

- Small businesses are an important component of the regional economy because they form the heart and soul of many local business districts. Almost all start-ups pass through a small business phase before growing to scale. There is no official definition of a small business, but it is reasonable to define them by number of employees. Here we define small businesses as those with 5-99 employees, and micro businesses as those with fewer than 5. Micro and small businesses each account for 4.4% and 26.7% of employment in the Boston metro area, and 3.6% and 22.0% of total compensation, respectively. By comparison, large firms with over 500 employees account for nearly 55% of total employment and over 61% of total compensation.

- The share of employment in small businesses in the Boston metro area is consistent with other major metro areas. Small business employment has hovered between 25% and 33% of total employment in each of the ten largest MSAs every year from 2003 to 2011. Employment in micro, small, and mid-size businesses declined between 4 and 7% from 2003 to 2011. Large businesses were the only firms to see employment rise over the period, increasing over 5%.

- 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 average. Between 2003 and 2011, average wages fell by 2.5% for micro businesses, and remained unchanged for small businesses. By comparison, wages at mid-sized businesses grew 2.2%, and at large businesses they grew 11.6% during this time.

- These trends suggest that small businesses are having a difficult time 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.
STRATEGY TWELVE

Expand Coordinated Transportation
Summary

Adopted in 2008, MetroFuture is Greater Boston’s thirty year (2010 to 2040) regional plan. The foundation of the plan is a well-defined vision for the region. Thirteen implementation strategies were included to support progress towards the vision. An extensive community engagement process allowed MAPC to construct a vision and strategies that represented diverse perspectives. In anticipation of an update to the regional plan, MAPC is evaluating the extent to which actors in the region, either intentionally or unintentionally, implemented these strategies.

Strategy #12, Expand Coordinated Transportation, called for a variety of strategies intended to bring about an efficient and affordable transportation network that would respond to meet the evolving needs of the region. Fulfilling these strategies meant that land use policy would allow for and encourage new transportation options that supported the sustainable use goals of MetroFuture. The creation of the Massachusetts Department of Transportation (MassDOT) improved coordination by streamlining transportation planning and consolidating the Commonwealth’s seven different transportation agencies into one organization. MassDOT has created incentives promoting infill and transit oriented development (TOD), practices that strongly support MetroFuture’s vision.

The state enacted a law in 2013 to fund new transportation options and improvements to existing transportation assets, two critical MetroFuture recommendations. However in 2014 voters struck down a key provision that would have indexed the newly-increased gas tax to inflation, significantly diminishing one source of new long-term transportation revenues. With the 2013 law a good step but falling short of our addressing our vast transportation needs, and the 2014 repeal at the ballot, MetroFuture’s expectations for growth and efficiency in transportation have fallen short.

Regional entities have also taken responsibility for advancing coordinated transportation strategies. The Boston Region Metropolitan Planning Organization (MPO) added a criteria to its funding opportunities to encourage cities and towns to plan for transportation that benefits the region and not just the individual municipalities. The Metropolitan Area Planning Council (MAPC) integrated coordinated transportation ideas into our programs, technical assistance projects, and advocacy. Creating equitable TOD plans for municipalities, managing the launch of the Hubway Program, and advocating for many of the aforementioned policies, represent just some of the ways MAPC furthered coordinated transportation.

While cities and towns are investing in multimodal transportation (primarily in bicycle and pedestrian infrastructure and in shuttle services) much more than they were when MAPC released MetroFuture, most municipalities still prioritize planning for automobiles. An appetite for alternative modes of transportation exists, as evident by municipal participation in opportunities created by regional and state entities, but significant barriers persist. Municipalities have limited control over where the Regional Transit Authorities...
spend money and municipalities, either together with others or alone, cannot raise taxes dedicated to transportation investments. The result is that municipalities do not have the authority or the capital to make significant improvements to their transportation infrastructure.

MetroFuture did not anticipate the enormous growth in car-sharing and ride-hailing services or the innovation of driverless cars that is now on the horizon. While these modes of transportation may reduce the need for owning a vehicle and could help to curb emissions, they do not necessarily reduce vehicle miles traveled. Policies will need to be put into place to ensure that these technologies lead to better transportation outcomes for the region. Bike-sharing is also an option that eliminates the need for some automobile use. Also not discussed in this strategy is the role that climate change will have on the MBTA, which is vulnerable both to increasing temperatures and rising sea levels. Understanding how these innovations and impacts will change travel behavior in the region will be a significant part of the regional plan update.

Sub-Strategy Review

Sub-Strategy A: Integrate land use and transportation planning

EXAMPLES OF PROGRESS:

- The Transportation Reform Bill (2009) created the Massachusetts Department of Transportation (MassDOT), a multi-modal, centralized agency for transportation planning and programming. This important consolidation later enabled MassDOT to create project selection criteria that operate across modes, rather than siloed perspectives.

- MassDOT and the Boston MPO are supporting integrated land-use and transportation planning by funding MAPC to conduct coordinated transportation and land use plans for municipalities.

- The MPO board expanded their membership, adding representatives for cities and towns to ensure that the MPO board structure promotes accountability and diversity of opinion from a greater number of local governments.

- To reflect the MPO’s stated vision and goals for the metropolitan region, the Transportation Improvement Program (TIP) project selection process incorporated land use and economic development criteria, as well as “consistency with MetroFuture” into TIP project assessments.

- MAPC and the MPO further encouraged the integration of land use and transportation planning by making the travel demand model transportation and land use interdependently.

- MassDOT’s Massachusetts Travel Survey (2010) collects information on residents’ travel patterns, and preferences. The data is used to determine travel needs, projections of highway traffic, and transit ridership.
• The MBTA and MassDOT, encouraged by MAPC, adopted a **TOD policy** (2017) for all of its stations and land, which should lead to more affordable housing and increased density at these smart growth locations.

**BARRIERS TO PROGRESS:**

• Entities that are involved in decision-making surrounding transportation investments are often not the same entities making local decisions about land-use development and housing.

• Not enough incentives exist that encourage municipalities to think and act regionally, which leads municipalities to plan around automobiles rather than mass transit.

**RELEVANT INDICATORS**:

• Transit station areas, here defined as the area within a ¼ mile radius of a subway or bus stop, comprise a small share of the total land area in Metro Boston. In fact, the vast majority of land in the Metro Boston region (95%) is not near a public transit stop. However, areas that are transit stations areas are densely populated. As seen in Figure 1, 30% of all Metro Boston households are located within close proximity of transit stops, an increase of 3%, or 54,000 households, since the year 2000. Chart 1 shows which types of neighborhoods experienced the 3% increase. The transit share neighborhoods that have most successfully attracted new households to places (Neighborhood Subway, Metro Core, and Transformational Subway Neighborhoods) are defined by a well-developed infrastructure with a variety of transportation options.

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1 While not directly tied to the success or failure of a sub-strategy, indicators show how the region has changed in the face of the aforementioned actions or inactions.
Sub-Strategy B: Prioritize transit and transportation alternatives

EXAMPLES OF PROGRESS:

- MassDOT and the MBTA are investing in projects that expand capacity, such as new Red and Orange Line cars, infill stations such as Boston Landing and Assembly Row, and the extension of the Green Line to Somerville and the Silver Line to Chelsea. Other expected expansion projects are not moving forward because of the MBTA's focus on addressing its large backlog of state-of-good repair needs, a concern that was not addressed during MetroFuture development.

- The Barr Foundation and several cities in MAPC's Inner Core sub-region called for dedicated bus lanes and elements of Bus Rapid Transit (BRT). Everett created a dedicated bus lane, and Boston, Watertown, Cambridge and Arlington are all piloting them. MBTA is also funding more transit signal priority locations outside of Boston. These efforts necessitate coordination between municipalities and the MBTA.

- MassDOT fully integrated the concept of Complete Streets into its planning processes, in part due to MAPC's strong advocacy. MassDOT awarded $4.4 million in Complete Streets funding in the 2016 Transportation Bond Bill and $5.4 million in a second round of funding in 2017. Cities and towns have strongly responded. As of January 2018, 183 municipalities have participated, 145 have approved policies, and 48 have approved projects.

- MassDOT is using Congestion Mitigation and Air Quality (CMAQ) funds to advance greenways and bike trails. The State will launch the MassTrails initiative to combine various trail funding sources into one program and increase the overall funding, including support to cities and towns for design. MAPC assisted the Baker Administration in conceptualizing this approach.

- MAPC is the regional coordinator for the Hubway Bike Share program (now called “Blue Bikes”), a collection of 185 stations and 1,800 bikes that serve Boston, Cambridge and Somerville. MAPC led planning, procurement and coordination among the municipalities that are a part of the program. Expansion in 2018 will result in more bikes in more communities.

BARRIERS TO PROGRESS:

- The MBTA could not overcome the significant financial barriers to expanding the core system.

- Lack of adequate funding and political will to increase funding keeps the MBTA underfunded.

- Lack of coordination and consensus around the best places to add MBTA service slowed expansion.

- Some towns report that the Complete Streets application process is overly burdensome and the amount of funding insufficient to make meaningful change.
• Overall, options for biking and walking increased (via new accommodations on the region's roadways) and are safer, but many traffic engineers and local officials continue to prioritize automobile travel and parking, which prevents more extensive progress from being made.

• The adoption of ride-hailing services needs to be carefully monitored, because research shows that it negatively impacts transit ridership and increases congestion.

RELEVANT INDICATORS:

• The MBTA remains one of the largest and most-used transit systems in the United States averaging over 32 million unlinked passenger trips per month, up 4.4M riders since 2002, but as a share of total commuters it was stagnant between 2009 and 2014. Of the country’s ten largest urbanized regions, the Boston region ranks fourth in terms of ridership per capita (FY2014 data), behind New York, San Francisco, and Washington, DC.

• In the Boston region in 2009-2013, just over 6% of the workforce commuted to work on foot or by bike, which represents a 0.4% increase from 2000. The Boston region currently ranks 13th in the rate of bike and pedestrian commuting among the top 70 metro areas in the country with a population over 200,001.

• The condition of MBTA vehicles is critically important for the safety and convenience of the riders making 32 million trips per month. More than 2/3 of the MBTA fleet is old enough to be considered 'beyond useful life' as of January 2015. While many of these vehicles have been upgraded or rebuilt during their tenure in the MBTA fleet, outdated vehicles are at a greater risk of mechanical failure, overconsumption of resources, and having a negative environmental impact.

• Several miles of roadway in the MBTA transit shed exist as "Exclusive Fixed Guideways" for the exclusive use of buses. There has been no change to the current 7.8 miles in dedicated bus lanes in the MBTA system between 2010 and 2013. The Silver Line extension, which will connect Boston to Chelsea via five miles of BRT lanes, was the first additional dedicated bus right-of-way miles since the MBTA introduced Silver Line service in 2000.
Unfortunately, transportation spending in the last five years has not been in line with the Metro Boston priorities, and has been heavily skewed towards spending on highways. In federal fiscal year 2015, 77% or $135 million of the region’s transportation dollars were spent on highways, while only 23% or $49.6 million was spent on local roadways, transit expansion, and dedicated bicycle and pedestrian investments.

**Sub-Strategy C:**

**Establish stable and sufficient financing for all modes**

**EXAMPLES OF PROGRESS:**

- The [Transportation Finance Bill](#) (2013) raised state gas tax, tobacco, and business taxes and dedicated sales tax from motor vehicles to transportation to raise revenue for transportation agencies and initiatives. Rededicated unused funding from the Underground Storage Tank Program has also been allocated to transportation.

- The [Reliable, Sustainable MBTA Act](#) (2015) established the Fiscal Management and Control Board to oversee MBTA operations and finances through 2020, create capital plans, introduce reporting and audit requirements, and modify procurement restrictions.

- MBTA Fare Increase Act (2016): Ensured that no individual MBTA fare will increase by more than 7%. It also limited fare increases to once every two years.

- MassDOT stopped using capital funds on operations.

- Regional Transit Authorities (RTA) received modest increased funding and were forward funded, but continue to struggle to meet demand due to lack of resources.

- Transportation Bond Bill (2014) authorized major capital resources for Green Line extension, bridge improvements, MBTA state of good repair, and highway capital. Commonwealth borrowing now funds a significant portion of transportation capital.

- MassDOT implemented [All Electronic Tolling on the Mass Pike](#) and tolled tunnels and bridges, which allows for better revenue capture and the ability to implement more innovative and robust funding strategies.

- The MBTA successfully decreased some of its costs through cost-reduction strategies.

- The legislature passed "[Parking Benefits Legislation](#)" in 2016, which allows cities and towns to dedicate revenue from a “parking benefit district” into improvements in that district that are not necessarily parking related. The same legislation allowed revenue from parking meters to be used for other uses, prompting many communities to create more smart parking systems.
BARRIERS TO PROGRESS:

- For a large part of the last decade, establishing stable and sufficient financing was held back because the legislature could not be convinced to act aggressively. In 2013 they did act, passing the Transportation Finance Bill, but unfortunately the voters undid a key feature, gas tax indexing, which would have tied the tax to inflation and prevented the erosion of the purchasing value of this revenue.

- State agencies lack financial flexibility. They are not allowed to meld funding pools nor are they allowed to raise bonds. Increased flexibility, especially if the state turns to congestion pricing, will help ensure that resources make their largest possible impact.

- The current gubernatorial administration is focused on creating more effective spending practices and have not been supportive of efforts to increase funding.

- Tolls on the region's highways and tunnels remain at 2009 levels. Innovative and/or higher pricing strategies have not received the political support needed to pilot, much less implement these strategies.

- Federal transportation dollars are primarily used for maintaining the transportation infrastructure assets, with little remaining for modernization or expansion of the system. States have to become more reliant on new sources of revenues in order to properly address additional transportation needs stemming from population growth and economic development.

- In 2016, the Legislature passed a bill calling for a pilot program to investigate vehicle miles traveled (VMT) fees, a possible long-term alternative to the gas tax, which is eroding over time due to more efficient vehicles. The Governor vetoed this provision of the legislation.

- Regional Transit (RTA) funding levels are not keeping up with demand as well as the increases in labor and operating costs.

RELEVANT INDICATORS:

- It is no secret that MassDOT, and to a greater degree the MBTA, is not financially sustainable. Keeping on top of the details of the MBTA’s finances is important not just for the future of MBTA services, but for maintaining efficiency in day-to-day MBTA operations. The MBTA’s operating revenue gap has doubled since 2001.

Sub-Strategy D: Promote an efficient and transparent project delivery system

EXAMPLES OF PROGRESS:

- The Transportation Reform Bill (2009) restructured transportation bureaucracy to streamline procurement, contracting, planning, and needs assessments through the creation of MassDOT. One tangible product of this change has been the creation of an on-line performance dashboard called MassDOT Tracker. MAPC worked with coalition partners to shape this legislation.

- The Boston Region MPO developed more specific criteria to ensure implementation of its transportation priorities. It continues to work on supporting municipally-led projects that complement the state-owned transportation assets.

- MassDOT created a performance based planning tool, based on the MPO’s project evaluation process, which should help prioritize projects based on transparent criteria. MAPC served on the advisory committee to develop this tool.

- The MBTA built several new stations using Public Private Partnerships (e.g. Assembly Row and Boston Landing) and is undertaking a one-year pilot extending commuter rail to Foxborough that is funded partially by the Kraft Group.

- The last two federal transportation authorizations (MAP-21 and the FAST ACT) increased focus on performance measures and management.

BARRIERS TO PROGRESS:

- While there has been a national focus over the past several years on project delivery and performance management which has extended to MassDOT and the MBTA, changing the culture of the organizations to daylight decision making and creating a system of accountability continues to be a significant challenge.

Sub-strategy E: Establish a comprehensive maintenance program for safety and future cost savings

EXAMPLES OF PROGRESS:

- MBTA and MassDOT focused on asset management and improved their systems for tracking repair needs.

- Additionally, federal requirements to implement the practice of performance-based planning and programming is guiding state transportation agencies, transit providers, and MPOs to track the condition of assets and set performance targets.

- The amount of structurally deficient bridges greatly decreased, in part due to federal stimulus funding.
BARRIERS TO PROGRESS:

- MassDOT and the MBTA created maintenance programs that focus on life cycle costs. However, the MBTA’s procedures are complicated and still based on reports from staff in the field rather than a more automated system.

- The MBTA does not have a system to monitor and fund preventative maintenance, which can be more efficient and cheaper than reacting to issues that arise.

RELEVANT INDICATORS:

- MBTA officials have identified a list of necessary repairs to vehicles, tracks, signals, and other essential parts of the system to bring them up to a state of good repair. Identifying the list of backlogged projects, the MBTA set a goal for $5.1 billion in capital spending planned between 2011 and 2015, towards which only $2.7 billion was actually spent. Between 2009 and 2015 the MBTA spent, on average, $389 million, well below the level needed to keep the state of good repair backlog from increasing.

Emergent Themes

- A more specific and rigorous approach to transportation equity is needed. MetroFuture envisioned a region where all residents share the same opportunities and many strategies, this one included, offer recommendations to increase access for under-served communities.
Conserve Natural Resources
Adopted in 2008, MetroFuture is Greater Boston's long term regional plan. The foundation of the plan is a well-defined vision for the region. Thirteen implementation strategies were included to support progress towards the vision. An extensive community engagement process ensured that MAPC constructed the vision and strategies from the hopes and dreams of the region. In anticipation of an update to the regional plan, MAPC is evaluating the extent to which regional actors implemented these strategies.

MetroFuture's vision for the region in 2030 assumed that we successfully slowed climate change. If we were not able to, the report said, we would be facing much warmer weather, rising sea levels, increasing storm intensity, and more riverine flooding. Strategy #13, Conserve Natural Resources, sought to avoid that future by implementing dramatic reductions in the use of energy and water, through conservation and the use of alternative sources.

Efforts from governors and the legislature targeted natural resource conservation, including greenhouse gas (GHG) reductions, cleaner energy sources, and increased energy efficiency. There were federal and state grants to support these efforts, including subsidies for solar energy and green building technologies. State-level changes to water management processes helped reduce the impact of water withdrawals on local ecosystems. The state's Green Communities designation enjoyed widespread adoption, helping communities plan for and fund projects that reduce municipal energy consumption. These successes were established after dedicated coalitions with many organizations, including MAPC, advocated for statewide action.

Regionally, municipalities banded together to procure renewable energy, electric vehicles (EVs), and energy efficiency services. MAPC coordinated these efforts through purchasing and service agreements, toolkits, and a variety of technical assistance options. MAPC also supported regional stormwater initiatives to reduce water usage and control stormwater runoff. And just recently, the MS4 stormwater permit has introduced new requirements for municipal stormwater management.

Locally, a number of municipalities adopted green municipal aggregation, streamlining the purchase of higher percentages of renewable electricity (up to 100%), at typically lower costs. Municipalities worked to make zoning more friendly towards solar photovoltaic (PV) installations and to help residents install solar panels.

As climate change presents itself as an increasingly critical issue for the region, successful responses to mitigate and adapt to the expected impacts of climate change will be a major challenge for our cities and towns and for our state. Despite the significant progress made over the past decade, the scale and scope of investments that are needed to ensure a resilient region are massive. We have significant work to do in order to make sure our communities, businesses and institutions, infrastructure, and natural systems can thrive in light of the expected impacts from climate change.
Sub-Strategy Review

Sub-Strategy A: Plan for sustainability

EXAMPLES OF PROGRESS:

- Massachusetts passed the Global Warming Solutions Act in August 2008, which committed the state to reduce greenhouse gas (GHG) emissions by 25% below the 1990 baseline in 2020 and 80% in 2050.

- The Transportation Climate Initiative is a regional collaboration of 12 Northeast and Mid-Atlantic States and Washington D.C. that seek to develop the clean energy economy and reduce carbon emissions form the transportation sector. So far nine states and Washington D.C. have agreed to cap and reduce emissions from the transportation sector.

- The Department of Energy Resources' (DOER's) Green Communities Division not only awarded millions in grant funds to hundreds of cities and towns across the Commonwealth since 2010, but it now also funds Regional Planning Agencies (RPAs) directly to provide technical assistance to help municipalities achieve Green Communities status (Municipal Energy Technical Assistance), which renders them eligible for further sustainability funding. 75 communities in the MAPC region have received Green Communities Designation to date.

- Nonprofits such as the Massachusetts Climate Action Network and Sierra Club successfully advocated for community clean energy agendas and Green Community designations, increasing the amount of city- and town-level clean energy efforts in the region.

- MAPC demonstrated the importance of energy managers and municipal energy management, which helped lead DOER to offer grants to fund energy managers starting in 2015. MAPC helped several communities hire energy managers, of which the region now has five: in Medway/Millis, Arlington/Bedford, Winthrop/Chelsea, Marshfield, and Winchester/Woburn/Waltham.

- MAPC has undertaken energy planning throughout the region through the Local Energy Action Planning (LEAP), beginning with a number of communities in 2012. An accompanying Local Energy Action Dashboard (LEAD) allows municipalities to benchmark energy usage. In 2017, MAPC also launched a number of net zero planning resources and tools and was appointed to the state's Zero Net Energy Building Advisory Council.

- MAPC has engaged in sustainability planning throughout the region. Since 2015, a number of climate and/or sustainability chapters were inserted into master plans, e.g. in Boxborough, Melrose, Hanover, and Swampscott. Additionally, dozens of Climate Vulnerability Assessments and Climate Adaptation Plans were completed, including Newton, Braintree, Brookline, and Scituate/Duxbury recently.

- MassDOT established GreenDOT to build environmental stewardship and sustainability goals into all Commonwealth transportation activities.
BARRIERS TO PROGRESS:

- There is often a lack of capacity in municipal staff/volunteers to engage in this work. If there is not a local champion to advance sustainability efforts then sustainability does not become a priority.
- Similarly, there is a lack of funding at the municipal level for both sustainability planning and staff.
- Political will is required to achieve sustainability planning and it is not typically a top priority for local governments.

RELEVANT INDICATORS:

- The Green Community Designation and Grant Program provides a strategy as well as financial and technical support to municipalities that 1) pledge to cut municipal energy use by an 20 percent over five years and 2) meet four other criteria listed in the Green Communities Act. Since the first group of 35 municipalities won designation in 2010, the program has grown steadily to include 210 Massachusetts municipalities. The program hopes to inspire cities and towns to engage in additional energy-related initiatives, further coordination between municipal staff and departments, and increase communication with residents about energy-related issues and actions.¹

Figure 1: Massachusetts Municipalities Designated Green Communities

¹ https://www.mass.gov/guides/becoming-a-designated-green-community
Sub-Strategy B: Conserve energy

EXAMPLES OF PROGRESS:

- **LED streetlights** have been installed in nearly every municipality across the state.

- DOER and the Clean Energy Center (MassCEC) funded **clean heating and cooling** technologies ($30 million through 2020), which promotes solar hot water and air source heat pumps.

- MAPC, in coordination with municipalities, utilities, and the **Home Energy Efficiency Team (HEET)**, undertook a program of natural gas leak mapping and surveys of best practices in over 15 communities in order to encourage more efficient and quicker repair and replacement of leak-prone pipe.

- 18 municipalities were part of two MAPC **Energy Services Company (ESCO)** collective procurements, which competitively procured an ESCO to perform energy efficiency upgrades of municipal facilities, from more efficient lighting to heating and cooling systems, insulation, and steam traps. Several also installed solar arrays as part of their contracts. Many more throughout the region, including nearly all with Green Communities designations, have performed energy conservation and renewable energy measures. Additionally, 45 communities participated in peak demand notification programs during the summer of 2017, learning how to reduce energy usage and decrease demand for (typically) fossil-fueled energy that is added to the grid at peak times.

- The Baker-Polito administration provided $15 million for the **Affordable Access to Clean and Efficient Energy (AACEE)** Initiative. This initiative provides Affordable Access Regional Coordination (AARC) Grants from DOER that will fund RPAs to expand capacity to provide resources and connect affordable housing developers and Community Development Corporations (CDCs) to clean energy resources.

- MAPC is helping to **green municipal fleets** through bulk purchases of electric vehicles (EVs) and anti-idling equipment, particularly for Green Communities. Fleets and individuals in the state have purchased approximately 12,000 EVs to date; however, there remains a long way to go to achieve the state commitment of 300,000 Zero Emissions Vehicles (ZEVs) on the road by 2025.

- Boston and the Commonwealth were deemed the most energy efficient city and state in the country, respectively, several years in a row.

- The **Global Warming Solutions Act** (GWSA) and **Green Communities Act**, passed in 2008, require strong energy efficiency action. The Green Communities Act launched the state’s **Energy Efficiency Advisory Council (EEAC)** and requires a three-year energy efficiency plan for all state utilities. MAPC sits on the GWSA Implementation Advisory Committee and the EEAC.
BARRIERS TO PROGRESS:

- Green building standards are often under-promoted and underutilized; the current “stretch” energy code is limited in its reach, reducing its ability to help the state meet its energy reduction goals.

- MAPC supports a requirement for home energy audits and building labeling, but that policy proposal has not yet moved in the legislature.

- Utility companies have often declined to provide standardized or regular data on energy usage. This lack of transparency around utility energy data can prevent residents and municipalities from making data-informed decisions about conserving energy.

- Large corporate and industrial buildings are not required in most communities to track or report energy usage.

- The commercial and industrial (C&I) sector has made less progress in energy efficiency than the residential sector has, in part because of a lack or misaligned incentives, other priorities, and an reluctance to introduce potential disruptions to operations.

- Due to the great reductions made in the energy sector since MetroFuture’s publication, transportation has become the state’s largest source of GHG emissions; this sector is more challenging, owing to constraints around infrastructure, vastly distributed point sources (e.g. cars and trucks), and funding prioritization for traditional road and bridge improvements.

Sub-Strategy C: Promote the use of renewable resources

EXAMPLES OF PROGRESS:

- In Boston, the City Council voted in late 2017 to make the city the newest and largest community in Massachusetts to authorize green municipal aggregation, which intentionally incorporates more renewable energy in a community’s electricity supply, generally at levels around 40 percent higher than required by state law. More than 18 cities and towns in the MAPC region have authorized such programs or are actively implementing them, often with help from MAPC clean energy staff.

- MassCEC offers the Solarize program to provide municipalities’ residents with a solar vendor and reduced prices on installing solar PV. This includes Mass CEC’s solar thermal challenge. Similarly, MassCEC offers a “Solarize Plus” program, which includes outreach and reduced prices to residents within qualifying municipalities on air source heat pumps and other heat technologies in addition to the rooftop solar offered through traditional Solarize programs (a pilot program with 4 communities including Somerville, Boston, and Lincoln/Sudbury/Wayland in the MAPC region).
• After many turbulent years, wind energy is progressing with Massachusetts adopting a law allowing electric utilities to procure 1600 MW of offshore wind energy and resulting in a request for proposal (RFP) from three respondents to supply this wind energy.

• Some solar energy installations were developed on closed landfills – for example, Saugus installed 1.6 MW of solar energy on their landfill. These types of installations are beneficial co-uses of space, using city- or town-owned land that had few other potential uses, and saving money for the community.

• MAPC served as one of the country’s first – and the first regional agency - designated SolSmart Advisor, a national program funded by the U.S. Department of Energy “Sunshot” program. The intent of the program is to reduce solar "soft" costs and improve solar PV zoning bylaws. MAPC provided technical assistance that allowed 7 communities to achieve SolSmart designation. This technical assistance built on a toolkit created by MAPC on solar permitting and zoning, and continues with the application of the best practices.

• MAPC helped to established solar Purchase Power Agreements and Energy Management Services Agreements (EMSAs) for communities, which allowed them to purchase solar energy without any upfront costs.

**BARRIERS TO PROGRESS:**

• While the Regional Greenhouse Gas Initiative (RGGI) established a regional cap and trade carbon agreement between states in the North East to cap carbon dioxide from power plants in 2007, creating a carbon registry has not gained traction at the state level.

• The adoption of zoning and permitting that encourages more renewables have been slow going and communities are at times hesitant to approve these changes. Online permitting has not yet been adopted by every community, making the process time consuming, cumbersome, and often costly.

• Not in my backyard (NIMBY) attitudes can exist toward renewable energy installations, as well as concerns about wildlife, aesthetics, health, and noise.

• Geothermal technology has a high up-front capital cost, making it more of a niche application.

• State-level policy has been particularly challenging for solar installations due to oft-fluctuating state incentives and net metering caps – the solar industry lost 20% of its jobs in Massachusetts in 2016 primarily as a result of reduced incentives, leading to reduced demand for installations.

• Massachusetts is also seeking to import significant amounts of hydro power from Quebec, but permitting and legal challenges in developing the transmission lines between Quebec and Massachusetts are complicating this new source of renewable power.
**RELEVANT INDICATORS:**

- MAPC’s Local Energy Action Dashboard (LEAD) offers communities a snapshot of the carbon footprint of their residential, commercial, and industrial buildings. This enables strategic decision-making about reducing their climate impact. The average single-family detached house consumes more than twice the energy as an average apartment in a large multifamily building. As such, cities with more high-density housing boast a lower per-household carbon footprint. Of the three main fuel sources powering Massachusetts homes—oil, natural gas, and electricity—oil releases the most greenhouse gases (GHGs). Burning natural gas in furnaces and boilers is relatively clean, but the leaky delivery system releases methane gas—a very destructive GHG—directly into the atmosphere. As the mix of fuel sources at power plants supplying electricity to New England shift away from fossil fuels toward renewable sources like solar and wind, electricity will become an even greener option. Efforts to help homeowners and landlords shift away from oil heat, reduce natural gas leaks at the municipal level, and eliminate barriers to residential solar are all ways our region can work to reduce the collective carbon footprint.

- Massachusetts residents and businesses have a lot of choice when it comes their energy source. One option is for customers to band together to buy their electricity using “municipal aggregation.” With aggregation, a city or town contracts with an electricity supplier on behalf of all residents and businesses who have not already selected one. By entering into long-term contracts and leveraging significant buying power, aggregations can provide cost savings and more price stability than the utility. While Massachusetts law mandates that all electricity suppliers include a minimum amount of new renewable energy sources from our region, aggregations...
may opt to exceed that. MAPC has supported the implementation of “green” municipal aggregation, in which the default electricity supply includes extra New England-sourced renewable energy. A green aggregation is intended to help build new renewable resources within our electric grid, while still delivering savings and stability. MAPC partnered with Melrose to pioneer this approach in 2016. Since then, many municipalities have adopted the idea. Ten municipalities now have active green municipal aggregations, and another 10 have authorized it. Together, the combined impact of these aggregations in the state could add more than 50 new one-megawatt wind turbines to the New England grid.

Sub-Strategy D: Manage water demand through education, pricing, technical assistance, and regulation

EXAMPLES OF PROGRESS:

- The Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA) prepared and updated a State Drought Management Plan to plan for sustainable water usage.

- The Massachusetts Sustainable Water Management Initiative (SWMI) assessed environmental costs of water withdrawals. MAPC was directly involved as an appointed member of the statewide SWMI Advisory Group, and implemented stormwater management projects through two SWMI grants, for the Neponset Watershed and the SuAsCo Watershed. This framework is now included in the regulation of water supplies.

RELEVANT INDICATORS:

- Between 2007 and 2015, per capita residential water demand declined 11% in the region. Water use per capita after 2011 diverged by community type. Residents in Developing Suburbs and Maturing Suburbs increased consumption per capita by 3% and 6%, respectively, while residents in the Inner Core decreased use by 5% and residents in Regional Urban Centers held use relatively steady.
Sub-strategy E: Implement water/wastewater/stormwater utility “best practices” across the region

EXAMPLES OF PROGRESS:

- MAPC created a stormwater best practices kit using a HUD Sustainable Communities grant for stormwater utilities and financing, which was publicized with the help of the Neponset stormwater partnership and implemented by the town of Milton, which created a stormwater utility.

- Leak detection procurement programs are utilized within Massachusetts Water Resource Authority (MWRA) communities, along with low-interest loans for water system repairs, and in turn communities are more quickly identifying water issues and have the means to fix them.

BARRIERS TO PROGRESS:

- Massachusetts water infrastructure is aging and there is massive- and unfunded-cost to upgrade and modernize these systems.
Strategy F: Expand the use of reclaimed water and alternative supplies

EXAMPLES OF PROGRESS:

- There are several large projects outside of the MWRA service area that implemented reclaimed water systems, including Gillette Stadium, Intel, and Wrentham Premium Outlets.

BARRIERS TO PROGRESS:

- Reclaimed water projects can be expensive and there are currently no state incentives or financing programs to support them, which leaves projects to find their own financing. Projects typically only make financial sense when they are outside of the MWRA service area, have particular water quality needs, and/or have unique water demands, such as large demand spikes.

Strategy G: Use technical analysis to support more flexible regulatory mechanisms for water withdrawal

EXAMPLES OF PROGRESS:

- In 2012-13, the SWMI program resulted in changes to state regulation around criteria for water withdrawal to make it more sustainable, comparing trade-offs for watersheds, fisheries, and habitats in addition to balancing human and natural uses. As towns withdraw water at greater levels they have to mitigate appropriately.

- Following SWMI state regulation changes, the state offered money for technical assistance to help towns figure out how to change and adjust to the new regulations. They set up a funding program providing regional grants to help municipalities with SWMI implementation.

BARRIERS TO PROGRESS:

- Water suppliers, the entities being regulated, strongly opposed SWMI. They claimed the regulations were too stringent and threatened litigation.

- Watershed groups were not happy with SWMI, either, claiming it was incremental change that did not go far enough to protect water resources.
Strategy H: Promote local treatment and recharge of stormwater and wastewater

EXAMPLES OF PROGRESS:

• MAPC established stormwater partnerships for the Neponset Watershed and MAGIC subregion to promote regional water treatment and recharge strategies.

• MAPC provided technical assistance on decentralized wastewater systems under the HUD Sustainable Communities grant in partnership with the Charles River Watershed Association, focusing on the towns of Sherborn and Wrentham.

BARRIERS TO PROGRESS:

• The cost of local water treatment and recharge is prohibitive; municipalities are consistently running into financial constraints.

• Regulatory issues can arise; for example, there were a few cases where local treatment and recharge faced regulatory hurdles around water quality.

Strategy I: Protect the quality of water supplies through source controls and land use planning

EXAMPLES OF PROGRESS:

• MAPC has conducted municipal-specific consultations on land use and water quality for many years. Most of the practical improvements for aquifer zoning have been completed. Continued incremental progress has been made, but most of it had been accomplished before MetroFuture had been adopted.

Strategy J: Increase waste reduction and recycling

EXAMPLES OF PROGRESS:

• In 2014 Governor Patrick signed an environmental bond bill included $10 million for waste reduction and recycling to improve solid waste management.

• The Massachusetts Department of Environmental Protection (MassDEP) implemented organic waste regulations to expand processing facilities.

• More communities have adopted single-stream recycling, increasing the rate of recycling.

• Recently, some municipalities have introduced town-wide or curb-side composting.
BARRIERS TO PROGRESS:

- Expanding bottle deposits and diverting unredeemed deposit money to fund waste reduction failed in the legislature.
- Due to global markets, the profitability of some types of recyclable materials have disappeared.
- Many municipalities are missing opportunities to mandate recycling, especially for businesses.

Emergent Themes

- Climate change is an issue that requires more focus and interdisciplinary strategies than MetroFuture envisioned. Climate change preparedness, adaptation and resiliency are extremely important for the region, and clean energy and sustainable transportation will be critical to directly and indirectly mitigate climate change.
- Becoming a net zero region is emerging a goal shared by policy makers, advocates, and foundation partners.
- Energy storage is another that will be a big factor in the next five to 10 years, as is strategic electrification.