Population and Housing Demand Projections for Metro Boston Regional Projections and Municipal Forecasts **EXECUTIVE SUMMARY** January 2014



Go to page 5 for the projections for your municipality.

For interactive maps, data downloads, individual PDF reports for each municipality, and a detailed report: www.mapc.org/data-services/available-data/projections

Metro Boston has been home to an ever-changing population since long before the Mayflower came ashore, and the coming decades will be no exception. The forces of aging, growing diversity, and changing household preference will intersect to create a region in 2040 markedly different from the one that exists today. The outcomes of certain key questions will determine those differences: How many young workers will choose to stay in the region? Where will new families want to settle? Will seniors want to downsize or age in place? The answers only time will tell, but it is possible to anticipate a range of feasible outcomes and to assess what different scenarios might mean for housing demand, economic growth, school enrollment, and land use. Moreover, it is possible to influence what future comes to pass through the choices made at the local, regional, and state levels.

To help plan for this uncertain future, the Metropolitan Area Planning Council (MAPC) has prepared a dynamic model of future population, household, and housing demand for Metro Boston and its municipalities, a region of 4.45 million people and 1.7 million households as of the year 2010. These projections can be used by local, regional, and state agencies to set policies and make investments that anticipate the region's future needs and help to achieve shared goals. These projections will also inform all of MAPC's work to implement *MetroFuture: Making a Greater Boston Region*, the regional plan for sustainable and equitable development adopted in 2008.

Status Quo, or a Stronger Region?

Since the future cannot be predicted with certainty, identifying a range of possible futures may prove more useful than a single forecast. Our projections include two scenarios for regional growth. Each scenario reflects different assumptions about key trends. The "Status Quo" scenario is based on the continuation of existing rates of births, deaths, migration, and housing occupancy. Alternatively, the "Stronger Region" scenario explores how changing trends could result in higher population growth, greater housing demand, and a substantially larger workforce. Specifically, the Stronger Region scenario assumes that in the coming years:

- the region will attract and retain more people, especially young adults, than it does today;
- younger householders (born after 1980) will be more inclined toward urban living than were their predecessors, and less likely to seek out single family homes; and
- an increasing share of senior-headed households will choose to downsize from single family homes to apartments or condominiums.

Together, the two scenarios, summarized below, provide different windows into possible futures for the region.

| Scenario Comparison | | | | | |
|--|-----------|------------------|------------------|--|--|
| 2010 Status Quo, Stronger Regi 2010 – 2040 2010 - 204 | | | | | |
| Population | 4,458,000 | + 6.6% | +12.6% | | |
| Households | 1,719,000 | + 17% | +23% | | |
| Housing Units | 1,827,600 | + 17% | +24% | | |
| Percent Multifamily | 51% | 48% of new units | 62% of new units | | |
| Labor Force Population | 2,516,000 | +0.4% | +6.9% | | |

Which scenario is more likely to occur depends on decisions yet to be made. Individual households will make their own choices about where to live, but they will do so in a context influenced by public sector actions and investments. Policies to promote housing construction will facilitate the higher in-migration rates that characterize the Stronger Region scenario. Conversely, continued widespread opposition to new housing will likely result in less production and higher costs, thereby maintaining the Status Quo. In other words, decisions made by the region's cities and towns help to determine how the future unfolds. If those communities are all planning for a shared vision of the future, they can make it more likely for that vision to be achieved.

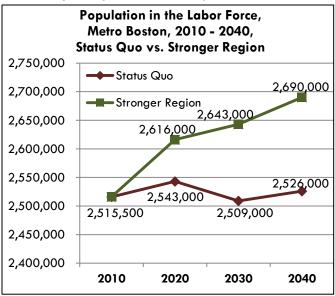
Of the two scenarios, Stronger Region is more consistent with the housing, land use, and workforce development goals of *MetroFuture* and has already been adopted by the Executive Office of Housing and Economic Development as the basis for the Commonwealth's multifamily housing production goal. As a result, we **recommend that municipalities, state agencies, and others use the Stronger Region scenario for planning purposes to ensure consistency across the many entities planning for the region's future.** By working together under the framework of a Stronger Region, communities will not only help ensure that every household in the region can afford a home, but will also help the region maintain a robust and growing workforce that forms the backbone of a competitive economy.

Key Findings

Slow growth is in store if the region keeps losing population to other states. The Status Quo scenario projects that the region will grow an average of 2.1% in each of the next three decades, one third more slowly than population growth over the last decade. Loss of population to other states is a major contributor to slow growth. Historically, more people move out of the region to other states or other parts of Massachusetts than the reverse; we estimate that this "net domestic outmigration" averaged about 10,000 people per year from 2000 to 2010. Births and international immigration were sufficient to keep the state growing over that same period, but both

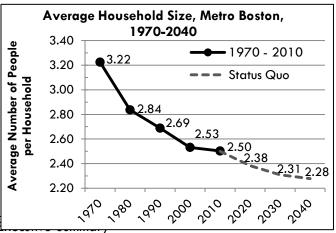
factors are likely to slow in the coming years.

Attracting more young people is critical to a growing economy. Over the coming decades, the Baby Boomers (born between 1945 and 1970) will be reaching retirement age, depleting the supply of our region's most critical asset: a skilled, well-educated workforce. By 2030, nearly one million workers now over the age of 40—39% of all workers in the region—will have left the labor force. The current population of young adults is barely sufficient to fill the positions vacated by retiring Baby Boomers, much less provide the labor force needed for robust economic growth. If the region stems the loss of population to other states and achieves a small net inflow (as the Stronger Region Scenario anticipates), the labor force could grow by 175,000 over the next 30 years, an increase of almost 7%.



New housing demand will outpace population growth due to declining household size. Despite relatively slow

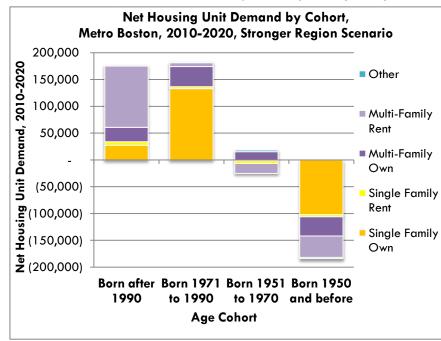
population growth under the Status Quo scenario, the region will see substantial demand for new units. With more single-person households (especially seniors), more divorced households, and fewer children per family, average household size is likely to decline 10% by 2040 under either scenario. In other words, an average group of people will form 10% more households and require 10% more housing units than they do today. Under either scenario, declining household size alone will result in approximately 86,000 additional households over the next ten years, which accounts for



Metro Boston Population and Housing Demand Projections I

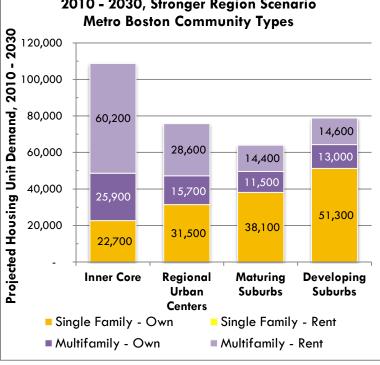
more than two-thirds of Status Quo housing demand over that same time period. This phenomenon will cause a number of suburban communities to experience population declines even as new housing units are constructed.

A "senior sell-off" may provide most of the single family homes needed by younger families. While the aging of the Baby Boomer generation will cause the number of seniors in the region to swell considerably, over time the same generation will need fewer homes—especially single family homes—than it does today as its members downsize, move elsewhere, or pass away. Stronger Region anticipates that all cohorts born before



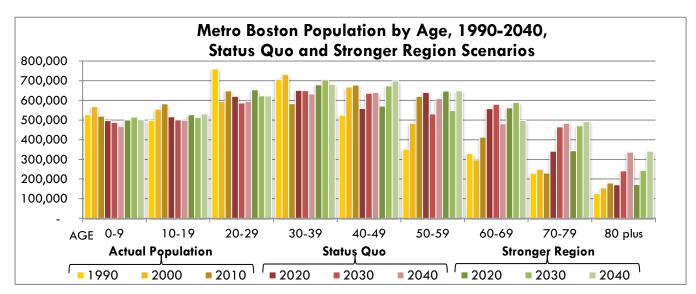
1971 will put 112,000 single family homes back on the market by 2020, enough to supply about 66% of demand from younger cohorts. Householders born between 1951 and 1970 will have a small net demand for condominiums in the next decade, but will free up even more single family homes in the subsequent decades. Meanwhile, the under-40 households critical to growing the labor force overwhelmingly prefer apartments and condominiums, but far fewer of these units will be freed up by older cohorts. As a result, nearly twothirds of demand would be for multifamily housing in the Stronger Region scenario.

Many signs point to the resurgence of urban communities. Many urban municipalities—both the Inner Core and outlying Regional Urban Centers-experience a large influx of young people but lose them to suburban communities as those residents form families and settle down. However, these trends are changing. When compared to the 1990s, the last ten years saw more young people moving to urban communities and fewer of them moving out once they hit 30. An increasingly diverse population attracted by the job proximity, transit access, vibrancy, and cultural assets of urban areas is likely to drive continued population growth. Urban communities are projected to attract 52% (Status Quo) to 56% (Stronger Region) of new housing production, as shown in the chart on this page. This same chart also indicates that multifamily housing will be needed across the region, including 25% to 35% of production in suburban community types.



Housing Unit Demand by Type and Tenure, 2010 - 2030, Stronger Region Scenario

Under either scenario, the number of school-age children in the region and most municipalities peaked in 2000 and is likely to decline over the coming decades. As shown in the chart below, the region's school-age population peaked in 2000, when the Baby Boomers were in their prime child-rearing years (age 30 to 55). Now there are fewer adults in that age range so the number of births (and subsequent school-age children) has begun to decline. The population aged 5 to 14 is now 6% smaller than it was at the 2000 peak, and it is projected to fall another 8% to 9% by 2020 and decline more slowly thereafter under the Status Quo scenario. If the region attracts and retains more young adults under the Stronger Region scenario, the school-age population may rebound slightly but will remain 6% lower in 2040 than it was in 2010.



While we cannot be certain how the future will unfold, we can be sure that the region will change in interesting ways that impact the economic fortunes and quality of life for those living in it. The regional trends driving that change are powerful and not likely to be quickly reversed or altered. Nevertheless, not every community in the region will experience the same changes over the coming decades. Due to local circumstances, some will change a lot, while others may remain largely the same. MAPC's methods account for the diversity of communities across the region by using municipal-specific estimates of migration rates, fertility, mortality, and housing occupancy, giving these projections great local validity and relevance. However, we cannot account for all the unique dynamics of every city and town in the region, and those local dynamics may change more rapidly than large-scale regional trends. MAPC will continue to maintain and improve these projections over time as new data and new methods become available, and as we work with our member municipalities to track local growth patterns and to set policies that will encourage sustainable development over time.

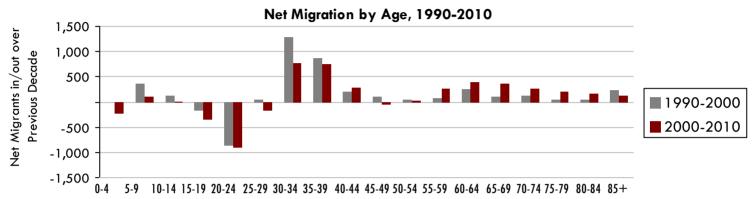
About the Projections

Development of these projections was supported by an advisory team comprising academic experts, state agencies, neighboring regional planning agencies (RPAs), and member municipalities. MAPC reviewed reports from other regions nationwide to assess the current state of practice and also reviewed prior projections for our region to assess their accuracy and identify opportunities for improvement. The "Metro Boston" region refers to 164 cities and towns in Eastern Massachusetts, including the entire MAPC district as well as all or portions of five neighboring RPAs. This region coincides with the extent of the travel demand model used by the Boston Metropolitan Planning Organization.

Data sources for the projections include Decennial Census data from 1990, 2000, and 2010; American Community Survey (ACS) data from 2005 to 2011; fertility and mortality information from the Massachusetts Community Health Information Profile (MassCHIP); housing production information from the Census Building Permit Survey database; and MAPC's Development Database.



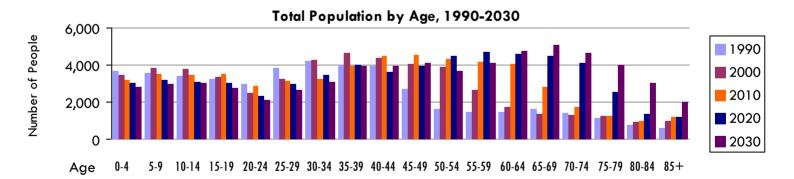
Migration is a key factor in the population projections for your community. The chart below depicts estimated migration by age for the past two decades, after accounting for births and deaths of residents. Positive values for a given age group indicate that more people moved in than moved out; negative values indicate net outmigration.

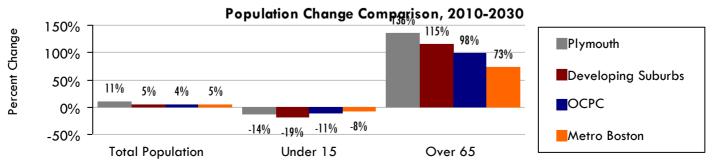


Age at End of Decade

| | ropolation Sommary, 1990-2030 | | | | | | |
|---------------------|-------------------------------|--------|--------|--------|--------|--|--|
| | 1990 | 2000 | 2010 | 2020 | 2030 | | |
| Total Population | 45,608 | 51,701 | 56,468 | 60,161 | 62,605 | | |
| Population under 15 | 10,624 | 11,126 | 10,202 | 9,359 | 8,768 | | |
| Population over 65 | 5,488 | 5,812 | 7,953 | 13,674 | 18,741 | | |

MAPC's population projections are based on current patterns of births, deaths, and migration, as well as assumptions about how those trends might change in the coming decades. The projections are summarized in the table to the left. The chart immediately below shows population by five-year age groups. At the bottom of the page is a chart that compares the percent change for your municipality to average rates for other cities and towns in your Community Type, your Subregion, and the region overall.





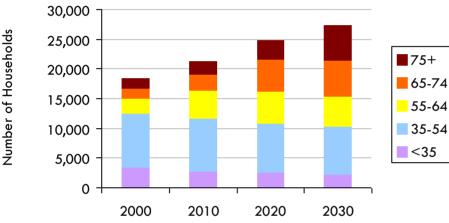
For complete data tables and full report, visit http://www.mapc.org/data-services/available-data/projections January 2014

Population Summary, 1990-2030

Metro Boston 2030 Population and Housing Demand Projections Municipal Report Status Quo Scenario: Housing PLYMOUTH

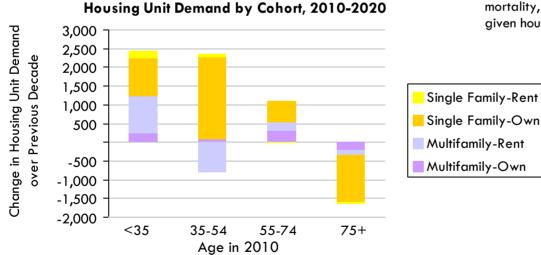


| MAPC projected the number of households | | Households and Housing Demand, 2000-2030 | | | | |
|--|---------------|--|--------|--------|--------|--|
| using age-specific headship rates and | | 2000 | 2010 | 2020 | 2030 | |
| municipal-specific housing occupancy patterns and vacancy rates. Total household change | Households | 18,423 | 21,269 | 24,799 | 27,236 | |
| and housing unit demand are shown in the table on the right. | Housing Units | 21,250 | 24,800 | 28,253 | 30,748 | |



Households by Age of Householder, 2000-2030

The number of households by age of householder is shown in the chart below. The chart on the lower left shows the change in housing demand for four cohorts, according to their age in 2010. Unlike the chart above, which shows how many householders there will be in a certain age range in a given year, this chart shows how many new housing units will be needed or how many units will be vacated by householders of similar ages over the next ten years. Increases in demand are the result of new households forming, inmigration, or increasing preference for certain types of housing. Decreases in demand are the result of outmigration, mortality, or decreased preference for a given housing unit type.



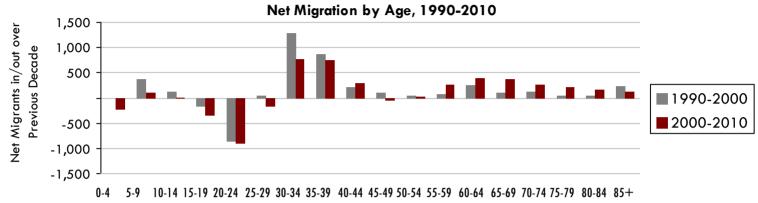
Change in Housing Unit Demand from 2010-2030

| | | Housing Units | % Multi-family | % Rental |
|---|--------------------|---------------|----------------|----------|
| The table to the right compares housing demand for your municipality to | Plymouth | 5,948 | | |
| demand for other municipalities in your | Developing Suburbs | 69,154 | 26% | 15% |
| Community Type, your Subregion (or regional planning agency), and the region overall. | OCPC | 17,485 | 26% | 16% |
| | Metro Boston | 244,979 | 47% | 30% |

For complete data tables and full report, visit http://www.mapc.org/data-services/available-data/projections January 2014



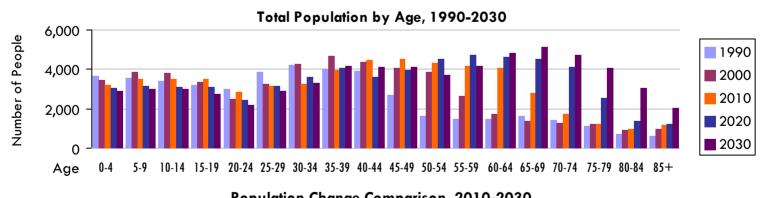
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Age at End of Decade

| | Population Summary, 1990-2030 | | | | | |
|---------------------|-------------------------------|--------|--------|--------|--------|--|
| | 1990 | 2000 | 2010 | 2020 | 2030 | |
| Total Population | 45,608 | 51,701 | 56,468 | 60,929 | 64,182 | |
| Population under 15 | 10,624 | 11,126 | 10,202 | 9,267 | 8,909 | |
| Population over 65 | 5,488 | 5,812 | 7,953 | 13,790 | 18,986 | |

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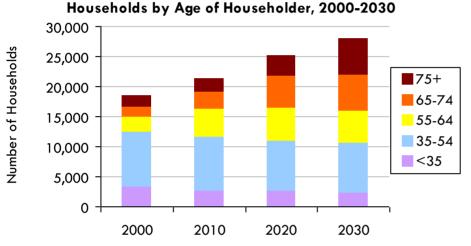


Population Change Comparison, 2010-2030 150% 118% Percent Change 100% Plymouth 100% 75% Developing Suburbs 50% 14% 7% 8% 10% OCPC 0% -4% -**9**% -13% Metro Boston -18% -50% **Total Population** Under 15 Over 65

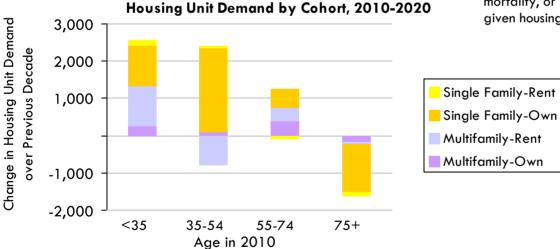
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|--|---------------|--|--------|--------|--------|--|
| using age-specific headship rates and | L | 2000 | 2010 | 2020 | 2030 | |
| municipal-specific housing occupancy patterns and vacancy rates. Total household change | Households | 18,423 | 21,269 | 25,152 | 27,931 | |
| and housing unit demand are shown in the table on the right. | Housing Units | 21,250 | 24,800 | 28,617 | 31,465 | |



The number of households by age of householder is shown in the chart below. The chart on the lower left shows the change in housing demand for four cohorts, according to their age in 2010. Unlike the chart above, which shows how many householders there will be in a certain age range in a given year, this chart shows how many new housing units will be needed or how many units will be vacated by householders of similar ages over the next ten years. Increases in demand are the result of new households forming, inmigration, or increasing preference for certain types of housing. Decreases in demand are the result of outmigration, mortality, or decreased preference for a given housing unit type.



Change in Housing Unit Demand from 2010-2030

| | | Housing Units | % Multi-family | % Rental |
|---|--------------------|---------------|----------------|----------|
| The table to the right compares housing demand for your municipality to | Plymouth | 6,665 | | |
| demand for other municipalities in your | Developing Suburbs | 79,495 | 34% | 17% |
| Community Type, your Subregion (or regional planning agency), and the | OCPC | 21,689 | 36% | 20% |
| region overall. | Metro Boston | 328,762 | 58% | 37% |

For complete data tables and full report, visit http://www.mapc.org/data-services/available-data/projections January 2014