Planning for the Silver Tsunami: 

The Shifting Age Profile of the Commonwealth and 
Its Implications for Workforce Development

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A NEW DEMOGRAPHIC MODEL PROJECTS A CONTINUING, LONG-TERM SLOWING OF THE STATE’S POPULATION GROWTH RATE. THE TREND IS ATTRIBUTABLE TO CONTINUED DOMESTIC OUT-MIGRATION, A DECLINE IN BIRTH RATES, AND — MOST NOTABLY — AN AGING BABY BOOM POPULATION.

Massachusetts is getting older. This should come as little surprise to most. Residents of Massachusetts, like the rest of the nation, are living longer than ever before and people in their twenties, thirties and forties are having fewer children than their forebears. And, also like the nation, baby boomers comprise a disproportionate share of the Massachusetts population, with the eldest of this generation now approaching retirement age.

Less commonly understood is how these trends will play out into the near future or the dynamic forces that underlie them. Just how much older will our population be in another ten, twenty or thirty years and how will that compare to national trends? Is the greying of our population simply a facet of aging in place or does migration play a role? Will some areas of the state be impacted more than others? And lastly, but most importantly, what does all this
mean for society as a whole and are there actions that we should be taking in the here and now to offset any challenges posed by population change?

This article attempts to shed some light on these questions by discussing the results from a newly released set of long-term regional population forecasts produced by this author in collaboration with the UMass Donahue Institute Population Estimates Program. At the request of the Secretary of the Commonwealth, the UMass Donahue Institute developed projections by age and gender for eight separate regions using a demographic model that extrapolates recent trends in births, deaths, and migration to understand population change in the coming years. This article focuses on our findings for the Commonwealth as whole. A full report detailing regional and municipal projections and discussing the methodology underlying our projections is available for downloading.

Before proceeding, a few caveats are in order. The future is not set in stone, and our projections are simply one possible scenario of the future — conditioned by whether recent trends in births, deaths and migration continue into the future. If these past trends continue, then we believe that our model should provide an accurate reflection of population change. However, past trends rarely continue. Economic expansion and recessionary cycles, medical and technological breakthroughs, changes in cultural norms and lifestyle preferences, regional differences in climate change, even state and federal policies — all of the above and more can influence birth, death and migration. We lack the clairvoyance to accurately predict what these changes will be in the next two decades and what they will mean for Massachusetts. This is particularly noteworthy considering that the data for developing component-specific rates of change were largely collected for the years of 2005 to 2010 — a period covering equal parts relative economic stability and severe recession.

It is difficult to say, for example, whether the gradual economic recovery will lead to an upswing in births following a period where many families have put off having children, or whether birth rates will rebound slightly and thus return to the longer-term trend of smaller families. We expect economic recovery to lead to greater mobility. However, we do not know if this will result in more people moving in or out of Massachusetts. Likewise, we cannot predict the resolution of contemporary debates over immigration reform, housing policy, or the financing of higher education and student loan debt forgiveness programs. Nor can we even begin to assess whether climate change will lead to a recolonization of the Northeast, which has been steadily losing population to the South and West for the past several decades. Making such predictions is far beyond our collective expertise and the scope of this study.

### Population Growth in the Commonwealth

For most of its history, Massachusetts was a national leader in population growth. The relatively early and rapid industrialization of the state attracted successive waves of immigrants and domestic migrants throughout the 1800s well into the mid-twentieth century (Figure 1). Things changed dramatically in the 1970s, coinciding with the deindustrialization of the Northeast, emblematic of the long-term demographic shift toward Sunbelt states. Growth resumed in the 1980s, but at an increasingly slower pace. At the same time, the nation continued on a steady path of population growth (Figure 2).

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Wealth. We estimate that the Massachusetts population will increase by roughly 300,000 additional residents reaching a new population total of 6,838,254 by 2030. Most of this growth is expected to occur in the near term and then trail off, with an increase of 209,909 persons, or 3.2%, in the first ten years, and just 80,680, or 1.2%, in the subsequent ten. By comparison, Massachusetts grew 3.1% in the ten years from 2000 to 2010.

The Aging of the Baby Boomers
This anticipated slowdown in population growth is attributable to several factors. There is the continued legacy of deindustrialization, which was the primary economic engine that attracted migrants and their families to the Commonwealth. A second trend is the long-term decline in birth rates. Women are having fewer babies than before — particularly Caucasians and multi-generational Americans who disproportionately comprise the Commonwealth. In much of the rest of the U.S., the slowdown in births was largely offset by surges of new immigrants in the 1990s and into the 2000s, particularly from Latin America, where larger families are the norm. Massachusetts also added residents from this new wave of immigration, but hardly at the magnitude in many other areas of the nation. But perhaps the most pertinent factor for understanding long term population trends is the changing age profile of both Massachusetts and the United States as a whole, and how these relate to forces of demographic change such as fertility, mortality, and migration.

As of Census 2010, over 81 million (roughly 26%) of all Americans were between the ages of 45 and 64 years old — the baby boom generation.2 Another 13% were age 65 and older. In Massachusetts the effect of this aging is even more pronounced, as the state is already older than the United States on average, with 28% between 45 and 64 and 14% 65 and older. Within the next 20 years, the bulk of the baby boomers will move into retirement age. By 2030, we expect nearly 1.5 million Massachusetts residents to be 65 and older — 21% of the entire state population and nearly 550,000 more retirement-age and elderly residents than in 2010.

Figure 3. Changes in the Massachusetts Age Profile, 2010–2030

Source: 2010 U.S. Census of Population and author’s calculations of projections based on multiple sources
The continued aging of the baby boomers will gradually lead to a decline in the rate of population growth, but not outright reversal — at least not before 2030. Mortality rates rise dramatically as people age into their seventies (Figure 4). By 2030, the eldest of the Baby Boomers will be approaching their eighties and there will be more age-related deaths. While not covered by our study, we expect the statewide rate of population growth to slow even further out to 2040, with the continued aging of the baby boomers. This may result in net population losses in the some regions, such as the Cape, the Islands and the Berkshires, where the elderly are heavily concentrated.

Migration also plays an important role. In the case of Massachusetts, we expect migration to exacerbate trends of decline — at least in the near term. As mentioned previously, the first of the baby boomers are just now approaching traditional retirement age. While the vast majority will decide to stay in Massachusetts, a good number will choose to leave the Commonwealth — presumably for warmer climates. Figure 5 shows how migration behavior changes with age by plotting recent domestic immigration rates against out-migration rates. It shows that people in their late fifties up to their seventies are more likely to leave Massachusetts than to move in. So as the baby boomers move through these age groups in the next decade, we expect to lose population due to outmigration.

The Rise of the Millennials
While the overall trajectory is for a much older population, Massachusetts would be older still if not for its success in attracting college-age students and other young adults. The millennial generation — those born between 1983 and 1995 — are a second demographic bubble in the national age profile. In 2010, 15 to 29 year-olds (our proxy for millennials) comprised 21% of the Massachusetts population.

For the next ten years, the millennials are expected to have a tempering effect on the overall slowdown in state population growth as they move into their college years and young adulthood. However, their influence is somewhat fleeting. Many come to Massachusetts primarily for college and graduate school and will likely leave after graduation. We can see this in the shifting population pyramids.

![Figure 4. Mortality Rates by Age and Sex](image_url)

![Figure 5. Domestic Migration Rates, 2006–2010](image_url)
of Figure 3, as the number of millennials in Massachusetts begins to decline the further they move beyond their college years. There are also 3 million fewer school-age children in the U.S. population coming up behind the millennials, which will lead to a drop in the state’s college-age population twenty years down the road. For example, our model predicts that by 2030 there will be roughly 60,000 fewer Massachusetts residents between 15 and 25 than in 2010. Because they tend to leave Massachusetts as they age, we expect a somewhat muted rise in birth rates as the millennials enter into age groups associated with starting families. The number of children between the ages of 0 and 4 will is expected to increase slightly from roughly 367,000 in 2010 to 382,000 in 2020 and back down to 381,000 in 2030 — a nearly constant share, close to 5.6% of the state’s population.

As with the boomers, the demographic shifts associated with the aging millennials are not expected to play out evenly across the state. The near- and long-term impacts will be most acutely felt in regions, cities, and towns that are home to our many postsecondary educational institutions, notably Boston/Cambridge and the Pioneer Valley. Many of our universities and colleges, such as UMass Amherst, have seen a steady rise in enrollments over the past decade. But with the number of college-age students expected to shrink in the next decade, competition for students will tighten. The result may be slower growth or even a decline for some college towns and cities.

Implications for Workforce and Economic Development
The aging of the population will have a far-reaching impact. Policymakers, then, need to be aware of the possible implications of these trends to effectively mitigate any negative impacts that may result. There will be greater demand for elderly housing and geriatric health-care services along with likely calls for expanded public and para-transit options to accommodate those with diminished driving abilities. State and municipal governments may also feel acute budgetary pressures, facing greater calls for public services while relying on a larger portion of the tax base comprises residents on fixed incomes.

With 1.5 million Massachusetts residents moving into traditional retirement age over the next twenty years, there is concern that we will soon face a severe labor shortage. Talented and highly skilled workers are primary drivers of the modern knowledge economy; their availability is a chief criterion for many businesses looking to move or expand operations. Skilled labor shortages may also stymie the efforts of resident firms to expand operations or maintain market share. The aging workforce is a particular concern in the health care sector, where a labor shortage may not only diminish the state’s economic potential but also threaten public health if there are not enough nurses, doctors, and other medical personnel to adequately care for an aging population.

At the heart of labor shortage concerns is whether there will be enough workers entering or moving through the workforce to compensate for baby boomer retirees. Long-term labor shortages are rather difficult to predict, because fears of a labor shortage may trigger changes in immigration policy or motivate the development of new labor-saving technologies. And as we are already seeing, people nowadays are not only living longer but working longer as well. In the absence of major changes in retirement preferences, labor-saving technologies, and policy, the numbers should still give us pause. In 2010, there were roughly 5 working age residents (approximately 16 to 64 years old) for every retiree (65+). In 2030, the ratio will be closer to 3 to 1 — meaning far fewer workers in the economy to support the elderly. These statistics may actually underestimate the problem, given the Commonwealth’s concentration of college students, many of whom will leave upon graduation and never actually join the workforce. Problems with labor shortages are also likely to be far worse in the more remote and rural areas of the state, such as the Cape, the Islands and the Berkshires, where the resident population is notably older and the rate of outmigration among young adults is particularly high.

We can also expect greater impacts in some sectors of the economy relative to others. Figure 6 shows the Massachusetts age profile in six key industry sectors. The greatest labor age profile in six key industry sectors. The greatest labor shortages are likely to be in manufactur- ing and public administration, where over 50 percent of today’s workers will be of retirement age by 2030, with few younger workers coming up through the pipeline. Workers in the educational and health services sector also skew older, with nearly 48 percent of the current workforce reaching retirement age by 2030. But unlike manu facturing and public administration, the category, educa tion and health care, has a secondary concentration of workers currently in their 20s and 30s who will move into senior positions. The business and professional services

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sector also shows a rather bimodal age distribution, but generally skews younger.

While the sheer number of near future retirees may pose some serious challenges, they also represent opportunities. This is especially true for the young struggling to gain a foothold in today’s weak labor market. In a few short years the state will have considerable need for their talent. We must therefore strive to create opportunities in the here-and-now to avoid losing them for the time when they will be needed most. Remember that Massachusetts is not alone in its greying workforce. The future will likely see increasingly heated competition among states and localities to attract and retain young talent. Massachusetts has several advantages — namely, our world-class postsecondary educational institutions that attract some of the most creative individuals the world has to offer. The primary challenge moving forward is figuring out how best to keep them.

Endnotes
2.) The baby boom generation is widely considered to include those born between 1946 and 1964. The oldest among the Boomers were approximately age 64 as of the 2010 Census.

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Figure 6. Age Distribution of Massachusetts Labor Force by Industry

Source: U.S. Census Bureau, American Community Survey, Five-year (2007 to 2011) Public Use Micro Sample file