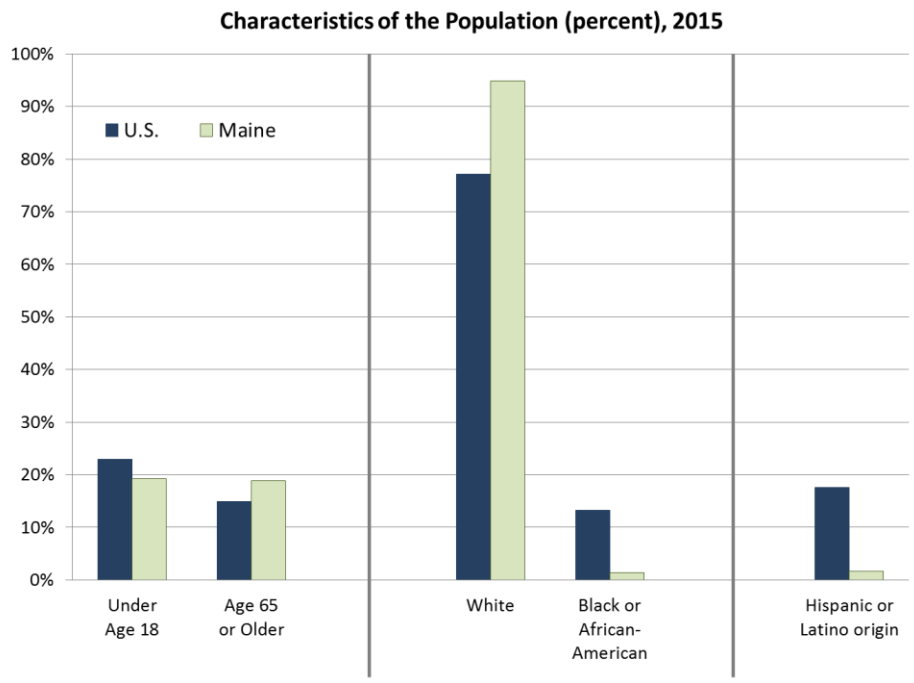
Maine Population Outlook to 2034
Governor's Office of Policy and Management
November 2016

Maine has seen its population growth dwindle in recent years. The past few annual population estimates from the U.S. Census Bureau have been almost completely static, with a slight increase in one year offset by a decrease the next. This lack of growth is concerning because of its implications for Maine's economy. Population growth is one of the primary drivers of economic growth. The combination of stagnant population growth with an aging population is especially concerning. More and more workers are moving into retirement without new workers available to fill the vacant positions.

It is critically important for policymakers, businesspeople, planners, administrators, healthcare providers, and all residents to understand both the current status of Maine's demographics and the potential future status if the current trends continue. Equally important is an understanding of the implications of those trends.

What are demographics?
Demographics are the characteristics that describe the population. Demographic data can be general, such as the number of males and females in the population, or very specific, such as the number of non-Hispanic white men between the ages of 40 and 44 living in Washington County. These descriptive characteristics paint a picture of our population. Age, sex, race, and ethnicity are all elements of this picture.

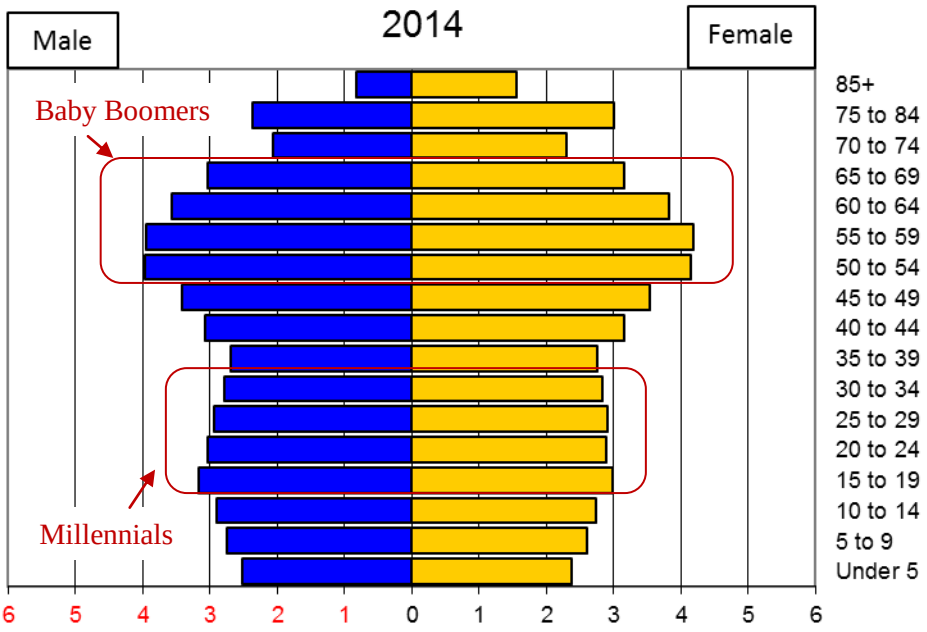
Maine's demographic picture
A few aspects of Maine's demographic picture stand out: an older population with a large number of baby boomers, relatively few children, and low numbers of racial and ethnic minorities. The chart below shows a few key demographic comparisons between Maine and the nation.



Maine has the oldest median age in the country – 44.5 years in 2015. Maine also has the highest percentage of non-Hispanic white residents (93.6%). Maine is just above Vermont for the smallest percentage of residents under 18 years of age (19.3% and 19.2%, respectively). These factors all combine to give Maine a rapidly aging population and slow population growth. There are a few reasons for the aging and slow-growing population: the Baby Boom generation, low birth rates, and low rates of in-migration.

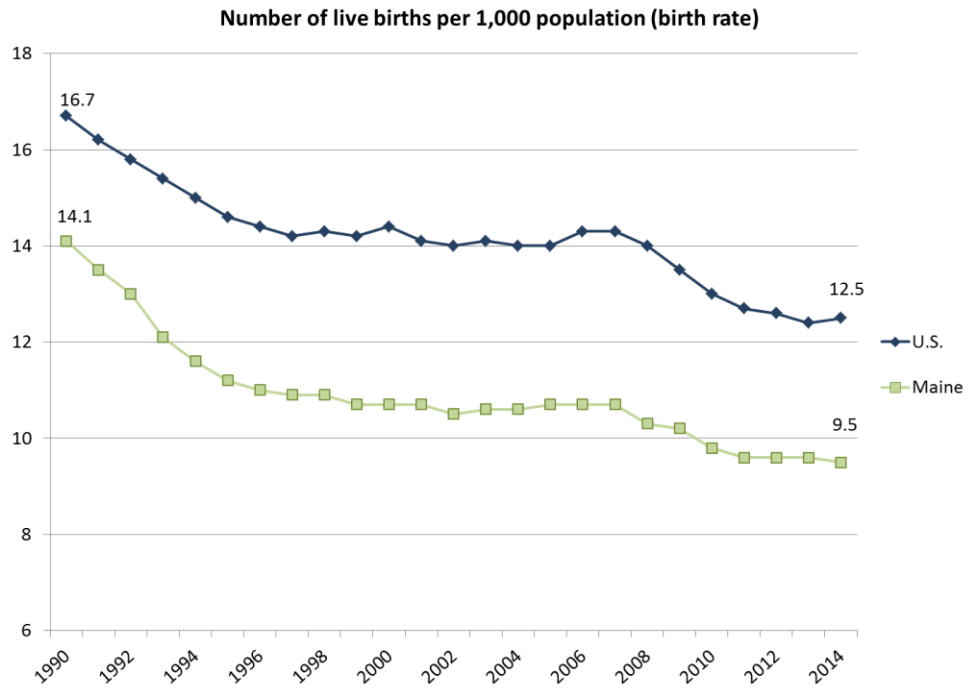
The Baby Boomers
Let us begin by considering the Baby Boom generation. This generation, born between 1946 and 1964, made up 28.6% of Maine's population in 2015, when its members were between the ages of 51 and 69. This is a higher percentage than any other state – Vermont was second at 27.8% and New Hampshire was third at 27.7%. Nationally, around 23% of the population is part of the Baby Boom generation.

The sheer size of this cohort means that they have a lot of influence, both demographically and economically. The chart at right clearly shows the swell of baby boomers and their "echo boom" children, often referred to as millennials, who were around 18-35 years old. When the baby boomers were growing up, they increased school enrollments. When they had kids, there was another (albeit smaller) increase in school enrollments. Over the past few decades, the baby boomers have been swelling the ranks of the workforce. The oldest baby boomers are now reaching retirement age – over the coming decades, as baby boomers retire, the size of the workforce will shrink in Maine unless something changes to bring more workers to the state.



Nationally, the baby boomers are now outnumbered by millennials. Part of this is due to the greater diversity of the national population, but there has also been more in-migration of younger people in other parts of the country.

As people pass through different stages of life, their demands for goods and services change. Younger couples may be purchasing their first homes, family vehicles, and day care. Empty nesters and retirees may downsize from large homes to small homes or apartments, trade in the minivan for something sportier or more fuel efficient, and require more health care services. The Baby Boom generation is so large that as they enter different life stages, the economy changes to accommodate them. Health care will be one of the industries most affected by the aging of the baby boomers. Not only will demand for health care services be increasing, but the available workforce will be decreasing as baby boomers employed in health care retire.

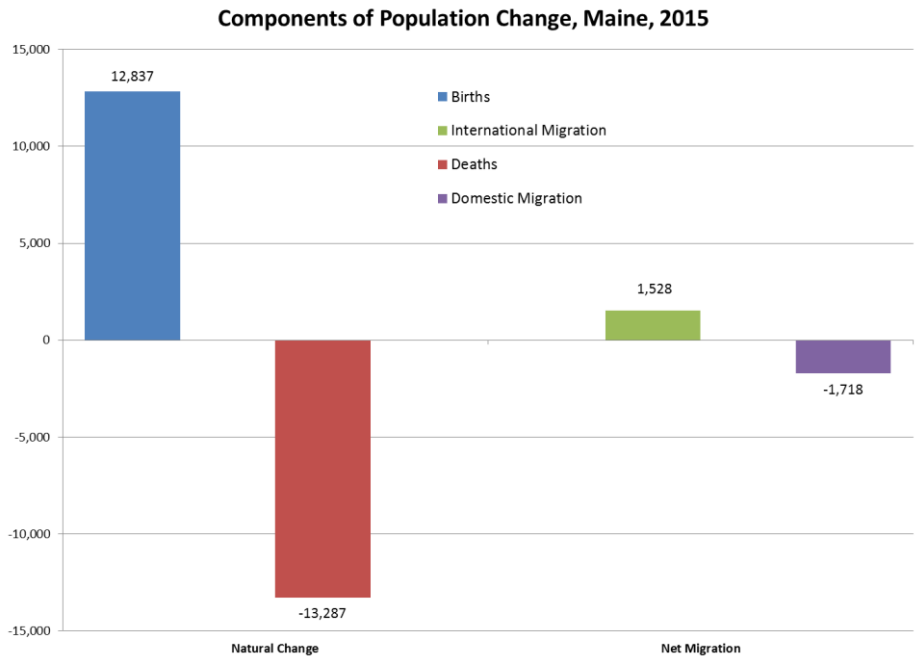


In terms of demographics, the baby boomers have both a direct and indirect effect. First, because there are so many of them, the baby boomers pull the average age of the state up as they grow older. Maine's median age was 44.5 years in 2015 – higher than any other state. Contributing to this high median age is the fact that Maine has the smallest percent of its population under the age of 18. There are not enough children in the state to offset the large population of baby boomers. So while baby boomers are aging across the country, other states have more children, bringing the median age down.

Birth rates

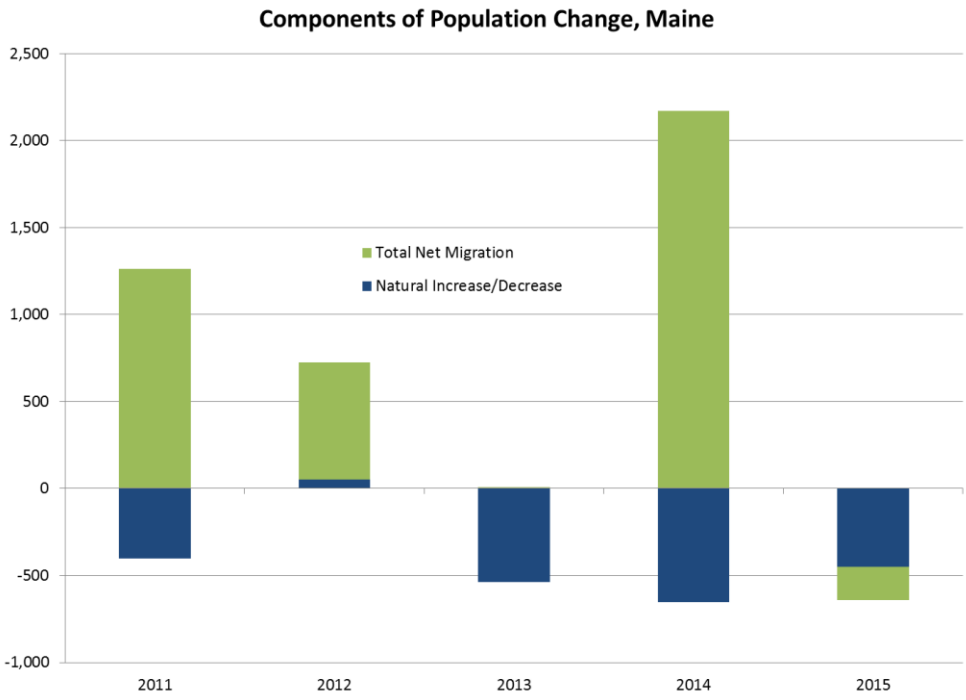
One of the reasons Maine has so few children is because the birth rate is so low. The low birth rate is an indirect effect of having so many baby boomers: the baby boomers are now beyond their child-bearing years. The fact that Maine has the largest percent of non-Hispanic white residents also contributes to the low birth rate. Non-Hispanic whites tend to have lower birth rates than racial and ethnic minorities, and Maine's relatively homogenous population means a relatively low overall birth rate. The U.S. birth rate has been consistently higher than Maine's rate, although both have seen declines over the past 25 years.

The low birth rate contributes not only to an increased median age, but also to slow population growth. Population growth comes from two sources: natural increase and migration. Natural increase is the difference between births and deaths in the population. An older population, such as Maine has, will tend to have fewer births and more deaths. In fact, the 2015 population estimates for Maine from the U.S. Census Bureau show natural decrease – Maine had an estimated 450 more deaths than births that year.



The need for migration

Without the capacity to grow our population through births, Maine must rely on migration to provide population growth. If more people move into a state than from it, that state will experience net in-migration (and population growth). If more people move out of a state than into it, however, that state will experience net out-migration. The chart below shows annual migration and natural change for Maine for the past five years. Given that Maine is unlikely to experience a surge in natural increase in the coming years, any population growth will have to come from migration – both from other states and abroad.



Implications

There are many implications both for aging populations and slow-growing ones. With an aging population, more people retire each year, making it harder for employers to find workers to fill jobs. An older population requires more health care services, increasing demand for nurses and physicians. Birth rates go down, meaning fewer children to fill the schools. At the same time, many retirees in good health seek out additional recreational and cultural experiences and may have more time for volunteering.

Populations experiencing slow growth may find it more difficult to attract businesses. Population growth generally goes hand-in-hand

with economic growth. Companies looking to relocate or expand want to do so in places where the population is growing. Population growth is an indication that companies will be able to find the workers they need. At the same time, places that experience rapid population growth often struggle to keep up with infrastructure demands. Schools exceed capacity, housing becomes expensive and difficult to find, and service providers of all sorts find themselves unable to keep up with demand.

Maine's particular demographic challenges in the coming years will center around the aging population and slow population growth. As the baby boomers begin to retire, employers will be faced with the possibility of more job openings than people to fill them. In addition, the skill sets of the younger generations may not match the openings available. Some industries and companies in the state are already seeing the effects of Maine's demographic plight. Manufacturing, construction, and medical professions like dentistry and primary care are already facing shortages of skilled workers, particularly in more rural areas where populations have been declining.

A larger and larger elderly population will depend on a smaller and smaller working population, unless migration trends bring more workers to the state. In order for Maine's population to grow and firms to find the employees they need, in-migration to Maine must increase. As plans for the future are made, everyone should keep Maine's demographics in mind.

Projections

The Office of Policy and Management has prepared population projections for the state, counties, and cities/towns. Populations are projected for 2019 through 2034 in five-year intervals and are updated every two years. County- and state-level projections are given for five-year age cohorts by sex. This demographic detail can be especially useful as the population ages. Some parts of the state will be faced with an older population sooner than others, and these projections can help identify those faster-aging regions. City/town-level projections are currently only available for the total population.

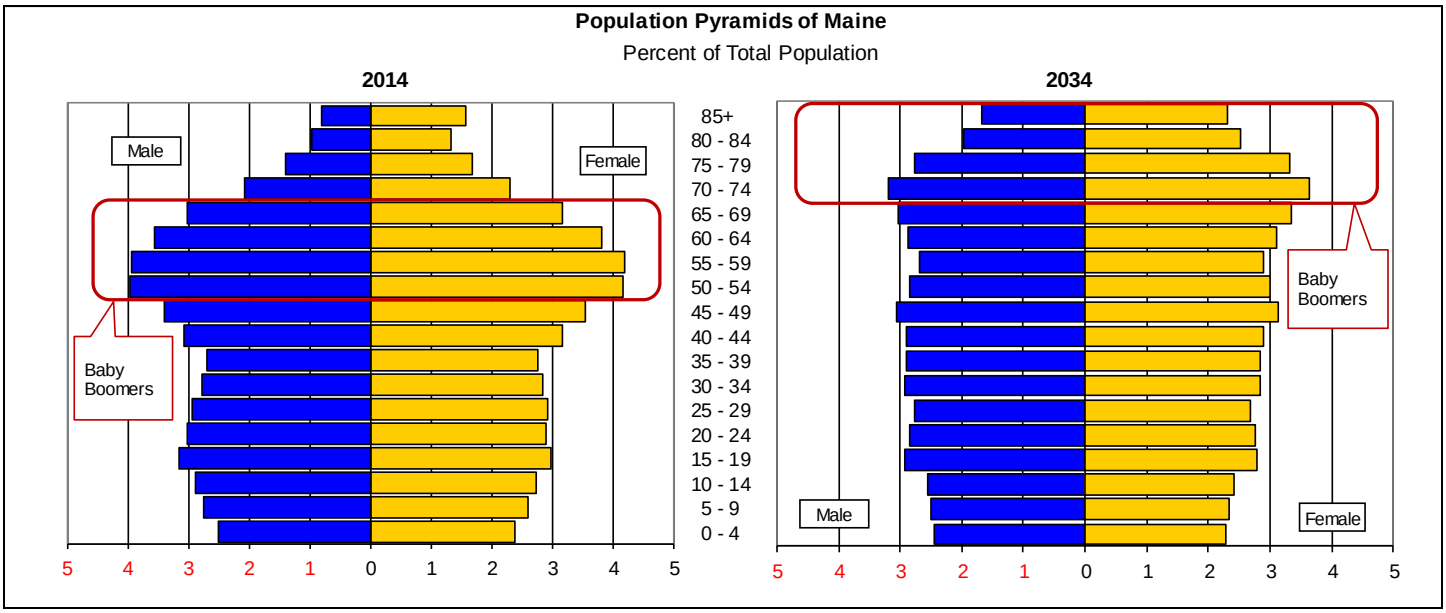
It is important to note that the projections presented here are not exact. Any estimation errors in recent population estimates will be incorporated into future projections. The county-level model assumes that past birth, death and migration rates within each cohort will persist into the foreseeable future. The model cannot account for unprecedented future events that may dramatically alter a county's demographic composition, such as large factory openings and closures or changes in technologies, personal choices, or environmental conditions in the next 20 years that may alter migration behavior or birth and death rates. As such, population projections are more accurate for the near future than distant years and should be updated regularly.

The county projections are the basis for the state and town projections and thus are the first piece completed. The methodology used for the county projections is the cohort-component method. This widely-used methodology utilizes births, deaths, and migrations to advance each age-sex cohort through the projection period. It allows for specific survival and migration rates to be calculated for each age-sex cohort. Using this methodology provides a detailed projection of the county population. A more detailed description of the methodology used is available at http://www.maine.gov/economist.

Due to recent population trends, the projections show most counties declining in population over the next two decades. Only five counties are projected to see population increase between 2014 and 2019: Androscoggin, Cumberland, Penobscot, Sagadahoc, and York. Between 2029 and 2034, all counties are projected to see population decrease. The only counties projected to see population increase between 2014 and 2034 are Cumberland, Penobscot, Sagadahoc, and York, while Androscoggin is projected to see no change.

When the counties are aggregated to a statewide level, Maine is projected to grow through 2019, after which point the population is projected to decline. From 2014 to 2034, Maine's population is projected to decrease 1.8%. As discussed earlier, these projections are highly dependent on current life expectancy and migration rates. Increases in life expectancy and in-migration could result in higher population counts in the future.

By 2034, the baby boomers will be between 70 and 88 years old. The population pyramids below compare the 2014 population with the 2034 population projection. As the baby boomers continue to age, the population pyramid will become top-heavy, with a larger elderly population and smaller youth population. In addition, because women statistically live longer than men, Maine's female-to-male ratio will gradually increase over time.



City/town projections are calculated by estimating a constant rate of growth for each town's share of their county population between 2010 and 2014 and then extrapolating this growth into the future. This can create some counterintuitive results. Towns with historical population growth in counties that are projected to grow may still see projected population declines if that town's share of the county population has been declining (in other words, the other towns in the county have been growing faster than the town in question).

About one-fifth of the cities and towns in Maine are projected to see population increase between 2014 and 2034. 109 of the 522 cities/towns are projected to see positive population change, ranging from 0.05% to 50.12% growth. Five towns are expected to see no change from 2014 to 2034. The remaining 408 cities/towns are projected to see population declines, ranging from -0.13% to -26.57% losses.

Most of the cities/towns projected to grow in the coming years are in the counties projected to see population growth. Cities/towns in the five counties projected to grow make up nearly 75 percent of the population increase list. Sagadahoc County has the highest proportion of growth cities/towns: 90 percent are projected to grow. On the other end, three counties are projected to have no cities/towns with population increases from 2014 to 2034: Lincoln, Piscataquis, and Somerset.

Maine's current five largest cities (Portland, Lewiston, Bangor, South Portland, and Auburn) are projected to remain the five largest cities in the same order in 2034. However, only South Portland is projected to see any population growth over the 2014 to 2034 time period, and that growth is only projected to be 0.05%. The other cities are projected to see population declines ranging from -1.9% in Auburn to -4.9% in Portland. Keep in mind that the projections are based on the changing share of the county population, so even though Portland has been growing recently and Cumberland County is projected to see growth from 2014 to 2034, Portland's share of Cumberland County population has been shrinking, leading to the projected decline.

Conclusion

As Maine's population continues to age and slow growth turns to decline, the state will be faced with innumerable challenges. If Maine is to see its demographic outlook changed, policies must be changed now to attract more people and businesses to the state. Economic growth and population growth are closely linked and a bright economic future for the state depends on a robust demographic outlook. There is no single solution to the demographic situation, but policies that address all sides of the issue must be considered. This includes policies that make Maine a competitive place for businesses to locate and expand and a desirable place for people to make a good living and raise a family. Businesses locate where there are workers available and people locate where there are jobs available – both sides of the equation must be addressed to ensure Maine's future prosperity.