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Massachusetts Latino Population: 2010-2035

by Phillip Granberry, PhD, and Trevor Mattos

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Massachusetts Latino Population 2010-2035

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Abstract:

The Latino population in Massachusetts continues to grow at a rapid rate. From 2010 to 2017, the Latino population increased by 28%. This represented about 60% of all population growth in the Commonwealth. Using a cohort-component methodology, the Gastón Institute projects that by 2035 the Latino population will grow to over 1.15 million and represent nearly 15.3% of the population. This growth will be due more to future Massachusetts births than to international migration. Thus, Latinos already living in Massachusetts will have more impact on the future population than will future immigrants.

Massachusetts Demographic Trends

The Latino population in Massachusetts has grown significantly since 1980, when the U. S. Census Bureau started accurately identifying the country's Hispanic/Latino population as an ethnicity. In the 1980 Decennial Census, 141,043 Latinos resided in Massachusetts. The population more than doubled to 287,549 in 1990 and increased to 428,729 in 2000. In the 2010 Decennial Census, 627,654 Latinos resided in Massachusetts. From 2000 to 2010, Massachusetts was one of six states in which the growth in the Latino population accounted for all of the state's population growth; that is, if the Latino population had not increased, Massachusetts' population would not have grown. Thus, Latinos play an important role in Massachusetts' population growth, even though the smaller Asian population increased at a faster rate than Latinos from 2000 to 2010.

Using an interregional cohort-component projection methodology, the Gastón Institute projects the Latino population to increase to 1,147,122 by 2035. This represents an increase of 82% over the state's Latino population in 2010, for an average annual increase of 3.3%.

(The University of Massachusetts Donahue Institute (UMDI) produces population projections for the Commonwealth of Massachusetts; however, they do not produce population projections by race and ethnicity. The UMDI projects the Massachusetts population to grow by 11.7% by 2035 to a total of 7,319,469.³ This Gastón Institute projection for Massachusetts' 2035 population is higher 7,473,456, an increase of 14.1%. The Gastón Institute projects 153,987 additional residents in Massachusetts compared to the UMDI, or 2.1% larger population. Both projections use an interregional cohort-component projection methodology but use different data and different methods of generating migration rates.)

The distinction between the types of migration is important for understanding Massachusetts' population growth. Nationally, faster population growth is occurring in the South and West. The Northeast has been experiencing slow population growth due to domestic out-migration. Massachusetts has a colder winter climate, which is associated with slower population growth but is located near a port, which is associated with increased population growth.⁴ Parts of Massachusetts have better transitioned to a technology-based economy and experienced population growth, while other parts have

¹ The earliest inclusion of any Latino classification was in the 1930 Decennial Census when census workers designated a person with a "Mexican" race identifier. Even though the U.S. Census Bureau attempted to count Hispanics in the 1970 Decennial Census, the decennial count of 9.1 million underreported Hispanics by an estimated 500,000. In 1977, the Office of Management and Budget (OMB) in *Directive NO. 15: Race and Ethnic Standards for Federal Statistics and Administrative Reporting* identified Hispanic as an ethnicity that was to be asked separately from race. Starting with the 1980 Decennial Census, a question was included asking everyone to self-identify as either "of Hispanic origin" or "not of Hispanic origin." The 2000 Decennial Census was the first to include "Latino" with the Hispanic ethnicity designation.

² The other five states were Illinois, Louisiana, New Jersey, New York, and Rhode Island. Michigan's Latino population grew, but the state's population declined.

³ Renski, H., & Strate, S. Long-term Population Projections for Massachusetts Regions and Municipalities, University of Massachusetts Donahue Institute, Hadley, MA, 2015.

⁴ Glaeser, E. (2011a), Which places are growing? Seven notable trends from Newly Released Census Data, Harvard Kennedy School Policy Briefs, March, Boston.

struggled to make this transition and experienced slower population growth.⁵ Massachusetts is home to immigrants from a number of countries that are sending larger numbers of people to the United States, and this increases our population.⁶ Massachusetts also has an older population, which may be related to its having the fourth lowest fertility rate of any state.⁷ Furthermore, Massachusetts has a number of colleges and universities, and this has meant an increased in-migration of 18-to-24 year olds. The cohort-component method accounts for these trends and other trends by examining how recent changes to the population, due to both natural change and migration by different age-cohorts, will shape future population growth.

U. S. Demographic Trends

The United States Census Bureau produced the 2014 National Projections that projected the United States population up to 2060.8 The U.S. population is projected to increase from 319 million in 2010 to 417 million in 2060. The U.S. population is projected to be 370 million in 2035, an increase of 20.0% from 2010. The Census Bureau released population projections by race and ethnicity for 2060, though not for the intervening years.9 The Latino population is projected to be the third fastest growing population during the 2010–2060 time period behind the Two or More Races and Asian Alone populations. The Latino population is projected to grow from 50 million in 2010 to 119 million in 2060, an increase of 138% and a resulting 29% of the U.S. population.

This national population projection identified several trends that shape this population projection. The Census Bureau projects slower overall population growth in future decades than in the recent past, due to slightly declining fertility and a decline in the rate of net international migration. Demographers estimate national population change through a demographic balancing equation consisting of net international migration and natural change. Net international migration declined after the great recession. From July 1, 2010 to July 1, 2011 net international migration was 703,824 but increased to 1,111,283 from July 1, 2016 to July 1, 2017. Recent trends in natural change are also influencing this slowing population growth. The fertility rate in the United States during 2017 was 60.3 births per 1,000 females aged 15–44. This represents a 3% decline in the national fertility rate from 2016. Fertility rates among all ethno-racial groups declined. The largest decreases in fertility occurred among non-Latino Asian and non-Latino American Indian or Alaska Native women, whose fertility fell by 5% to 58.0 and 59.5, respectively. For non-Latino black women, the rate fell by just 1% to 63.1, while for non-Latino white women, the rate fell by 3% to 57.2, and for Latinas the rate fell by 4% to 67.6 between 2016 and 2017. The overall fertility rate in 2017 fell to an all-time low, and the number of births was

⁵ Forman, B., Warren, D., McLean-Shinaman, E., Schneider, J., Muro, M., & Sohmer, R. (2007) Reconnecting Massachusetts Gateway Cities: Lessons Learned and an Agenda for Renewal. Mass Inc & Brookings Institute Boston.

⁶ Granberry, P., "Foreign-Born Latinos in Massachusetts" (2011). Gastón Institute Publications. 35.

⁷ Hamilton M., Osterman M., Driscoll AK, & Drake P. Births: Final Data for 2016.National Vital Statistics Reports; vol 67 no 1.Hyattsville, MD: National Center for Health Statistics. 2018.

 ⁸ Colby, Sandra L. & Ortman, J. Projections of the Size and Composition of the U.S. Population: 2014 to 2060, Current Population Reports, P25-1143, U.S. Census Bureau, Washington, DC, 2014.
 ⁹ ibid.

 $^{^{10}}$ Estimates of the Components of Resident Population Change by Race and Hispanic Origin for the United States: April 1, 2010 to July 1, 2017. Source: U.S. Census Bureau, Population Division Release Date: June 2018.

the lowest reported since 1987. Teen childbearing (ages 15–19) is down 55% since 2007. The changes in mortality do not show the same consistent trends among the ethno-racial groups. An increase in the all-cause mortality among middle-aged non-Latino white men and women in the United States since 1999 has recently been identified. However, this change in morality has not emerged in other ethnoracial groups.

Cohort-Component Methodology

Population change can result from births, deaths or migration. The demographic balancing equation in Figure 1 consists of the number of births minus the number of deaths, plus domestic in-migration minus domestic out-migration, plus immigration minus emigration. The cohort-component projections methodology estimates rates for each component of this equation using recent population and public health data.

The Gastón Institute's projection uses an interregional cohort-component model similar to the UMDI. However, the two projections differ in several ways. The Gastón Institute projection distinguishes only between international and domestic migration. The UMDI projection makes the international-domestic migration distinction as well but goes one step further in creating two separate regions as possible sources of incoming migrants to Massachusetts: those migrating from neighboring states (New York, Connecticut, Rhode Island, and New Hampshire) and those coming from elsewhere in the United States. Our projection does not distinguish between these regions. The Gastón Institute's projection uses 2007–2016 ACS data where the UMDI uses data from the 2005 to 2009 ACS PUMS and 2007 to 2011 ACS. The Gastón Institute's projection uses 2010–2016 birth and death data from the Massachusetts Department of Public Health (MA-DPH), where the UMDI uses MA-DPH 2000–2009 death data and 2005–2009 birth data. ¹²

Natural Change

The first part of the demographic balancing equation that is used for the cohort-component methodology is natural change that consists of births and deaths. Birth and death data were supplied by the MA-DPH. Age-specific birth rates were developed by the age of the mother based on 2010–2016 MA-DPH nativity data in the numerator and the same year's American Community Survey (ACS) population data in the denominator. This rate is the probability of a woman of childbearing age giving birth in one year. These rates are operationalized for a five-year projection interval that is needed for the cohort-component model. Age-specific survival rates were developed with the age of the person based on 2010–2016 MA-DPH mortality data in the numerator and the same year's American Community Survey (ACS) population data in the denominator. This rate is the probability that a person survives a year (1-probability of dying). These rates are operationalized for a five-year projection interval that is needed for the model.

Anne Case, Angus Deaton. Rising midlife morbidity and mortality, U.S. Whites. Proceedings of the National Academy of Sciences Dec 2015, 112 (49) 15078-15083; DOI: 10.1073/pnas.1518393112
 Renski, H., & Strate, S. Long-term Population Projections for Massachusetts Regions and Municipalities, University of Massachusetts Donahue Institute, Hadley, MA 2015.

Migration

In addition to natural change, migration is the other factor shaping Massachusetts' population growth and its age distribution. ACS migration data are used to estimate migration patterns directly rather than simply attributing to migration any residual population change after births and deaths have been taken into account. The ACS provides yearly estimates of people who moved to and from Massachusetts in the previous year. We used ten years of migration data from 2007 to 2016 to smooth the effects of sampling error.

Success in producing a population projection depends mainly on the accuracy of its migration rates. For an interregional cohort-component method, migration is divided into domestic and international measures because these groups have different characteristics. International migration is a composite net estimate, which is the difference between immigration and emigration. Domestic migration can be divided into in-migration and out-migration to and from the state. The ACS questionnaire asks if people lived in the same house or apartment 1 year ago; if they lived at a different house in the United States or Puerto Rico, and its location, if they did; or if they lived outside of the United States and Puerto Rico. From these questions, domestic in-migration was defined and measured as people living in Massachusetts who did not live in the state 1-year prior, and domestic out-migration was defined and measured as people who reported living in Massachusetts the year prior but currently resided in the United States outside of Massachusetts. The ACS has no estimate of emigration, and we estimated this in relation to the ACS estimate of immigration and net international migration.

The domestic in-migration rates are probabilities that a person will move to Massachusetts from another part of the country. The domestic out-migration rates are probabilities that a person will leave Massachusetts for another part of the country. In- and out-migration by age and sex is in the numerators of these rates; the denominator for in-migration is the United States population minus that of Massachusetts, and the denominator for out-migration is Massachusetts' population the year the migration occurred. Since 2010, Massachusetts has lost 98,948 residents through domestic migration. However, our analysis of 2010–2016 ACS data shows an increase of 32,115 Latinos from domestic migration.

Figure 1: Population Projection Components



International migration is accounted for differently than domestic migration. Because net international migration is the difference between immigration and emigration, there is no true population at risk of migrating as there is for domestic migration. Therefore, net migration rates are not true probabilities. The net international migration estimate is the numerator and the population of Massachusetts is calculated from the ACS estimate of immigration and the U.S. Census Bureau's yearly net international migration for Massachusetts. The reported immigration minus the estimated emigration is the net

¹³ Estimates of the Components of Resident Population Change by Race and Hispanic Origin for the United States: April 1, 2010 to July 1, 2017. Source: U.S. Census Bureau, Population Division Release Date: June 2018.

immigration used as a denominator of the international migration rate. Since the 2010 Census, Massachusetts' population has increased by 292,266 residents through net international migration. For our projection, these age-specific domestic and international rates averaged 10 years of single-year migration rates similar to a method developed by the Boston Planning and Development Agency for projecting Boston's population.¹⁴

Results

As a statewide Latino research and policy institute, the Gastón Institute's interest is in projecting the Massachusetts Latino population. We made no attempt to project the population for other ethno-racial groups. We did project the overall state population to serve as a comparison of our method to other statewide projections. Table 1 shows that Massachusetts' Latino population is projected to cross the 1 million threshold by 2030 and to be 1,147,122 in 2035. This is an increase of 83% from 2010, but the population growth slows over the 25 years of the projection. In terms of absolute growth, the Latino population adds approximately 20,000 residents per year or 100,000 over each 5-year projection period, but as the number of Latinos increases, this yearly increase becomes a smaller percentage of the population.

In comparison, Massachusetts' overall population is projected to grow 16% from 2010 to 2035 while the United States population is projected to grow by 21%. For the country, the non-Latino white population is projected to grow by 0.5% while the Latino population is projected to grow by 66%. Latino population growth accounts for between 47% and 69% of the Commonwealth's growth during each 5-year projection interval.

Table 1: Actual and Projected Growth of the Latino Population in Massachusetts, 2000-2035

Year	2000	2005	2010	2015	2020	2025	2030	2035
Latino Population	428,729	521,987	627,654	757,059	851,279	947,412	1,047,016	1,147,122
Percentage Change	-	21.8%	20.2%	20.6%	12.4%	11.3%	10.5%	9.6%
Total Population	6,349,097	6,403,290	6,547,629	6,750,000	6,951,476	7,149,754	7,327,762	7,473,456
Percentage Change	-	0.9%	2.3%	3.1%	3.0%	2.9%	2.5%	2.0%
Percentage Change due to Latino Growth	-	172%	73%	64%	47%	48%	56%	69%

Source: 2000 & 2010 Decennial Census, 2005 ACS, and 2015-2035 Population Projection

¹⁴ Granberry P, Kim C, Resseger M, Lee J, Lima A, Kang K. Who Is At Risk of Migrating? Developing Synthetic Populations to Produce Efficient Domestic Migration Rates Using the American Community Survey. Urban Science. 2018; 2(3):80.

Latino population growth will come more from natural change, 270,833, than from net international migration, 154,114. Net domestic migration totals 94,521. Latino projected births represent 19.1% of all births in Massachusetts between 2010 and 2035, while Latinos will account for only 4.5% of the projected deaths. This contrast is related to Latinos having a younger age structure. In 2010, the median age of the Latino population was 26 years compared to 39 years for the total population. Over the 25 years of this projection, the Latino population's median age will increase to approximately 36 years. Latino net international migration will account for 19.0% of all net international migration to Massachusetts. This is similar to the national trend in international migration. In the 1990s, the U.S. Latino population grew by 8.1 million due to net international migration and 7 million due to nativity. By the 2000s, Latino births, 9.6 million, exceeded the number of net additional foreign born, 6.5 million. With Latinos adding to the Commonwealth's projected population more through nativity and domestic migration, it is important not to overlook the contributions that Latinos presently living in the United States will make to future growth of the population and the labor force of Massachusetts.

Age Profile

Figure 2 presents the age profile of the projected Latino population in 2035 compared to the state's age profile in Figure 3. Though the Latino projected population in 2035 will have an increased median age of 36 years, they will remain a complement to the older non-Latino population. The projected median age for the entire state in 2035 is 43 years. The largest age cohort for Latinos is the 25–29 cohort, while the largest age cohort for the entire Massachusetts population is the 40–44 age cohort.

Latinos experience different patterns to their population growth due to migration compared to the overall state population. Unlike other children in Massachusetts, Latino children have more out-migration than in-migration from birth to age 14. By age 15, they experience a similar trend of a net positive migration continuing through their 20's. This trend is related to increased international and domestic migration. This migration starts slowing during their 30's, and the growth in the older cohorts slows as well. The state's population experiences growth in its cohorts until age 44.

Two age cohorts demonstrate how the younger Latino population is more similar to the state's population than is the case for older Latinos. As the state's population ages, the Baby Boomer cohort of 70–74 is recognizable, but the older Latino population—that was more likely to migrate to the United States than to be born in the country—does not show this Baby Boom effect. This population was born between 1961 and 1965 when the Latino population was much smaller in the United States, especially in Massachusetts. In contrast, the younger millennial population of Latino is projected to experience a slight Millennial Bulge in the 40–44 age cohort. This cohort was born between 1991 and 1995 when the Latino population composed a larger share of the country's and Massachusetts' population.

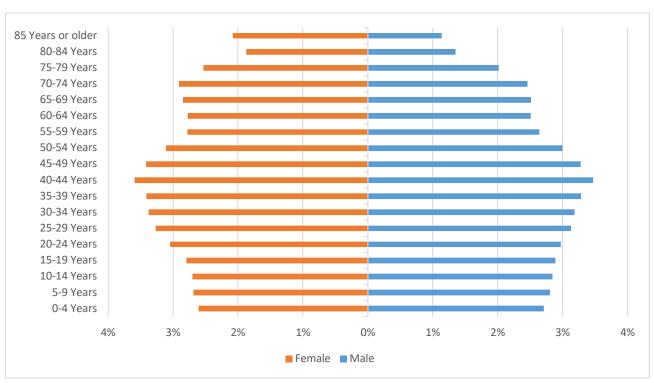
85 Years or older 80-84 Years 75-79 Years 70-74 Years 65-69 Years 60-64 Years 55-59 Years 50-54 Years 45-49 Years 40-44 Years 35-39 Years 30-34 Years 25-29 Years 20-24 Years 15-19 Years 10-14 Years 5-9 Years 0-4 Years 5% 4% 3% 2% 1% 0% 1% 2% 3% 4% 5%

■ Female ■ Male

Figure 2: Latino Projected Population Pyramid in 2035

Source: Gastón Institute Analysis





Source: Gastón Institute Analysis

Annual growth rate 2010 to 2035

With this projected growth, the Latino population will compose a larger share of the Commonwealth's population. In 2000, Latinos composed 6.8% of the population. In 2010, this share of the population increased to 9.6%. By 2035, this share is projected to increase to 15.3%.

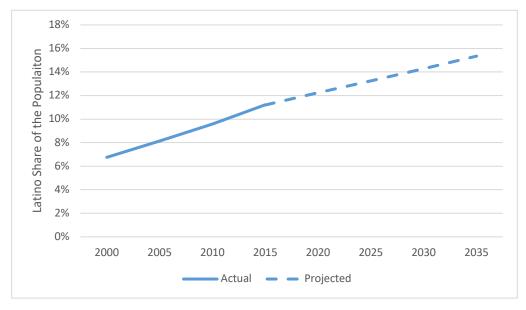


Figure 4: Latino Share of Massachusetts Population

Source: 2000 & 2010 Decennial Census, 2005 ACS, and 2015-2035 Population Projection

Discussion

Latinos have been a vital component to Massachusetts' population growth since 1990. Their younger age structure has been a complement to the much larger non-Latino white population's older age structure. As their population crosses the 1 million threshold by 2030, their growth will be faster than the state as a whole, but the rate of growth will decrease over time as their population increases. Latino birth and net international migration rates are higher than those of the state's total population, and their mortality rates are lower. Taken together, the Latino population is projected to grow more from natural change and domestic migration than from international migration. Any policy that benefits Latinos in Massachusetts today will have a larger influence than will any changes to their international migration by 2035. For example, any investments today in Latino education today will influence the Latino population in 2015 and their children in the future. This is important to note because policymakers often look at international migration trends when planning for Latino population growth. Instead, they should plan based on the current Latino population in the state.

Latinos are an ethnic group with diverse origins, ranging from South America to Central America and the Caribbean. Nevertheless, a majority (70%) of Massachusetts Latinos are U.S.-born. This is mostly due to

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the size of the state's large number of Puerto Ricans, who are native-born U.S. citizens whether born on the mainland or on the island. Even so, more than 60 percent of Puerto Ricans in Massachusetts are native to the U.S. mainland. This highlights the importance of understanding Latinos as native-born Americans and adjusting policy interventions to better support this population.

Because there were fewer than 67,000 Latinos in the state in 1970, their rapid growth was attributed to migration (both internationally and from Puerto Rico) more than natural change. This is not the case today nor is it projected to be in the future. Latinos born in the cities and towns of Massachusetts will be educated by these cities and towns' schools; they will develop their job skills in Massachusetts' businesses. Considering that Latinos in Massachusetts, compared to non-Latinos in the state, presently have lower levels of educational attainment and lower median household income while having increased labor force participation, ¹⁵ policymakers should provide resources to this growing Latino population to help it be well prepared to participate in the Commonwealth's future labor force. Nearly half of the state's Latino population in 2016 live in just six cities: Boston, Springfield, Lawrence, Worcester, Lynn, and Chelsea. Strategies to facilitate their future economic, political, and social participation can be targeted to Latinos in these cities. As such, the future of the Commonwealth in many ways depends on developing the economic and labor force potential of this valuable community that is currently residing in the Commonwealth.

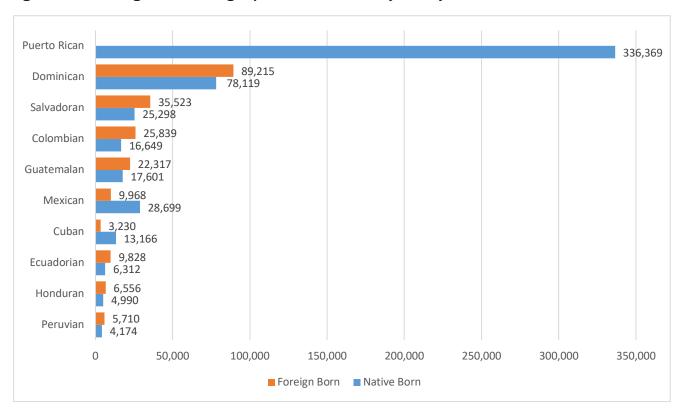


Figure 5: The 10 Largest Latino Subgroups in Massachusetts by Nativity

Source: 2017 ACS PUMS 1-year Estimates

¹⁵ Lozano, Ivan; Granberry, Phillip; and Mattos, Trevor, "The Diversity and Dispersion of Latinos in Massachusetts" (2017). Gastón Institute Publications. 226.

The Mauricio Gastón Institute for Latino Community Development and Public Policy at the University of Massachusetts Boston conducts research on and for the Latino population in New England since 1989. Our goal is to generate the information and analysis necessary to develop a more inclusive public policy and to improve Latino participation in the policy-making process. In an effort to present vital information about Latinos to diverse audiences, the Gastón Institute has produced a population projection of the Latino population to 2035.

Unlike our state demographic profile, this population projection does not include Brazilians in the estimates. We were unable to obtain nativity and mortality data for the Brazilian population, and thus the Latino data in this report is consistent with other Census Bureau estimates for Massachusetts. As a point of reference, over 90,000 residents of Massachusetts in 2017 were born in Brazil or identify a Brazilian ancestry.

A population projection uses recent demographic trends to forecast the population. The purpose of conducting this inexact science, then, is not to predict the future. This population projection provides an indication of future population change so that policies can be better developed to meet the needs of Massachusetts' future population.

One of the goals of the Gastón Institute is to be responsive to the needs of the Latino and policy communities through the research we undertake. Please feel free to contact us with suggestions or requests for specific information.

About the Authors

Phillip Granberry is a social demographer. He worked with various community-based organizations assisting recently arrived U.S. immigrants before earning a Ph.D. in Public Policy from the University of Massachusetts Boston. He has published several articles on the accumulation and use of social capital among Latinos and the sexual health communication of Puerto Rican mothers with their children. In addition to his research and teaching in the Gastón Institute and Economics Department at UMass Boston, he is Senior Researcher in demography for the Boston Planning and Development Agency.

Trevor Mattos holds a master of arts (M.A.) in applied economics from the University of Massachusetts Boston and a master of public policy (MPP) from the University of Massachusetts Dartmouth. While at the Gastón institute, he applied quantitative and qualitative research methodologies to a variety of economic and social policy issues, with a particular focus on analysis related to demographic change and immigration. Trevor is now Research Manager for Boston Indicators at The Boston Foundation.

