

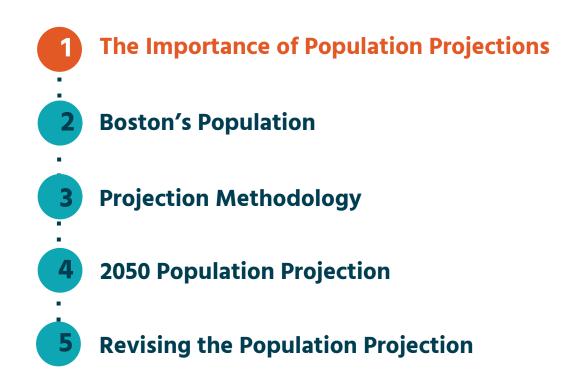
### COMING SOON: Vintage 2023 Population Estimates

Boston's Population: 2025-2050 and Implications *BPDA Research Division April 5, 2024* 











#### Population projections help inform decisions related to Boston's future

#### How many...

**Housing units** will be needed to house Boston's population in the future?

**Schools** will be needed to educate Boston Public School's children?

Senior centers will Boston need to build?

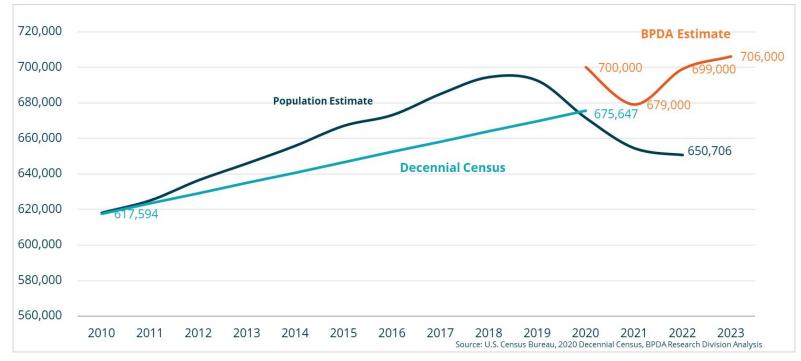
**Dorms** will Boston's colleges and universities need to build?







#### **BPDA Research estimates Boston's current population** to be ~700,000 - higher than Census estimates





Source: U.S. Census Bureau, BPDA Research Division Analysis



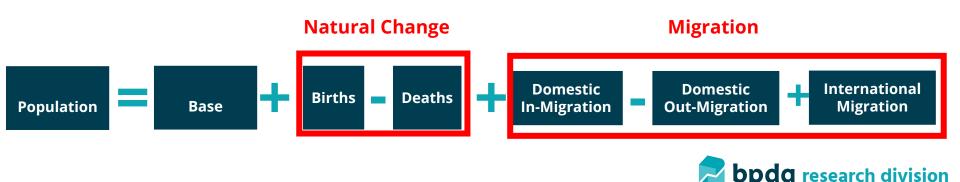


## Three factors drive population change:

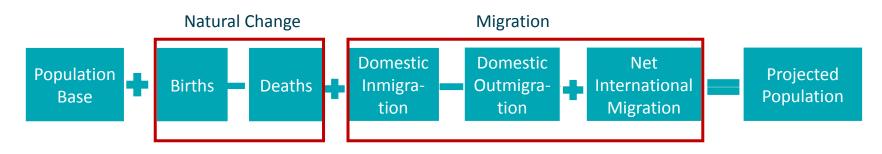
### **Births**

#### Deaths

### Migration

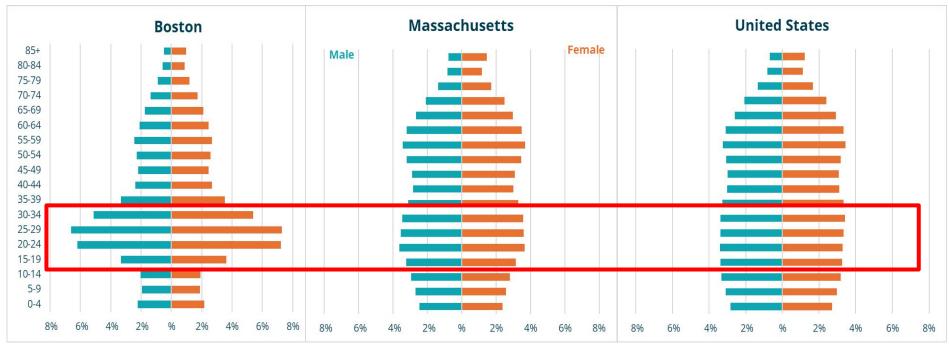


### **POPULATION PROJECTION METHODOLOGY**



- Age-specific fertility rates from historical birth data 2019-2021 from Boston Public Health Commission and BPDA revised 2020 Census population.
- Age-and gender-specific survival rates from historical death data 2010-2021 from Boston Public Health Commission and BPDA revised 2020 Census and ACS population data.
- Age- and gender-specific migration rates from ACS 2010-2019 migration and population data optimized to 2020 and 2025 BPDA population estimates and then 2010-2019 and 2020-2025 rates are averaged.
- Apply these rates to the population base (2010 Decennial Census) to project Boston's population through 2050

#### Boston's population has a different age structure than the rest of the country due to increased international and domestic migration starting at age 18

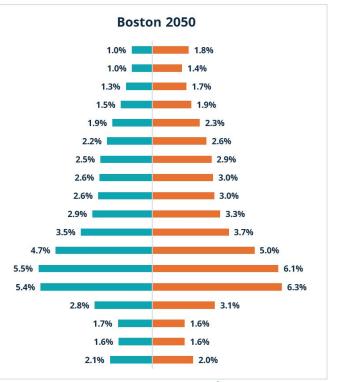


Source: 2020 Census, Boston BPDA adjusted, BPDA Research Division Analysis



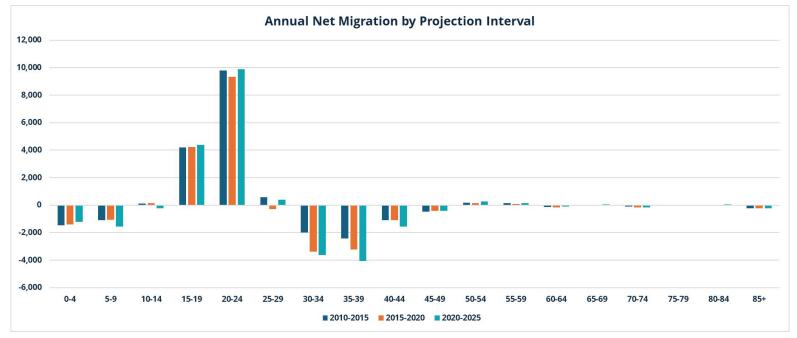
#### Boston's population is projected to age, but retain its distinctive age structure







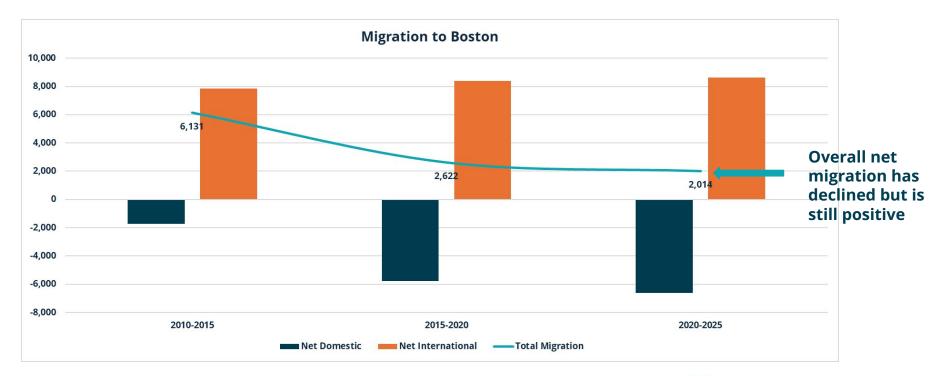
### Boston net migration is positive only among young adults. Children under 10 and adults 30-44 see significant out-migration



Source: BPDA Research Population Projection, BPDA Research Division Analysis



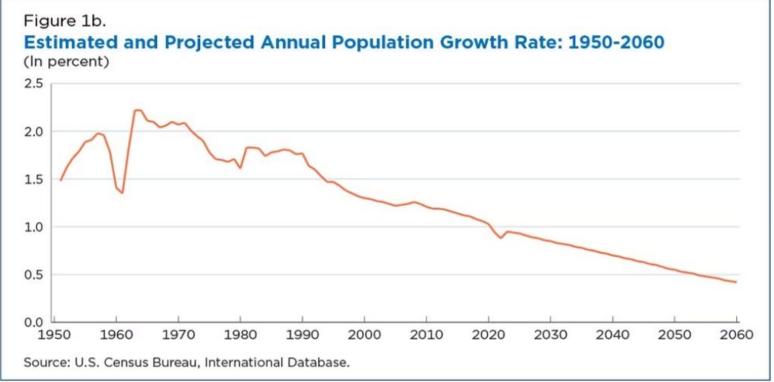
#### **Boston's population growth depends on immigration:** Net international migration remains positive, but net domestic migration has become increasing negative over the past decade





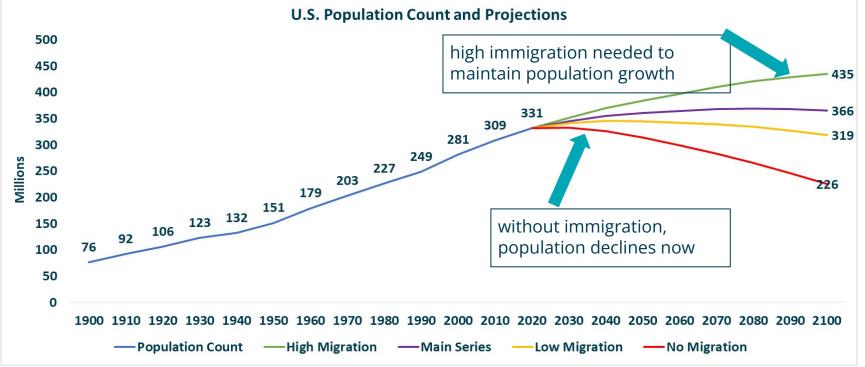
Source: BPDA Population Projection, BPDA Research Division Analysis

## Slowing global population growth will impact international migration to Boston



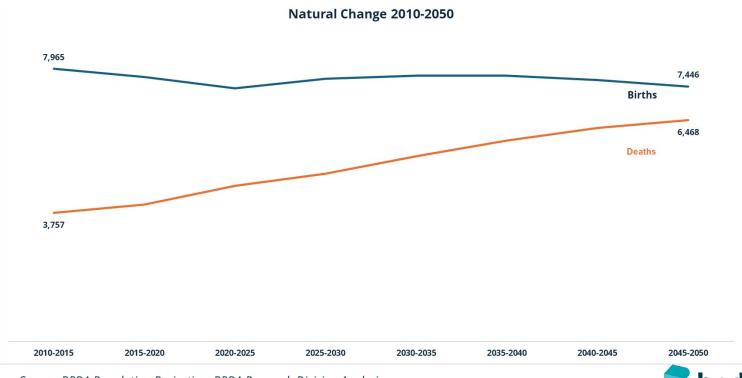


## Slowing national population growth will impact domestic migration to Boston





## Boston's births are projected to decline while deaths are projected to increase



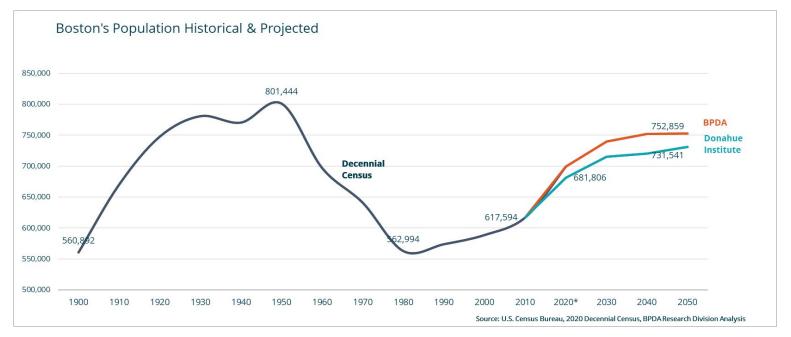
research division

Source: BPDA Population Projection, BPDA Research Division Analysis



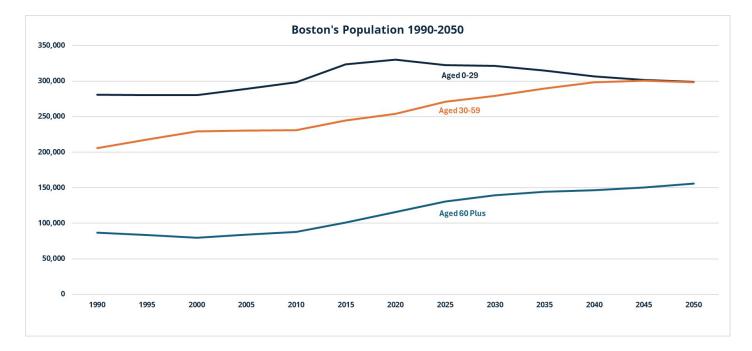


# Boston's population growth is projected to slow, and population may decline if international and domestic migration fall





## Boston's middle-aged population ages 30-to-59 will grow to equal the under 30 population



Source: 1990-2020 Decennial Census & 2025-2050 BPDA Population Projection, BPDA Research Division Analysis



### Population of children will decline due to low birth rates and significant outmigration

#### **Boston Population Aged Under 18**

Historical & Projected 120,000 Historical 115,000 109,119 110,000 107.906 106.693 106.693 106.693 106.327 105,961 105,000 101,385 101,314 99.932 98.501 100.000 95.000 Projected 90,000 85,000 80,000 1990 1995 2000 2005 2010 2015 2020 2025 2030 2035 2045 2040 2050

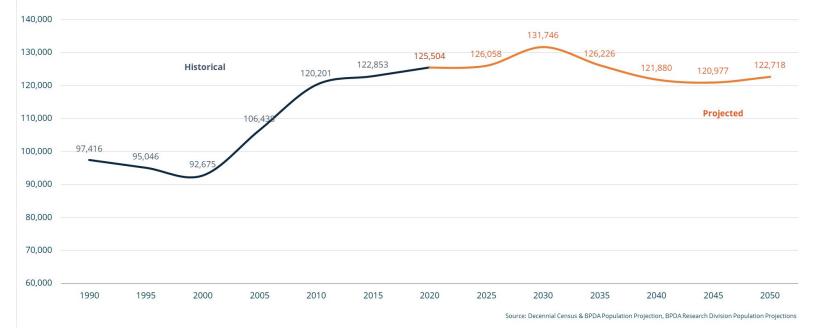
Source: Decennial Census & BPDA Population Projection, BPDA Research Division Population Projections

**bpda** research division

#### Boston's young adults will peak in 2030

#### **Boston Population Aged 18-24**

Historical & Projected

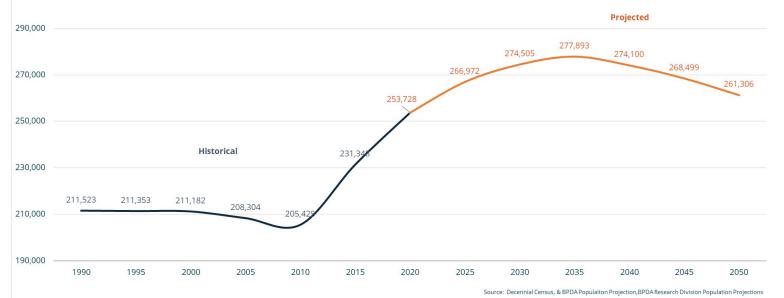




### Boston's younger working age population will peak in 2035

#### **Boston Population Aged 25-44**

Historical & Projected

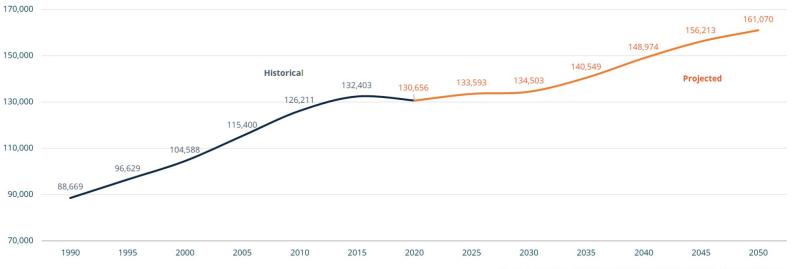




### Boston's older working age population continues to grow during this period

#### **Boston Population Aged 45-64**

Historical & Projected



Source: Decennial Census, & BPDA Populaiton Projection, BPDA Research Division Population Projections



# Boston's older population increases rapidly until 2035 and then levels off as all Boomers enter this age group

#### **Boston Population Aged 65 & Older**

Historical and Projected



Source: Decennial Census, & BPDA Populaiton Projection, BPDA Research Division Population Projections







### **Projections involve two kinds of judgements:**

- Learning from the past (while monitoring the contemporary situation). This kind of judgement is data intensive based on documentable current conditions and historic relationships
- Estimating what is different in the future is a matter of looking at the reactions to an interaction among existing trends (not guess)

As conditions change, we will update our estimates and change future population projections



#### **Today's best understanding of Boston's population:** The data used in this population projection can be updated and revised population projections will be produced when new data are available

**Updates** 

- Yearly BPHC birth and death data
- Yearly school-aged population from BPS
- Quarterly housing data from Mayor's Office of Housing and BPDA
- 2028 U.S. population projections

Updated data will change future population projections



#### **References Demography**

**General Demographic Trends** - Ezra Klein Podcast – Interview with Jennifer D. Sciubba, author of 8 *Billion and Counting: How Sex, Death and Migration Shape Our World*. This podcast provides an overview of demographic trends and examines some implications of them.

https://www.youtube.com/watch?v=YW63FmvX5Qo&list=PLdMrbgYfVI-szepgVpArP0obwYgbKdfvx&index=2

**Declining Births and the Impact on the College "Enrollment Cliff"** - The enrollment cliff is a demographic trend that will disrupt higher education starting in 2026. The number of births peaked in 2007 and each year has continued to decline. Colleges and universities are planning for a shrinking number of high school graduates. This Vox article shows how a similar demographic trend was avoided a couple of generations earlier because of rising college enrollment (demography is not destiny), and how this present trend can affect regions of the country differently (policies seldom effect all equally).

https://www.vox.com/the-highlight/23428166/college-enrollment-population-education-crash

**Japan and Declining Population** - New York Times has covered the declining population in Japan for over a decade. These stories give some indication of the effects that declining population can have on a country. Any search of the paper with Japan and declining population results in a variety of articles. Here is one of the impacts on housing.

https://www.nytimes.com/2015/08/24/world/a-sprawl-of-abandoned-homes-in-tokyo-suburbs.html



#### Migration, Public Health and Economic Development

**Public Health and Economic Development and Population Growth** - Hans Roslin – Short video on the relationship between public health and economic development on human health over the last 200 years, with a hint of the importance of inequality within countries, Hans Rosling's 200 Countries, 200 Years, 4 Minutes - The Joy of Stats - BBC Four

https://www.youtube.com/watch?v=jbkSRLYSojo

**An Economic Assessment of International Migration** - Research paper by Don DeVoretz providing an economic assessment of immigration policies of different countries.

https://www.iza.org/publications/dp/1217

**Overview of International Migration in the United States** – Freakonomics recently produced a series of podcasts on internation migration that debates the economic motivations of immigration and examines why the United States has changed in its orientation towards international migration since 1980.

https://freakonomics.com/podcast-tag/the-true-story-of-americas-supremely-messed-up-immigration-system/

