

Comparing Voter Turnout to Public Transit Access

Using 2012 General Election Data

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A decorative graphic on the left side of the slide, featuring a vertical strip of the American flag with stars and stripes.

Does Accessibility to Public Transit Effect Voter Turnout?

- In the 2012 November General Election, MA had a voter turnout rate of only **66.2%** ¹
- Scholars suggest that costs associated with travel might impact a person's likelihood of voting ²
 - Some people will walk, some will drive, and others will take public transit
 - Voters are more sensitive to differences in distance over short ranges than over longer ranges ³

¹ *US Elections Project*

² *Downs 1957; Niemi 1976; Sanders 1980*

³ *Haspel et al. 2005*



Polling Locations

- Massachusetts General Laws, Chapter 54
 - **Location** – Placed in public ways, provided that they are safe and convenient for public travel
 - **Population** – Each voting precinct shall contain no more than 4,000 inhabitants
 - **Territory** – Each voting precinct shall be composed of compact and contiguous territory



Voter Turnout Data

- City of Boston Election Department
 - **Total Ballots Cast** for State Election – November 6, 2012
 - Breakdown by ward and precinct – **254 voting precincts in Boston**
- According to the United States Elections Project, the best measure of participation is Total Ballots Counted
 - However, it does not represent the true number of people who attempted to vote
 - Total Ballots Cast adds rejected ballots to the total ballots counted



Voter Turnout Data

$$\text{Voter Turnout} = \frac{\text{Total Ballots Cast}}{\text{Voter Eligible Population}}$$

Population

- **Voting-Age Population (VAP)** – Calculated from Census Bureau population estimates by age-sex-race
- **Voter Eligible Population (VEP)** – Adjusting VAP for non-citizens and ineligible felons
 - Preferred denominator for voter turnout rates
- **Voter Registration**
 - Typically not used because it contains people who are registered at an address but no longer reside there
 - Federal Law requires registered voters remain on registration rolls for no less than two federal general elections since the last time that person voted



Demographic Analysis

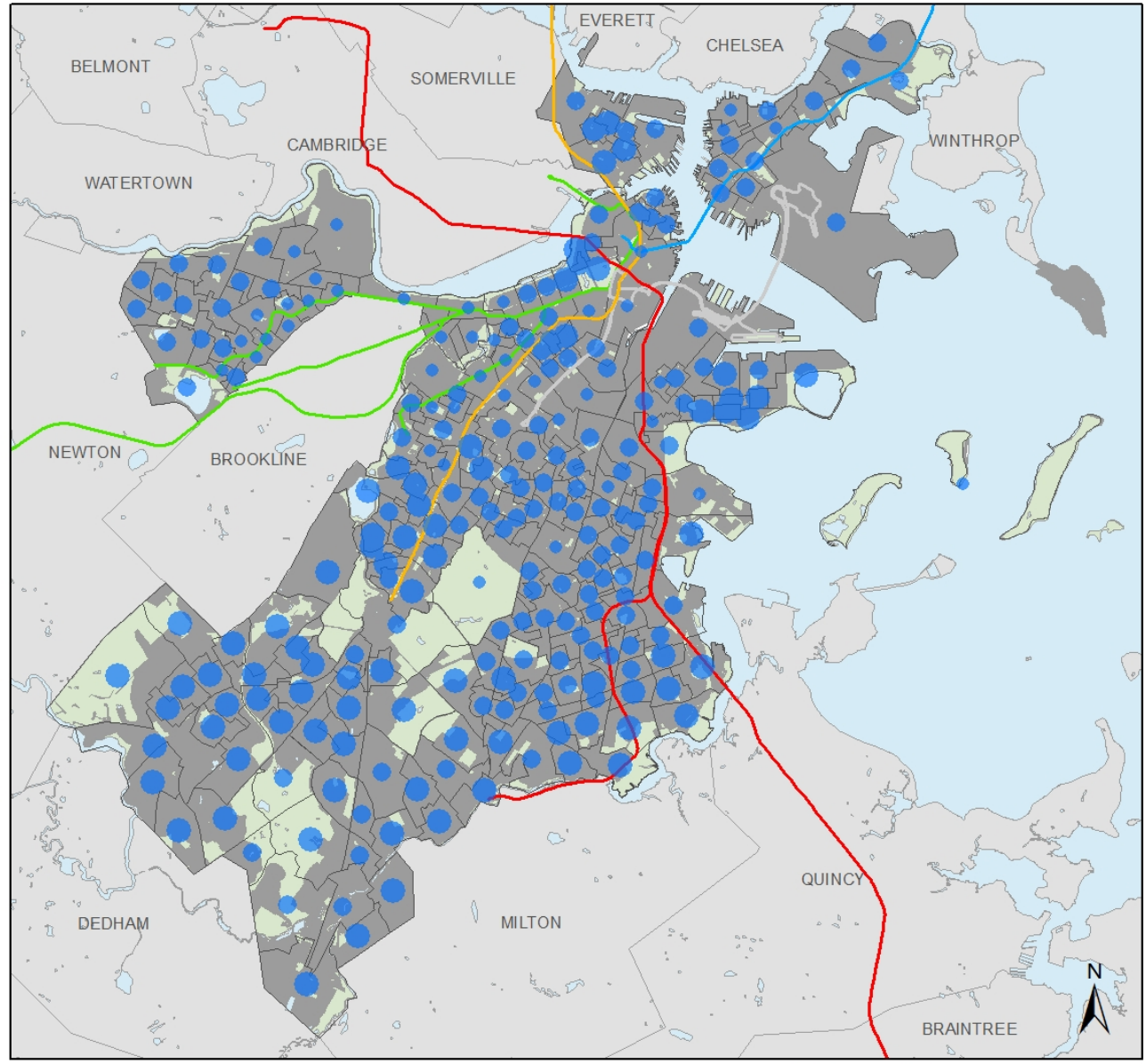
- Total Ballots Cast (table)
 - Measure Voter Turnout for each precinct
- Precinct Polygons (shape file)
 - Boundary lines of precincts differ from boundary lines of census tracts
 - Symbolized using centroid map with graduated symbols to overlay the census tract map
- MBTA Public Transit Line (shape file)
 - Path and location of Boston rapid transit lines
 - Shows proximity to precincts with certain levels of voter turnout
- Protected and Recreational Open Space (shape file)
 - Location of open space in Boston representing areas that are less dense



Demographic Analysis

- US Census Bureau – Suffolk County Census Tracts (shape file)
 - Graduated colors choropleth map for each demographic type
- 2008-2012 American Community Survey 5-Year Estimates (tables)
 - Means of Transportation to Work
 - Educational Attainment
 - Median Age
 - Median Income in the Past 12 Months
 - Median Year Householder Moved into Unit by Tenure
 - Race

Voter Turnout in Boston Compared to Public Transit Access (2012)



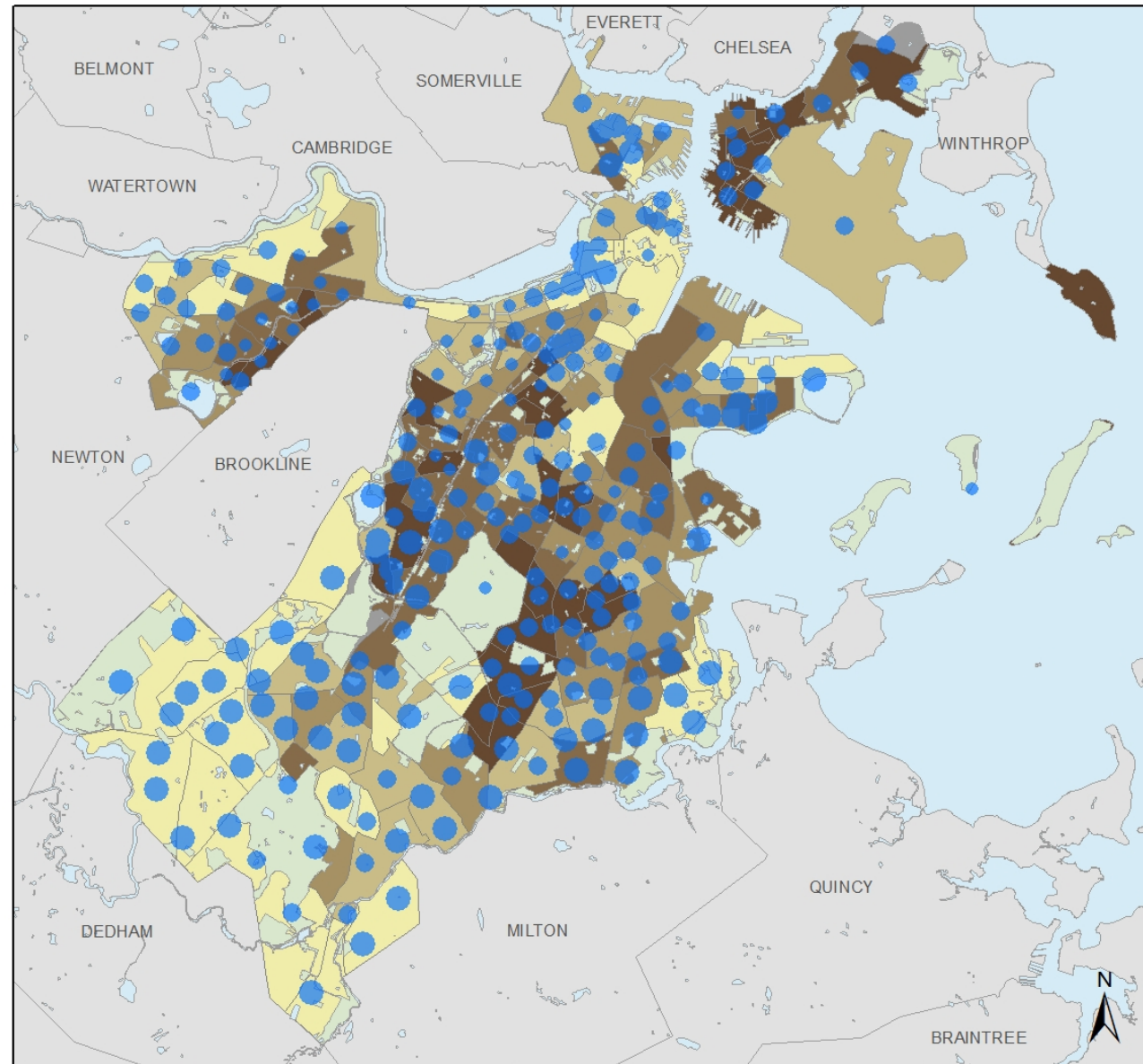
- Voter Turnout**
- 60% or less
 - 61 - 70%
 - 71% or greater

Source: City of Boston Election Department
State Election Results, 2012
Total Ballots Cast

0 1.25 2.5 5 Miles



Voter Turnout in Boston Compared to Public Transit Use (2012)



Voter Turnout

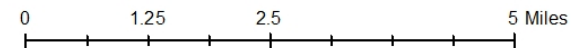
- 60% or less
- 61% - 70%
- 71% or greater

Source: City of Boston Election Department
State Election Results, 2012
Total Ballots Cast

Public Transit Use

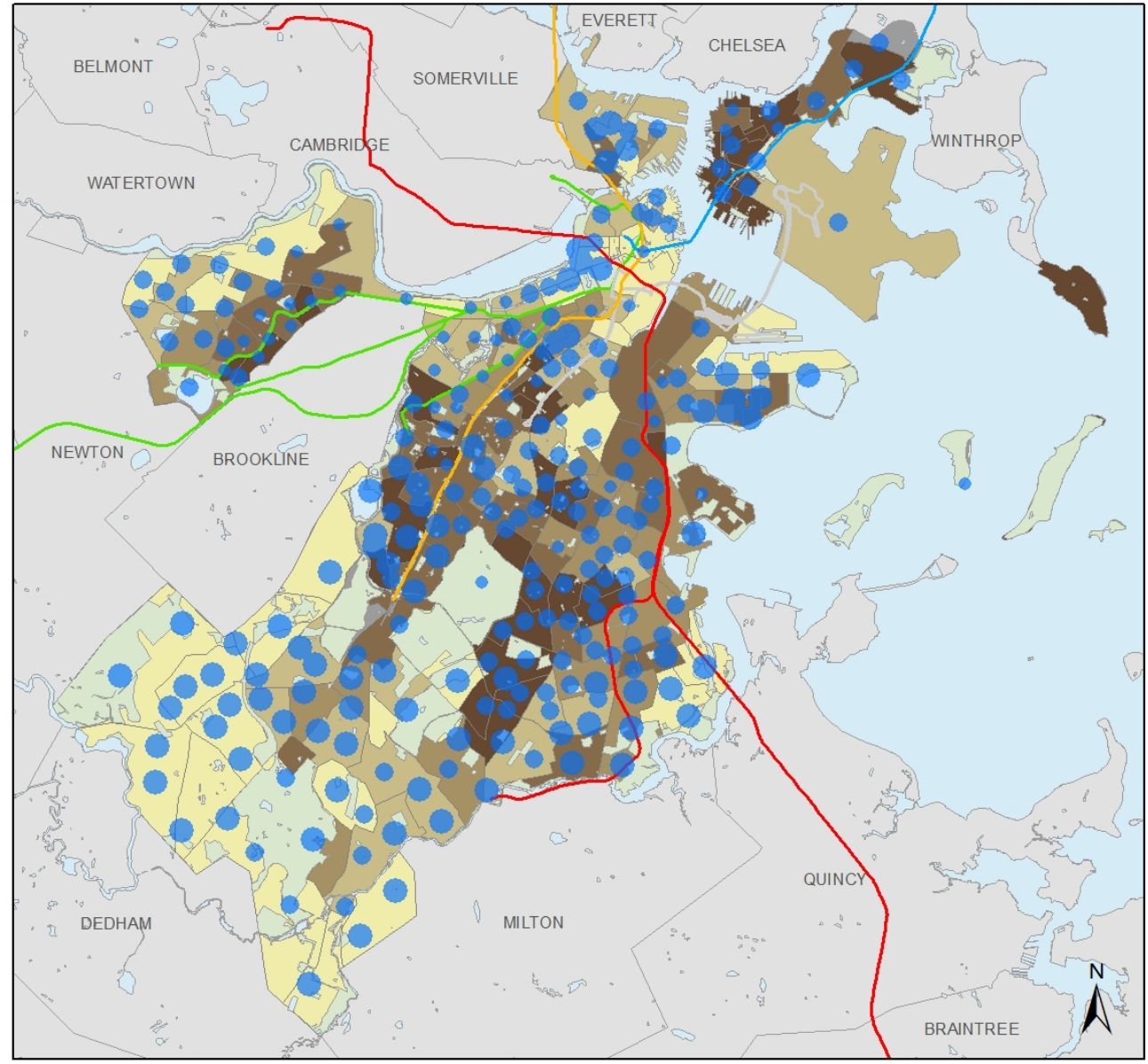
- 21% or less
- 22% - 29%
- 30% - 36%
- 37% - 45%
- 46% or greater

Source: US Census Bureau, 2008-2012
American Community Survey 5-year Estimates
Suffolk County Census Tracts





Voter Turnout in Boston Compared to Public Transit Use (2012)



Voter Turnout

- 60% or less
- 61% - 70%
- 71% or greater

Source: City of Boston Election Department
State Election Results, 2012
Total Ballots Cast

Public Transit Use

- 21% or less
- 22% - 29%
- 30% - 36%
- 37% - 45%
- 46% or greater

Source: US Census Bureau, 2008-2012
American Community Survey 5-year Estimates
Suffolk County Census Tracts

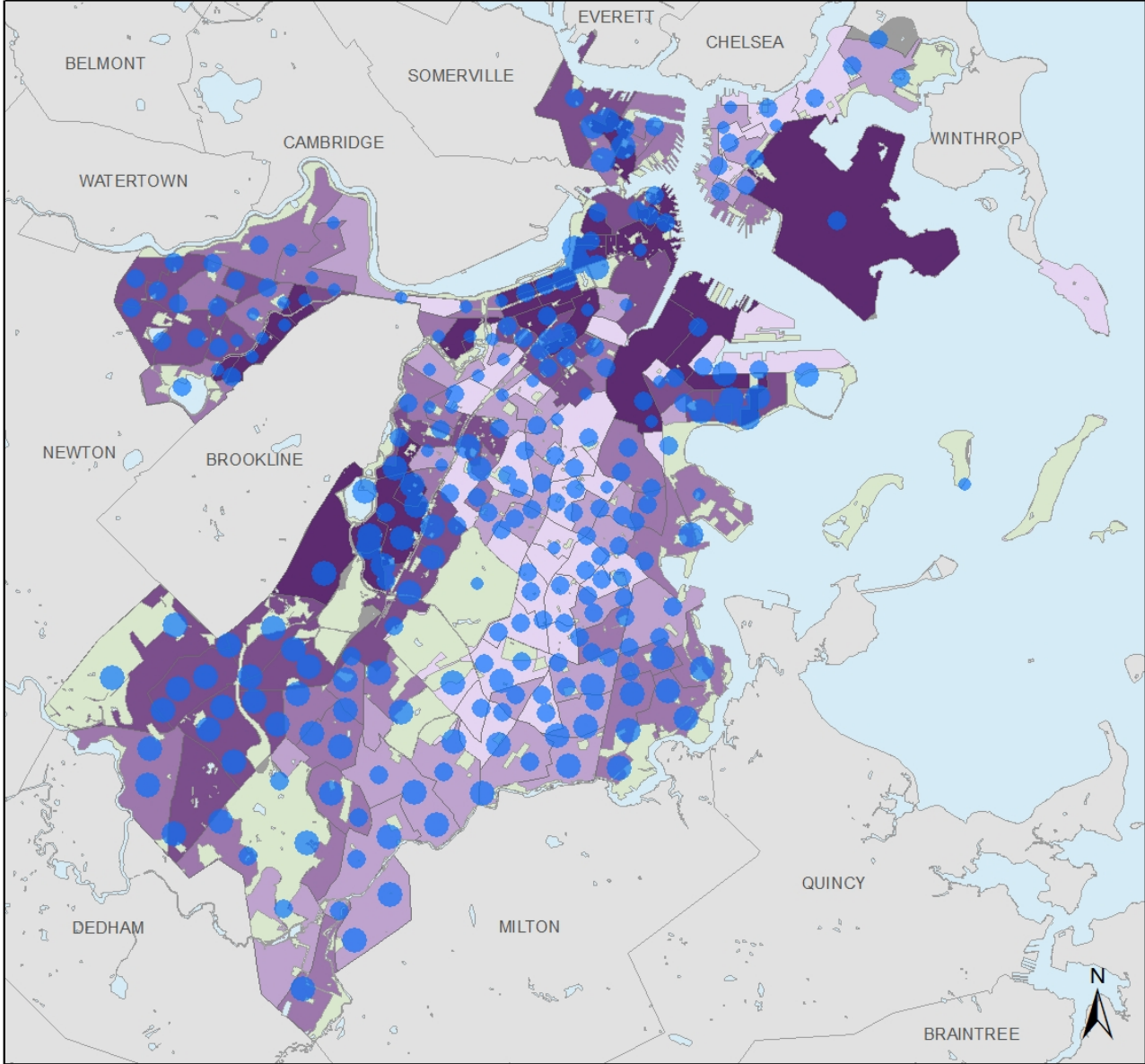
0 1.25 2.5 5 Miles



Other Predictors of Voter Turnout

- Educated citizens vote at higher levels
- Voting increases with age
- Income is positively related to voting
- People who stand to gain more from the election will be more likely to vote (household tenure)
 - New residents may be less likely to vote because of fewer community connections and burdens associated with adjusting to new environment
- Other Potential Demographics?
 - Race as a measure of diversity

Voter Turnout in Boston Compared to Educational Attainment Level (2012)



Voter Turnout

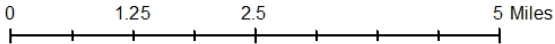
- 60% or less
- 61% - 70%
- 71% or greater

Source: City of Boston Election Department
State Election Results, 2012
Total Ballots Cast

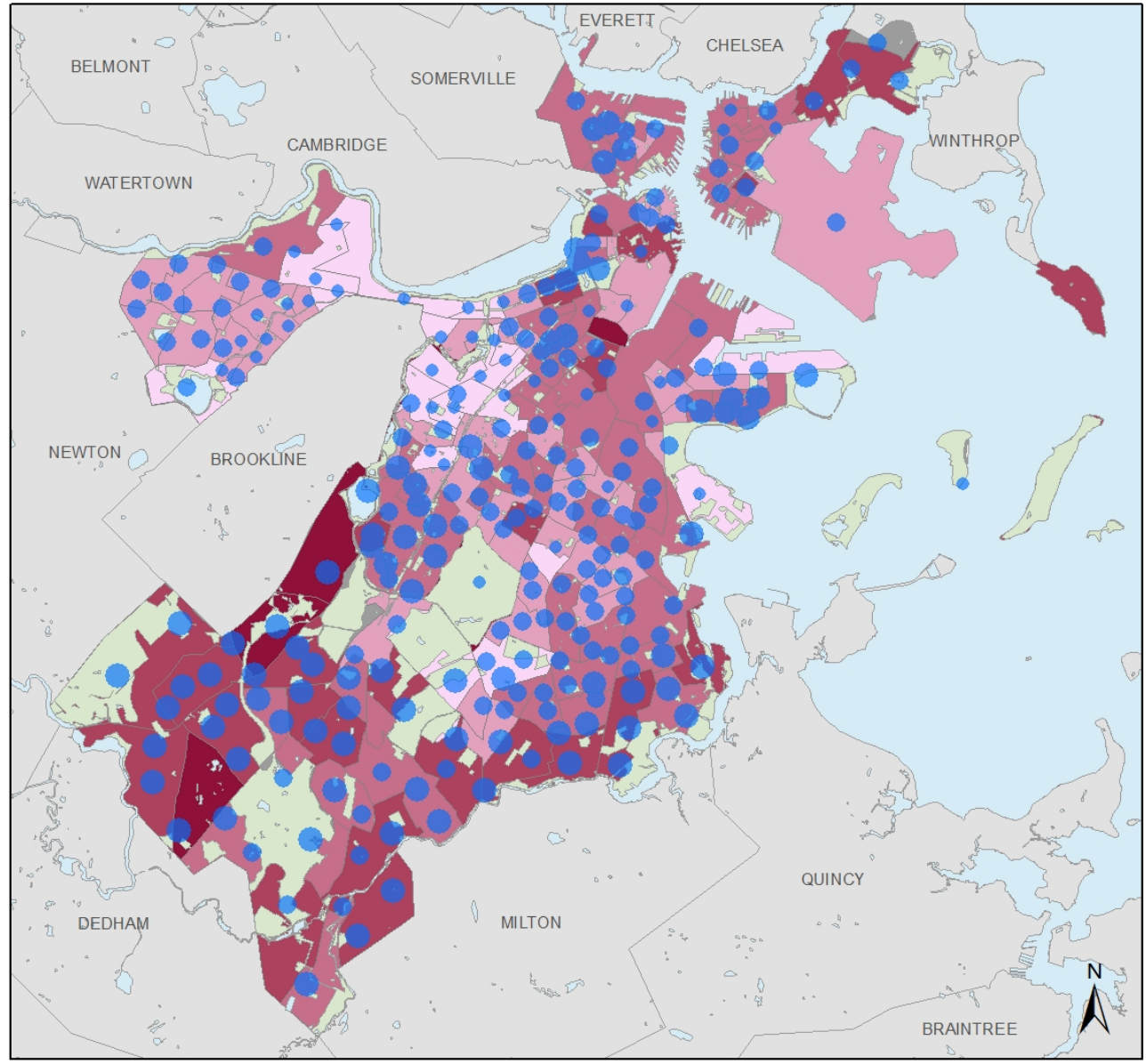
Population Over 18 with a Bachelor's Degree or Higher

- 15% or less
- 16% - 25%
- 26% - 43%
- 44% - 64%
- 65% or greater

Source: US Census Bureau, 2008-2012
American Community Survey 5-year Estimates
Suffolk County Census Tracts



Voter Turnout in Boston Compared to Median Age (2012)



Voter Turnout

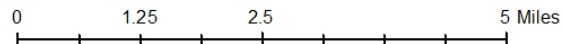
- 60% or less
- 61% - 70%
- 71% or greater

Source: City of Boston Election Department
State Election Results, 2012
Total Ballots Cast

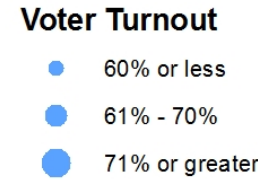
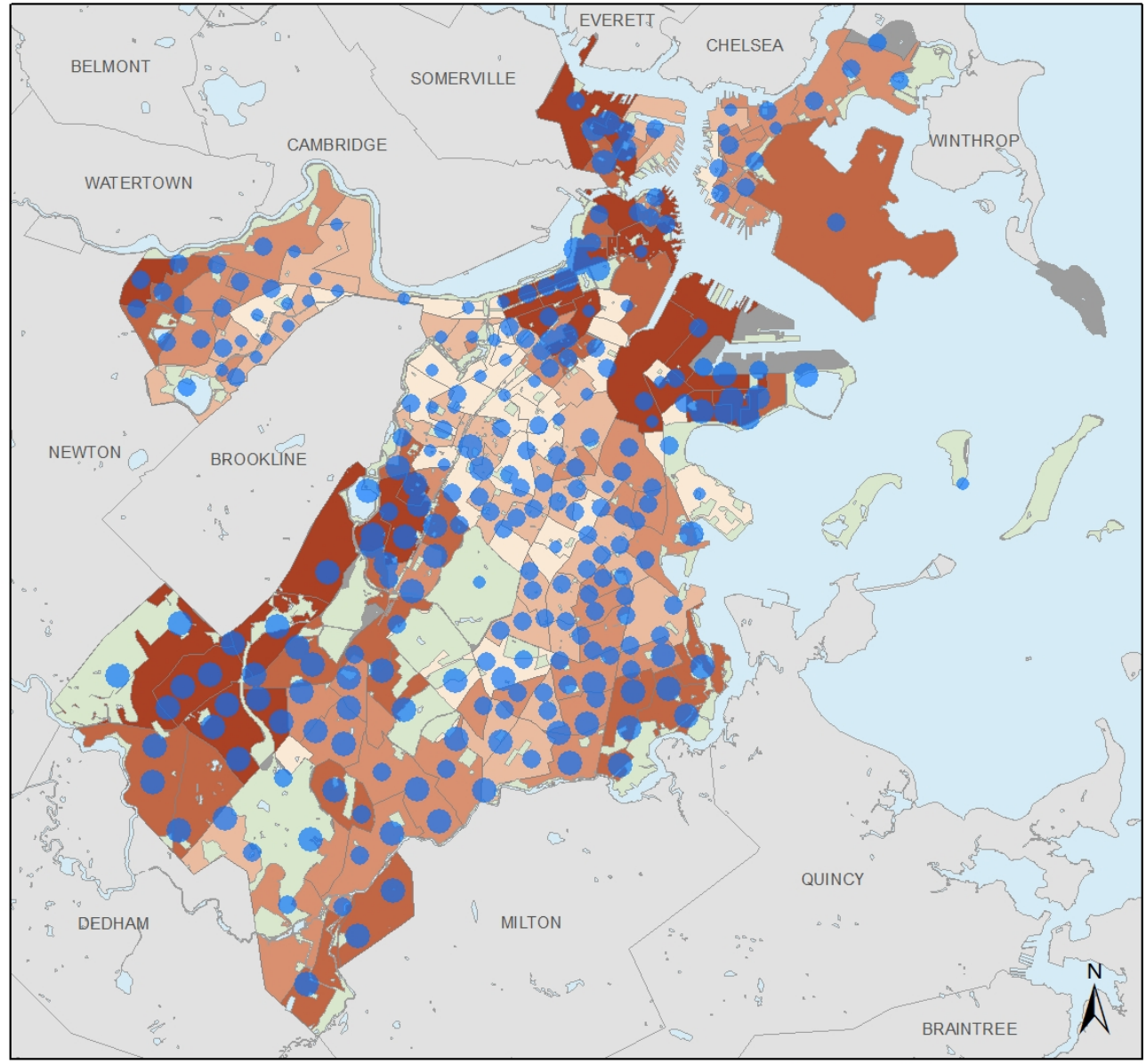
Median Age

- 26 or younger
- 27 - 31
- 32 - 37
- 38 - 43
- 44 or older

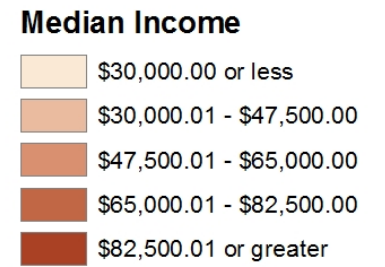
Source: US Census Bureau, 2008-2012
American Community Survey 5-year Estimates
Suffolk County Census Tracts



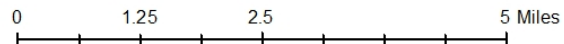
Voter Turnout in Boston Compared to Median Income (2012)



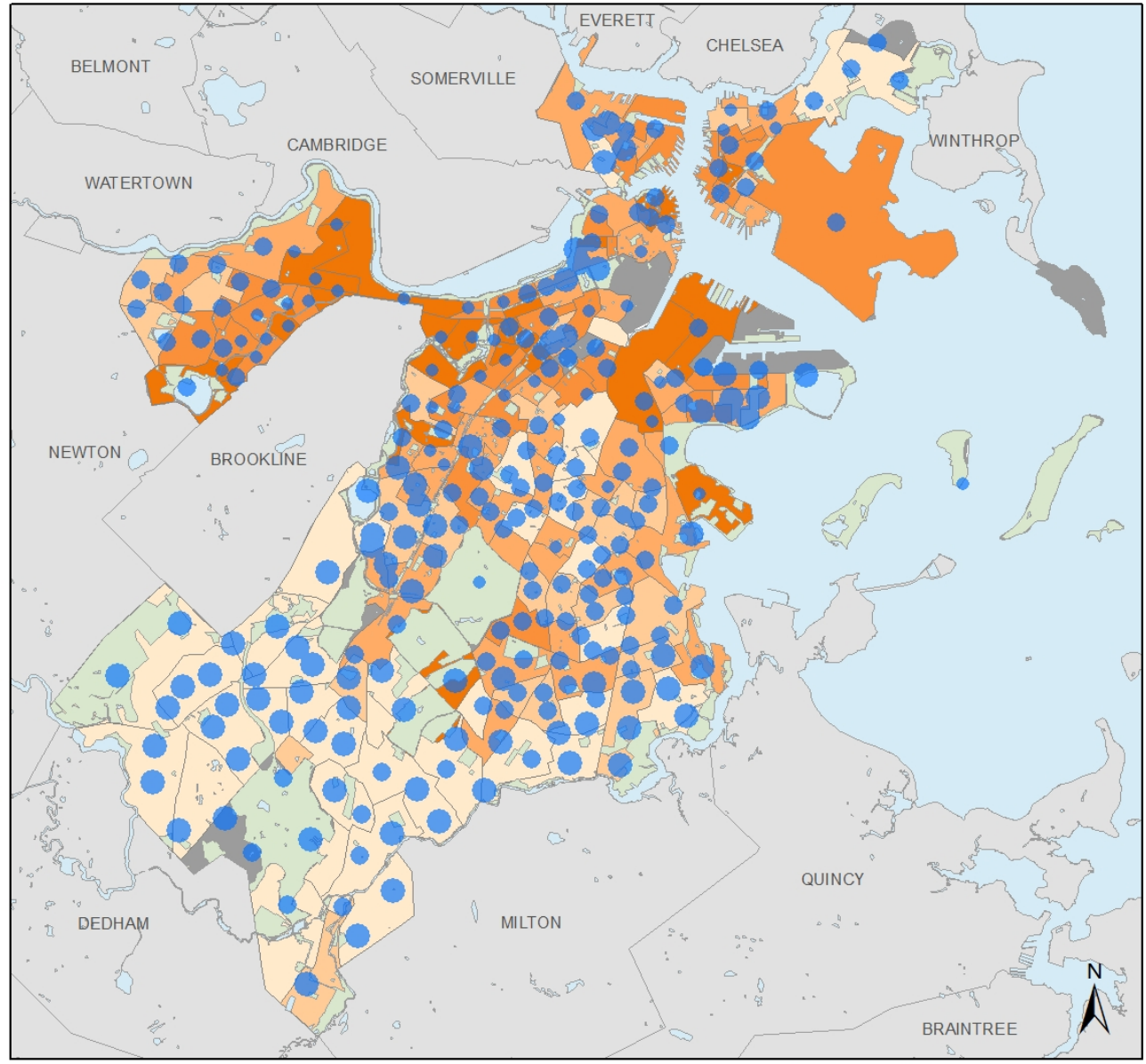
Source: City of Boston Election Department
State Election Results, 2012
Total Ballots Cast



Source: US Census Bureau, 2008-2012
American Community Survey 5-year Estimates
Suffolk County Census Tracts



Voter Turnout in Boston Compared to Median Year Householder Moved into Unit (2012)



Voter Turnout

- 60% or less
- 61% - 70%
- 71% or greater

Source: City of Boston Election Department
State Election Results, 2012
Total Ballots Cast

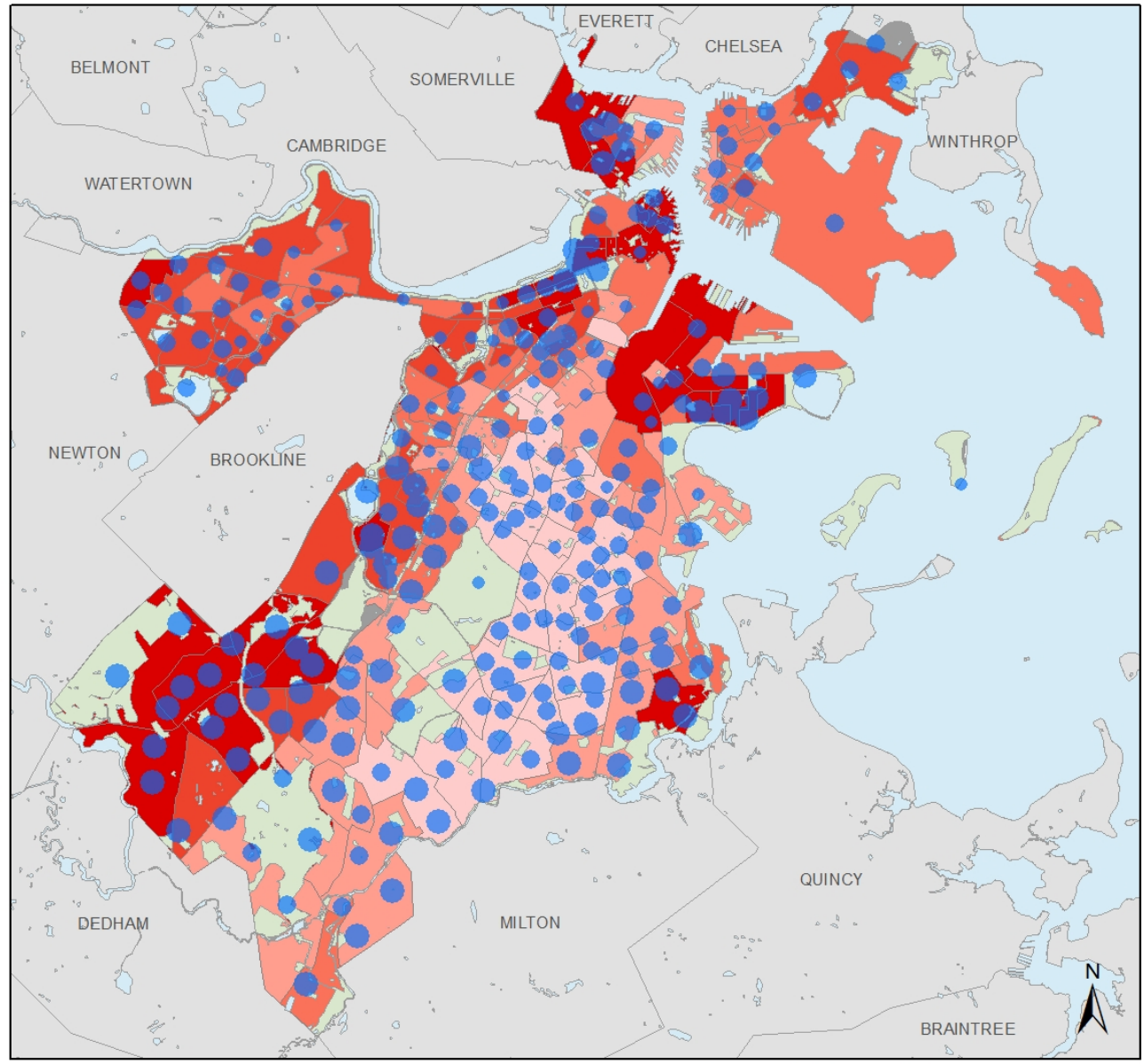
Median Year Householder Moved into Unit

- 2002 or earlier
- 2003
- 2004
- 2005
- 2006 or later

Source: US Census Bureau, 2008-2012
American Community Survey 5-year Estimates
Suffolk County Census Tracts

0 1.25 2.5 5 Miles

Voter Turnout in Boston Compared to Population White Alone (2012)



Voter Turnout

- 60% or less
- 61% - 70%
- 71% or greater

Source: City of Boston Election Department
State Election Results, 2012
Total Ballots Cast

Population White Alone

- 17% or less
- 18% - 53%
- 54% - 70%
- 71% - 83%
- 84% or greater

Source: US Census Bureau, 2008-2012
American Community Survey 5-year Estimates
Suffolk County Census Tracts

0 1.25 2.5 5 Miles

A decorative graphic on the left side of the slide, featuring a portion of the American flag with stars and stripes.

Conclusion

- Boston is a dense city, accessible by driving, walking, biking, and public transit
 - Public transit accessibility does not appear to have a major effect on voter turnout
- However, a combination of other demographic characteristics appear to be a larger predictor of voter turnout
- Less to do with how voters are getting to the polls and more to do with who is going to the polls to vote