The Census 2020 Low Response Score (LRS) and Chelsea, Massachusetts

Chelsea Population Characteristics

Chelsea's population characteristics put the city at a high risk for undercount in the upcoming Census. According to the latest ACS estimates, Chelsea's population includes:

- a higher than average proportion of renters versus homeowners, at 74.3% compared to 37.6% state average
- a very high percentage of single mothers, at 21.0% compared to 12.3% statewide
- Hispanic population at nearly six-times the state average, at 65.9% in Chelsea compared to 11.2% in Massachusetts
- resources that improve accessibility for Spanish speakers will be key to a complete count, as 59.8% of all Chelsea residents speak Spanish
- Limited English ability in Chelsea is more than four times the state average, with 41.8% speaking English "less than very well" compared to 9.1% statewide; this population predominantly speaks Spanish, with 36.4% of the populace speaking Spanish but also English "less than very well"

- High percent foreign born population, at 45.6% compared to an already higher than average 16.2% in Massachusetts.

Key Response Characteristics for Chelsea and Massachusetts Average

Key Demographics	Massachusetts	Chelsea
Ages 15-24	14.0%	11.6%
Hispanic	11.2%	65.9%
Female householder, no husband present, family	12.3%	21.0%
Vacant housing units	9.7%	4.4%
Poverty level, all people, w/in past 12 months	11.1%	19.5%
Renter-occupied	37.6%	74.3%
Owner-occupied	62.4%	25.7%
Foreign-born	16.2%	45.6%
Speak English less than "very well"	9.1%	41.8%
Languages spoken other than English		
Spanish	8.8%	59.8%
Speak English less than "very well"	3.6%	36.4%
Other Indo-European languages	8.8%	6.1%
Speak English less than "very well"	3.1%	3.3%

UMass Donahue Institute. Source: 2016 ACS 5-year estimates Tables DP02, DP03, DP04, DP05 and 2015 ACS 5-year estimates Table B16001. U.S. Census Bureau, Population Division

The Low Response Score

In preparation for the 2020 Census, the U.S. Census Bureau has developed a new hard-to-survey metric called the *Low Response Score (LRS).* This score identifies block groups and tracts whose characteristics predict low census mail return rate and are highly correlated (negatively) with census and survey participation. To calculate this score, the Bureau uses 2010-2014 American Community Survey data and looks at variables including housing, demographic, and socioeconomic, together with census operational data, including the 2010 Census Mail Return Rate for each block group and tract.
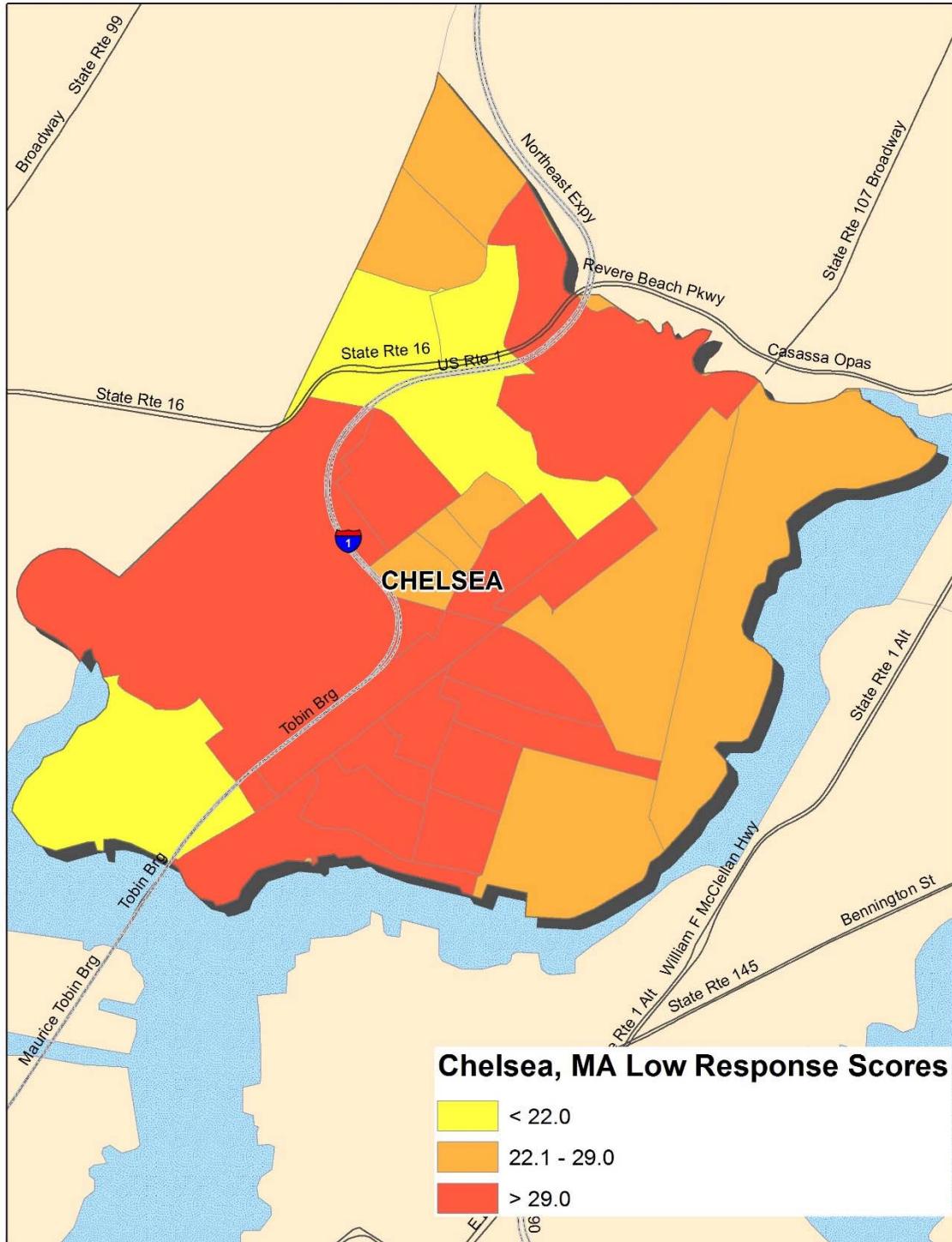
The LRS can be interpreted as the percentage of households predicted to NOT self-respond to the Decennial Census; the higher the LRS is in a census tract, the harder that area may be to survey. So, for example, if LRS=25, Census estimates that 25% of households in that tract will not self-respond to the Census. As a general rule of thumb, areas with a LRS of over 29 are considered the hardest to count in the upcoming Census.

Factors that increase a geography's Low Response Score include high percentages of:

- vacant units
- Hispanic population
- % of single female head-of-households
- households at or below the poverty level
- college-aged population (18-24 years)
- renters versus homeowners

Low Response Score Map, Chelsea

- Of all 4,889 Census block groups with LRS numbers in Massachusetts, the average LRS is 18.
- Of all 27 Census block groups with LRS numbers in Chelsea, the average LRS is 30, with 22 block groups scoring 25 or higher and ranging up to 46 in the hardest-to-count Census block group.

Source: UMass Donahue Institute using data from the U.S. Census Bureau's 2018 Planning Database. The 2018 Planning Database uses 2010 Census data and 2012-2016 American Community Survey Data.