# Designing and Mapping a Diverse Sample of Race and Ethnic Groups for the 2015 National Content Test

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## Introduction

During 2015, the U.S. Census Bureau undertook a comprehensive national study of 1.2 million housing units to test census questionnaire content and to obtain nationwide measurements of response rates for Internet and self-response.

One of the objectives of the 2015 National Content Test (NCT) research was to test alternative versions of race and ethnic questions to improve question design and data quality for the 2020 Census. The goal for this research is to develop ways to produce more accurate and relevant data, which reflect our nation's changing racial/ethnic diversity.

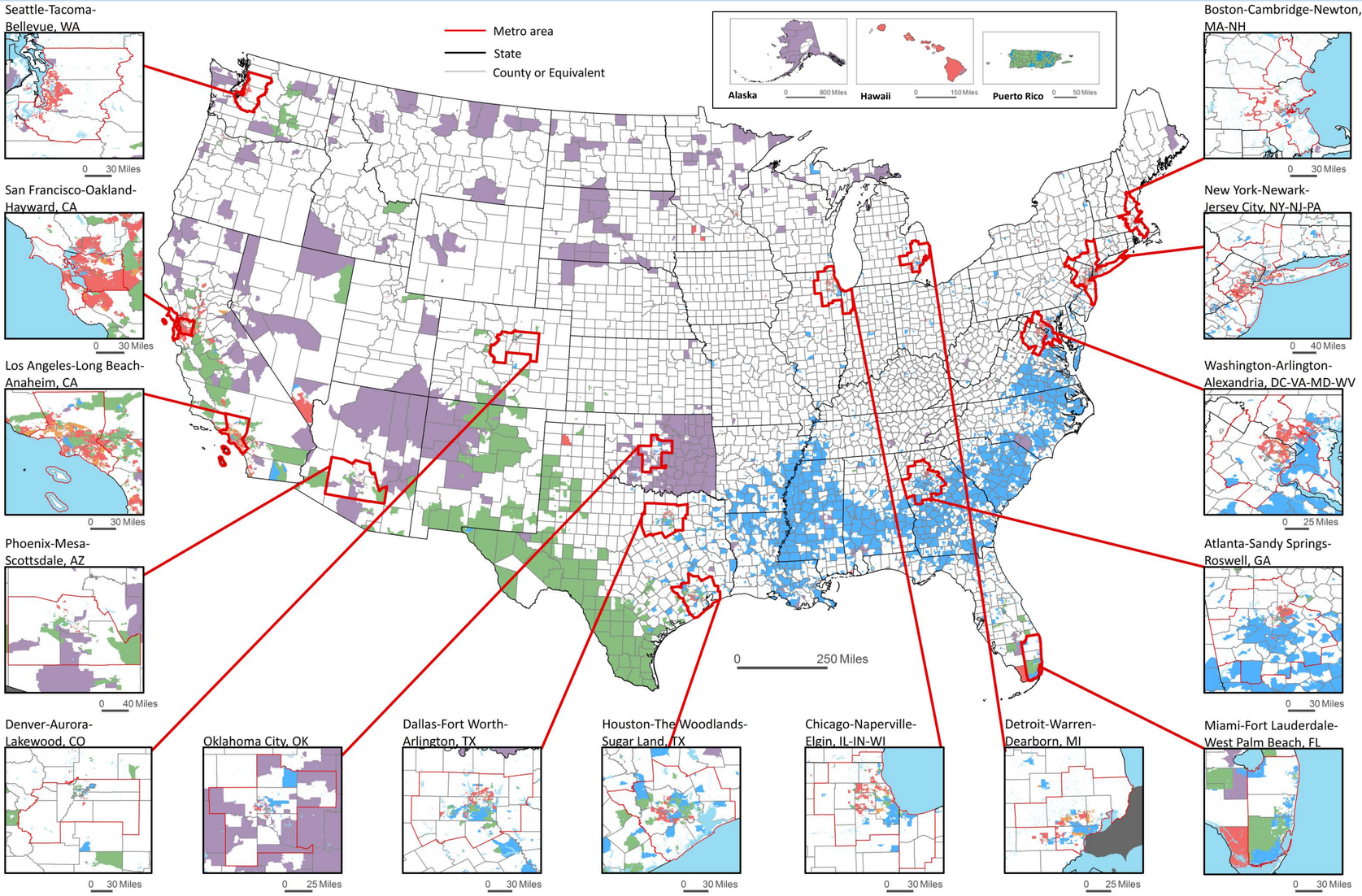
## Designing and Mapping a Diverse 2015 NCT Sample

U.S. Census Bureau researchers developed a complex sampling strategy to ensure the 2015 NCT accurately reflected the nation as a whole. This poster showcases the dynamics of the design for the six different race/ethnic strata employed in the research and explains how the NCT sample was produced.

Households were stratified into one of six race/ethnic strata, based on race, ancestry, and Hispanic origin data from 2010 Census data and 2009-2013 5-Year American Community Survey (ACS) data.

The sample selection was done sequentially, based on the following criteria:

- **Middle Eastern or North African (MENA) Stratum**: Tracts where the percentage of people in the tract who identify as MENA was 10 percent or more.
- **American Indian or Alaska Native (AIAN) Stratum**: Tracts where the percentage of people in the tract who identify as AIAN was 10 percent or more.
- **Asian / Native Hawaiian or Other Pacific Islander (NHPI) Stratum**: Tracts where the percentage of people in the tract who identify as Asian or NHPI was 15 percent or more.
- **Black or African American Stratum**: Tracts where the percentage of people in the tract who identify as Black or African American was 25 percent or more.
- **Hispanic or Latino Stratum**: Tracts where the percentage of people in the tract who identify as Hispanic or Latino was 45 percent or more.
- **All Other Groups Stratum**: The remaining tracts that do not fall into one of the previous strata.




## Distribution of 2015 NCT Sample Tracts

The table below displays the estimated number of census tracts, housing units, population, and race/ethnic group percentages in each of the six race/ethnic strata, using 2009-2013 5-Year ACS data.

| | MENA Stratum | AIAN Stratum | Asian/NHPI Stratum | Black Stratum | Hispanic Stratum | All Other Stratum |
|---|---|---|---|---|---|---|
| Number of Tracts | 770 | 1,426 | 6,359 | 12,686 | 6,514 | 45,369 |
| Number of Housing Units | 1,176,267 | 1,874,151 | 10,555,098 | 17,997,061 | 9,393,227 | 75,865,280 |
| Population | 3,112,719 | 5,194,351 | 30,048,814 | 49,423,427 | 31,049,979 | 195,988,644 |
| MENA % | **19.1** | 0.3 | 2.2 | 0.5 | 0.6 | 0.9 |
| AIAN % | 1.0 | **26.3** | 1.3 | 1.1 | 1.4 | 1.2 |
| Asian / NHPI % | 14.2 | 2.9 | **30.4** | 2.6 | 3.3 | 3.4 |
| Black % | 9.4 | 6.9 | 9.0 | **53.5** | 7.1 | 5.7 |
| Hispanic % | 15.5 | 12.7 | 20.0 | 16.1 | **73.6** | 8.9 |

Source: Jones, N., Bentley, M., Konya, S., and Pratt, B. (2016). *2015 National Content Test Study Plan for Race and Ethnicity.* U.S. Census Bureau.

## Illustrating Sampling Strata

The use of a multi-strata oversample of key population groups enables us to gain a broader and deeper universe of diverse population groups across the country. The large map of the United States, to the left, illustrates how the sample was allocated for each of the six race/ethnic strata across the country.
A series of smaller inset maps provide a close-up of the sample for selected metro areas.

The tracts shaded in **orange** illustrate the Middle Eastern or North African stratum. The tracts shaded in **purple** illustrate the American Indian or Alaska Native stratum. The tracts shaded in **red** illustrate the Asian/Native Hawaiian or Other Pacific Islander stratum. The tracts shaded in **blue** illustrate the Black or African American stratum. The tracts shaded in **green** illustrate the Hispanic or Latino stratum. The All Other Groups stratum is shaded in **white**.

This diverse sample yields critical data to evaluate the 2015 NCT's key research questions. These data will inform Census Bureau recommendations on the collection and classification of race/ethnicity data for the 2020 Census.

## Next Steps for Research

This poster illuminates how the 2015 NCT sampling strategy enabled Census Bureau researchers to obtain a diverse, nationally representative sample for this critical research. The 2015 NCT provides a wealth of data to make informed recommendations for the race/ethnicity question(s) on the 2020 Census. This will enable the Census Bureau to provide the most accurate and relevant data possible about our changing and diversifying nation.

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