ESRI 2021 User Conference

Using Mapping to Minimize the Undercount

July 12-15, 2021

PRESENTED BY:

Elana Needle, Dir of The Racial Equity Anchor Collaboration, Unidos US
Jamal Watkins, SVP, Strategy and Advancement Strategy, NAACP
Tony Fairfax, CEO & Principal Consultant, CensusChannel LLC

Introduction:
The Racial Equity Collaborative

Presenter:
Elana Needle

Elana Needle
The Racial Equity Collaborative

Introduction:
The ESRI Relationship

Presenter:
Jamal Watkins

Jamal Watkins
The ESRI Relationship

Introduction:
The 2020 Decennial Census
The Racial Equity
2020 Census Data Hub

Presenter:
Tony Fairfax

Tony Fairfax
The Decennial Census/Data Hub

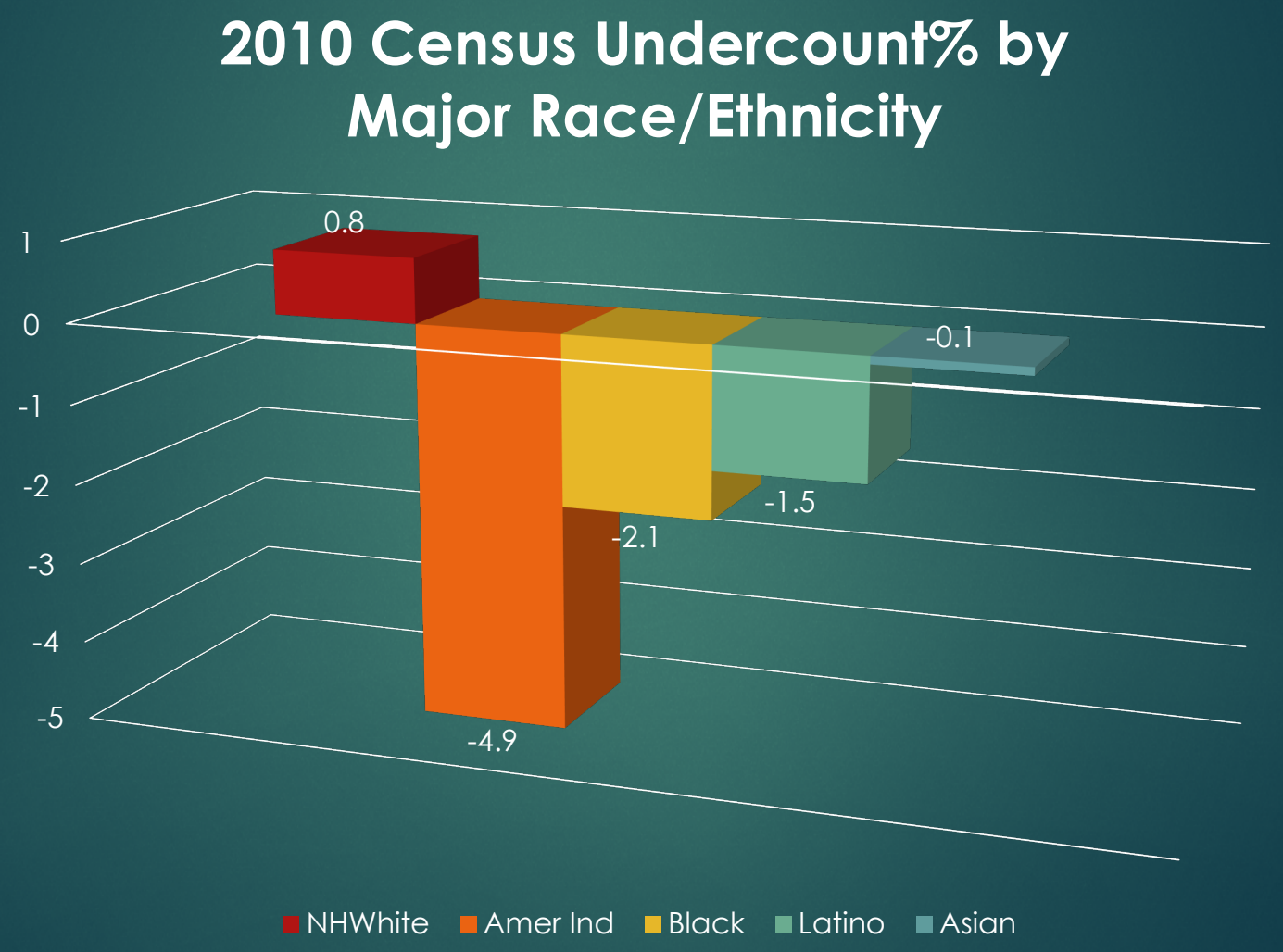
The Decennial Census

- What Is The Decennial Census
  - The Decennial Census counts every person who lives in the U.S. and its territories.
  - **It is a 100% count**
  - It is a snapshot of the population on April 1, 2020
- Why Count Every Person?
  - Mandated by the U.S. Constitution (Article I, Section 2) to occur every 10 years.

Why is an Accurate Count Important?

- Funding:
  - Dozens of Gov programs (federal and state) are allocated using census population data
    - Examples: Medicaid, Head Start, Supplemental Nutrition Assistance Program (SNAP), National School Lunch Program, Foster Care, etc.
    - Over $675 billion allocated using census population data
- Redistricting:
  - Impact Congressional Apportionment
  - Malapportioned representation in Districts
  - Reduction in districts with majority communities of color
- Research/Planning:
  - Planning Infrastructure or services expansion could be inadequately determined (e.g. transportation)

What if 100% is not Counted?



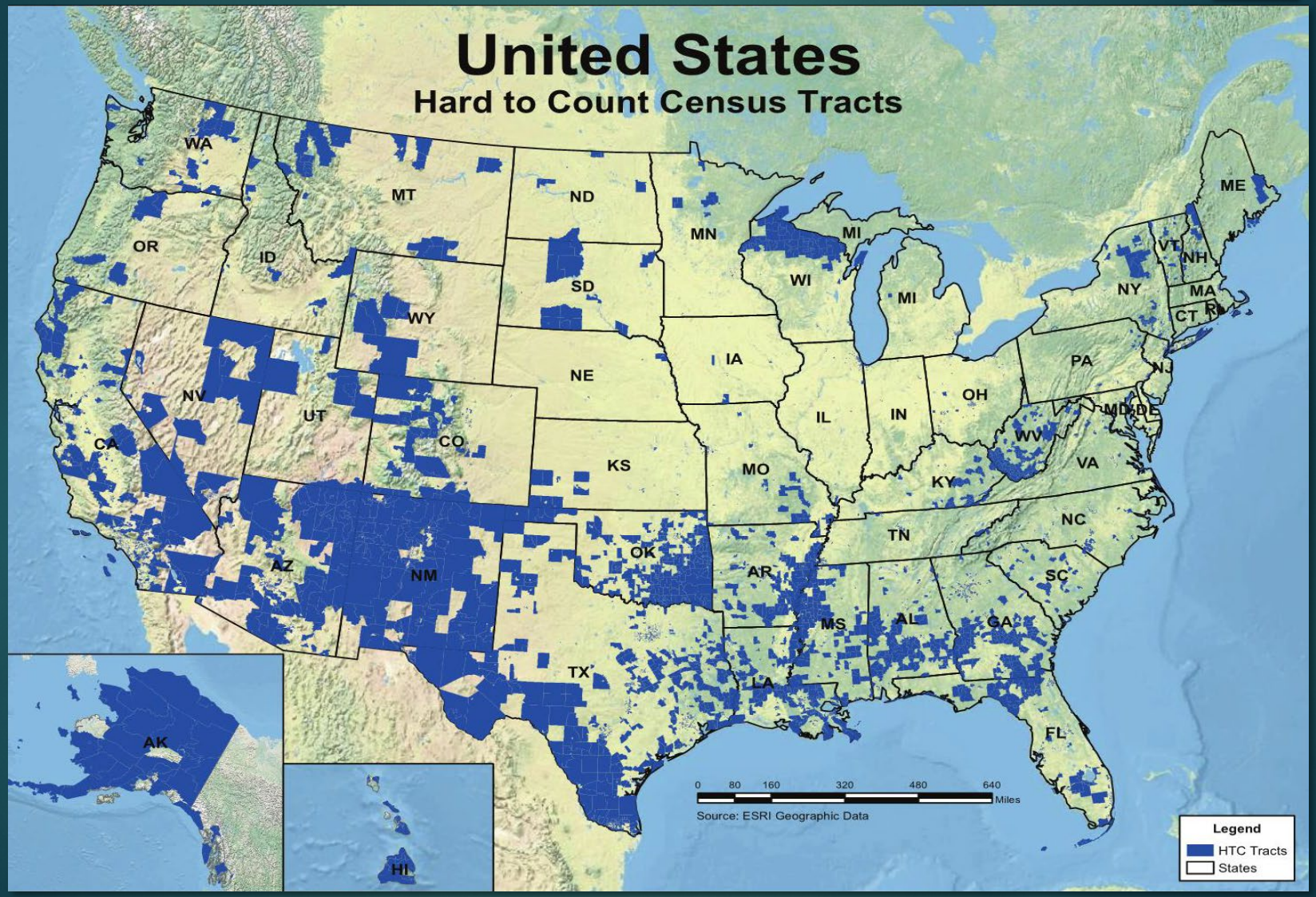
Where Can We Locate The Potential Undercounted Population?

(In order to provide additional outreach)

The Census Bureau provides data that corresponds how difficult an area is to count in three forms:

- **Hard to Count (HTC) Index**
  The Bottom 20% of 2010 Mail Return Rates – Prior to the start of the Census
- **Low Response Scores (LRS)**
  Predictive index using demographic and socioeconomic data - Prior to the start of the Census
- **2020 Census Self Response Rates**
  After the Census begins and during the enumeration, the Census Bureau provides self response rates at the State, County, City, and Tract level

Hard to Count areas are scattered throughout the US. This makes it an excellent GIS Problem.



The Solution:
The Racial Equity 2020 Census Data Hub

Why Create The Racial Equity 2020 Census Data Hub?

Background: Several other websites enabled users to locate HTC or LRS areas

Problem: Those websites did not enabled users to locate HTC or LRS areas by Race or Ethnicity

Solution: The Racial Equity 2020 Census Data Hub. The Data Hub allowed collaborative organizations, that had natural constituencies of color, to locate and target HTC areas and provide messaging that resonated with their respective population group.

The Racial Equity 2020 Census Data Hub

Used ESRI's Hub Cloud Platform

Integrated various Census data (hard to count and race/ethnicity data) into ESRI's Web Maps, Story Maps, Mapping Applications and Dashboards

Enabled users to view and locate HTC, LRS, and Low 2020 Census Self Response Rate areas throughout the country by race/ethnicity

Workflow Process of Developing the Racial Equity 2020 Census Data Hub

Hard to Count Areas - Prior to the start of the Census

Joined Census Planning Database with Census Shapefiles using ArcGIS Desktop

- State, County, City, Tracts Levels

→

Published Layers to ArcGIS.com

→

Developed Web Maps, Map Applications, & Dashboards

→

Integrated mapping tools into ESRI's Hub cloud platform

Workflow Process of Developing the Racial Equity 2020 Census Data Hub

2020 Self Response Areas – After the start of the Census

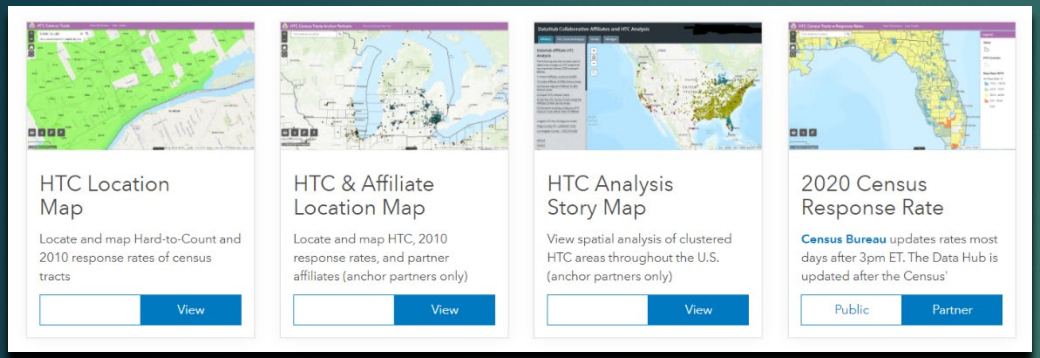
Updated the Census Self Response Data that was joined withCensus Shapefiles using ArcGIS Desktop

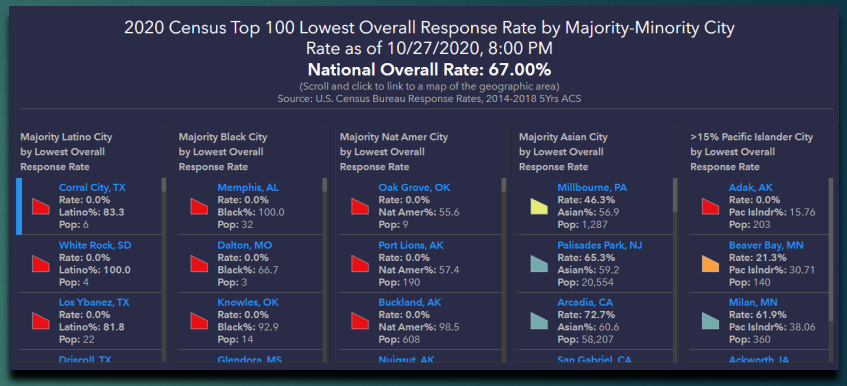
- State, County, City, Tract Levels

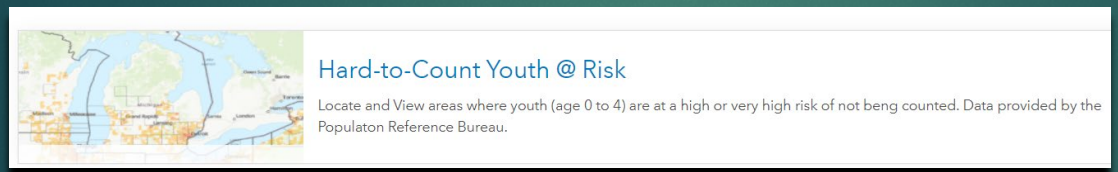
Published/Updated Layers to ArcGIS.com

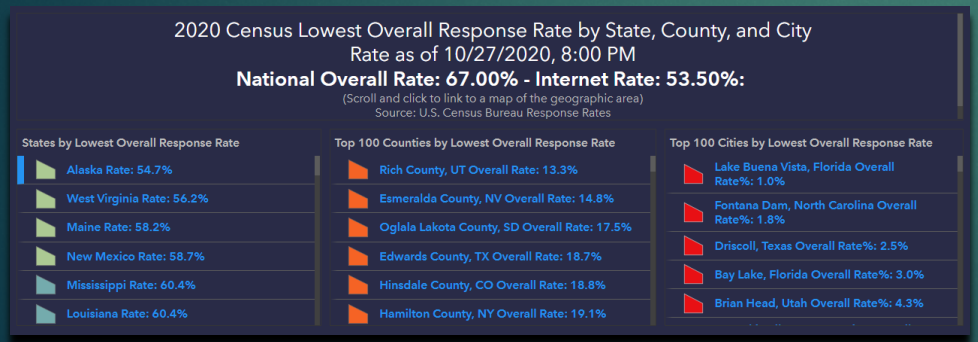
- Updated after the Census published new data (daily Mon – Fri)

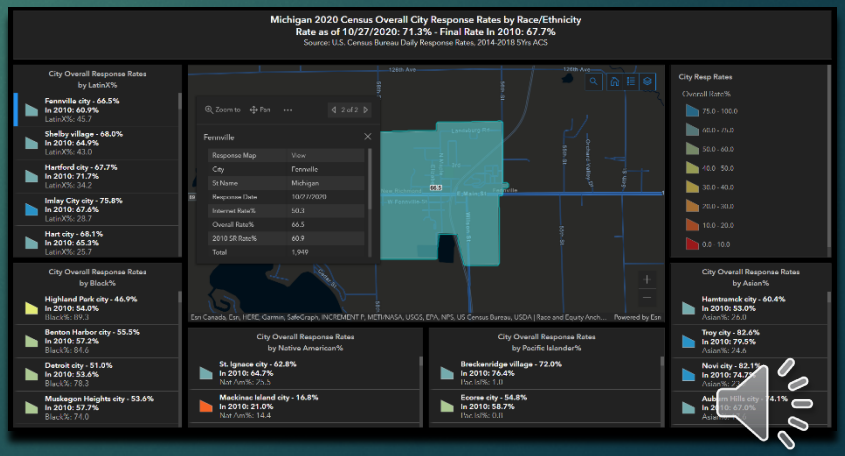
The Racial Equity 2020 Census Data Hub











The Racial Equity 2020 Census Data Hub

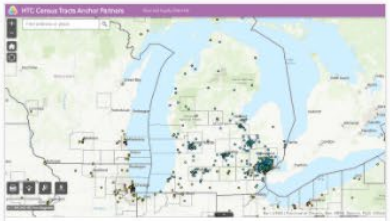
Census 2020 Web Map Applications

These web map applications provide simple access to information and tools to assist with locating hard-to-count (HTC) and low self-response rate areas

HTC Location Map

Locate and map Hard-to-Count and 2010 response rates of census tracts

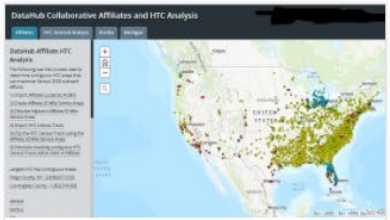
View



HTC & Affiliate Location Map

Locate and map HTC, 2010 response rates, and partner affiliates (anchor partners only)

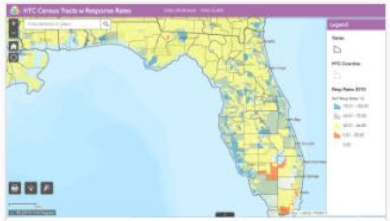
View



HTC Analysis Story Map

View spatial analysis of clustered HTC areas throughout the U.S. (anchor partners only)

View



2020 Census Response Rate

Census Bureau updates rates most days after 3pm ET. The Data Hub is updated after the Census'

Public | Partner

Hard-to-Count Youth @ Risk

Locate and View areas where youth (age 0 to 4) are at a high or very high risk of not beng counted. Data provided by the Populaton Reference Bureau.

The 2020 Census
HTC Location Map Application

HTC Census Tracts Data Dictionary User Guide

Detroit, MI, USA

Show search results for Detroit, MI, USA

Sleeping Bear Dunes National Lakeshore
Alpena
Lake Huron
Traverse City
Camp Grayling
Huron National Forest
Green Bay
Appleton
Manitowoc
Eastlake
Ludington
Fond du Lac
Sheboygan
Big Rapids
Mt Pleasant
Midland
Michigan
West Bend
Lake Michigan
Muskegon
Milwaukee
Grand Rapids
Flint
Sarnia
Holland
Lansing
Waterford
Sterling Heights
Farmington Hills
Kenosha
Waukegan
30mi
javascript:void(0)
Degrees
Esri, USGS | Province of Ontario, Esri Canada, Esri, HERE, Garmi

About

The **HTC Census Tracts** Data Hub web application presents Hard-to-Count (HTC) scores from the 2010 Mail Return Rates (MRR) and the Low Response Scores from the 2019 Planning Database. The Layer List option (upper right) allows for you to select the various HTC layers. The determination of HTC census tracts comes from two sources: 2010 Mail Return Rates (i.e. those that are less than or equal to 73% mail return rates) and Low Response Scores (i.e. those greater than or equal to an index of 30) using the 2019 Census Planning Database (PDB). The HTC census tract layers include:

HTC Tracts (displayed as a default) - All census tracts designated as hard to count using both the 2010 Mail Return Rates and Low Response Scores. The HTC census tracts are displayed using a green color.

HTC Tracts MRR10 - Census tracts designated as hard to count using the 2010 Mail Return Rates. The HTC census tracts are shown as four colors from light green to red.

HTC Tracts LRS19 - Census tracts designated as hard to count using the Low Response Scores. The HTC census tracts are shown as four colors from light green to red.

HTC Tracts MRR10 LRS19 - Census tracts designated as hard to count using the 2010 Mail Return Rates AND Low Response Scores. The HTC census tracts represent the OVERLAP between the two indices and are

The 2020 Census Self-Response Rate Map Application

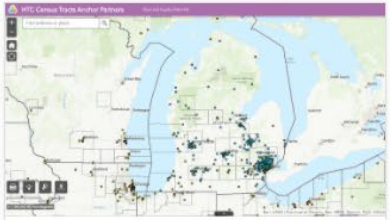
Census 2020 Web Map Applications

These web map applications provide simple access to information and tools to assist with locating hard-to-count (HTC) and low self-response rate areas

HTC Location Map

Locate and map Hard-to-Count and 2010 response rates of census tracts

View



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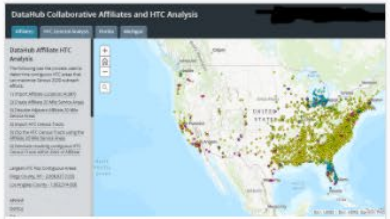

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View spatial analysis of clustered HTC areas throughout the U.S. (anchor partners only)

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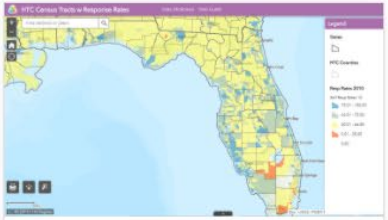


2020 Census Response Rate

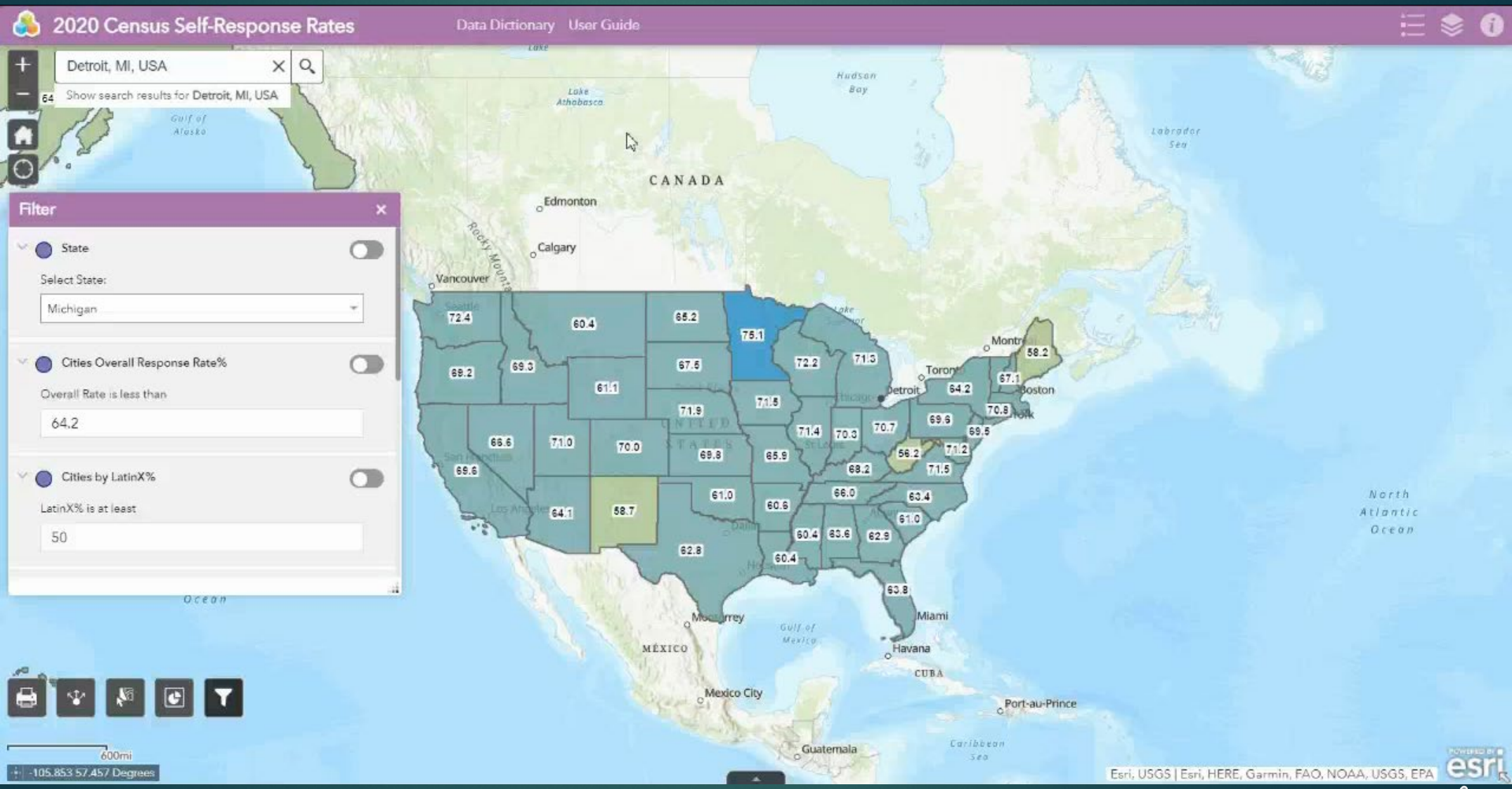
Census Bureau updates rates most days after 3pm ET. The Data Hub is updated after the Census'

Public | Partner

Hard-to-Count Youth @ Risk

Locate and View areas where youth (age 0 to 4) are at a high or very high risk of not beng counted. Data provided by the Populaton Reference Bureau.

The 2020 Census Self-Response Rate Map Application



The 2020 Census Self-Response Rate Dashboard

2020 Census Lowest Overall Response Rate by State, County, and City
Rate as of 10/27/2020, 8:00 PM

National Overall Rate: 67.00% - Internet Rate: 53.50%:

(Scroll and click to link to a map of the geographic area)
Source: U.S. Census Bureau Response Rates

States by Lowest Overall Response Rate

- Alaska Rate: 54.7%
- West Virginia Rate: 56.2%
- Maine Rate: 58.2%
- New Mexico Rate: 58.7%
- Mississippi Rate: 60.4%
- Louisiana Rate: 60.4%

Top 100 Counties by Lowest Overall Response Rate

- Rich County, UT Overall Rate: 13.3%
- Esmeralda County, NV Overall Rate: 14.8%
- Oglala Lakota County, SD Overall Rate: 17.5%
- Edwards County, TX Overall Rate: 18.7%
- Hinsdale County, CO Overall Rate: 18.8%
- Hamilton County, NY Overall Rate: 19.1%

Top 100 Cities by Lowest Overall Response Rate

- Lake Buena Vista, Florida Overall Rate%: 1.0%
- Fontana Dam, North Carolina Overall Rate%: 1.8%
- Driscoll, Texas Overall Rate%: 2.5%
- Bay Lake, Florida Overall Rate%: 3.0%
- Brian Head, Utah Overall Rate%: 4.3%

The 2020 Census Self-Response Rate Dashboard

2020 Census Top 100 Lowest Overall Response Rate by Majority-Minority City
Rate as of 10/27/2020, 8:00 PM

National Overall Rate: 67.00%

(Scroll and click to link to a map of the geographic area)
Source: U.S. Census Bureau Response Rates, 2014-2018 5Yrs ACS

Majority Latino City by Lowest Overall Response Rate	Majority Black City by Lowest Overall Response Rate	Majority Nat Amer City by Lowest Overall Response Rate	Majority Asian City by Lowest Overall Response Rate	>15% Pacific Islander City by Lowest Overall Response Rate
Corral City, TX Rate: 0.0% Latino%: 83.3 Pop: 6	Memphis, AL Rate: 0.0% Black%: 100.0 Pop: 32	Oak Grove, OK Rate: 0.0% Nat Amer%: 55.6 Pop: 9	Millbourne, PA Rate: 46.3% Asian%: 56.9 Pop: 1,287	Adak, AK Rate: 0.0% Pac Islndr%: 15.76 Pop: 203
White Rock, SD Rate: 0.0% Latino%: 100.0 Pop: 4	Dalton, MO Rate: 0.0% Black%: 66.7 Pop: 3	Port Lions, AK Rate: 0.0% Nat Amer%: 57.4 Pop: 190	Palisades Park, NJ Rate: 65.3% Asian%: 59.2 Pop: 20,554	Beaver Bay, MN Rate: 21.3% Pac Islndr%: 30.71 Pop: 140
Los Ybanez, TX Rate: 0.0% Latino%: 81.8 Pop: 22	Knowles, OK Rate: 0.0% Black%: 92.9 Pop: 14	Buckland, AK Rate: 0.0% Nat Amer%: 98.5 Pop: 608	Arcadia, CA Rate: 72.7% Asian%: 60.6 Pop: 58,207	Milan, MN Rate: 61.9% Pac Islndr%: 38.06 Pop: 360
Driscoll, TX	Glendora, MS	Nuiqsut, AK	San Gabriel, CA	Ackworth, IA

The 2020 Census Self-Response Rate Dashboard

Michigan: 2020 Census County & City Overall Response Rates
Rate as of 10/27/2020: 71.3% - Final Rate In 2010: 67.7%
Source: U.S. Census Bureau Daily Response Rates, 2014-2018 5Yrs ACS

County Overall Response Rate%
(Sorted Lowest to Highest)

Lake County - 27.5% - TTL: 11,763
In 2010: 27.30%
LatinX: 2.6% - White: 84.7% - Black: 8.0%
Nat Amer: 1.0% - Asian: 0.2% - Pac Isl: 0.0%

Oceana County - 52.3% - TTL: 26,417
In 2010: 52.40%
LatinX: 14.8% - White: 81.9% - Black: 1.0%
Nat Amer: 0.9% - Asian: 0.2% - Pac Isl: 0.0%

Missaukee County - 55.0% - TTL: 15,006
In 2010: 54.50%
LatinX: 2.8% - White: 94.1% - Black: 0.4%
Nat Amer: 0.6% - Asian: 0.2% - Pac Isl: 0.0%

Manistee County - 57.1% - TTL: 24,444
In 2010: 55.30%
LatinX: 3.0% - White: 89.2% - Black: 2.7%
Nat Amer: 1.5% - Asian: 0.4% - Pac Isl: 0.1%

Osceola County - 57.8% - TTL: 23,232
In 2010: 55.80%
LatinX: 1.8% - White: 94.7% - Black: 1.1%
Nat Amer: 0.8% - Asian: 0.3% - Pac Isl: 0.0%

Mecosta County - 59.5% - TTL: 43,264
In 2010: 60.30%
LatinX: 2.2% - White: 91.4% - Black: 2.8%
Nat Amer: 0.4% - Asian: 0.8% - Pac Isl: 0.0%

Newaygo County - 60.1% - TTL: 48,142
In 2010: 59.30%
LatinX: 5.8% - White: 90.6% - Black: 1.3%
Nat Amer: 0.6% - Asian: 0.3% - Pac Isl: 0.0%

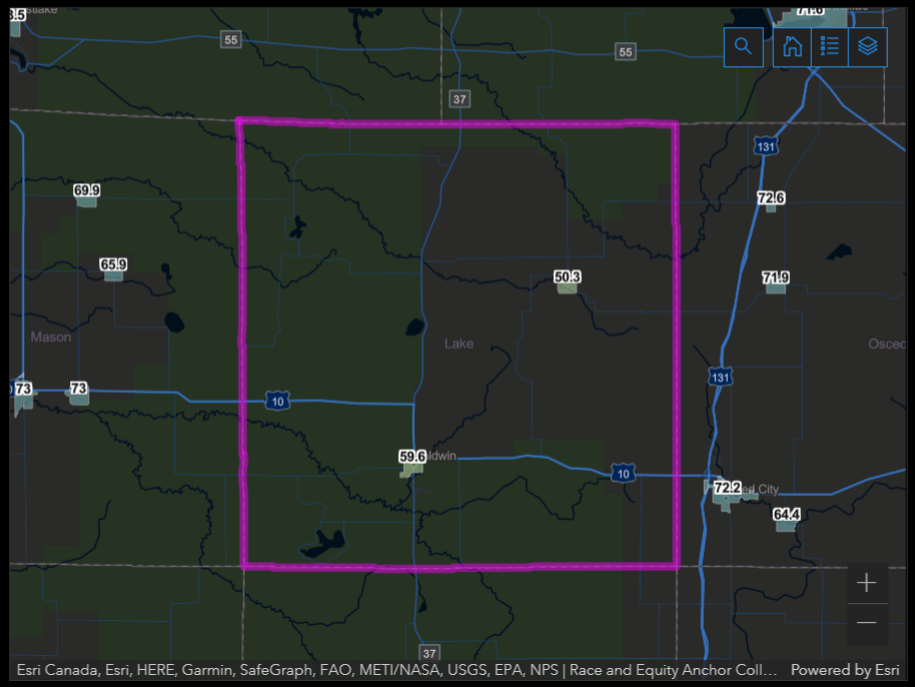
Mason County - 60.8% - TTL: 28,884
In 2010: 59.10%
LatinX: 4.5% - White: 91.5% - Black: 0.9%
Nat Amer: 0.8% - Asian: 0.6% - Pac Isl: 0.0%

Counties < 40%

7

Cities < 40%

13



City Overall Response Rates%
(Sorted Lowest to Highest)

Luther village - 50.3% - TTL: 298
In 2010: 60.2%
LatinX: 0.0% - White: 97.0% - Black: 0.0%
Nat Amer: 0.7% - Asian: 2.3% - Pac Isl: 0.0%

Baldwin village - 59.6% - TTL: 1,184
In 2010: 53.7%
LatinX: 4.2% - White: 52.4% - Black: 33.7%
Nat Amer: 0.8% - Asian: 0.0% - Pac Isl: 0.0%

Eastlake village - 63.5% - TTL: 454
In 2010: 69.2%
LatinX: 2.6% - White: 89.0% - Black: 0.7%
Nat Amer: 5.5% - Asian: 0.0% - Pac Isl: 0.0%

Hersey village - 64.4% - TTL: 309
In 2010: 60.5%
LatinX: 1.0% - White: 95.5% - Black: 0.0%
Nat Amer: 0.6% - Asian: 0.0% - Pac Isl: 0.0%

Fountain village - 65.9% - TTL: 194
In 2010: 76.3%
LatinX: 7.2% - White: 89.7% - Black: 0.0%
Nat Amer: 0.0% - Asian: 0.0% - Pac Isl: 0.0%

Free Soil village - 69.9% - TTL: 87
In 2010: 64.5%
LatinX: 0.0% - White: 100.0% - Black: 0.0%
Nat Amer: 0.0% - Asian: 0.0% - Pac Isl: 0.0%

Cadillac city - 71.6% - TTL: 10,394
In 2010: 66.7%
LatinX: 2.0% - White: 92.8% - Black: 1.0%
Nat Amer: 0.6% - Asian: 0.8% - Pac Isl: 0.0%

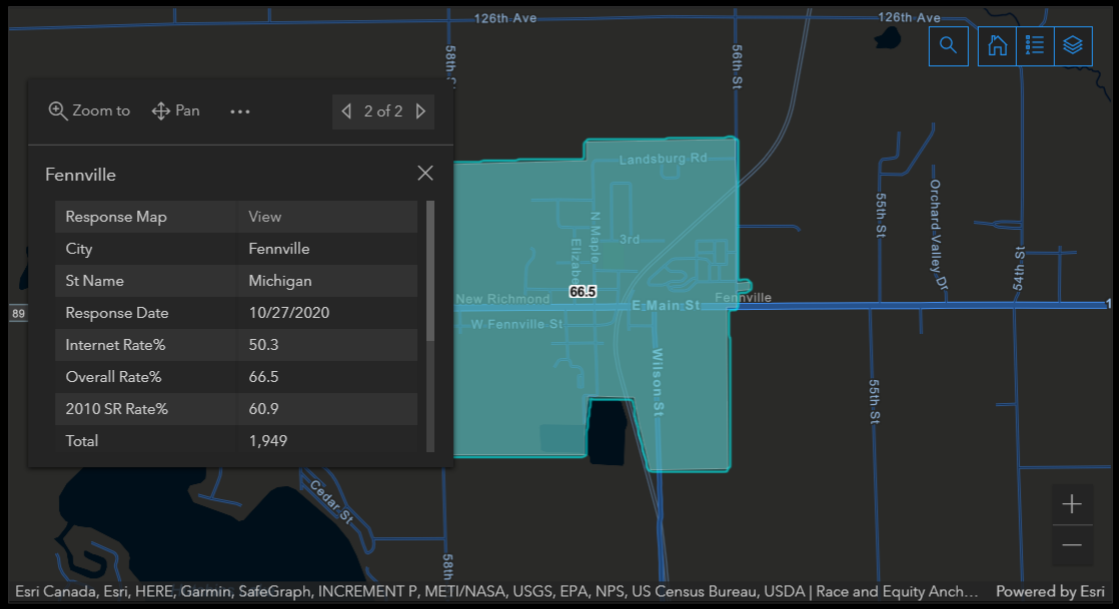
Le Roy village - 71.9% - TTL: 298
In 2010: 77.4%
LatinX: 3.4% - White: 94.6% - Black: 0.7%
Nat Amer: 0.0% - Asian: 0.0% - Pac Isl: 0.0%

2020 Census
Self-Response Rate Dashboard

Michigan 2020 Census Overall City Response Rates by Race/Ethnicity
Rate as of 10/27/2020: 71.3% - Final Rate In 2010: 67.7%
Source: U.S. Census Bureau Daily Response Rates, 2014-2018 5Yrs ACS

City Overall Response Rates by LatinX%

- **Fennville city - 66.5%** **In 2010: 60.9%** LatinX%: 45.7
- **Shelby village - 68.0%** **In 2010: 64.9%** LatinX%: 43.0
- **Hartford city - 67.7%** **In 2010: 71.7%** LatinX%: 34.2
- **Imlay City city - 75.8%** **In 2010: 67.6%** LatinX%: 28.7
- **Hart city - 68.1%** **In 2010: 65.3%** LatinX%: 25.7



City Resp Rates

Overall Rate%

- 75.0 - 100.0
- 60.0 - 75.0
- 50.0 - 60.0
- 40.0 - 50.0
- 30.0 - 40.0
- 20.0 - 30.0
- 10.0 - 20.0
- 0.0 - 10.0

City Overall Response Rates by Black%

- **Highland Park city - 46.9%** **In 2010: 54.0%** Black%: 89.3
- **Benton Harbor city - 55.5%** **In 2010: 57.2%** Black%: 84.6
- **Detroit city - 51.0%** **In 2010: 53.6%** Black%: 78.3
- **Muskegon Heights city - 53.6%** **In 2010: 57.7%** Black%: 74.0

City Overall Response Rates by Native American%

- **St. Ignace city - 62.8%** **In 2010: 64.7%** Nat Am%: 25.5
- **Mackinac Island city - 16.8%** **In 2010: 21.0%** Nat Am%: 14.4

City Overall Response Rates by Pacific Islander%

- **Breckenridge village - 72.0%** **In 2010: 76.4%** Pac Isl%: 1.0
- **Ecorse city - 54.8%** **In 2010: 58.7%** Pac Isl%: 0.8

City Overall Response Rates by Asian%

- **Hamtramck city - 60.4%** **In 2010: 53.0%** Asian%: 26.0
- **Troy city - 82.6%** **In 2010: 79.5%** Asian%: 24.6
- **Novi city - 82.1%** **In 2010: 74.7%** Asian%: 23.2
- **Auburn Hills city - 74.1%** **In 2010: 67.0%** Asian%: 17.6

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