



US Census & American Community Survey Data for GIS

Presented by

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Schedule

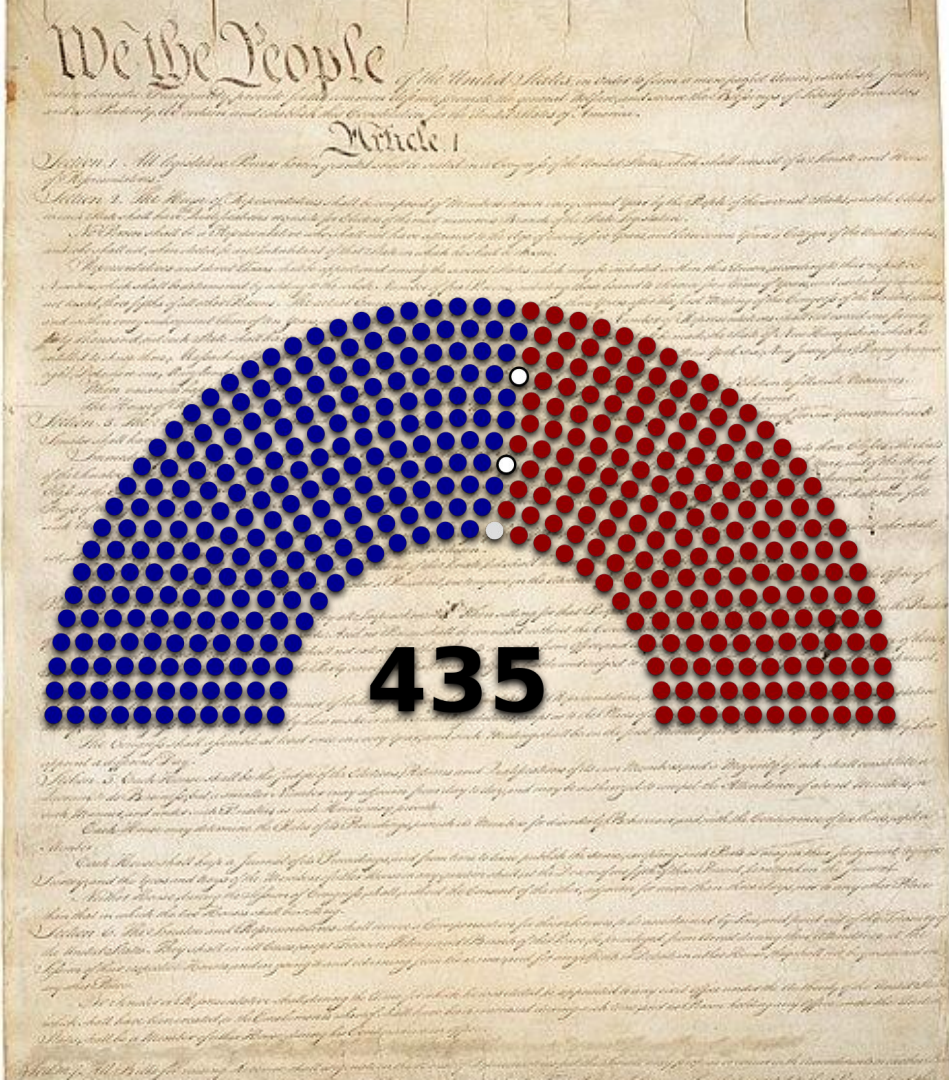
Time	Content
0:00	Housekeeping
0:02	Land Acknowledgement
0:05	Who is here and why? (Interactive Activity)
0:15	<i>US Census and ACS: Past and Present</i> (Presentation)
0:35	A Tutorial for the Modern Map-Minded Panther (Step-by-step)
1:05	Tools and Trends
1:10	Questions
1:25	Wrap-up (Discussion)

The United States Census & American Community Survey

US Constitution

Article 1, Section 2

Representatives and direct taxes shall be **apportioned** among the several states which may be included within this union, according to their **respective numbers** ... The actual **enumeration** shall be made within three years after the first meeting of the Congress of the United States, and within every subsequent term of **ten years**, in such manner as they shall by law direct.



**What else do we do
with information
from the census?**

The Decennial Census

- Full count of all persons living in US residences
- Every 10 years since 1790
- Short Form vs Long Form
 - By Census 2000, the short-form asked 7 questions of all residents, while the long-form added 26 population and 20 housing questions for about one in every six households.
- Count each person once, and in the correct **location**
- Age, Sex, Race/Ethnicity
- Household information
 - Number of persons
 - Tenure
 - Relationships among persons
- Long form information comparable to ACS

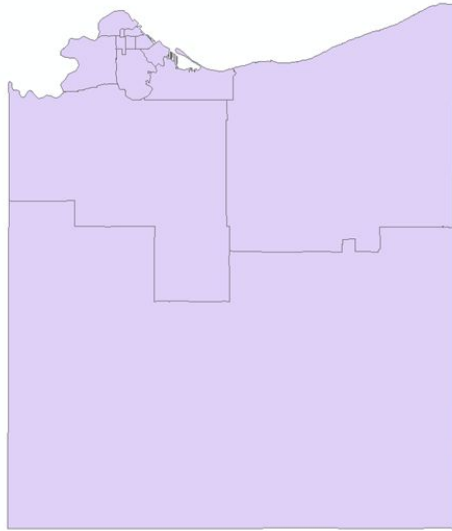
View 2020 Sample
Questionnaire

The American Community Survey

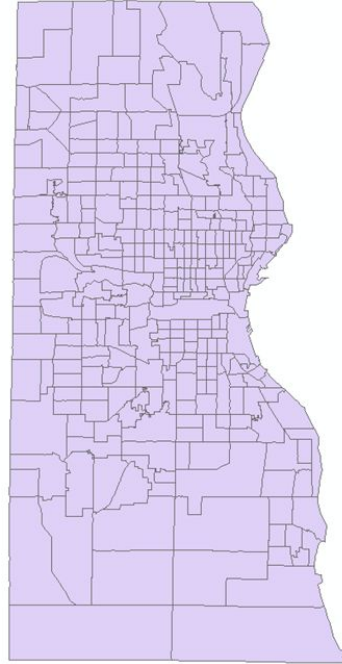
- Survey of about 300k households each month
- Replaces census long form
- Continuous (annual data releases)
- 1, 3, and 5-year estimates
- Only down to block group geography (no blocks)
- Margin of error
- Detailed Topics
 - Education
 - Employment
 - Income
 - Health
 - Resources
 - Computers/Internet
 - More,,,

[View 2021 Sample
ACS Questionnaire](#)

Geography



Douglas County: 13



Milwaukee
County: 307

Census Tracts

Statistical

Not *legal* boundaries, but instead designed for statistical use and aggregation

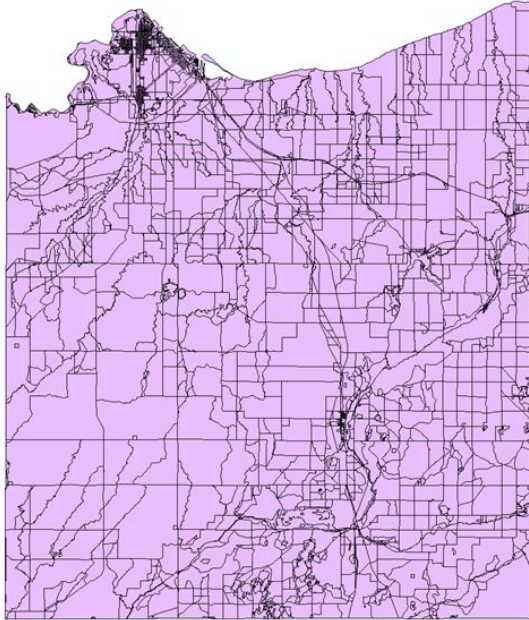
Huge variation in area

Sparsely populated areas have very large tracts, dense areas have smaller tracts

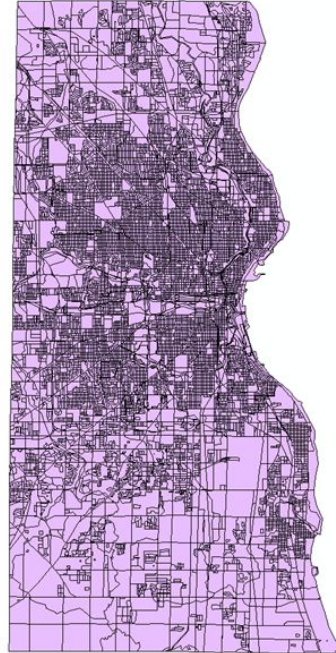
Hierarchy

Contained by County boundaries, contain Block Groups->Blocks. Lines defined by *edges*.

Census Blocks



Douglas County: 3523



Milwaukee
County: 12,443

Statistical

Not used for ACS Data. Building block of *all* census geographies.

Too small for small-scale maps

Quickly looks like a population density map.
Better for large-scale projects at neighborhood level. Used for Redistricting.

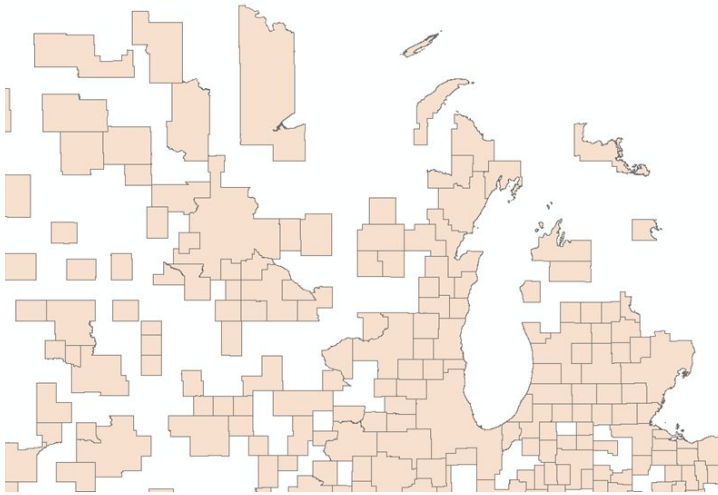
Hierarchy

Contained by Block Groups (smallest ACS areas)

Other Geographies

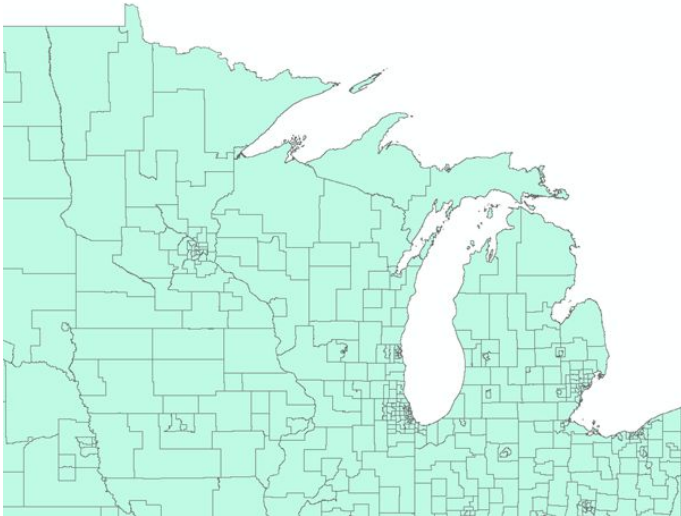
Metropolitan Statistical Areas (MSA)

A region with a relatively high population density at its core and close economic ties throughout the area



Public Use Microdata Areas (PUMA)

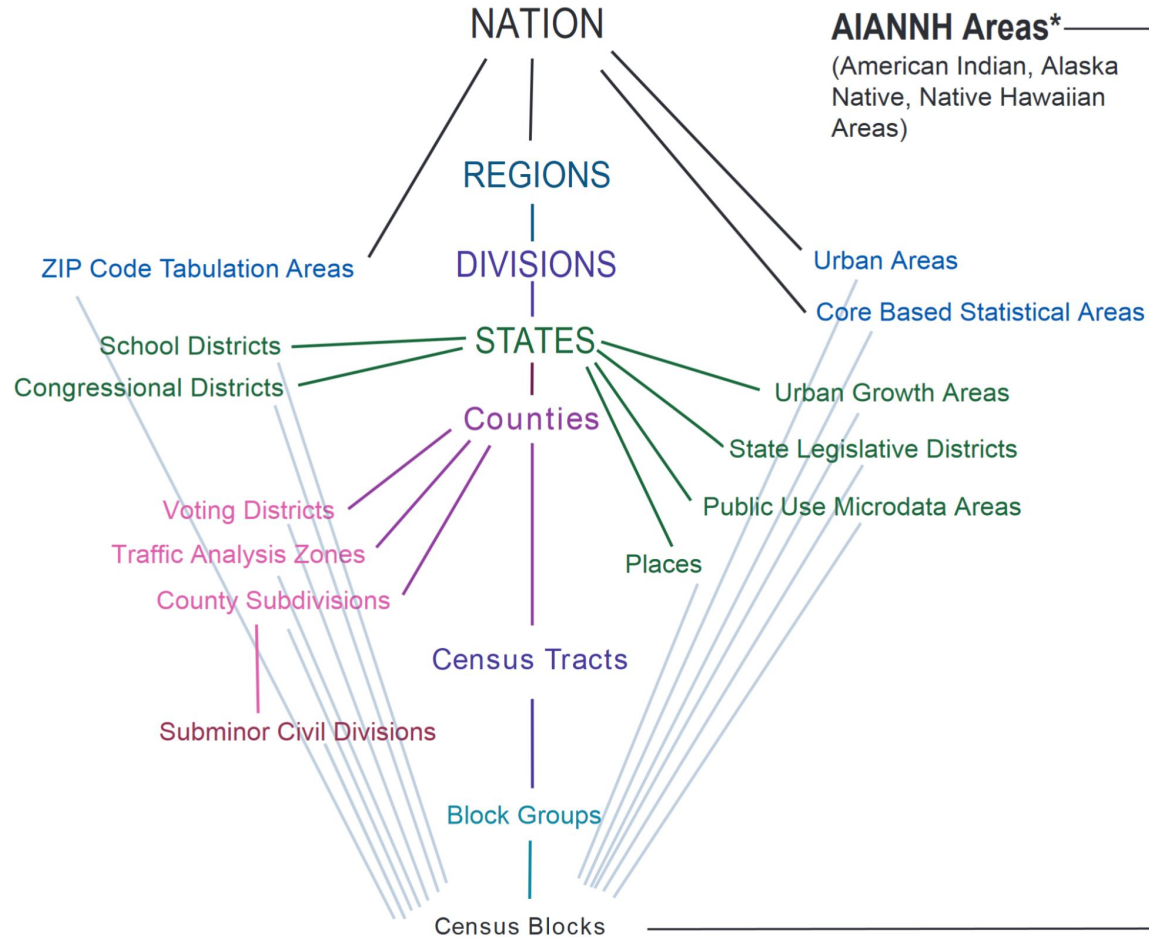
Non-overlapping, statistical geographic areas that partition each state into geographic areas containing no fewer than 100,000 people each.



Legal Boundaries

States, Counties, Municipalities (MCD), Census Designated Place, American Indian Areas, Zip code tabulation areas...

Standard Hierarchy of Geographic Entities

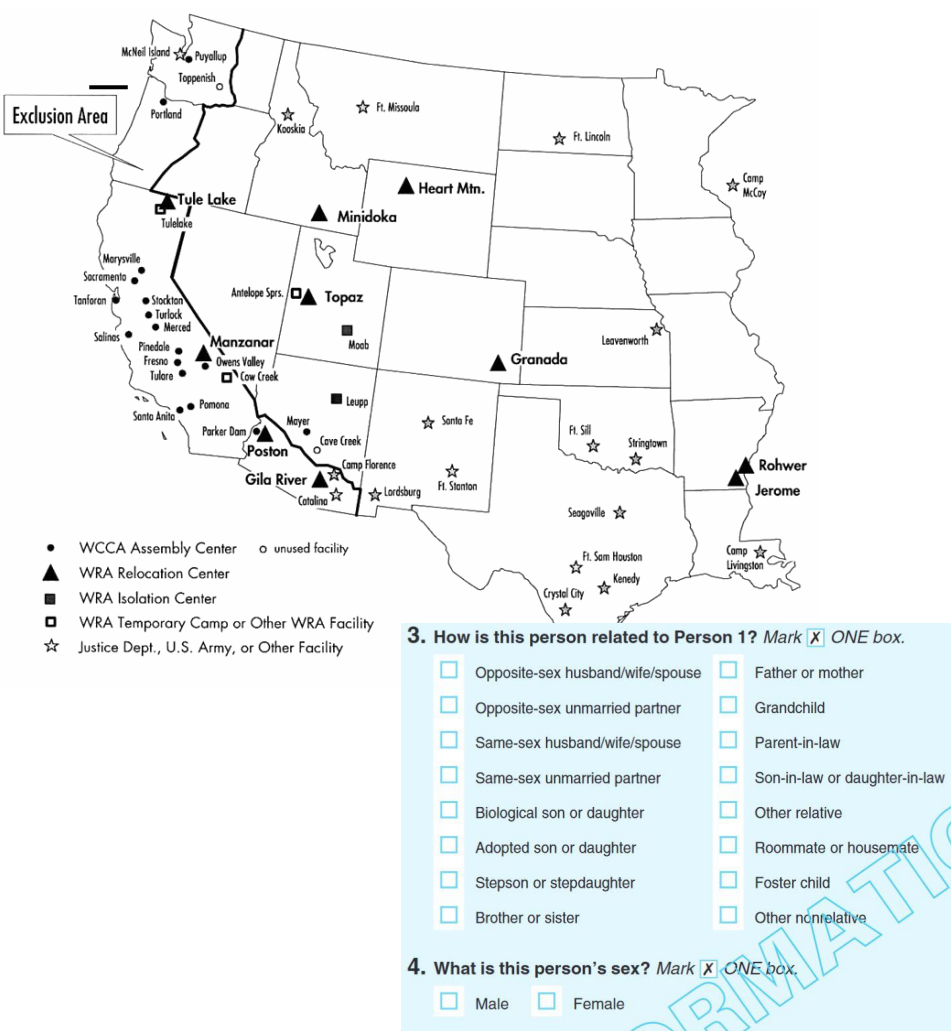


AIANNH Areas*

(American Indian, Alaska Native, Native Hawaiian Areas)

See American Indian, Alaska Native, and Native Hawaiian Areas Hierarchy

View Island Areas Hierarchy



Considerations

Political

- Redistricting
- 72 year rule (and violations of it)
- Citizenship Question

Statistical

- Survey method used in ACS vs...
- Imputation in the Decennial Census

Social

- Marginalized populations undercounted
- Incarcerated Populations
- Race and Ethnicity
- Queering the census

NHGIS Tutorial

[Click here to go to the tutorial](#)

Tools and Trends

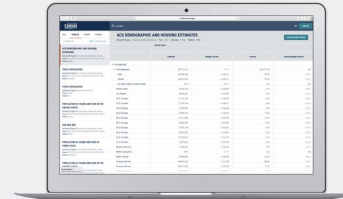
data.census.gov

- Replaces American Fact Finder
- Great “Profile” tools and tools for working with tables
- Some mapping tools, a bit complicated
- API Access
- Lots of learning materials

Explore Census Data

The Census Bureau is the leading source of quality data about the nation's people and economy.

[Advanced Search](#) [Help](#) [Feedback](#)



Tables

Check out our new table display which allows you to dynamically add geographies, topics, or any applicable filters. You can reorder, pin, and hide columns all with simple drag and drop functionality. Tab through different tables to make sure you found the right one, customize it, and then download multiple vintages of it quickly. If you don't see a functionality you need, find a bug, or have a comment, drop us a line at cedsci.feedback@census.gov.

[VIEW TABLES](#)

Data Profiles

[United States Profile](#)
[Los Angeles County Profile](#)
[New York City Profile](#)

Maps and Visualizations

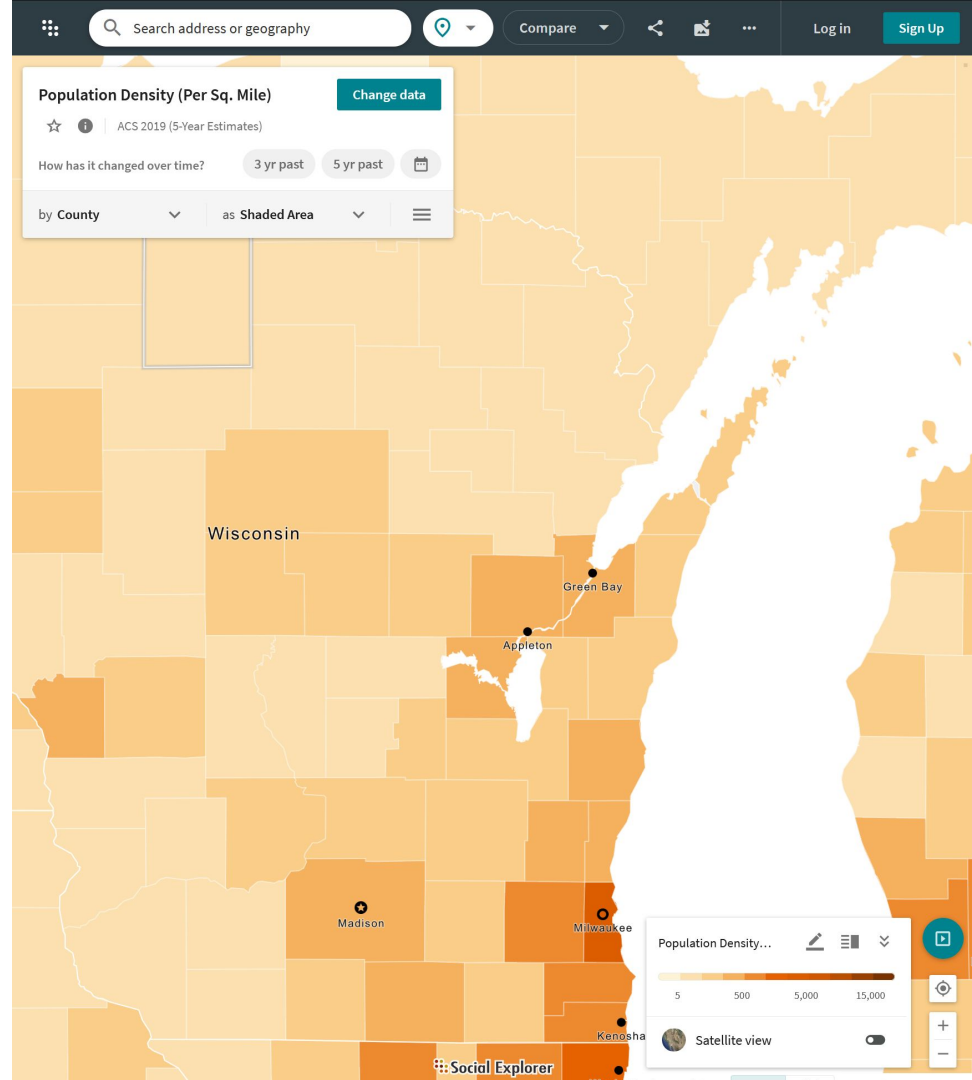
[Total Population in the United States](#)
[Educational Attainment in the United States](#)
[Median Household Income in the United States](#)
[Employment Status in the United States](#)
[Housing Units in the United States](#)

Industry and NAICS codes

[31-33: Manufacturing](#)
[42: Wholesale Trade](#)
[44-45: Retail Trade](#)
[48-49: Transportation and Warehousing](#)
[72: Accommodation and Food Services](#)

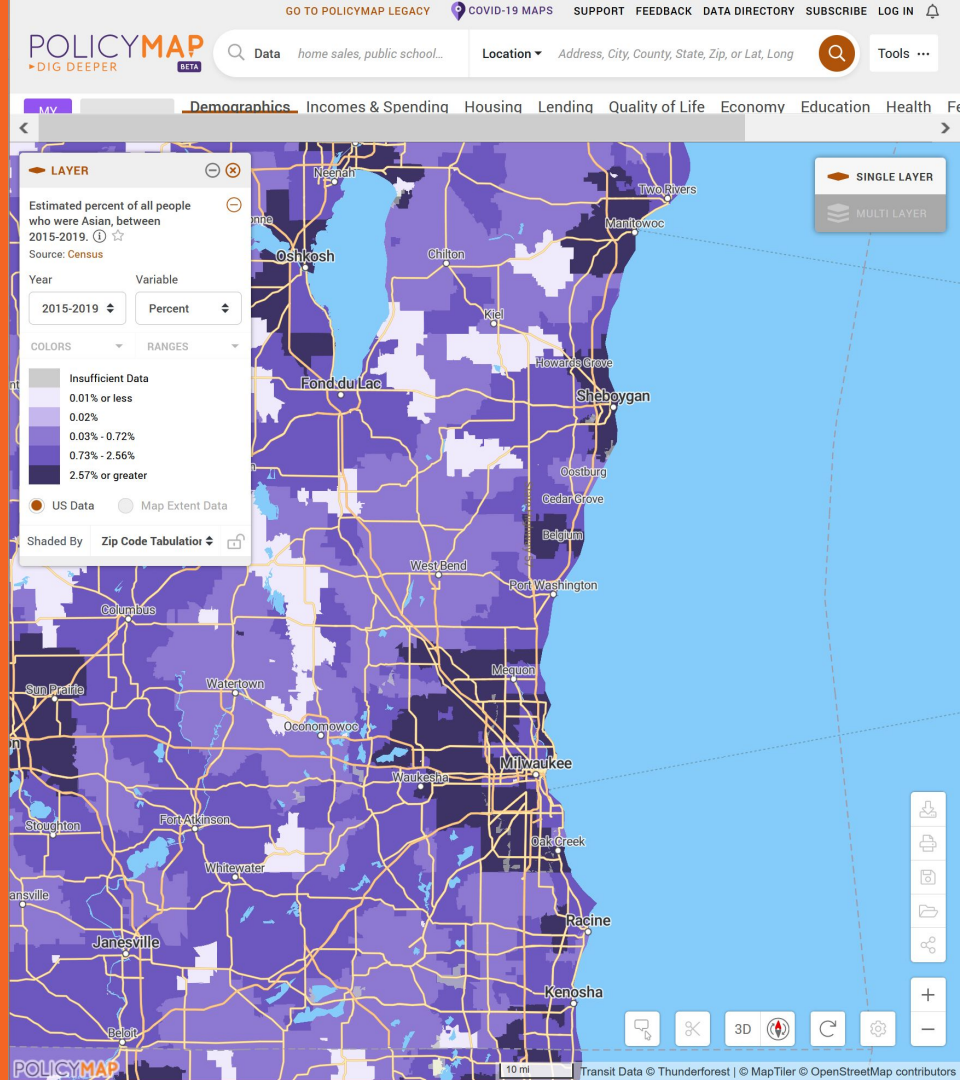
Social Explorer

- Subscription based (\$\$\$), no free version
- 500k “indicators”
- Lots of data (not just census)



PolicyMap

- Subscription based, lots of features in public version
- Tables, Reports, Maps
- 50k “indicators” from outside and internal data

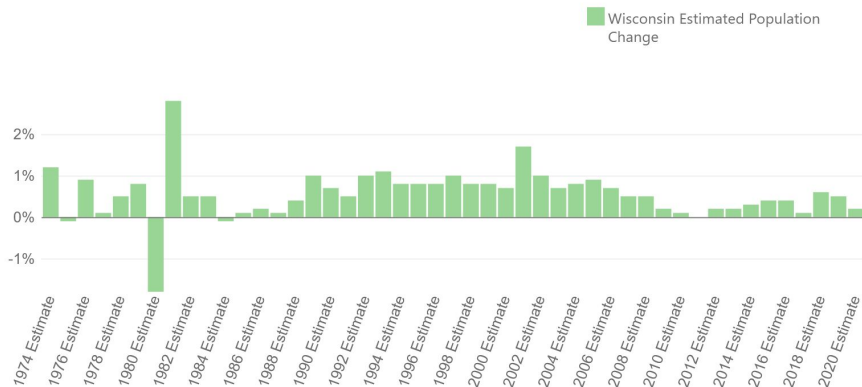


GetFacts

- Getfacts.wisc.edu
- Applied Population Lab and UW-Extension
- I liked the old version better
- Great for canned visualizations of authoritative data

Estimated Change in Population over Time

1970-2020



Data source: Wisconsin Population and Housing Estimates

Hide Data Table Save Options Download

Please scroll right to see all columns on large tables.

Save this chart as an Excel-friendly CSV file using the Download menu above.

	1970 population from the Census	1973 Estimated population	1974 Estimated population	1975 Estimated population	1976 Estimated population	1977 Estimated population	1978 Estimated population	1979 Estimated population	1980 Estimated population
Wisconsin	4417821	4533344	4586061	4581701	4623357	4627384	4652755	4688278	4602299



Thank you!

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