

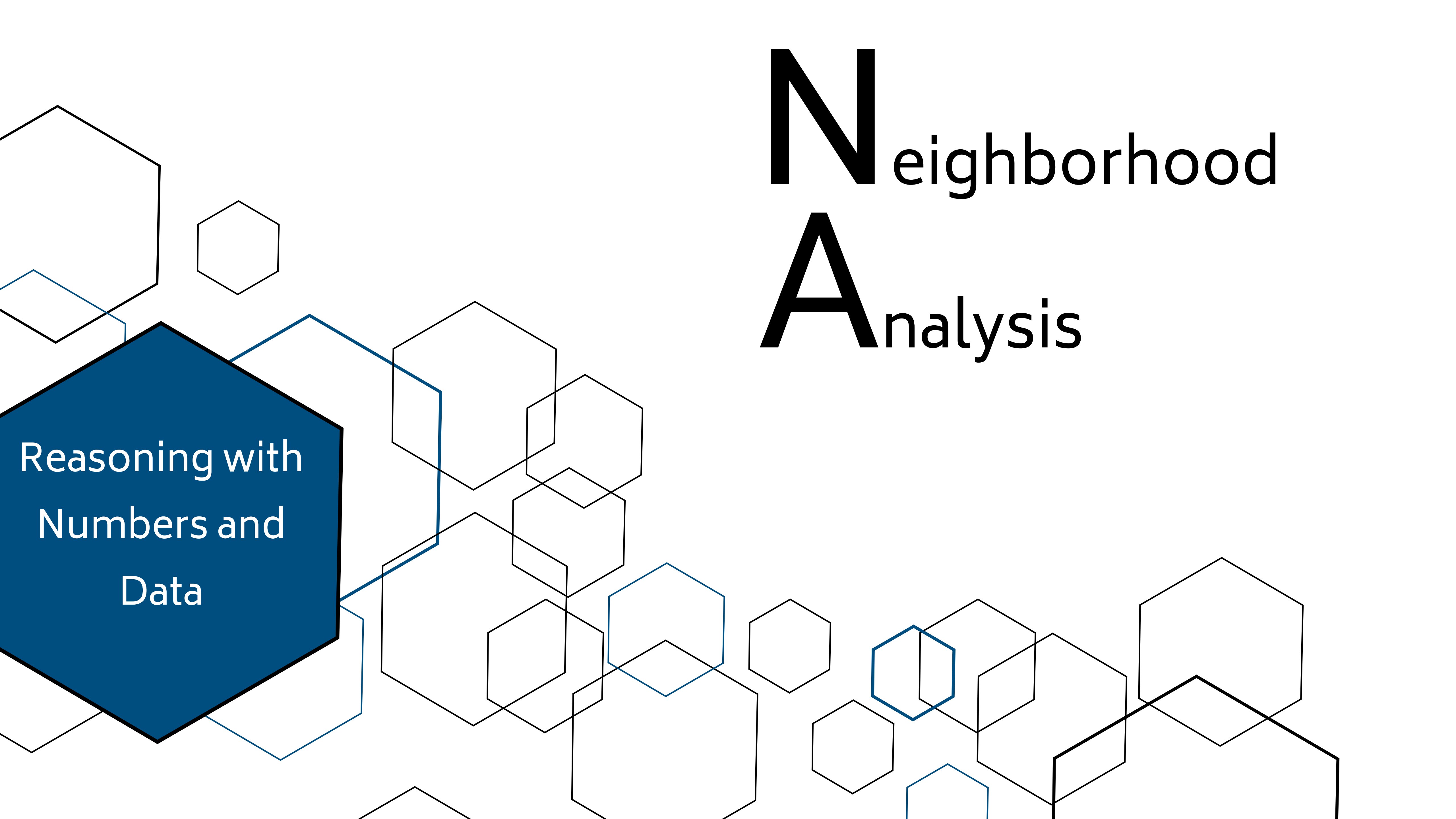
**N**

**A**

# N eighborhood A nalysis



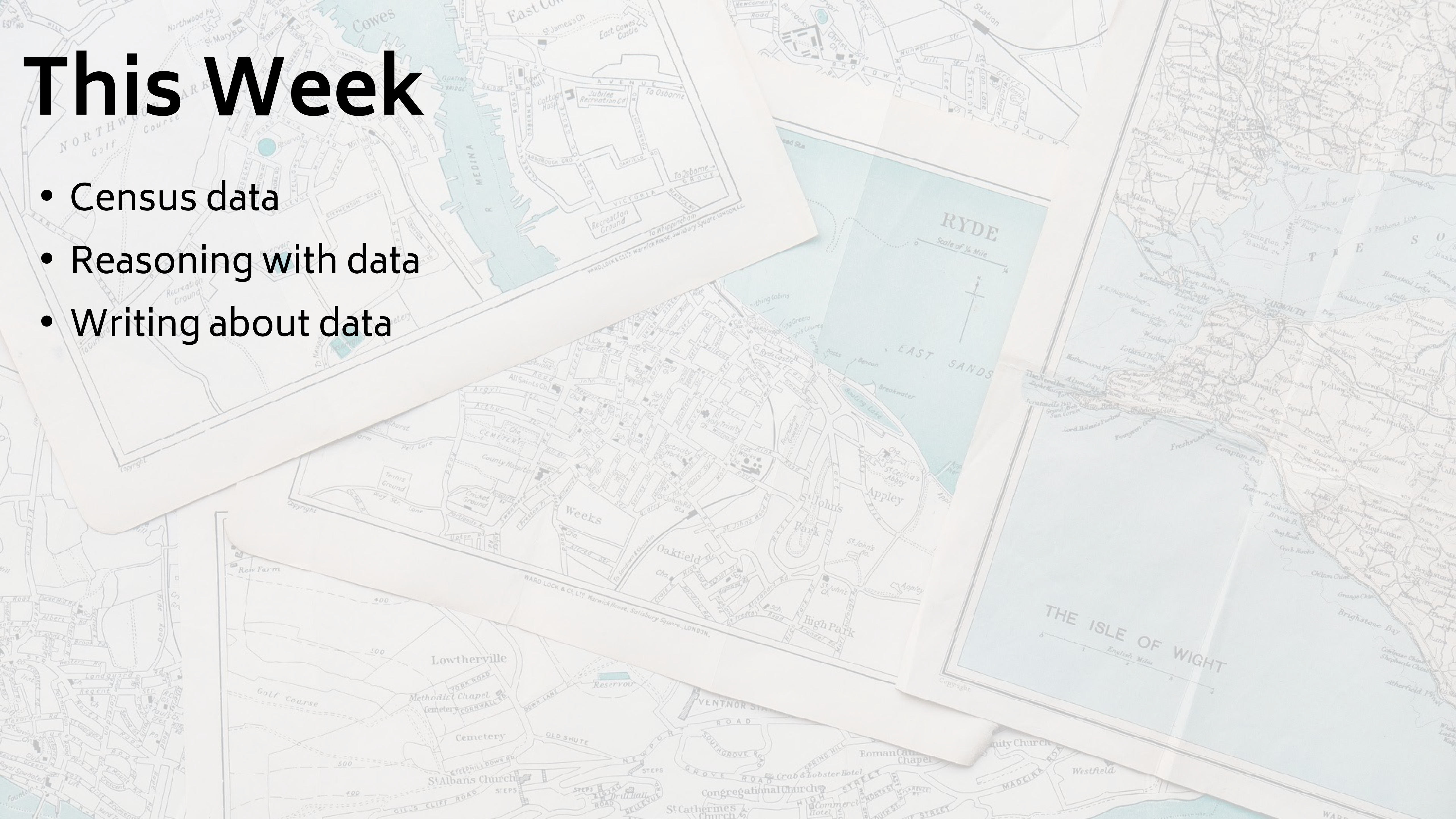
# N eighborhood A nalysis



Reasoning with  
Numbers and  
Data

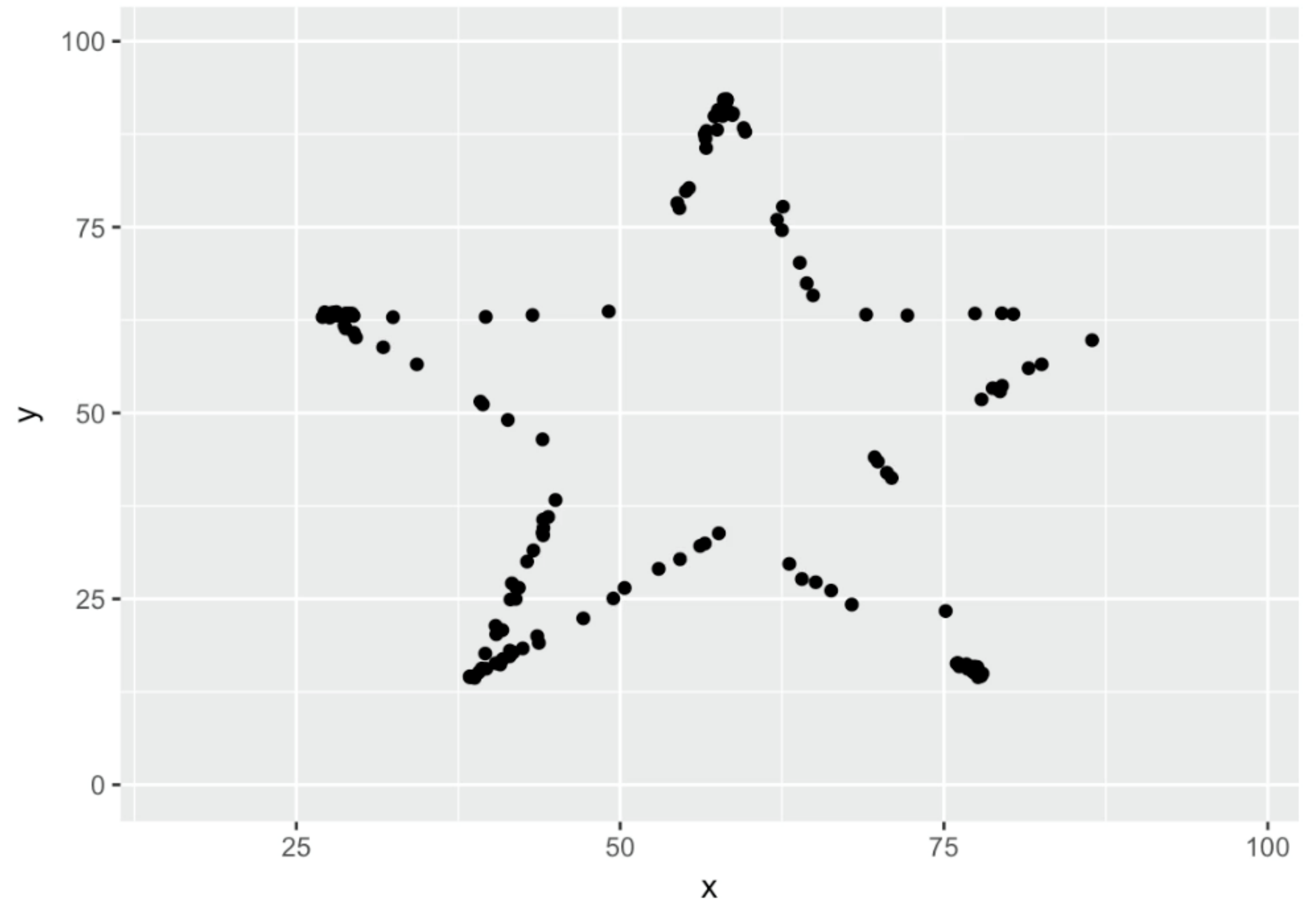
# This Week

- Census data
- Reasoning with data
- Writing about data



# Debrief - Last Week's Work

- What went well?
- What was hard?
- What's not clear?
- What does mastery look like?



# Census Data



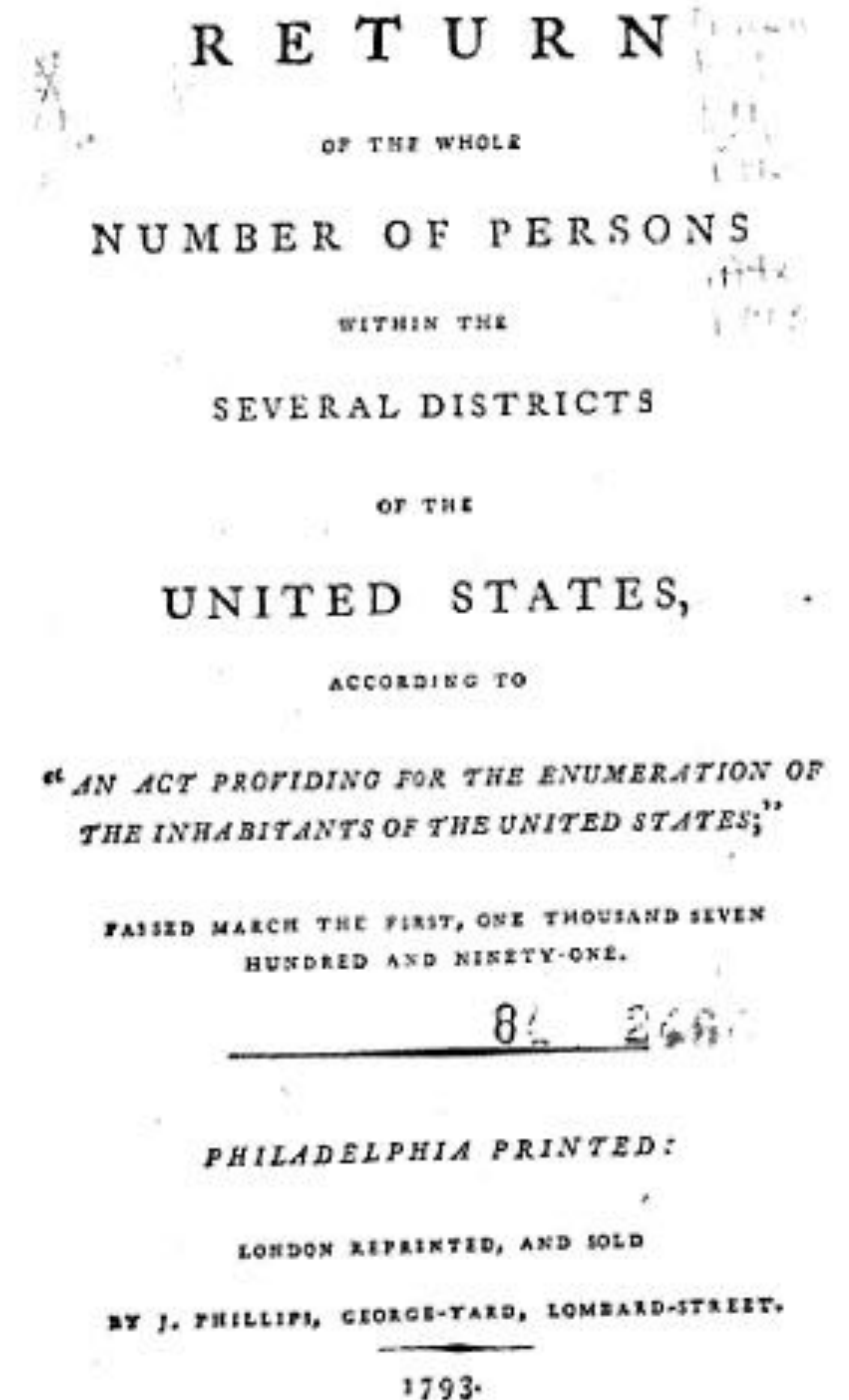
# Decennial Census

- The Census is constitutionally mandated to occur every 10 years for the purposes of apportioning representation
- Beyond the constitutional mandate, the Census Bureau collects additional information as a public service
  - Population Demographics and Structure
  - Labor force participation
  - Income and poverty
  - Housing
  - Transportation
  - Education and occupation
  - Mobility, migration, immigration



# Decennial Census

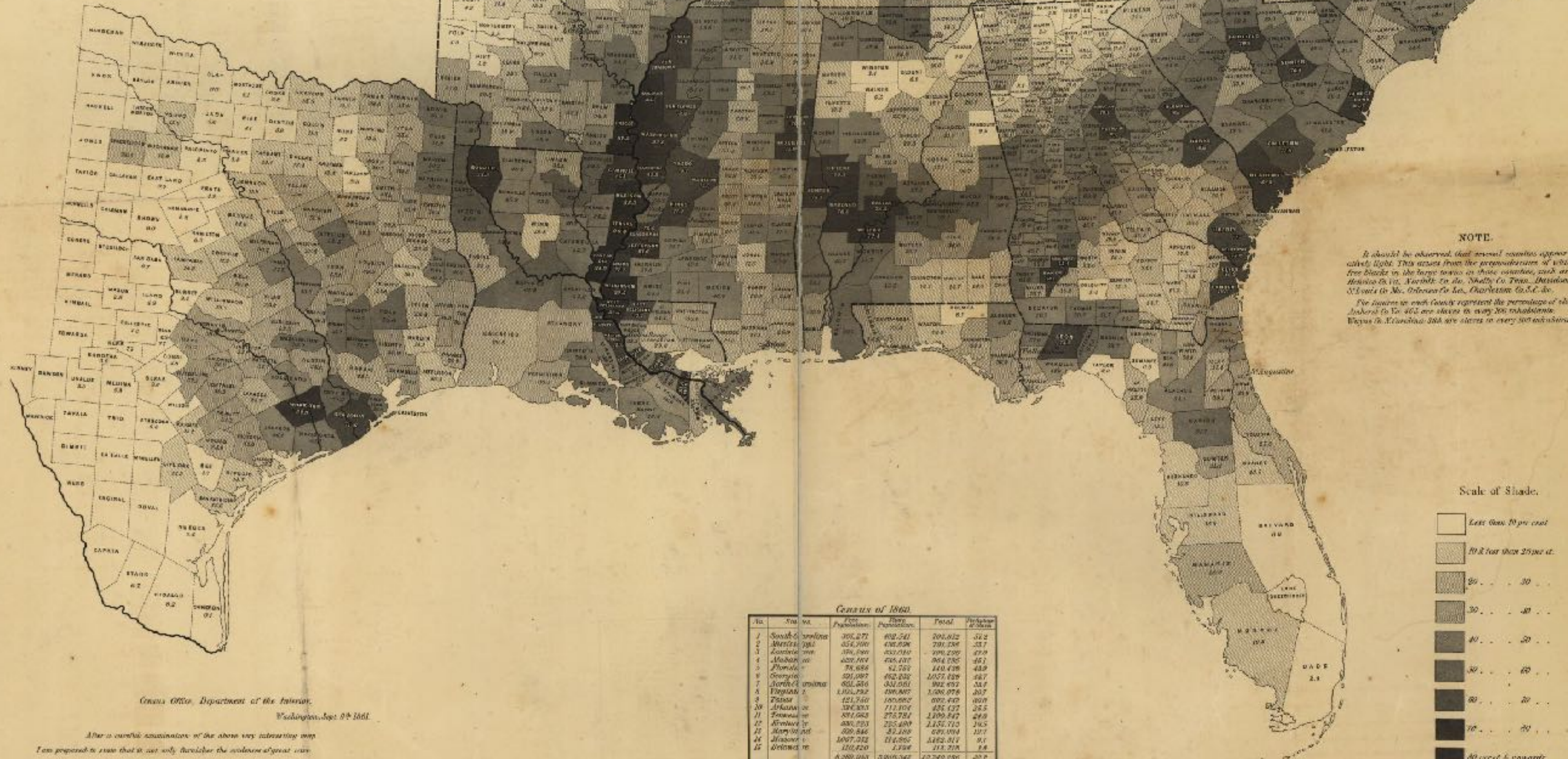
- First U.S. Census: 1790
- Modern Context
  - Allocation of congressional seats
  - Allocation of electoral votes
  - Allocation of government program funds
  - The Census *changes with society* - methods and results are often contested and are political





MAP  
SHOWING THE DISTRIBUTION  
OF THE  
SLAVE POPULATION  
OF THE  
SOUTHERN STATES  
OF THE  
UNITED STATES  
Compiled from the  
CENSUS OF  
1860.

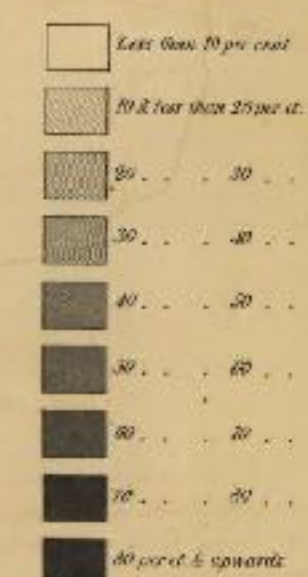
Washington, September 1861.



Sold for the benefit of the  
**Sick and Wounded**  
of the  
**U. S. ARMY.**

**NOTE.**  
It should be observed that several counties appear somewhat white. This arises from the predominance of whites and free blacks in the large towns in those counties, such as—  
Harrisburg Pa., Norfolk Va., Norfolk N. C., Baltimore Md.,  
Albany Ga., Savannah Ga., Charleston S. C., &c.  
The figures in each county represent the percentage of slaves per 100 inhabitants in the county. Figures in Maryland are slaves in every 100 inhabitants &c.

Scale of Shade.



Census of 1860.

No.	State	Free Population	Slave Population	Total	Percentage of Slaves
1	South Carolina	302,271	692,241	994,512	69.7
2	Mississippi	354,000	480,000	834,000	57.5
3	Louisiana	390,000	550,000	940,000	58.5
4	Alabama	420,000	450,000	870,000	51.7
5	Florida	78,000	12,000	90,000	13.3
6	Georgia	501,000	462,000	963,000	47.9
7	North Carolina	681,000	341,000	1,022,000	33.3
8	Virginia	1,100,000	100,000	1,200,000	8.3
9	Texas	121,000	100,000	221,000	45.2
10	Arkansas	390,000	110,000	500,000	22.0
11	Missouri	581,000	275,000	856,000	32.1
12	Illinois	680,000	255,000	935,000	27.3
13	Indiana	800,000	120,000	920,000	13.0
14	Ohio	1,000,000	110,000	1,110,000	9.9
15	Delaware	110,000	1,000	111,000	0.9

Census Office, Department of the Interior,  
Washington, Sept 28 1861.

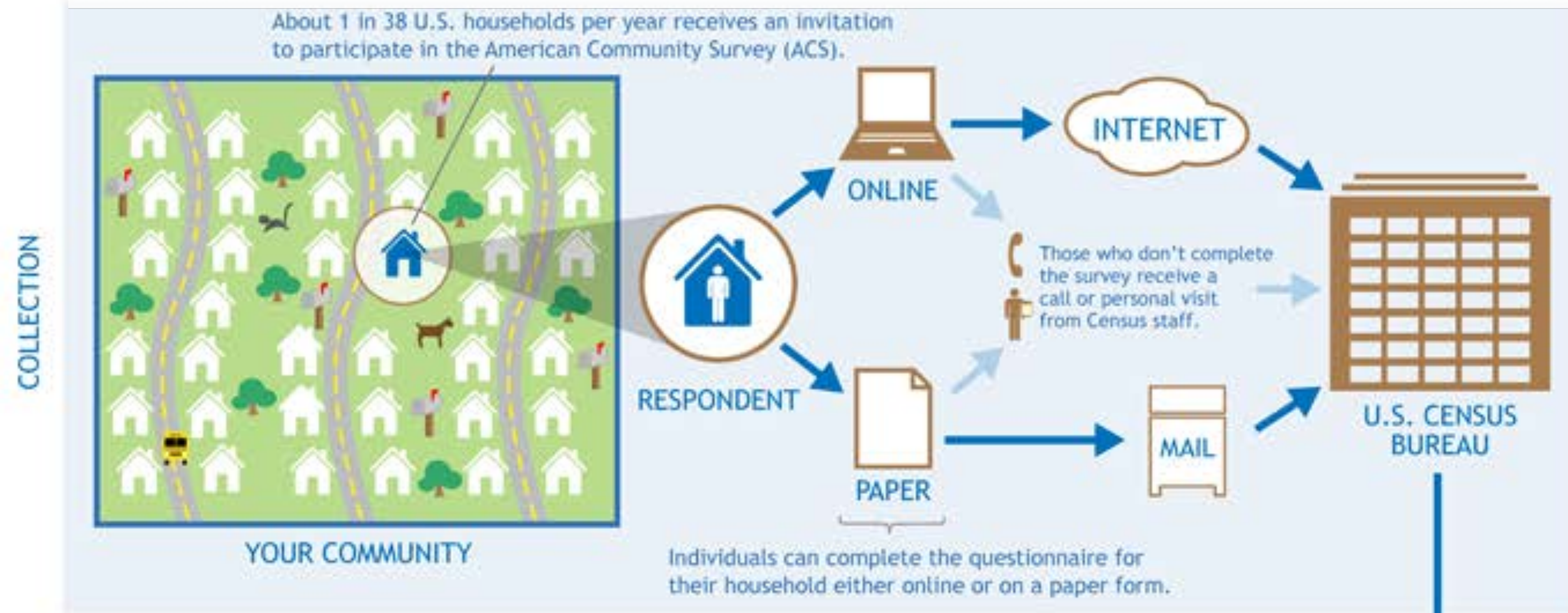
After a careful examination of the above very interesting map  
I am prepared to state that it not only furnishes the evidence of great error  
in the execution, but can be relied on in corresponding with the official re-  
turns of the 8th Census.

*J. B. Moore*  
Superintendent

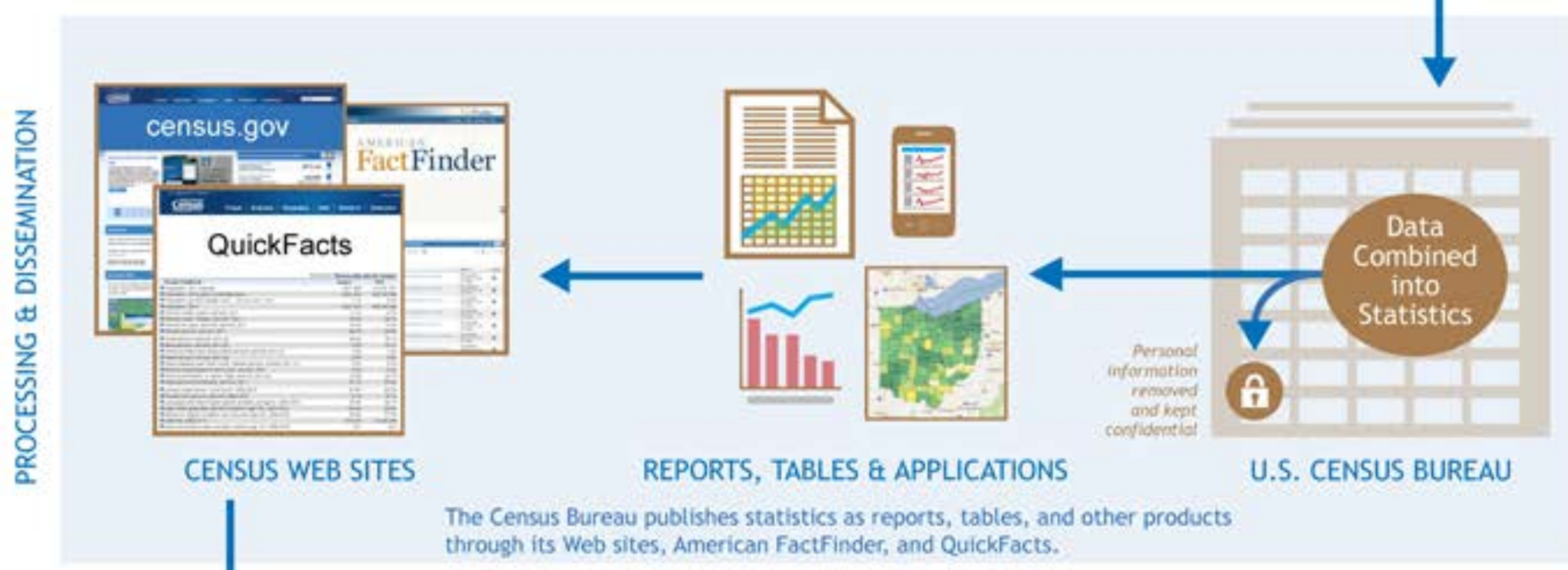
Map  
AUG 1863  
Library of Congress



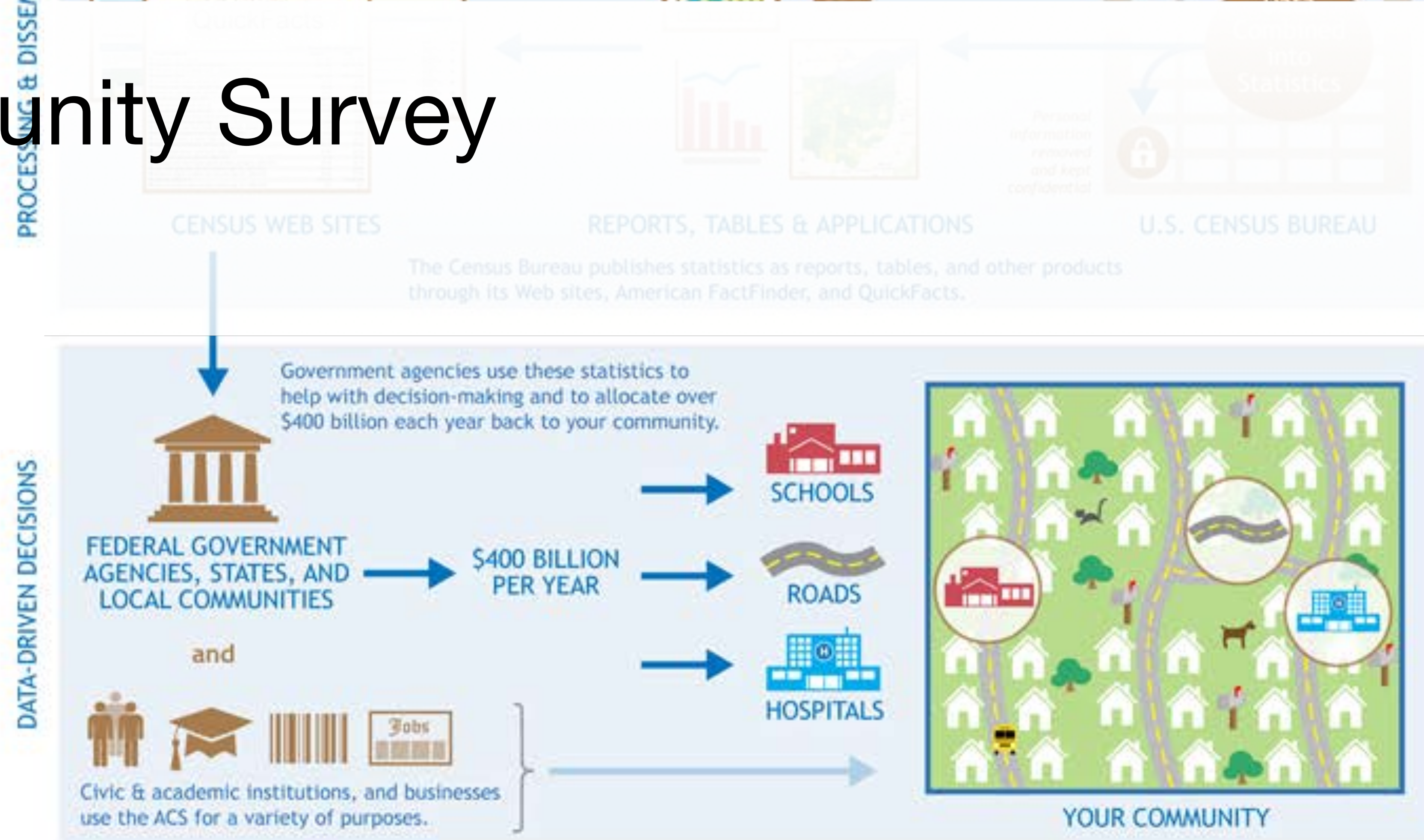
# American Community Survey



# American Community Survey



# American Community Survey



# Decennial Census vs. ACS

Every 10 years

Constitutionally mandated

100% count

Focus on population count

Massive effort

Temporary staff

Estimates reflect the whole population

Continuous process

Samples 3.54 million / year

Focus on characteristics

Professional staff

Estimates account for sampling uncertainty

## Social Issues

# Census Bureau to skip annual data release because of pandemic impact



Children wait with their family at a census outreach event in Dallas in June 2020. (Tony Gutierrez/AP)

By [Brittany Renee Mayes](#) and [Tara Bahrapour](#)

July 29, 2021 at 5:34 p.m. EDT



The Census Bureau said Thursday that it will not release the annual one-year estimates from the 2020 American Community Survey, saying the impact of the [coronavirus](#) on data collection meant the estimates did not meet quality standards. Instead, the bureau will release “experimental” estimates in November.

Survey data is mainly collected by mail, with online and in-person methods to bolster response rates or collect data from group housing units such as prisons, dorms and apartment buildings, but operations were suspended or limited during much of 2020 because of the pandemic. Unlike the 2020 Census, which is releasing another round of data in August, the survey collects data monthly and was not able to postpone data collection operations to wait for peaks of the pandemic to end.

Only 71 percent of participants responded, the lowest-ever response rate for the survey. The rate was 86 percent in 2019 and 92 percent in 2018. Census Bureau officials said the nonresponse bias was too high, meaning that those who responded had “significantly different social, economic and housing characteristics from those who did not.” The nonresponse rate was highest from people with lower income and lower educational attainment and non-homeowners.



## Social Issues

# Will Americans be able to trust the results of the 2020 Census?

By [Tara Bahrapour](#)

April 26, 2021 at 7:30 a.m. EDT

Activists fear battles over the count mean results will be less accurate

The first results of the 2020 Census are about to drop, after encountering so many obstacles that some census experts privately joked that it was cursed.

Over the past four years, the decennial count was hit with funding shortages, partisan interference, legal battles and a pandemic that paralyzed it just as it was getting started, spawning new political and legal battles.

When the initial data — a tally of each state's population that determines a decade's worth of congressional apportionment and electoral college votes — comes out this week, and when more detailed data about race and geography comes out this summer, they will be scrutinized by statisticians, politicians and civil rights advocates, many of whom worry the setbacks could result in less accurate results than in previous decades.



A census volunteer works in September at a pop-up food pantry in New York City. (Michael Luccisano/Getty Images)



# The Citizenship Question

**Is this person a citizen of the United States?**

Yes, born in the United States

Yes, born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas

Yes, born abroad of U.S. citizen parent or parents

Yes, U.S. citizen by naturalization – *Print year of naturalization* ↘

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No, not a U.S. citizen

*Image from the United States Census Bureau*

- Why might this be an important question?
- What could be political about asking it?
- What positives might come from enumerating this?
- What negatives might come from enumerating this?
- What are the implications for neighborhoods and local communities?

# Differential Privacy

Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers, which shall be determined by adding to the whole Number of free Persons, including those bound to Service for a Term of Years, and excluding Indians not taxed, three fifths of all other Persons. 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.

**U.S. Constitution, Article 1, Section 2, Clause 3**

# Differential Privacy

... With regard to the census and survey records of the Bureau of the Census containing data identifying individuals enumerated in population censuses, any release pursuant to this section of such identifying information contained in such records shall be made by the Administrator of General Services pursuant to the specifications and agreements set forth in the exchange of correspondence on or about the date of October 10, 1952 between the Director of the Bureau of the Census and the Archivist of the United States...

**PL 95-416 (1978)**

# Differential Privacy

After a lapse of seventy-two years from the enumeration date of a decennial census, the National Archives and Records service may disclose information contained in these records for use in legitimate historical, genealogical or other worth-while research, provided adequate precautions are taken to make sure that the information disclosed is not used to the detriment of any of the persons whose records are involved.

DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
WASHINGTON 25

August 26, 1952

Dr. Wayne C. Grover  
Archivist of the United States  
Washington 25, D. C.

Dear Dr. Grover:

It is the policy of the Bureau of the Census to provide the maximum physical protection for the records which document its major programs, and make available to as many people as possible the information contained in such records consistent with national security and the rights of individuals concerned. With these ends in mind, we wish to make the following proposals concerning the custody, maintenance and use of the records of individuals enumerated in decennial population censuses:

The Bureau of the Census will transfer to the National Archives and Records Service (1) the original schedules of each decennial population census when they are no longer required by the Bureau of the Census for active statistical use and when the National Archives and Records Service can provide space and service for them; (2) the negative microfilm of such schedules when the Bureau of the Census has obtained a positive copy of the microfilm; and (3) the positive microfilm of these schedules when they are no longer required by the Bureau of the Census in its personal census service activities.

The Bureau of the Census desires that the National Archives and Records Service observe the following provisions pertaining to the use and maintenance of these records subsequent to their transfer:

- A. All negative microfilm copies of decennial population census schedules transferred to the National Archives and Records Service shall be preserved as the permanent records of such censuses. These negative copies will not be used as searching media or inserted in reading devices except when necessary for inspection incident to the proper maintenance of such records.
- B. The National Archives and Records Service will, upon request by the Bureau of the Census, furnish positive prints of any negative microfilm which has been transferred to the former agency. The charge for this service will be the cost of the positive film and its development, plus a service charge of not more than ten percent.
- C. At no time after the National Archives and Records Service has accepted custody of both the negative and positive microfilm copies of the schedules of a census will both negative and positive copies of that census be kept in the same city.

D. After the lapse of seventy-two years from the enumeration date of a decennial census, the National Archives and Records Service may disclose information contained in these records for use in legitimate historical, genealogical or other worth-while research, provided adequate precautions are taken to make sure that the information disclosed is not to be used to the detriment of any of the persons whose records are involved. Prior to the lapse of time specified above, the information will be disclosed only by the Bureau of the Census from microphotographic or other records in its possession.

Please let us know if these provisions are acceptable to you. If they are, we shall make the necessary arrangements to effect the movement of records now eligible for transfer.

Sincerely yours,

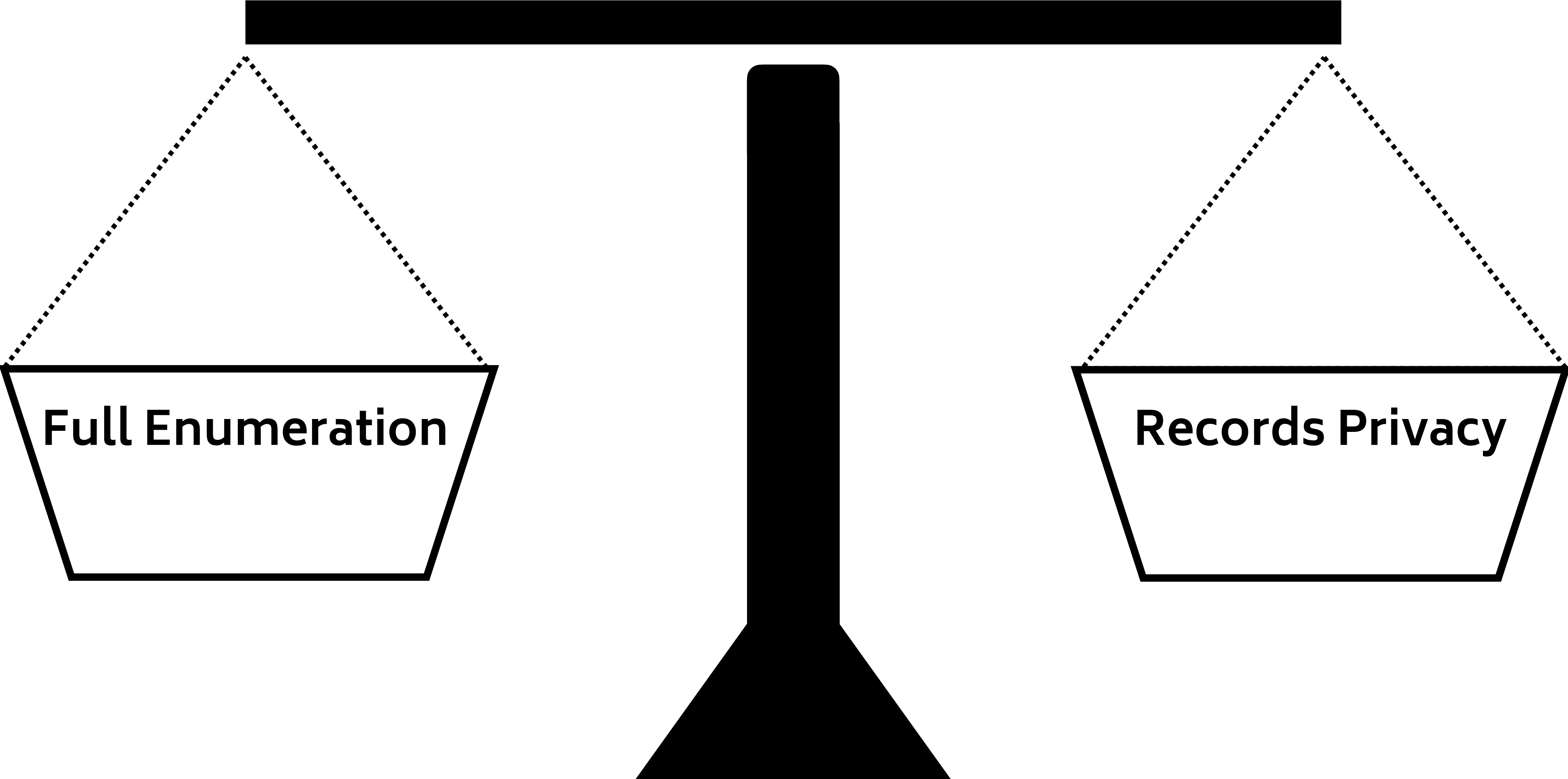
(Signed) Roy V. Peel

Roy V. Peel  
Director  
Bureau of the Census

# Differential Privacy

Neither the Secretary, nor any other officer or employee of the Department of Commerce or bureau or agency thereof [can]... use the information furnished under the provisions of this title for any purpose other than the statistical purposes for which it was supplied; or make any publication whereby the data furnished by any particular establishment or individual under this title can be identified; or permit anyone other than the sworn officers and employees of the Department or bureau or agency thereof to examine the individual reports.

# Differential Privacy

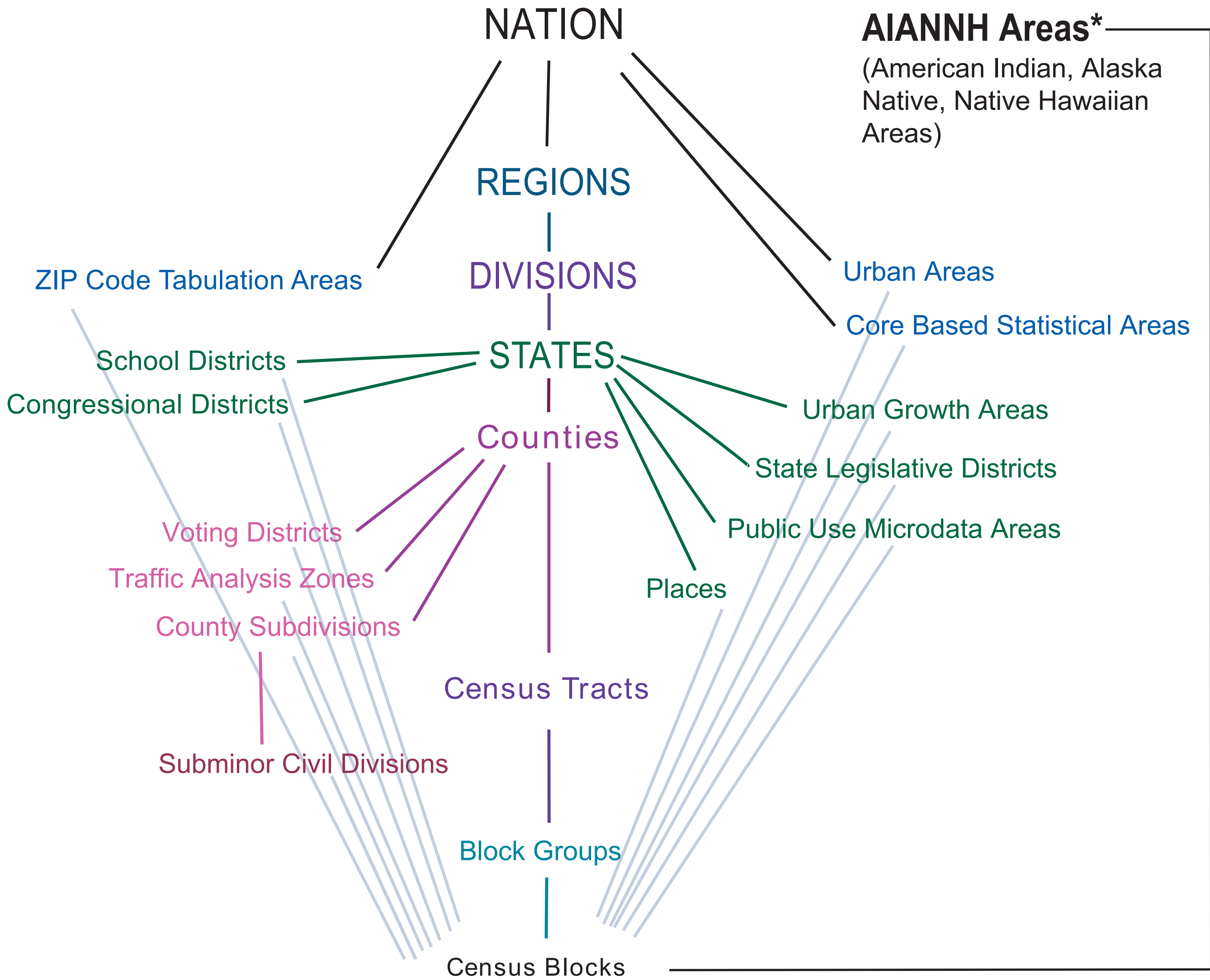




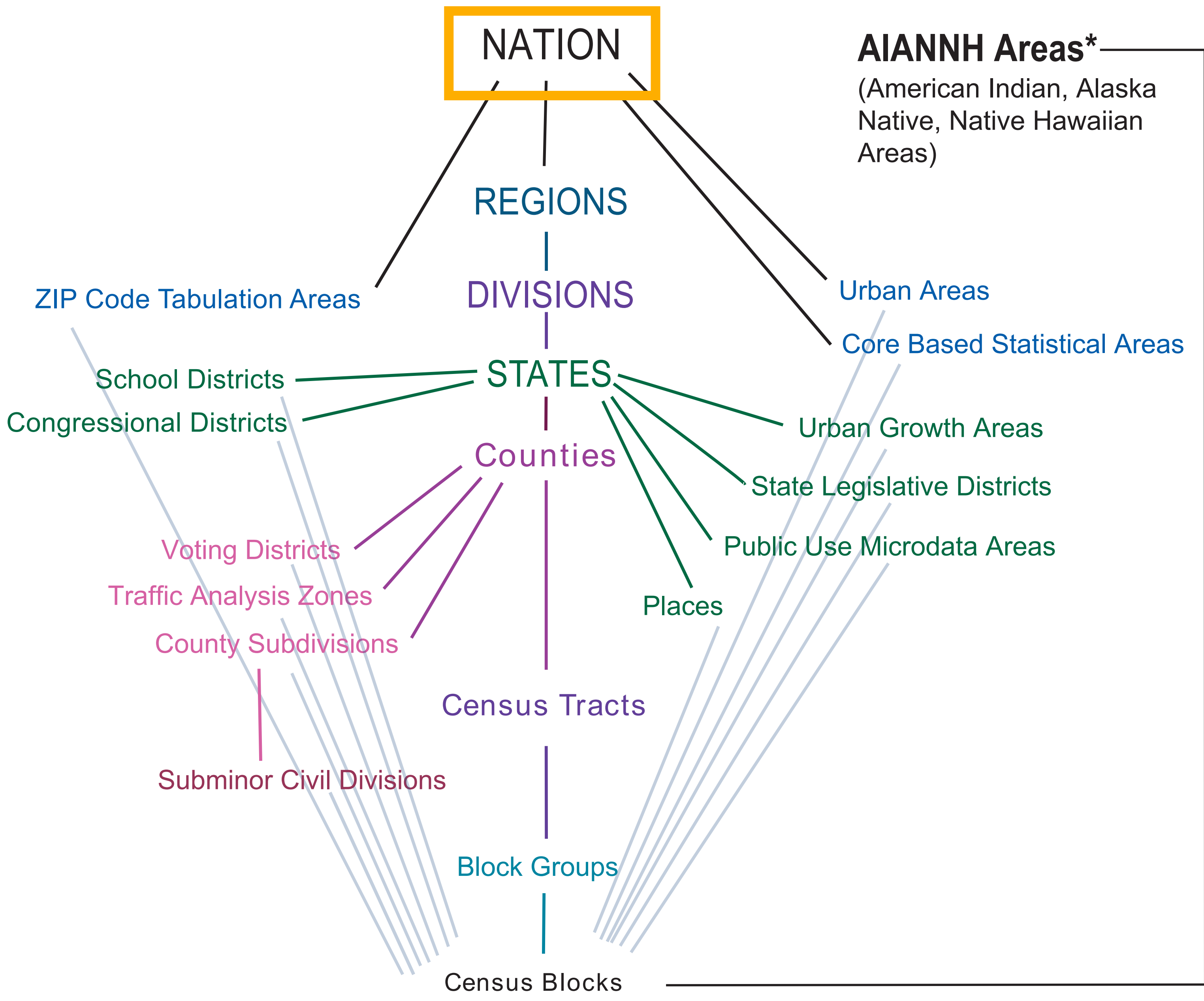
# Census Geographies

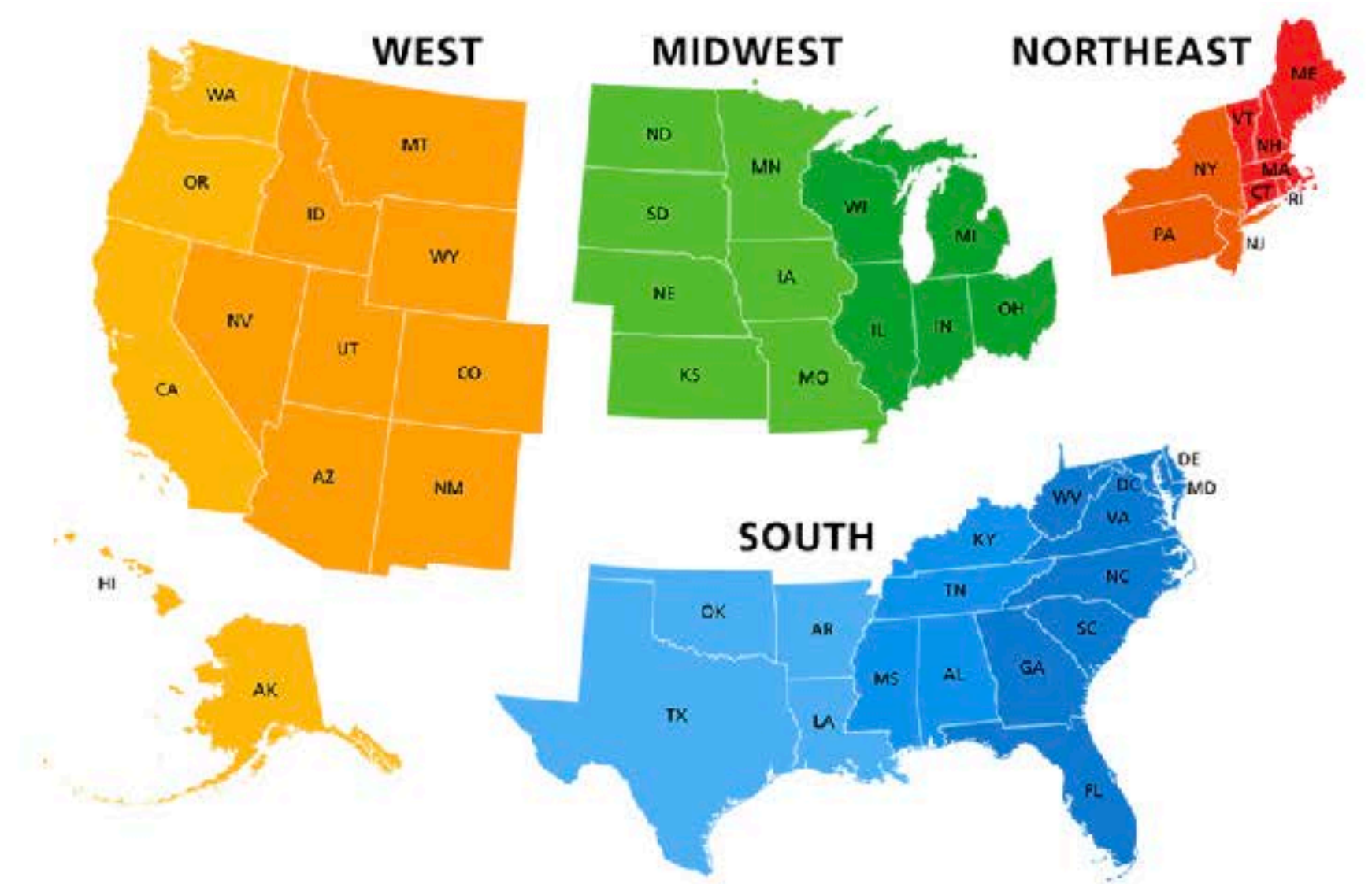
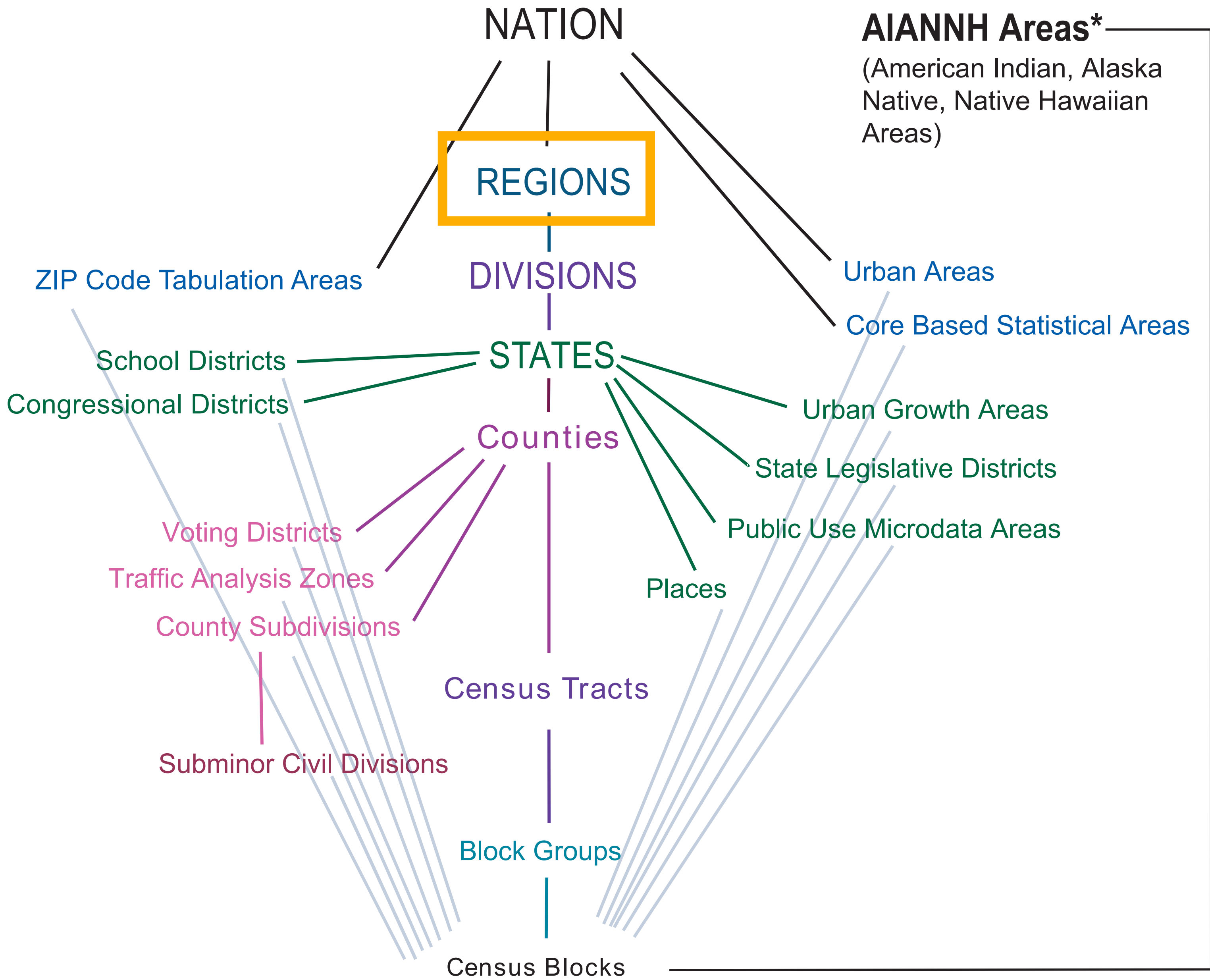


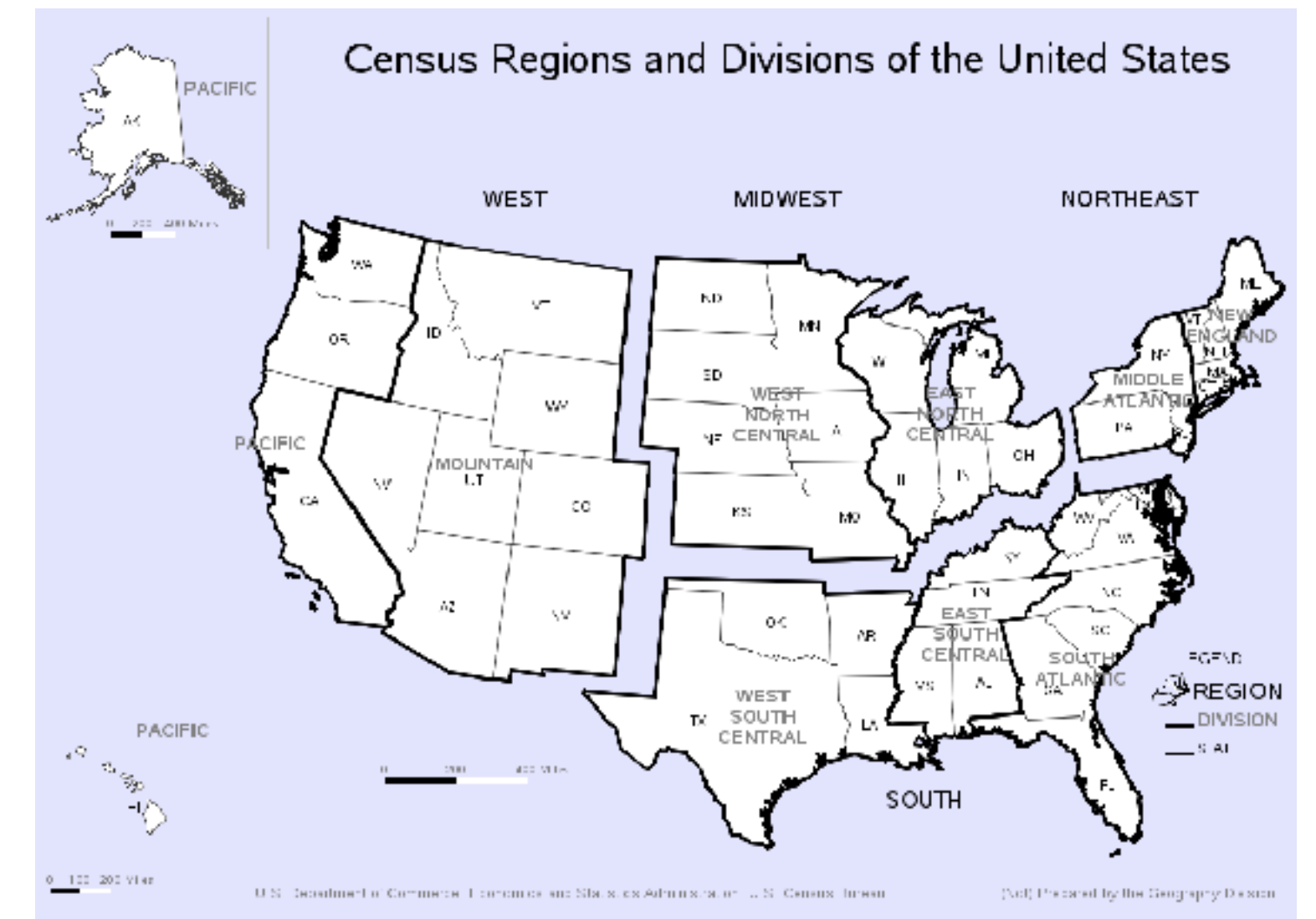
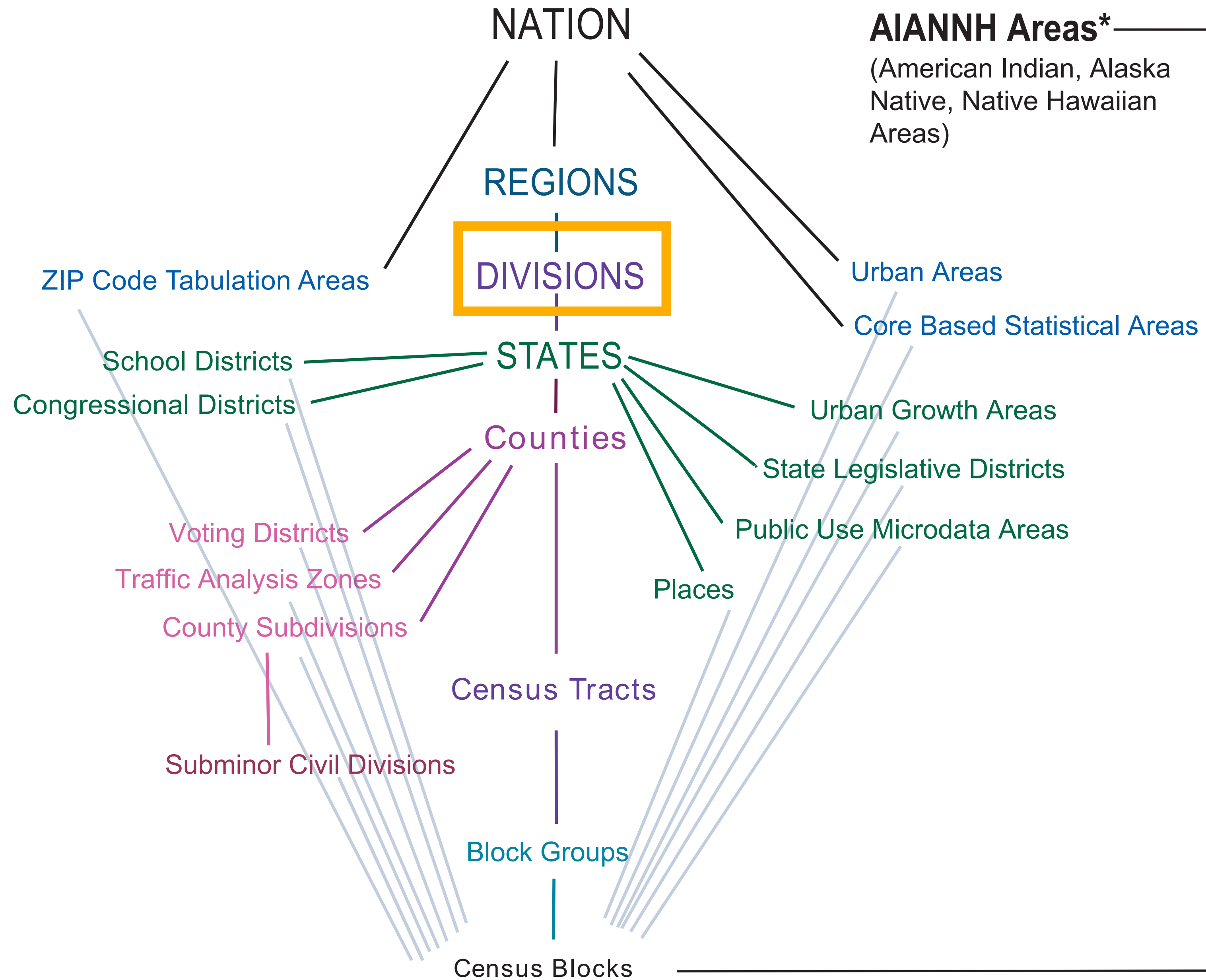


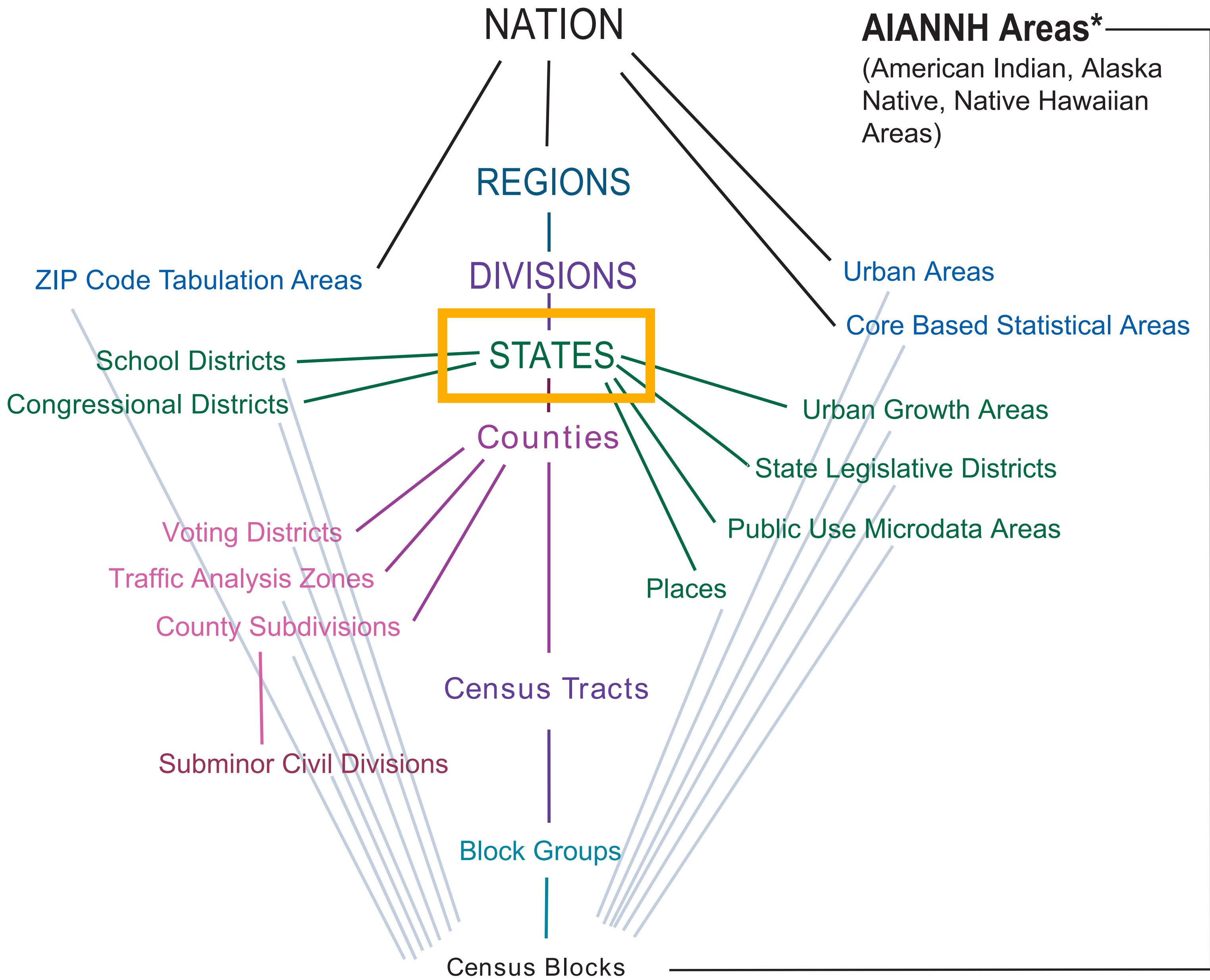


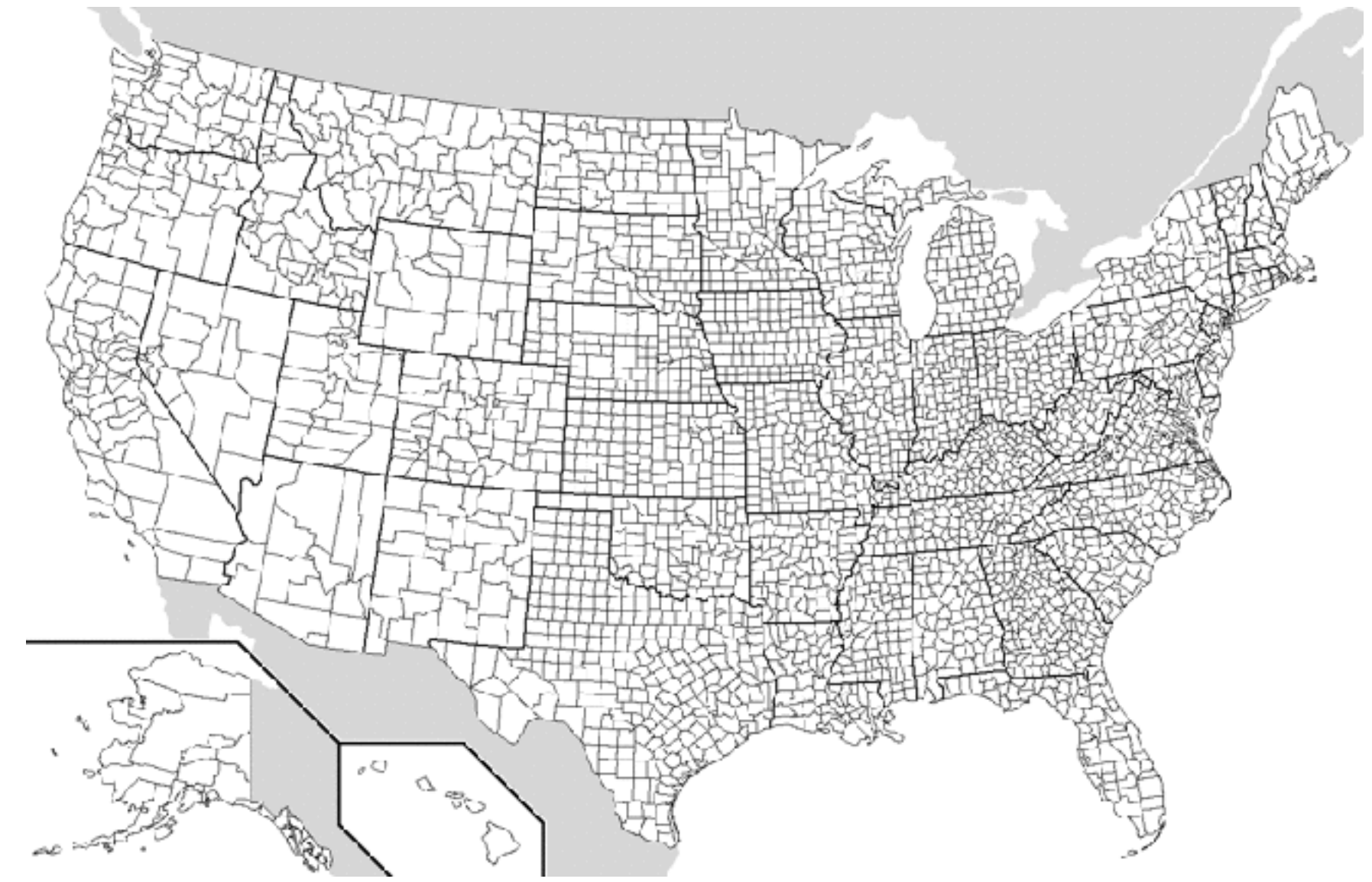
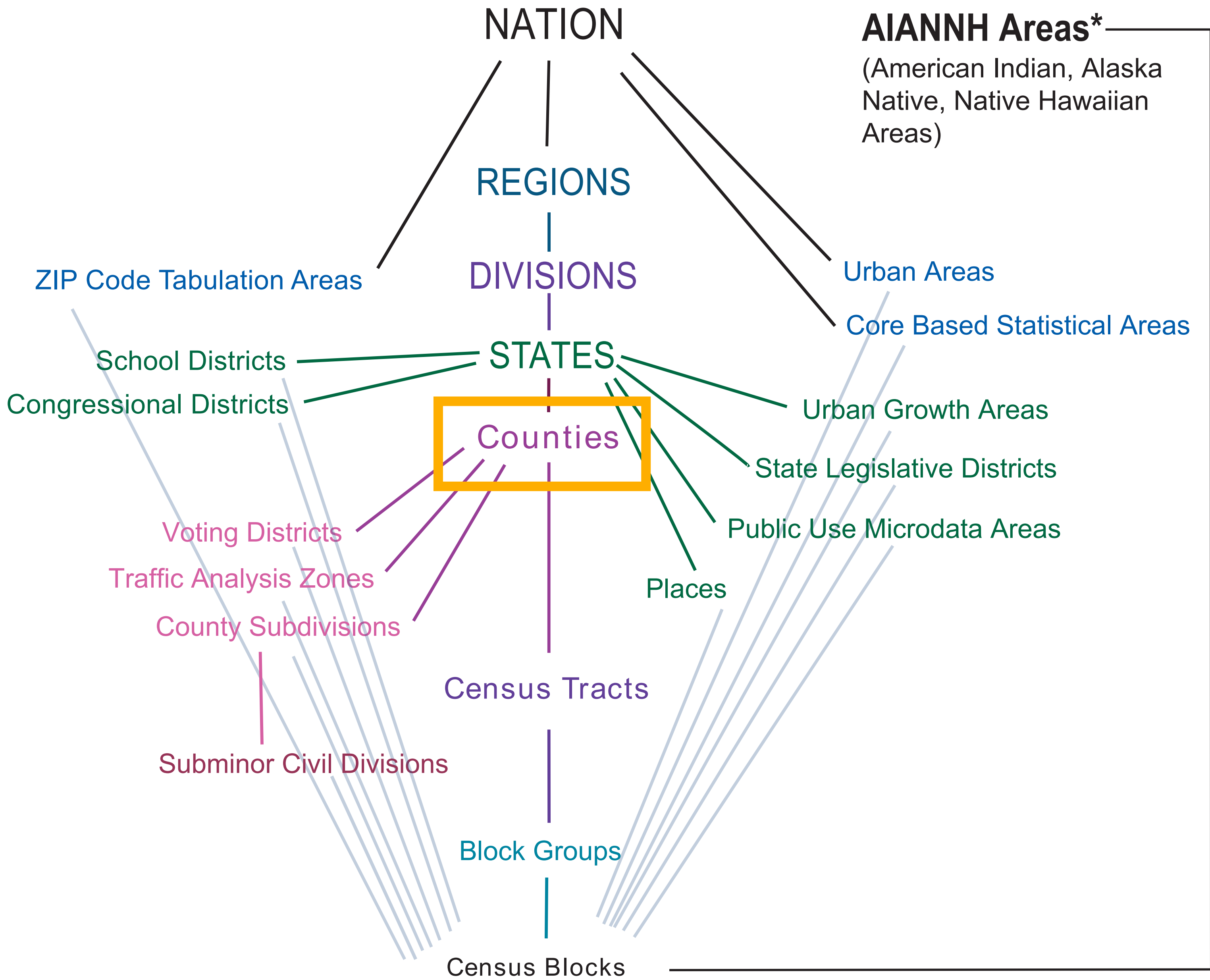
- Lines indicate geographies which cannot cross each other
- For instance, places never cross state lines and tracts never cross county lines
- Maps are a valuable way to represent these relationships

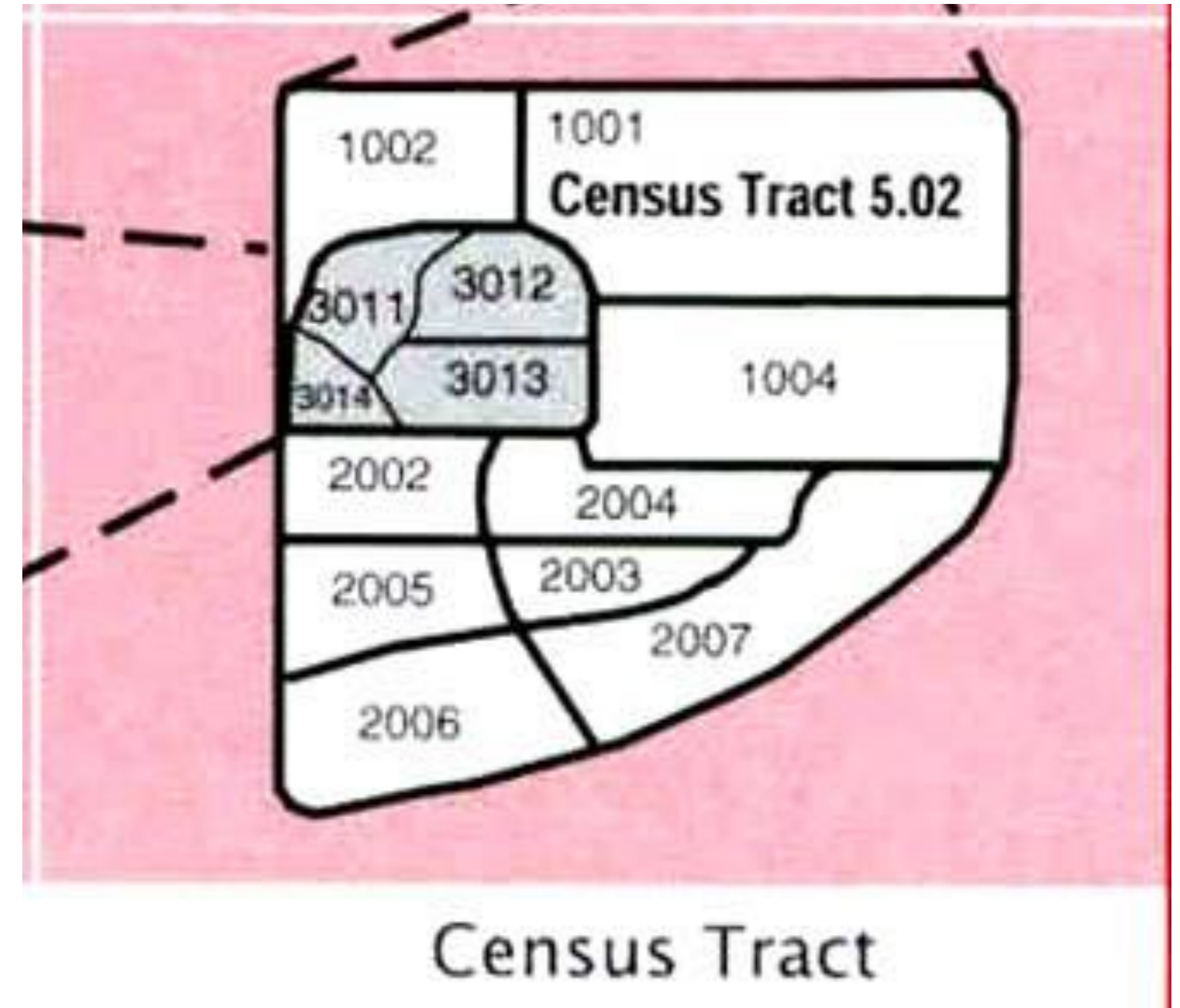
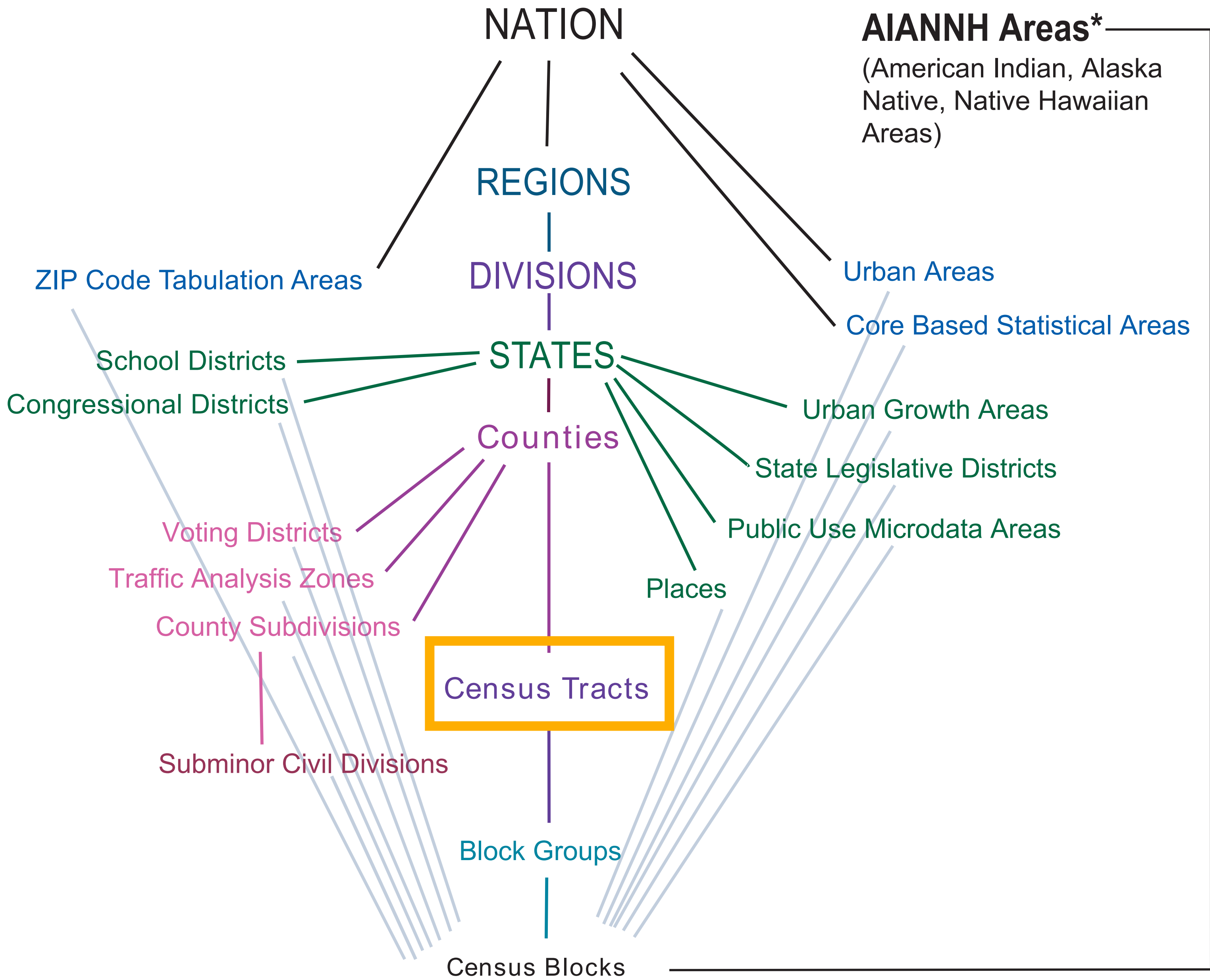


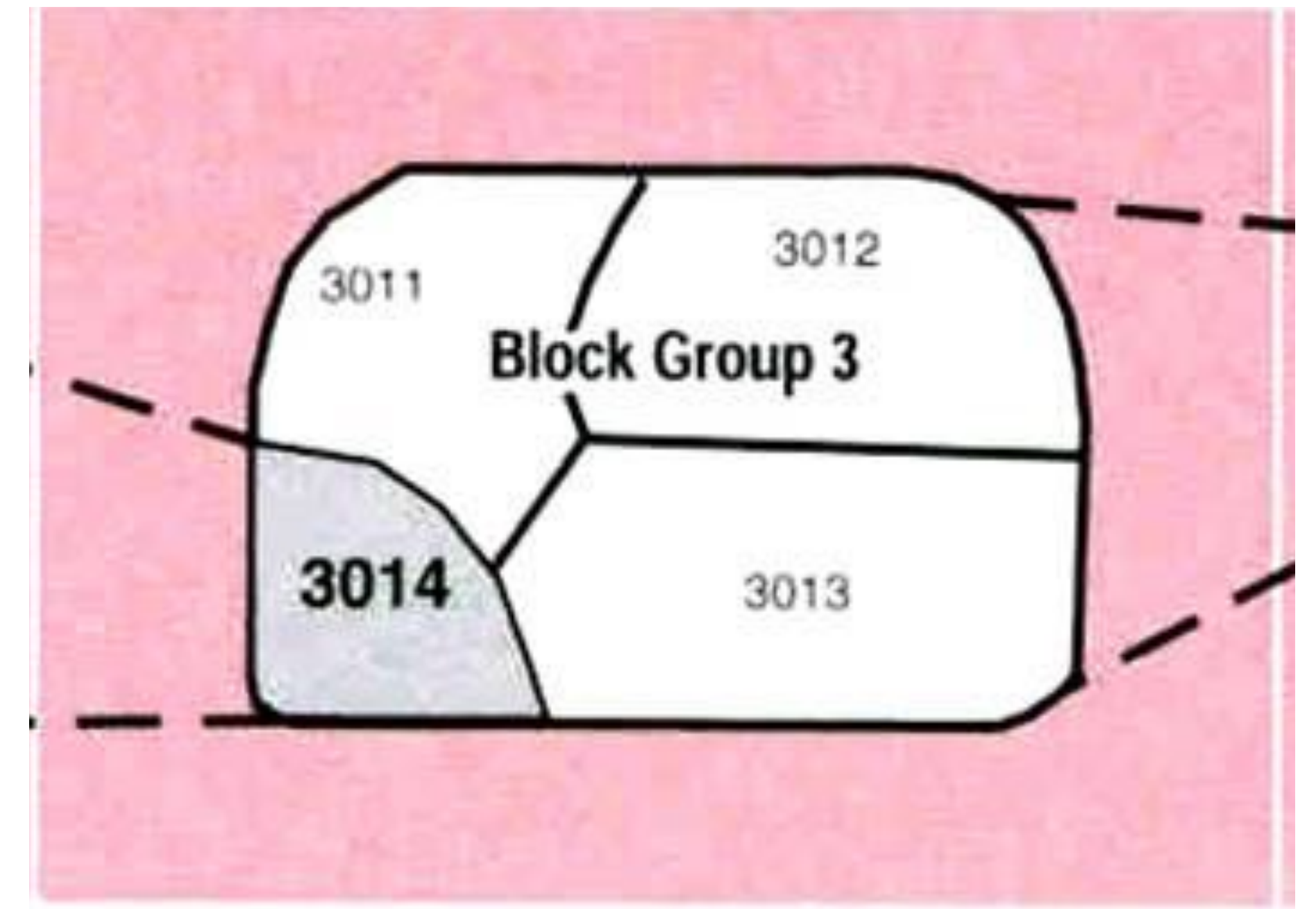
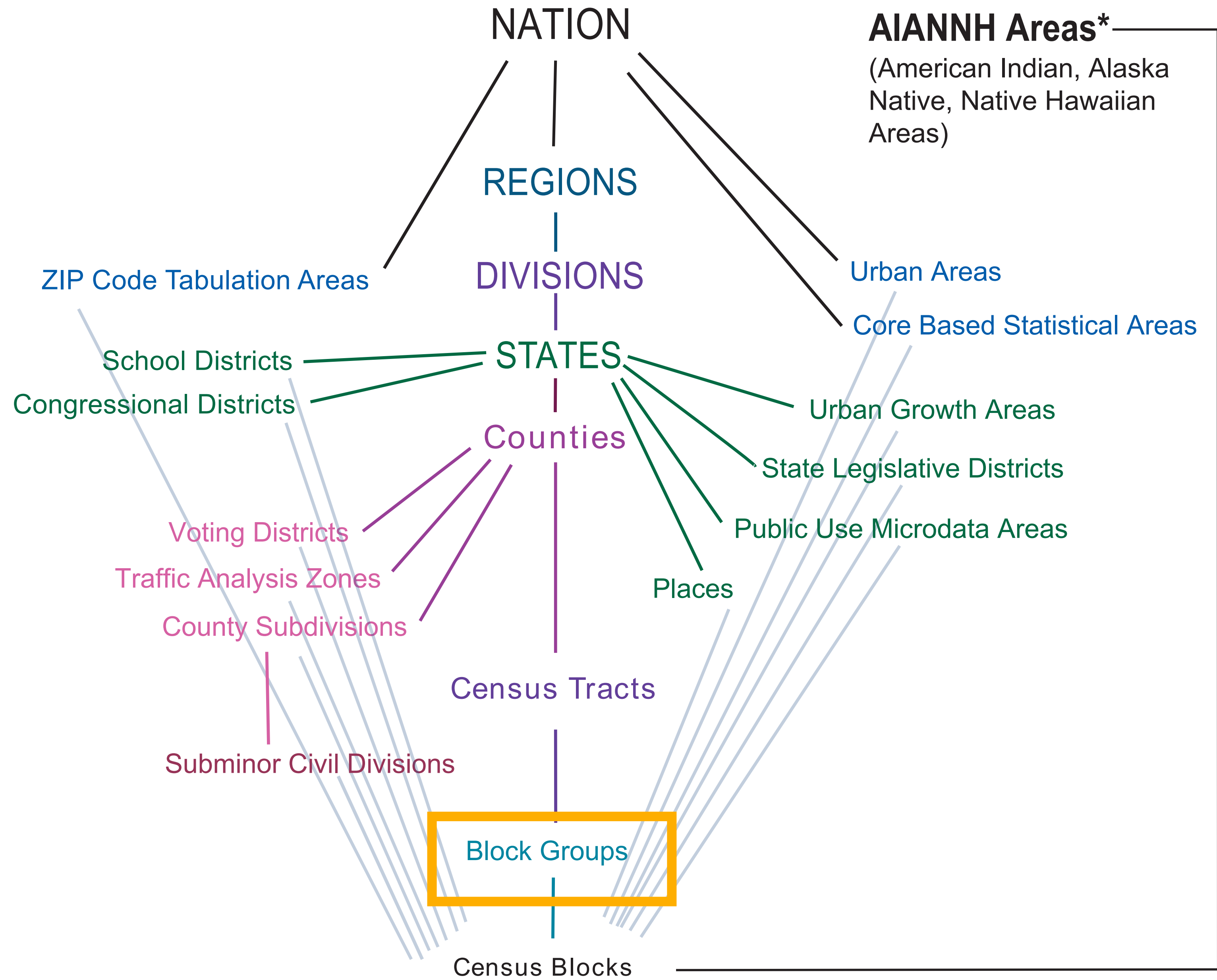




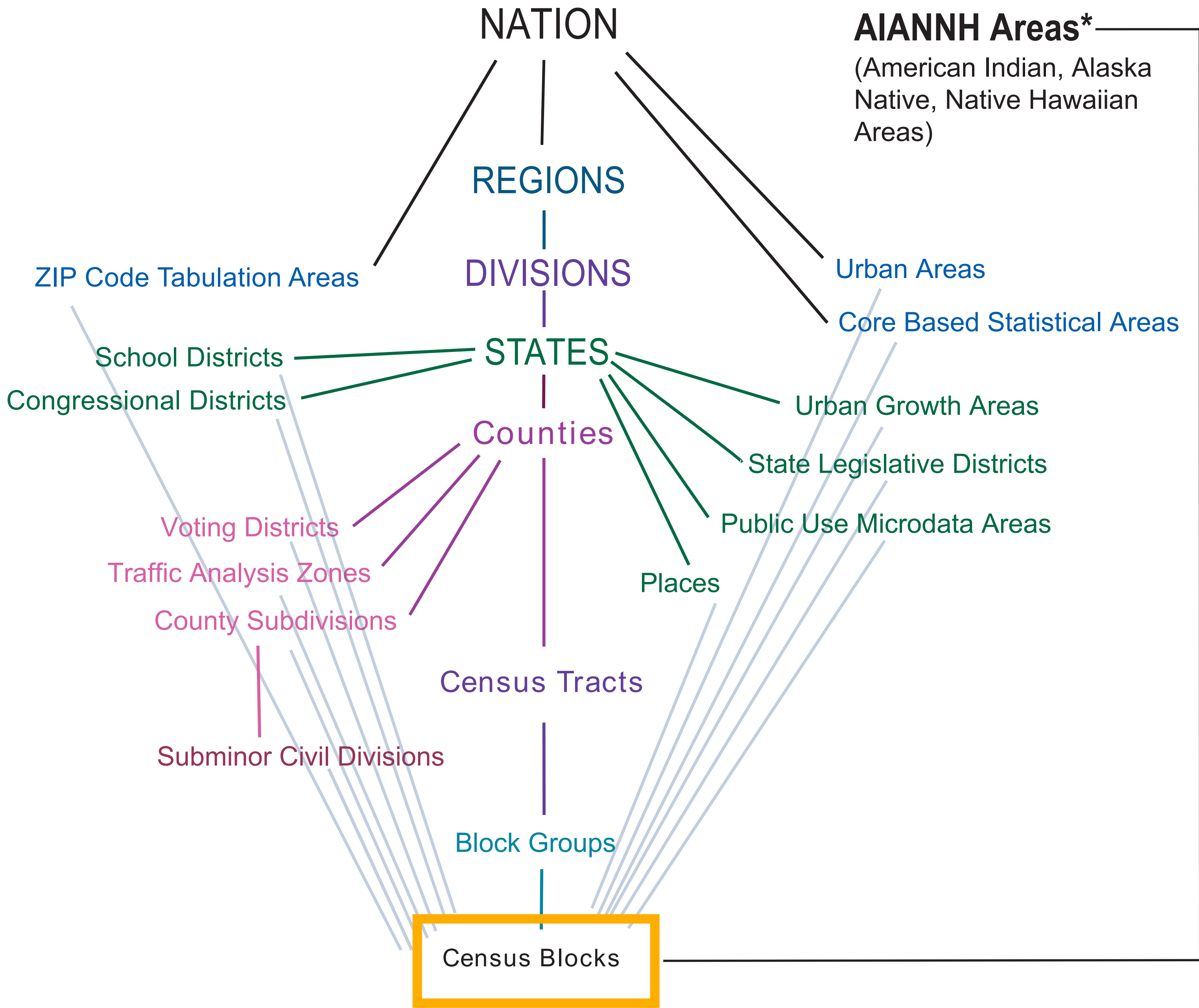




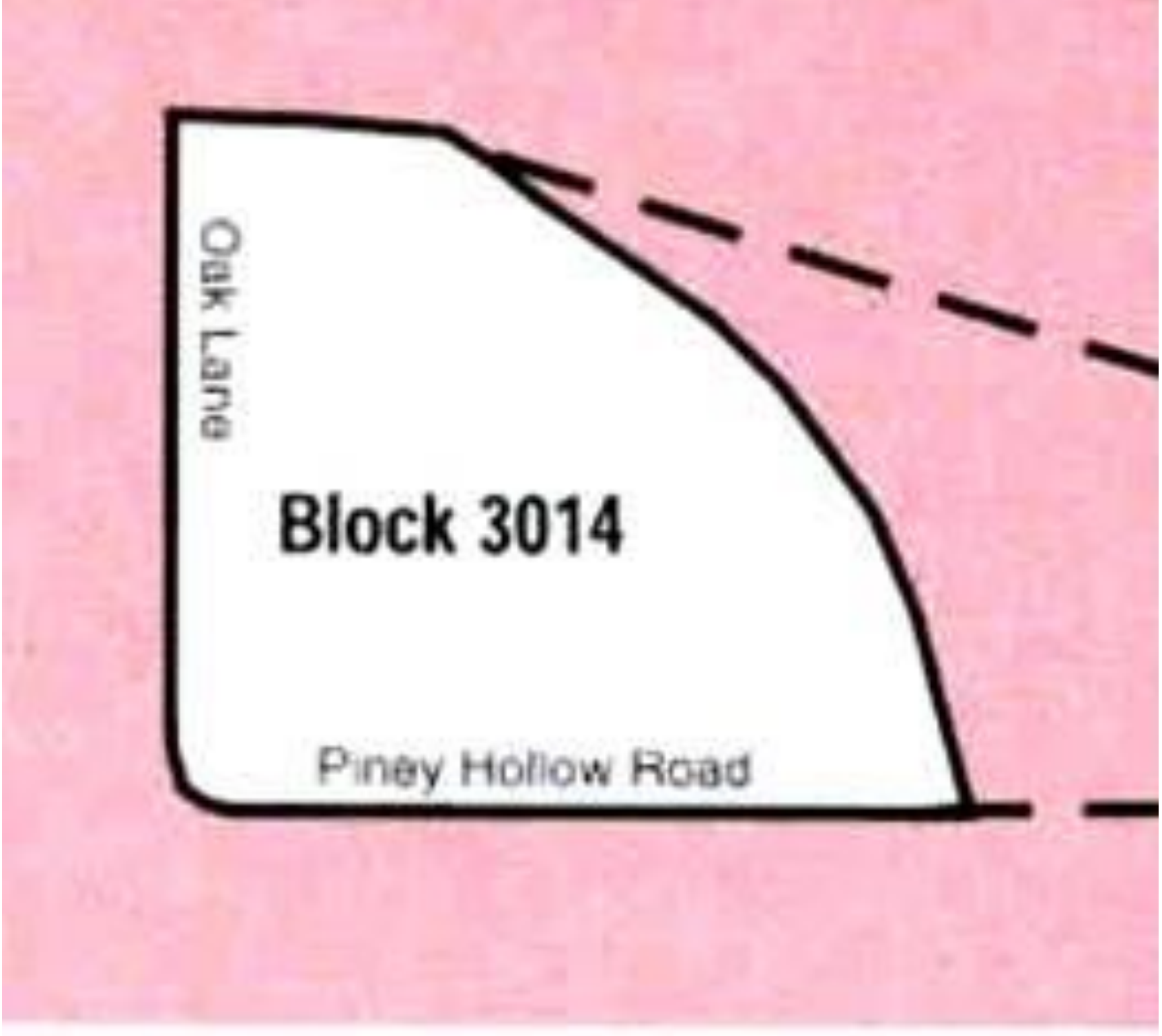








**AIANNH Areas\***  
 (American Indian, Alaska Native, Native Hawaiian Areas)

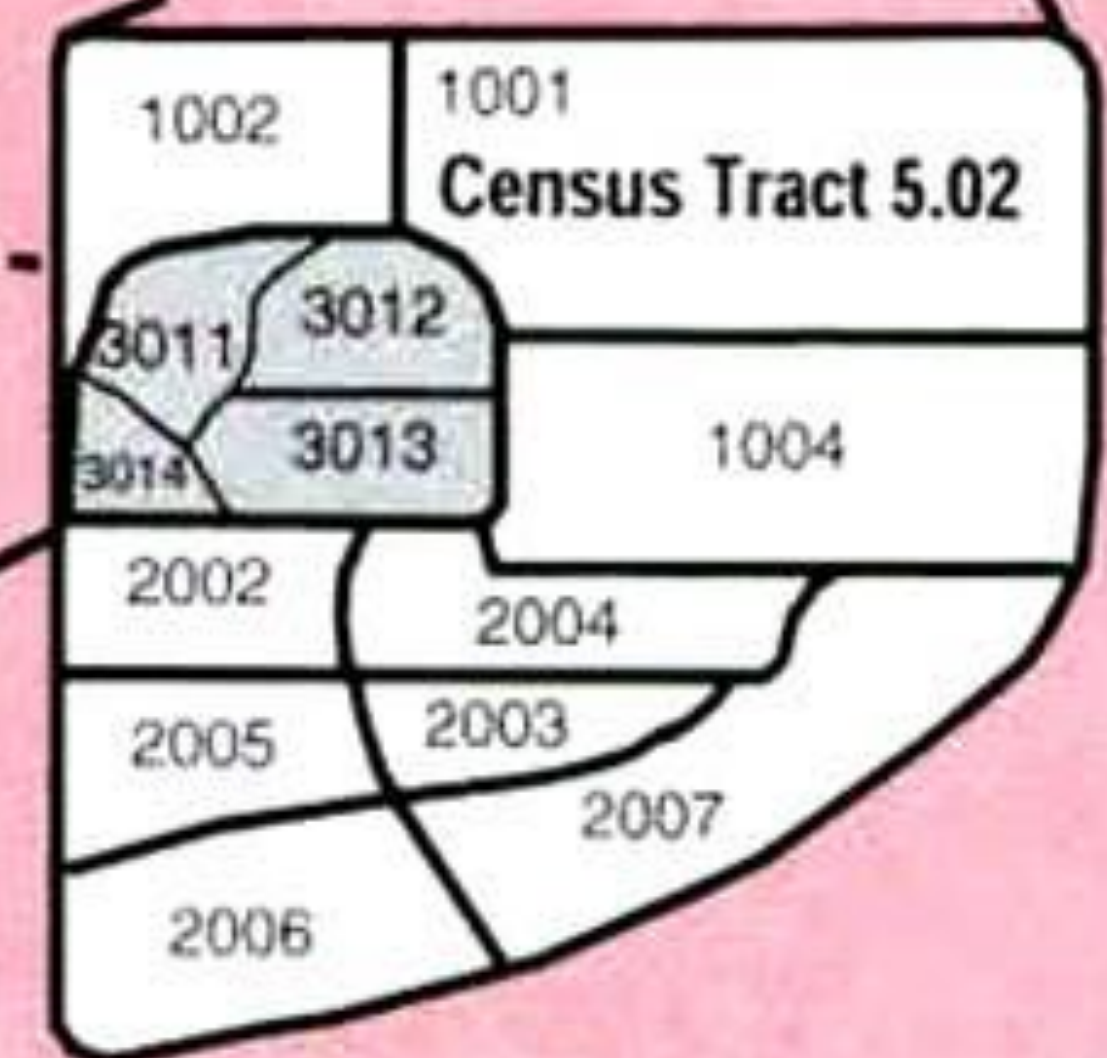
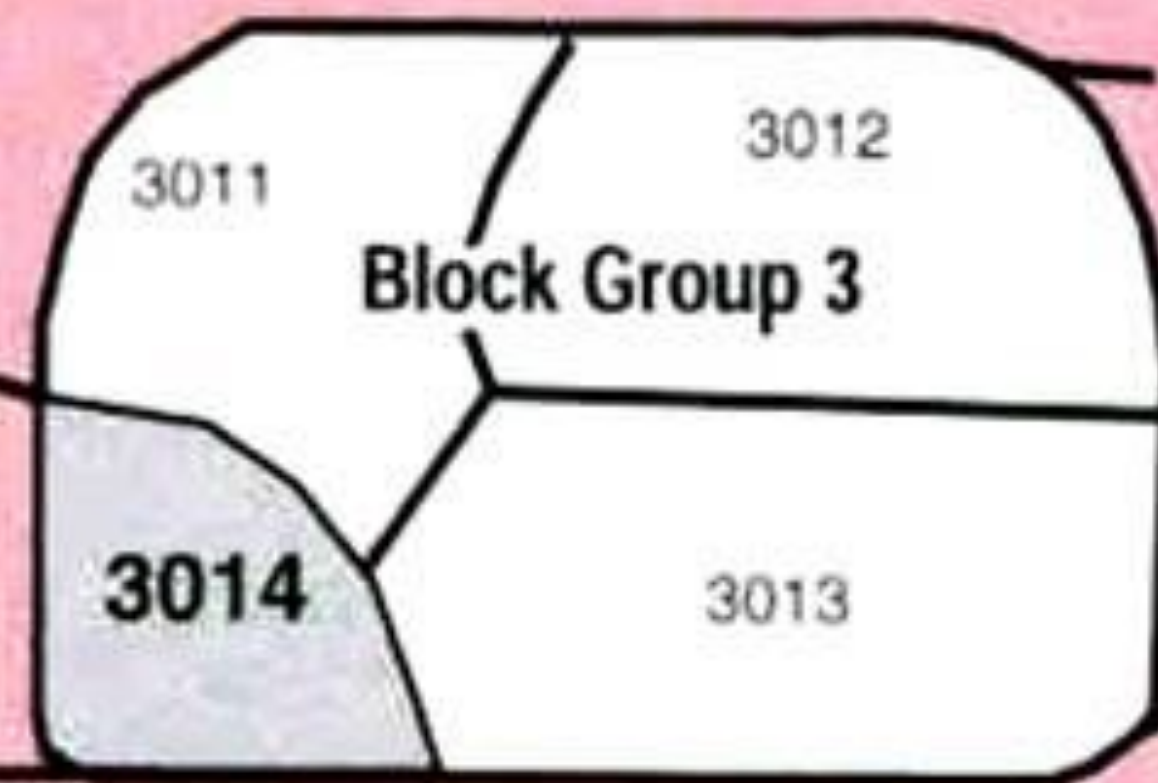
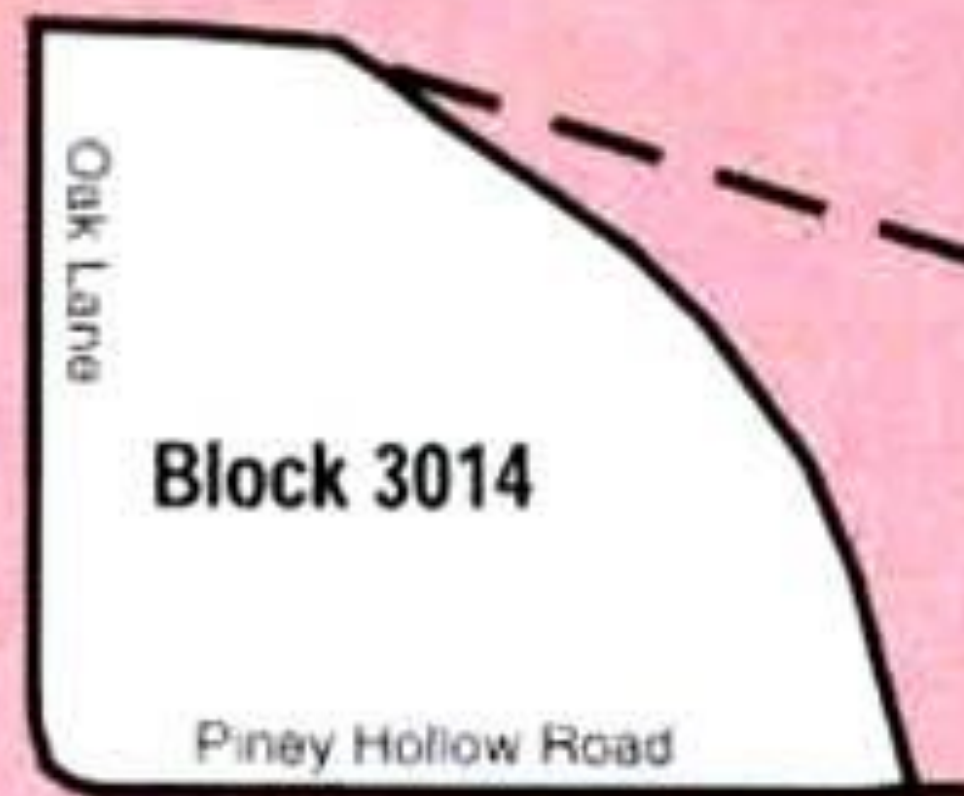
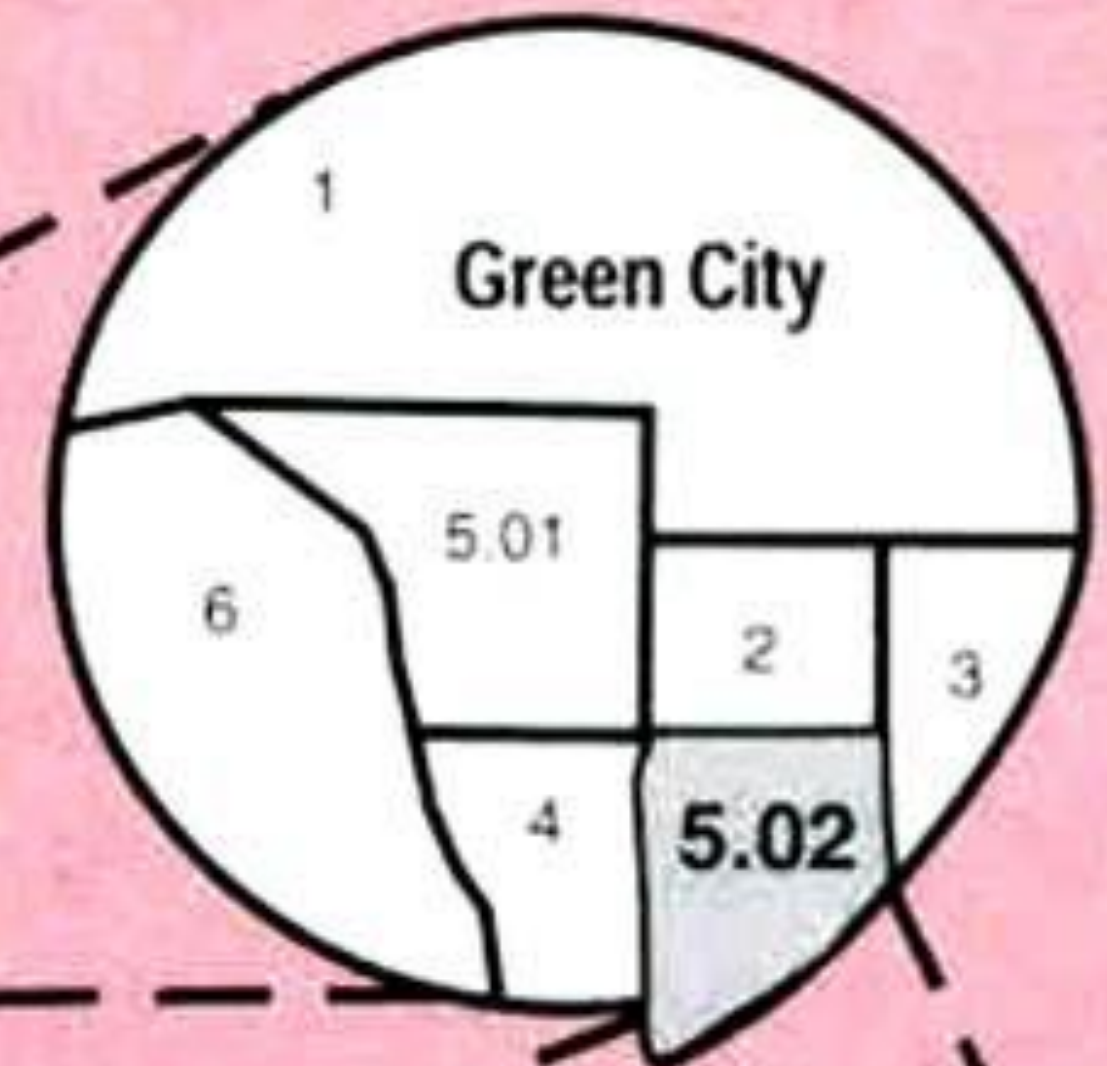
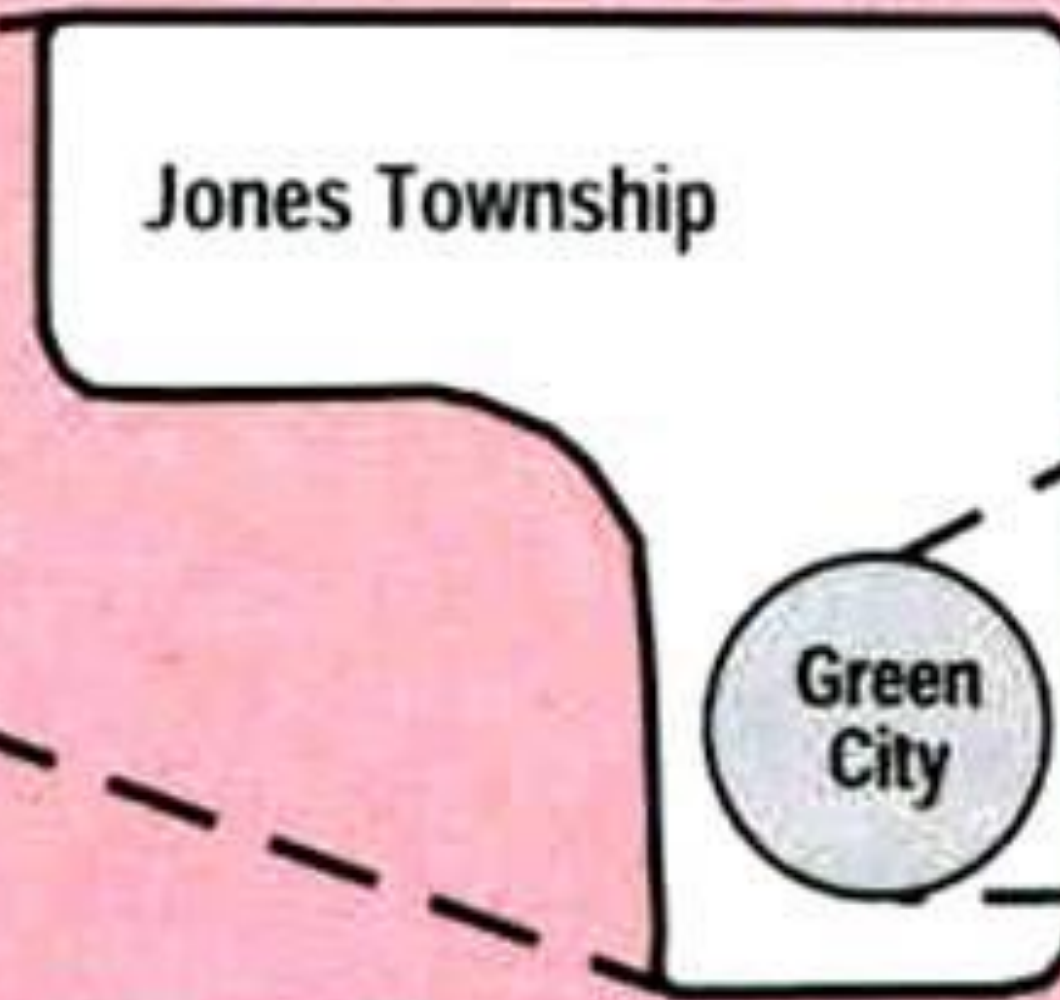
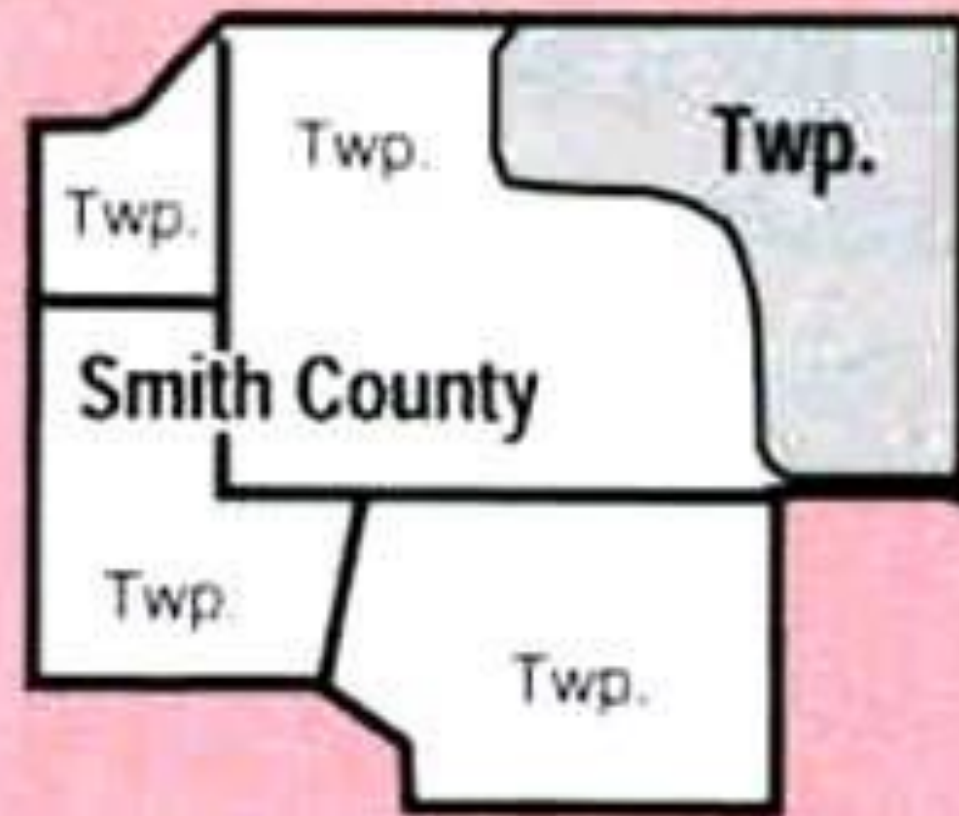


Block

County

Minor Civil Division (MCD) or  
Census County Division (CCD)

Place

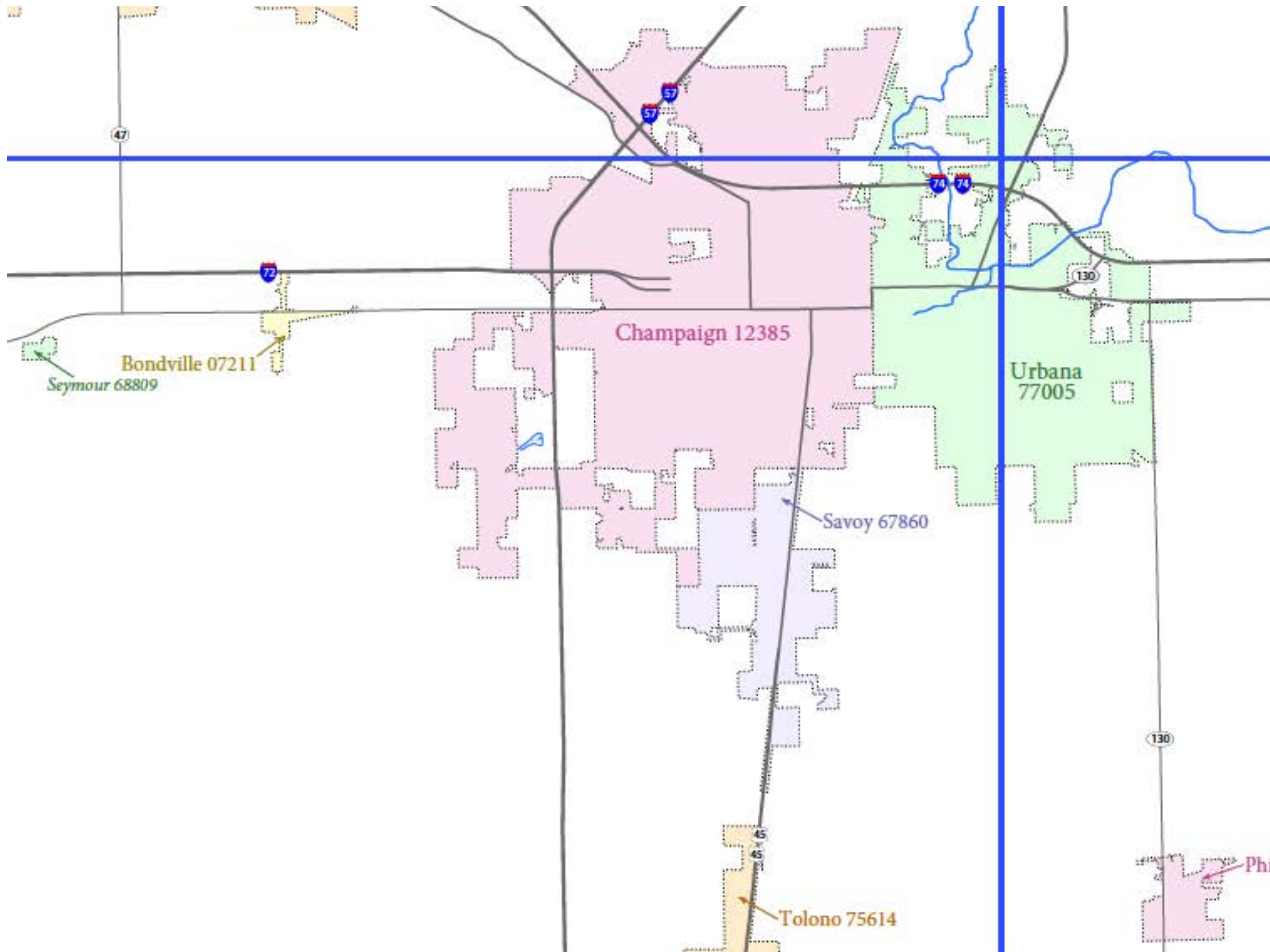


Block

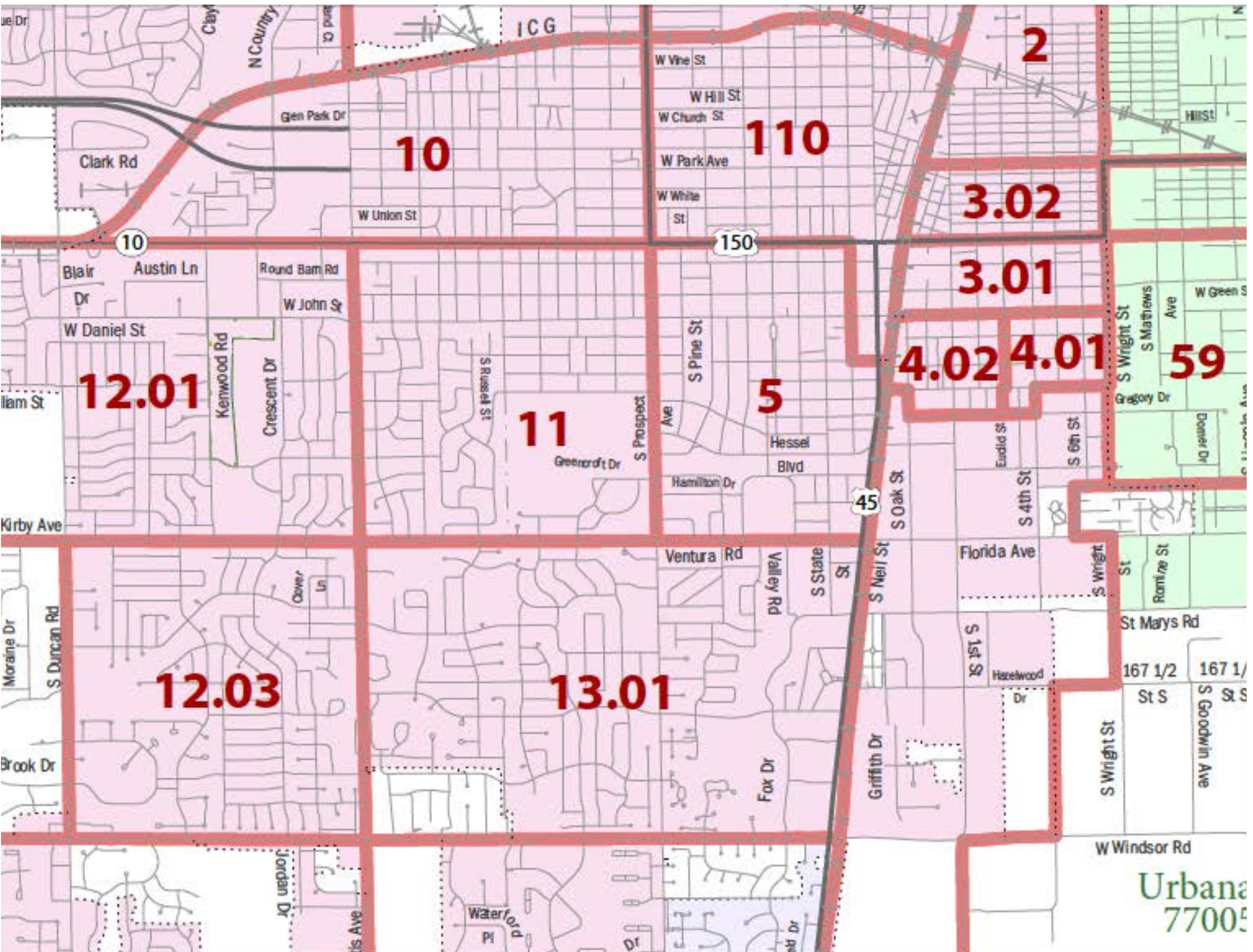
Block Group

Census Tract

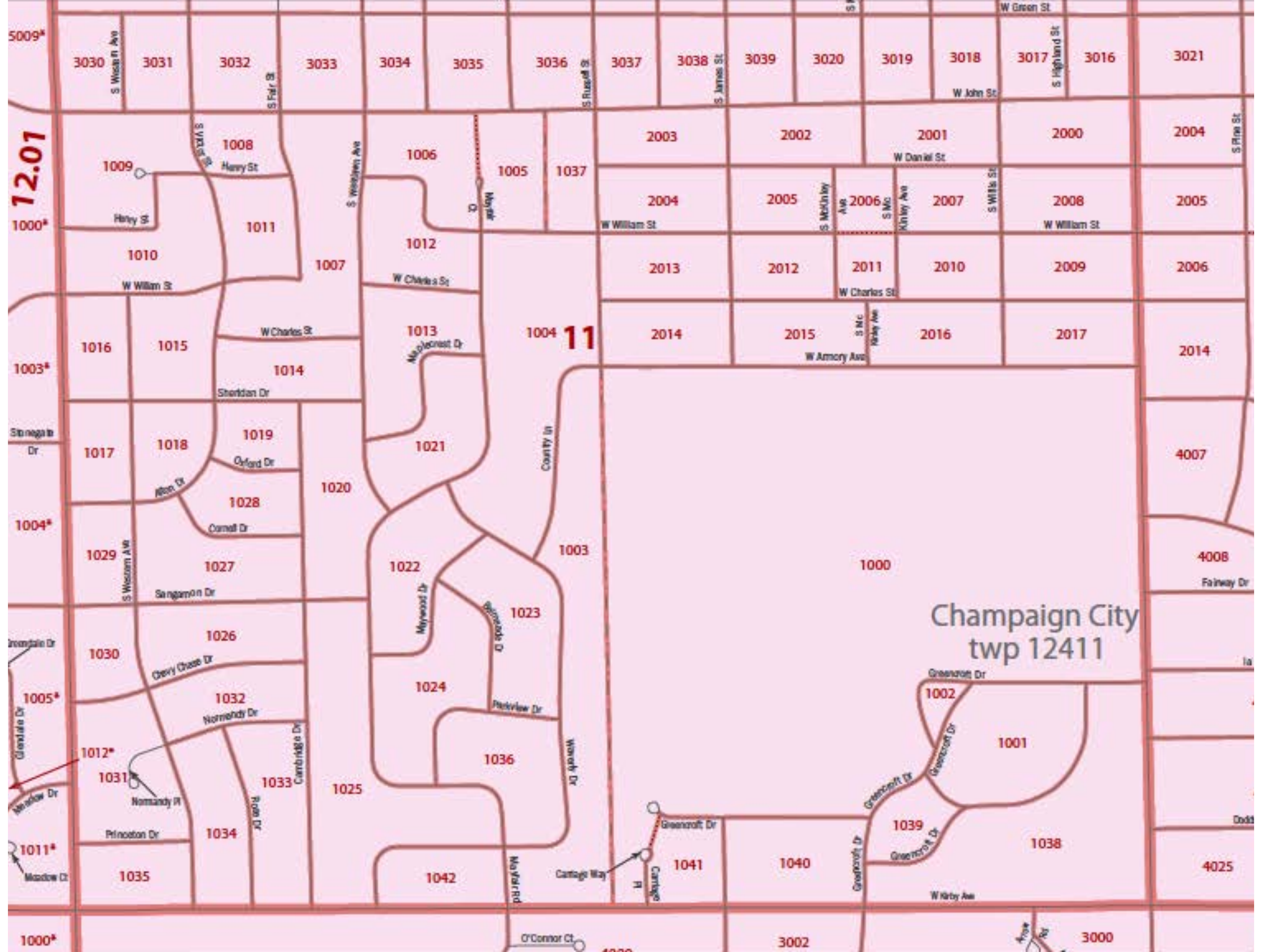
# Places



# Tracts



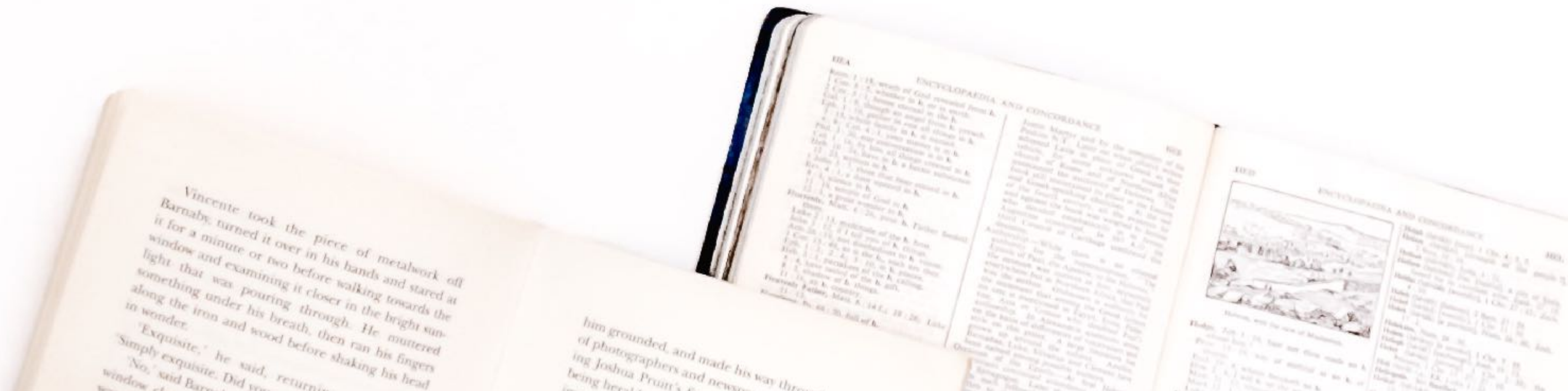
# Block Groups



# Reasoning With Data

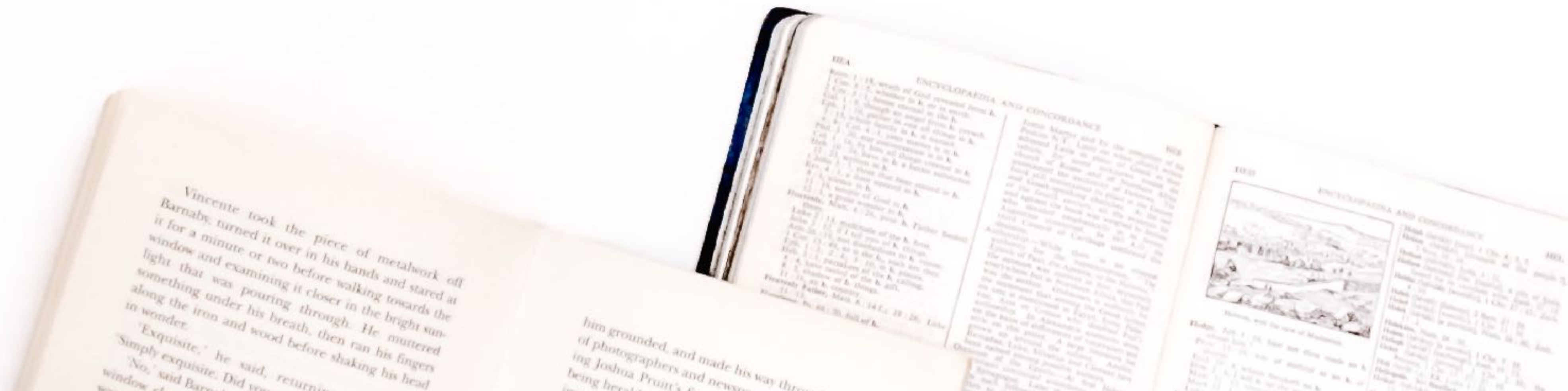


# Good Writing in Planning



# Good Writing in Planning

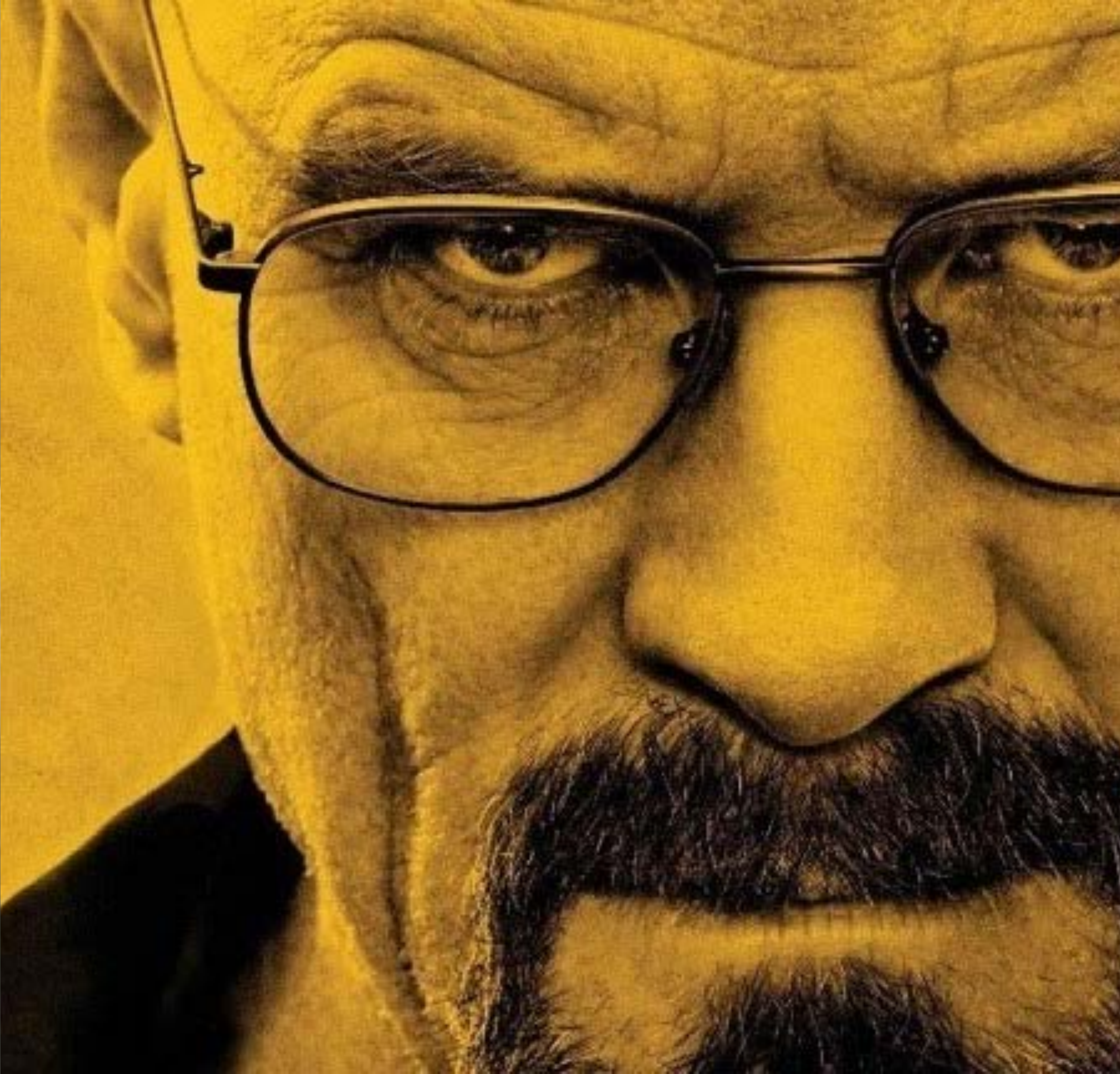
- Persuasive stories are dependent upon their details
- We respond to what characters do
- The more actions are summarized, the more we see the story rather than discrete pieces of information





A timid underachiever succeeds at a new job.





A rich guy tries to save the world.



BATMAN



TM







A rich guy tries to save the world.

Details matter.



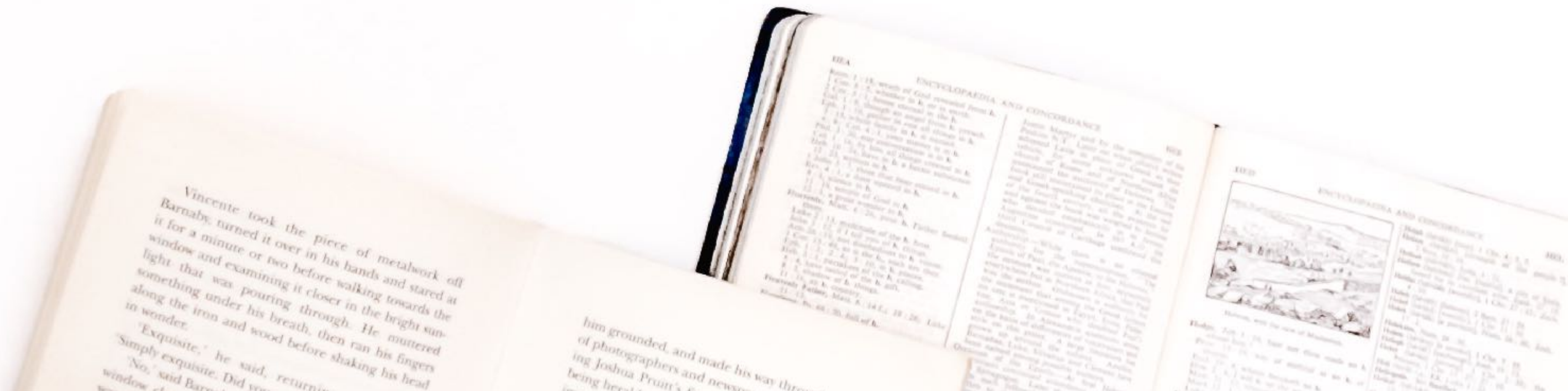


# Audience matters.



Audience matters.

Costs and benefits of eliminating  
single family zoning





# Pearl District Neighborhood Association



# Establish Context

Who, what, where, when

Do it early. Context helps the reader and makes your writing simpler



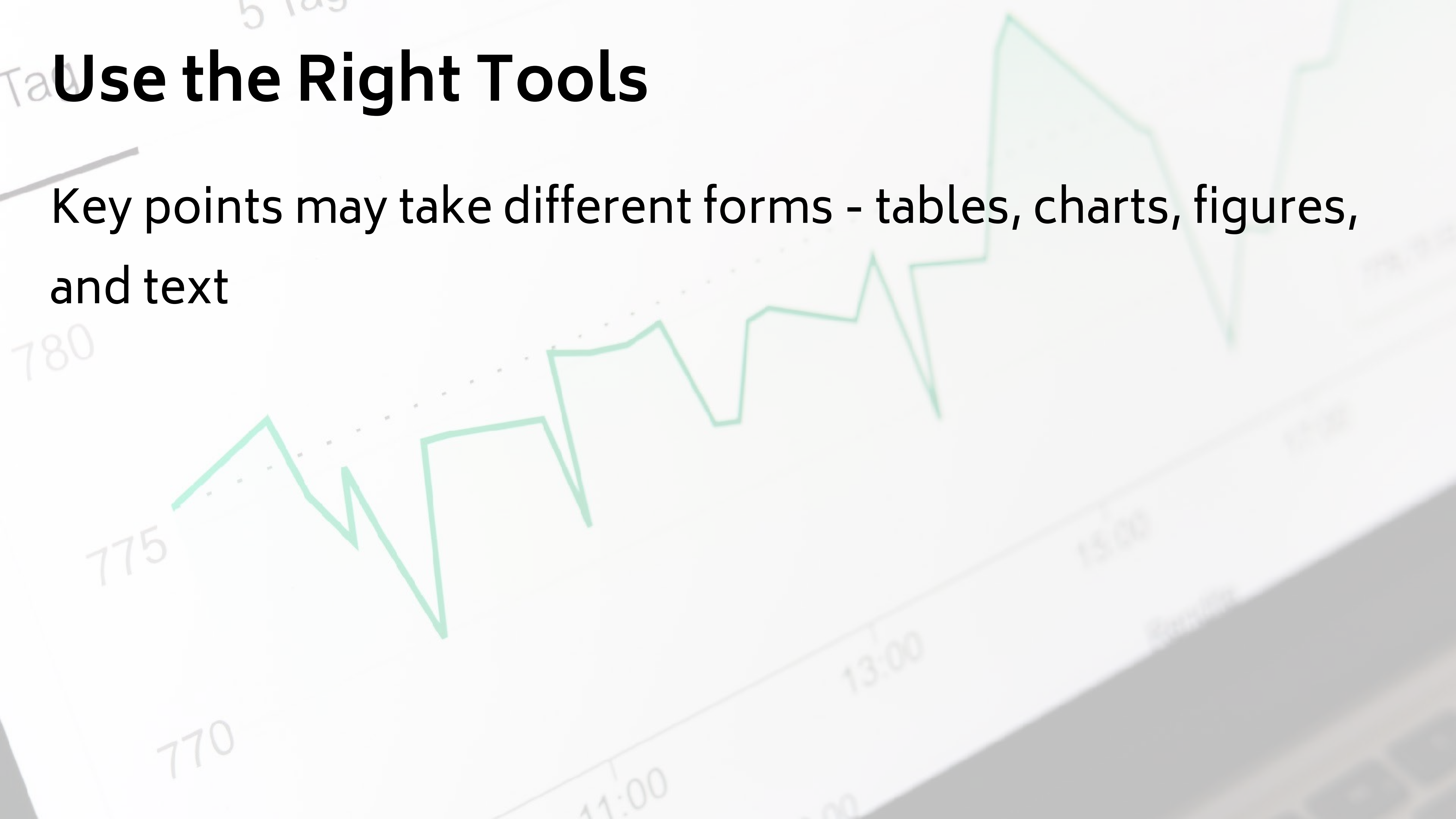
# Simple, Plausible Examples

Compare to widely known things

Know your audience - plausible examples of covid impact will be different for a landlord group, tenants' rights advocates, and local government officials

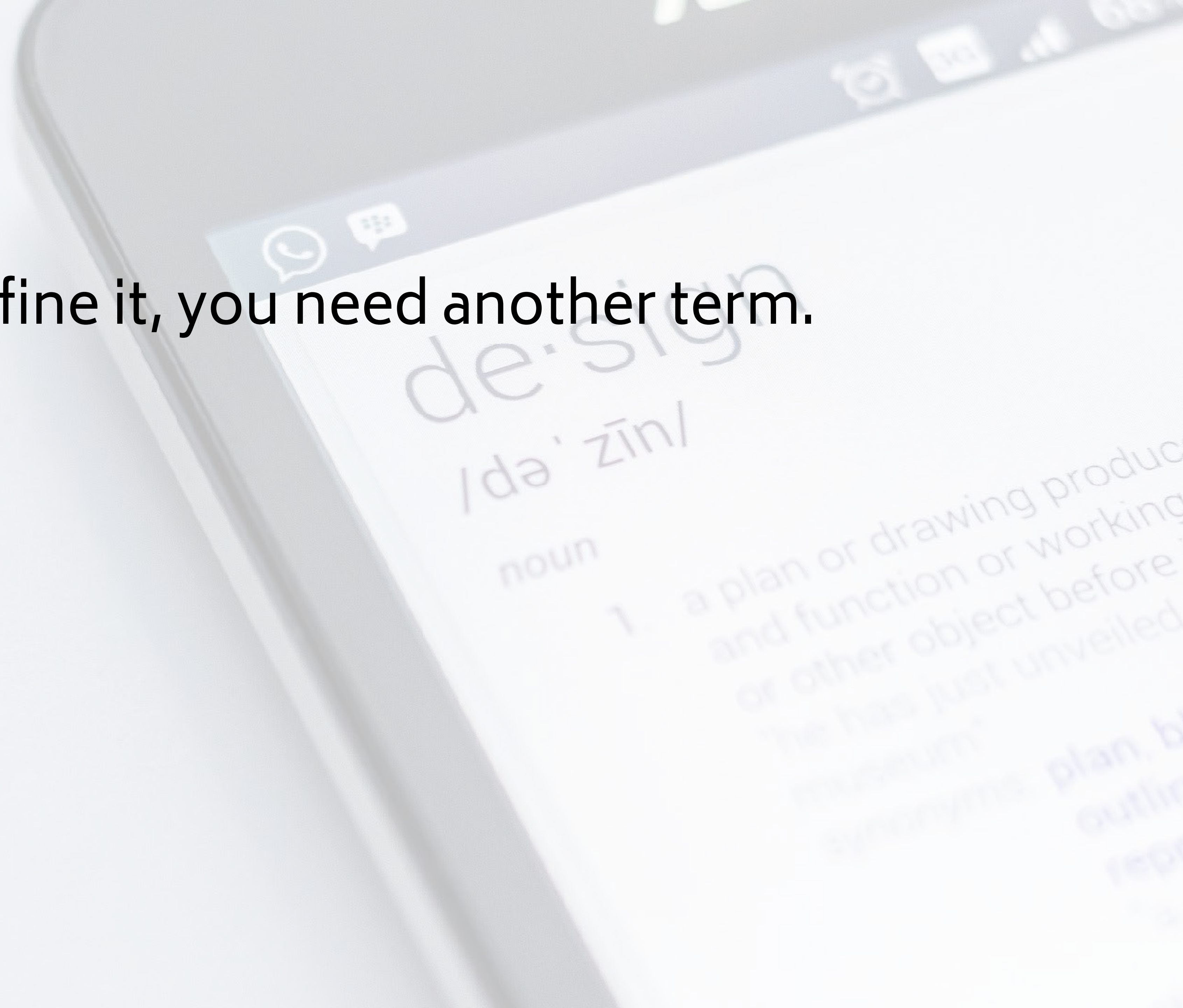
# Use the Right Tools

Key points may take different forms - tables, charts, figures, and text



# Define Terms

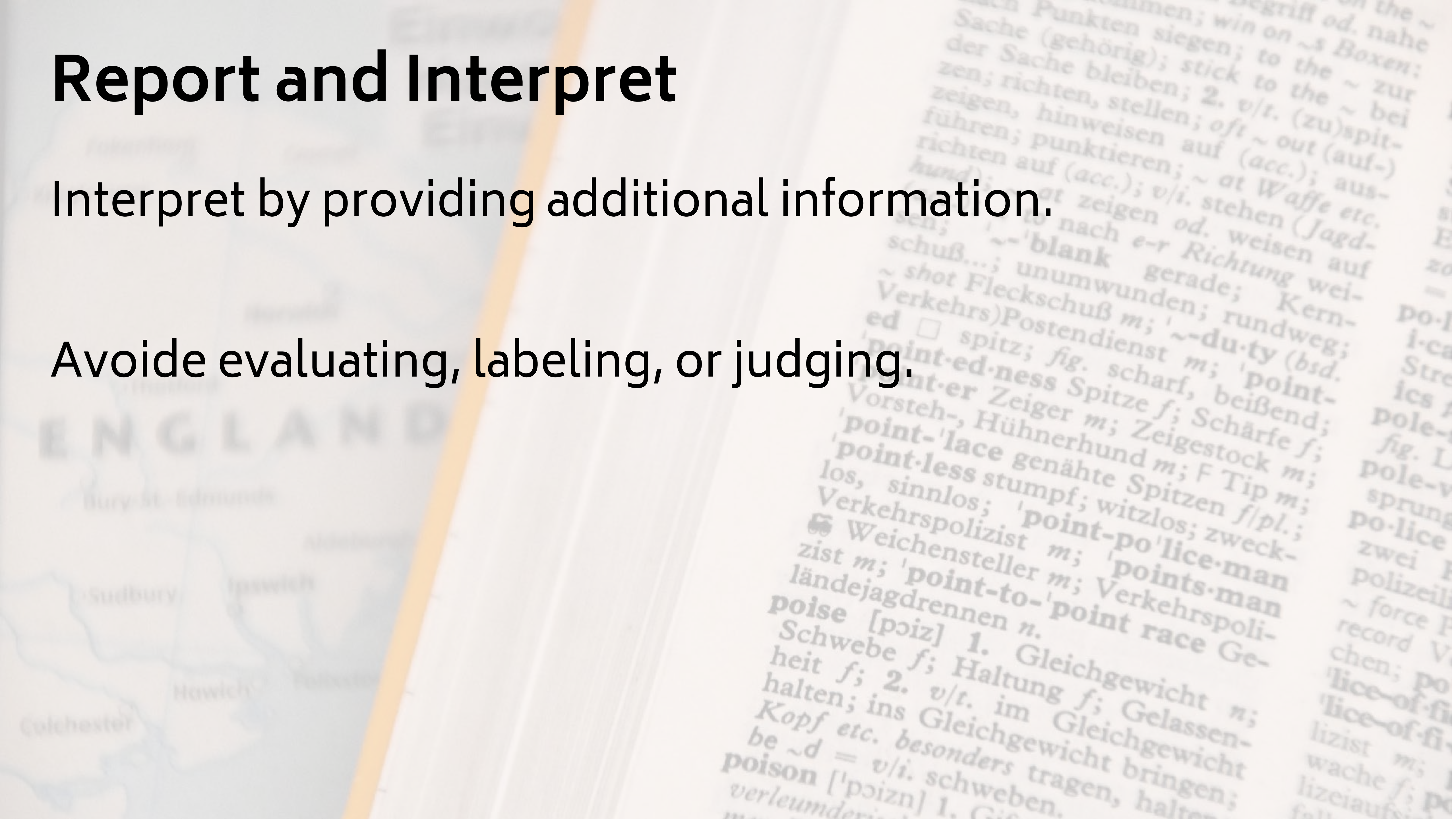
If you struggle to define it, you need another term.



# Report and Interpret

Interpret by providing additional information.

Avoid evaluating, labeling, or judging.





# Specify direction and magnitude

When a business announces a sale, it doesn't say prices have changed...



# Summarize Patterns and Find Generalizations

This is hard!

Rely heavily on the previous principles.



**Understand Variable Types**

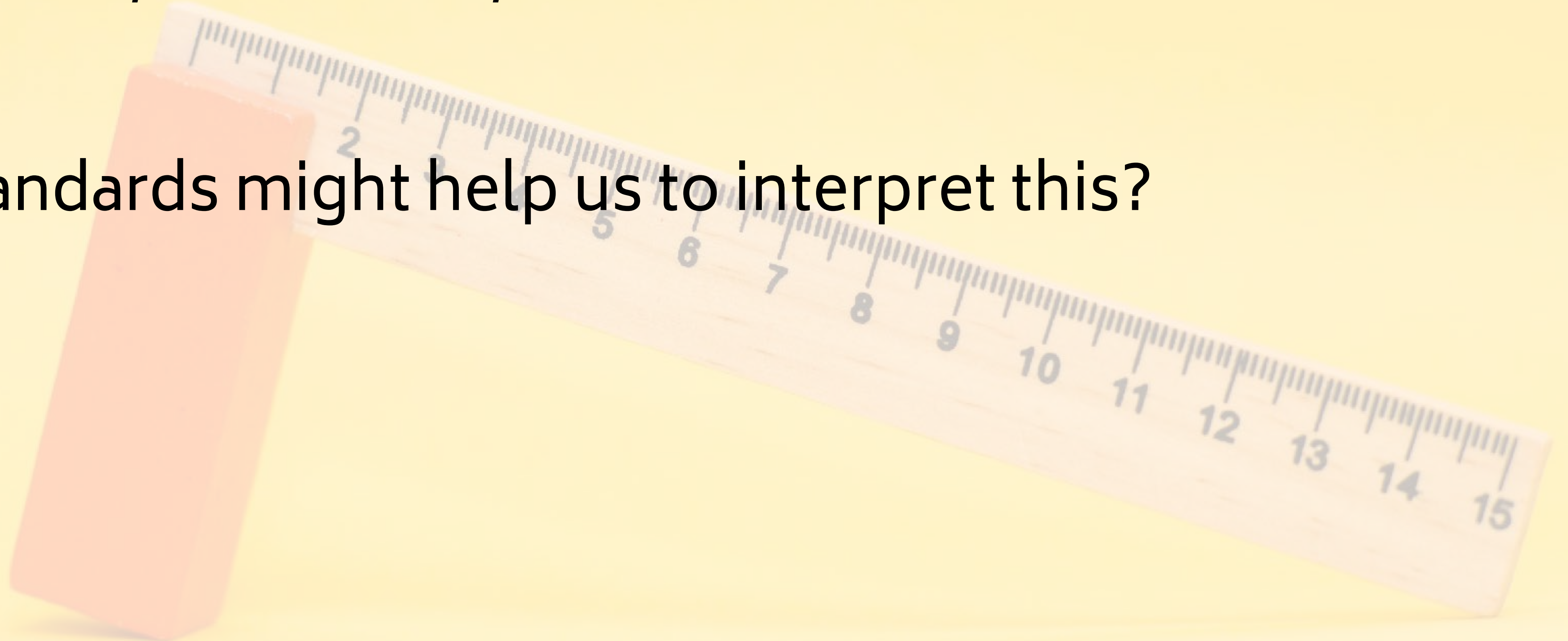
**Specify Units**

**Examine Variable Distributions**

# Make Reference to Standards

In 2021, 12,450 households in Champaign County earned between \$50,000 and \$75,000

What standards might help us to interpret this?



# Choose an Appropriate Number of Digits

Do you need to convey precision or a general concept?



# Questions

YOU DIDNT COME THIS  
FAR TO ONLY COME  
THIS FAR