



County of Santa Barbara  
**Citizens Independent  
Redistricting Commission**

# *Redistricting Data*

## Types, Sources and Uses

March 17, 2021

# Six Data Sources

1. 2020 Decennial Census
2. 2015 – 2019 American Community Survey (ACS)
3. 2015 – 2019 ACS Special Tabulation
4. California Statewide Database
5. Local data
6. Public submissions

*All data have “geographic” and “numeric” components.*

# Purposes of Redistricting Data

## 1. Comply with the Population Balance requirement

- ▣ *2020 Census total population data*

## 2. Comply with the Federal Voting Rights Act

- ▣ *Primary data: Special Tabulation Citizen Voting Age Population (CVAP) Data*
- ▣ *Secondary data include (but are not limited to):*
  - (Supplemented) Statewide Database voter registration and turnout data by ethnicity
  - Statewide Database past election data
  - ACS socio-economic data and community input

## 3. Identify (& verify) Communities of Interest

- ▣ *Community testimony*
- ▣ *ACS socio-economic data*
- ▣ *Local jurisdiction data*

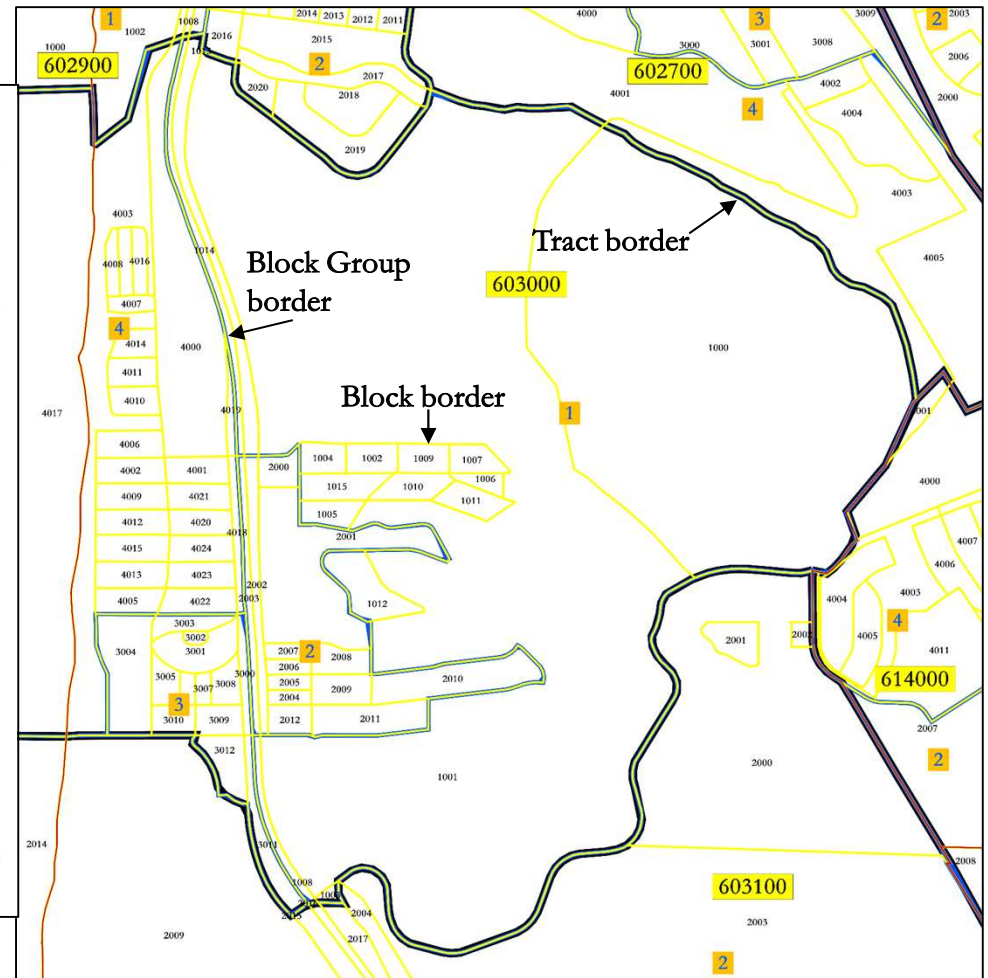
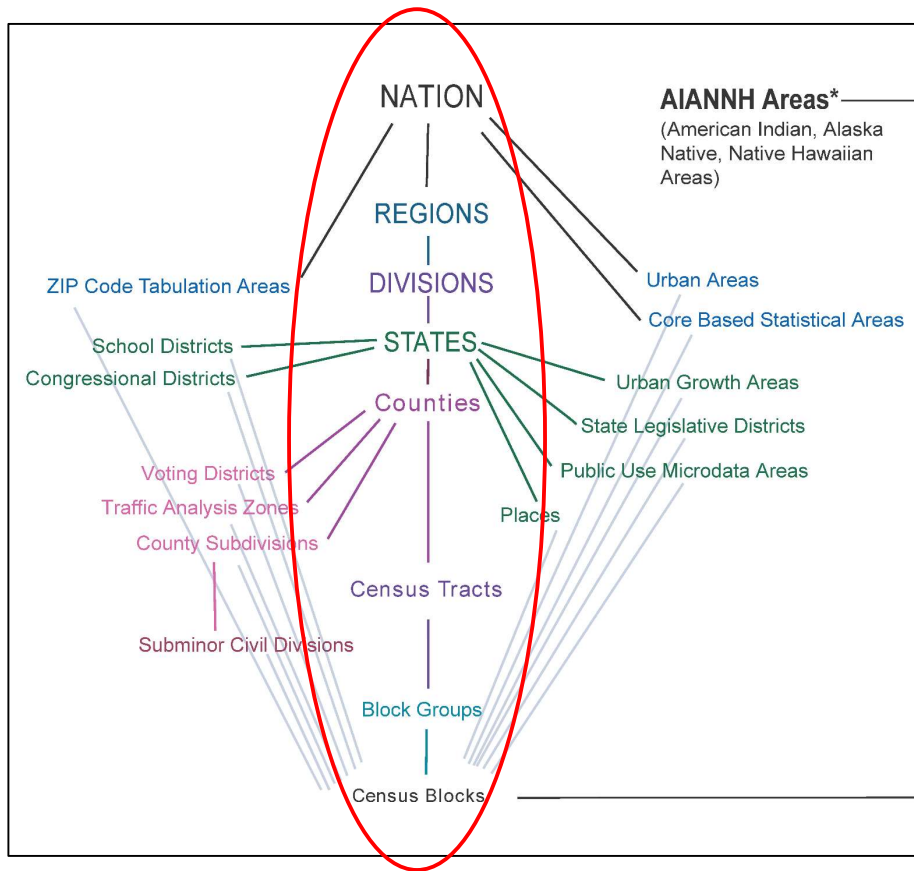


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# Geographic Data

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# Census Geography





# Data Challenges: Census Block Borders

- ❑ Tracts are *very roughly* large neighborhoods
- ❑ Block Groups
- ❑ Census Blocks are *roughly* city blocks
  - ▣ *Usually follow roads*
  - ▣ *Problems:*
    - Hills
    - cul-de-sacs
    - Houses on development boundaries





# Geodata Challenges: Sources may not line up

Population data come from Census Blocks (yellow lines).

Election results data come from precincts (red dashes).

*How to calculate election data by block?*

Registration data comes from geocoding individual voter records, then matching each voter to the overlapping block.

Registrars ask to minimize the number of precincts that must be redrawn after redistricting.





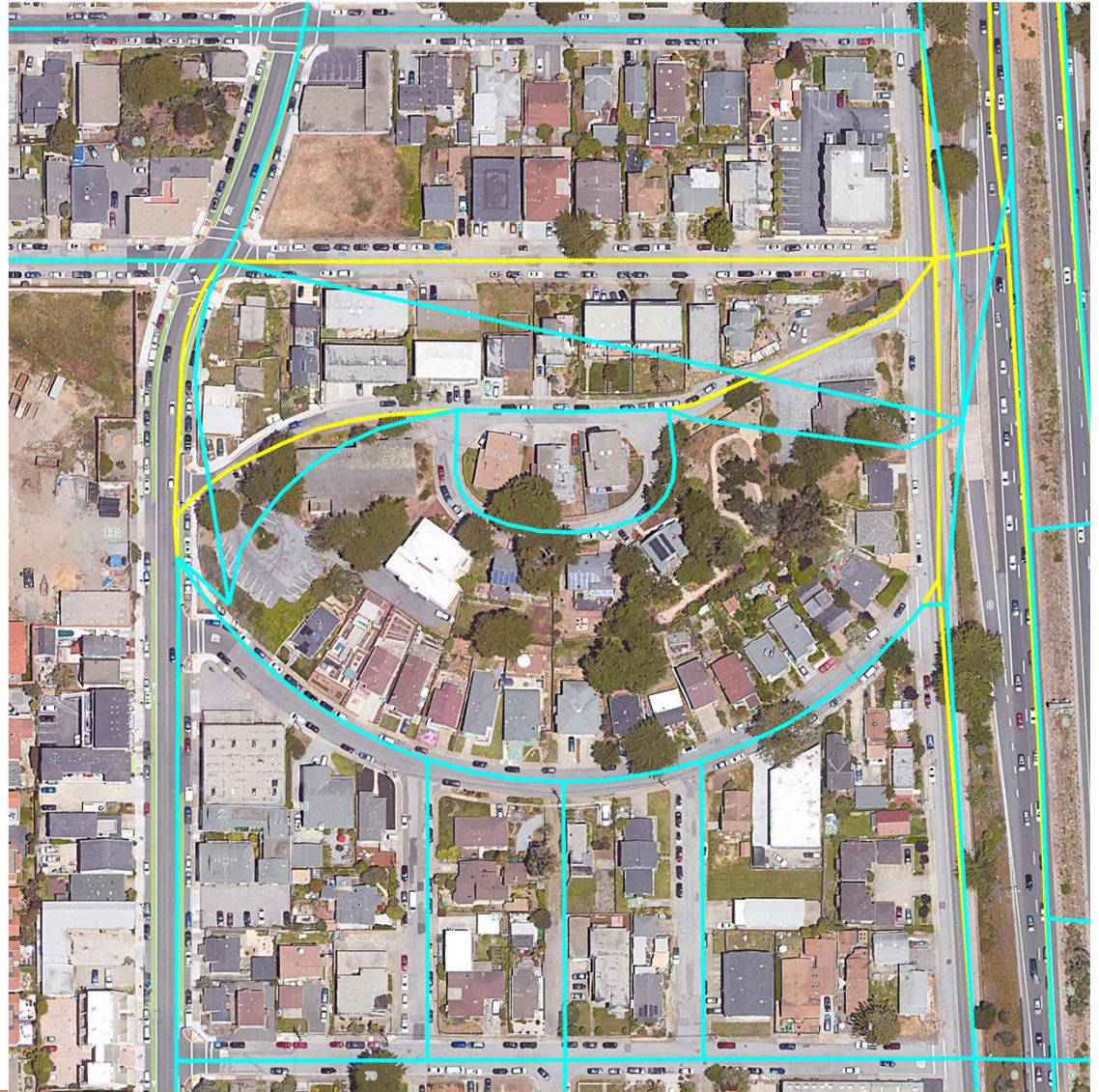
# Geography vs Databases

A Census Block is simply a list of addresses surrounded by block boundaries (streets). This “Master Address File” is the legal definition of where a voter was counted.

The houses in these blocks may have been correctly counted in the 2010 Census (unless the house locations were geocoded).

But geocoded voters would *not* be in the right block, since they are geocoded.

*When the 2020 Census fixes the boundary lines, the population probably will not change. But the number of registered voters will change.*

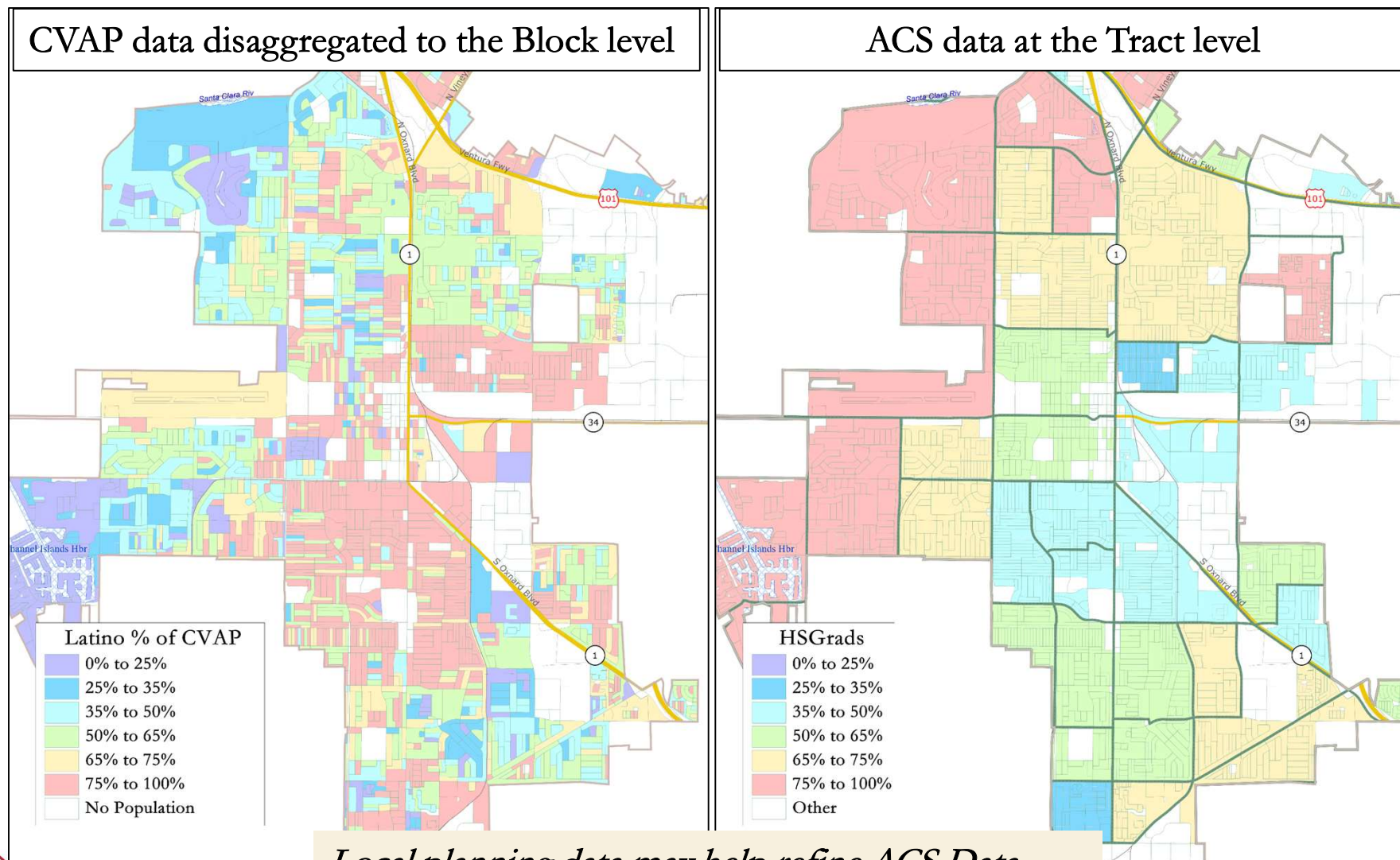




# Numeric Data By Geography

Household	Voter Registration Voter Turnout History
Parcel	Zoning Other Local GIS data
Census Block	Number of Households Total Population by race & ethnicity Voting Age Population by race & ethnicity Disaggregated CVAP Disaggregated ACS socio-economic data Geocoded Voter Counts
Block Group	Special Tabulation CVAP data
Precinct	Voter Registration Counts Voters Casting Ballots Counts Election Results
Tract	ACS socio-economic and CVAP data

# Differences in Geographic Levels





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# Numeric Data

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# Count-Based Data

## □ Decennial Census:

- ▣ *Number of Households*
- ▣ *Total and Voting Age Population*

## □ California Statewide Voter Database:

- ▣ *Voter Registration*
- ▣ *Voters Casting Ballots*
- ▣ *Election Results*



# Survey-Based Data

- American Community Survey

- *Socio-economic data*
- *Citizen Voting Age Population data*

- ACS Special Tabulation

- *Citizen Voting Age Population data*

# Data Collection Methods

## Self-Declared Data

- ❑ 2020 Census data
- ❑ American Community Survey data
- ❑ ACS Special Tabulation CVAP data

## Calculated Data

- ❑ Surname-based registration and turnout data



# Survey Data Accuracy

- Survey “controls”: total universe count
  - ▣ *Assumed to be accurate for all subsequent calculations*
  
- Surveys have three elements of accuracy / error:
  - ▣ *“confidence level”*
  - ▣ *“margin of error”*
  - ▣ *“systematic error”*

# An Example

## □ American Community Survey data

- *In the table below, the “control” count is 2,074,735 households.*
  - Margin of error is “X” because the “control” is assumed to be accurate
- *ACS estimated 1,331,861 of those households are ‘family’ households, with a margin of error of plus or minus 11,075 (or 0.5%)*
  - At large levels of geography, ACS data is extremely accurate.

Table 71. Sample Estimates and Margins of Error in American FactFinder: 2015				
Subject	Colorado			
	Estimate	Margin of Error	Percent	Percent Margin of Error
HOUSEHOLDS BY TYPE				
Total households	2,074,735	+/-7,548	2,074,735	(X)
Family households (families)	1,331,861	+/-11,075	64.2%	+/-0.5
With own children of the householder under 18 years	597,501	+/-8,075	28.8%	+/-0.4
Married-couple family	1,038,040	+/-9,389	50.0%	+/-0.4

- *This assumes there is no error in the design of the survey (systematic) error. Systematic error cannot be quantified.*
  - Disaggregation can also introduce systematic error to count-based data

# Small Geography = Big Margins of Error

Category	City of Phoenix	Phoenix margin	Long Beach, CA	LB margin
2009 ACS one-year data	1,593,660	+/-61	462,594	+/-44
2007-2009 ACS three-year data	1,567,371	+/- 146	460,874	+/- 63
2005-2009 ACS five-year data	1,536,632	+/- 171, 0.01%	462,823	+/- 97, 0.02%
2000 Census	1,321,045	not available	461,522	not available

Category	Census Tract 06037294120	Tract margin	Block Group 060372941203	Block Group Margin
2009 ACS one-year data	n/a	n/a	n/a	n/a
2007-2009 ACS three-year data	n/a	n/a	n/a	n/a
2005-2009 ACS five-year data	2,821	+/-402, 14.3%	803	+/- 296, 36.9%
2000 Census	2,529	Not Available	688	Not available

# Local Numbers

Category	Santa Barbara County	Margin of Error	City of Santa Barbara	Margin of Error
2015-2019 ACS five-year total CVAP estimate	281,935	+/- 2,034, 0.7%	63,595	+/- 1,406, 2.2%

Category	Census Tract 1206	Tract margin	Block Group 1	Block Group Margin
2015-2019 ACS five-year total CVAP estimate	2,180	+/- 302, 13.8%	885	+/- 174, 19.7%

The median margin of error for total citizens of voting age in the 1,988 populated block groups in Santa Barbara County is 58.0%.



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# Redistricting Data

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# Population and Registration Data

## □ Total and Voting Age Population

- ▣ *Total, Non-Hispanic White, Hispanic, Asian-American, Black, Native American, Pacific Islander, Other, Multi-Race*

## □ Citizen Voting Age Population Data

- ▣ *Total, Non-Hispanic White, Hispanic, Asian-American / Pacific Islander, Black, Native American, Multi-Race*

## □ Voter Registration and Voters Casting Ballots (“turnout”)

- ▣ *Statewide Database: Total, Spanish-Surname, Asian-Surname, Filipino*
  - Asian categories: Japanese, Korean, Chinese, Vietnamese, Indian (+Filipino)
- ▣ *Calculated: Latino, White, Black*

# NDC's Standard Socio-Economic Data

- Age
- Immigration
- Language Spoken at Home
- Language Fluency (English “Less than Very Well”)
- Education level (among those age 25+)
- Child under age 18 living in household
- Household Income
- Multi-Family / Single-Family Households
- Owner-Occupied / Renter-Occupied Households

# Census Multiple Responses

- Starting in 1980, “Hispanic/Latino” is a Yes/No “ethnicity” question
- Starting in 2001, Census respondents can mark multiple “race” categories
- Result: Over 150 different racial / ethnic data categories
- OMD and DoJ provide guidance on aggregating those categories for redistricting



# Standard Redistricting Groupings

- Anyone marking “Hispanic/Latino” is counted as Hispanic/Latino
  - ▣ *All other markings are ignored (for this standard count)*
  - ▣ *Thus almost all redistricting data list as categories “Non-Hispanic   x  ”*
- A respondent who marks “White” and another race is counted as that non-White race
- A respondent who marks more than one race (other than white) is counted as “Multi-Racial”

# Additional Redistricting Scenarios

- For Voting Rights Act and other analysis involving populations other than Latinos, an additional calculation may be analyzed:
  - ▣ *“Single Race” Black, Asian-American, or Native American (incl. also-Latinos)*
  - ▣ *“Any Race” Black, Asian-American, or Native American (incl. also-Latinos)*
  
- But those groupings are not in the CVAP Special Tabulation data

# Citizen Voting Age Population Groupings

Special Tab Citizen Voting Age Population Tabulation Group		Redistricting Category
Total Citizens of Voting Age		Total CVAP
Hispanic or Latino		Latino
Not Hispanic or Latino		-
	Asian Alone	Asian PI
	Native Hawaiian or Other Pacific Islander Alone	Asian PI
	Asian and White	Asian PI
	Black or African American Alone	Black
	Black or African American and White	Black
	American Indian or Alaska Native and Black or African American	Multi-Race
	Remainder of Two or More Race Responses	Multi-Race
	American Indian or Alaska Native Alone	Native Amer.
	American Indian or Alaska Native and White	Native Amer.
	White Alone	White

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# Data and Communities of Interest

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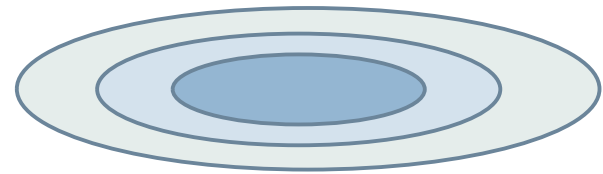


# Defining a Community of Interest

Can be defined by:

- Legal or other official boundaries
  - ▣ *Counties, cities, school districts*
  - ▣ *Officially recognized regions and neighborhoods*
- Data
  - ▣ *Socio-Economic data*
- Testimony
  - ▣ *Resident opinions on the connections that make up their community*

- LA Times “Mapping LA” Project
  - ▣ Highlighted how neighbors disagree about their community’s boundaries
    - Early versions highlighted what area 95, 80 and 50 percent of residents agreed were in their neighborhood:



# Definitions Can Vary

- An issue-define community may not be equally applicable at all levels of government

- Examples:

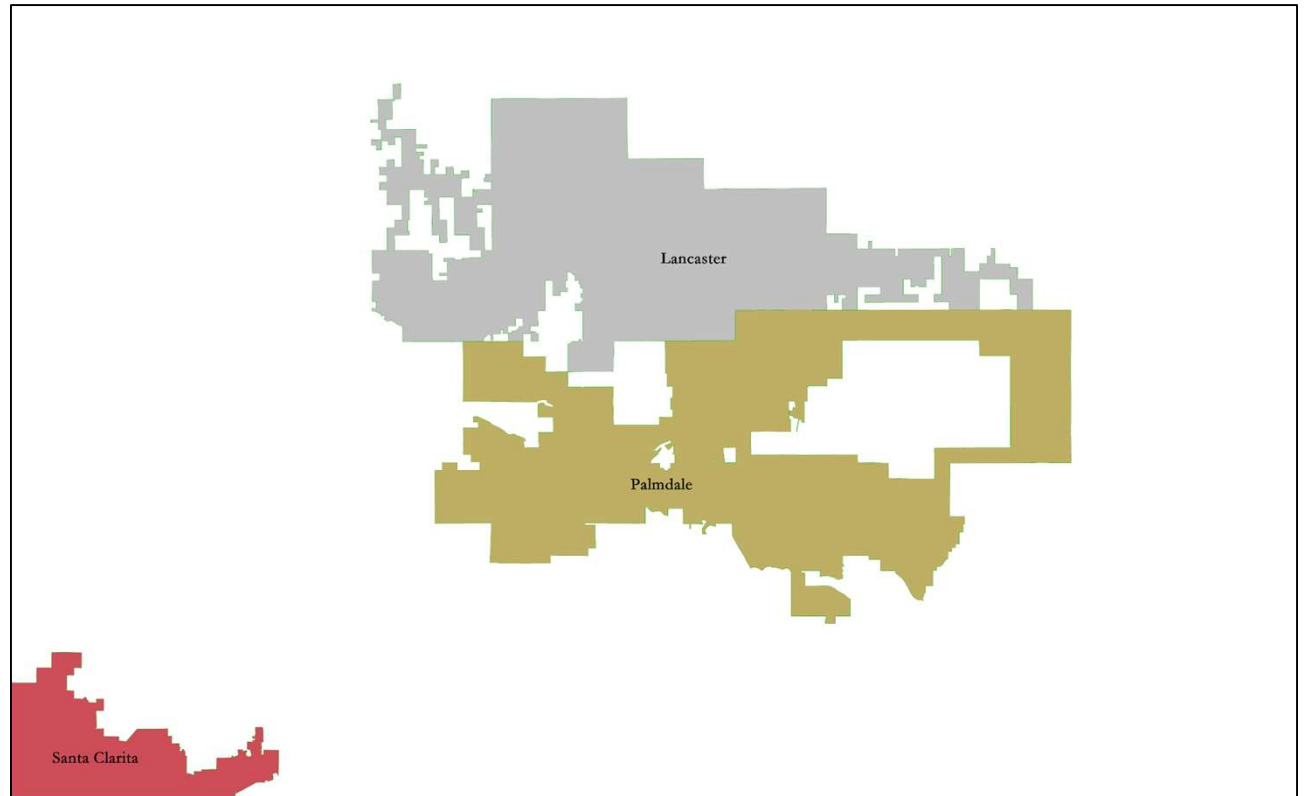
- *Arizona water rules are set by the Legislature, so watersheds tend to be Legislative “communities of interest,” but not Congressional*
- *Tribal Government issues tend to be the reverse*
- *Individual school attendance zones matter a lot for school board redistricting, but are not as significant for county, state or congressional redistricting*



# Communities in Unincorporated Areas (1 of 3)

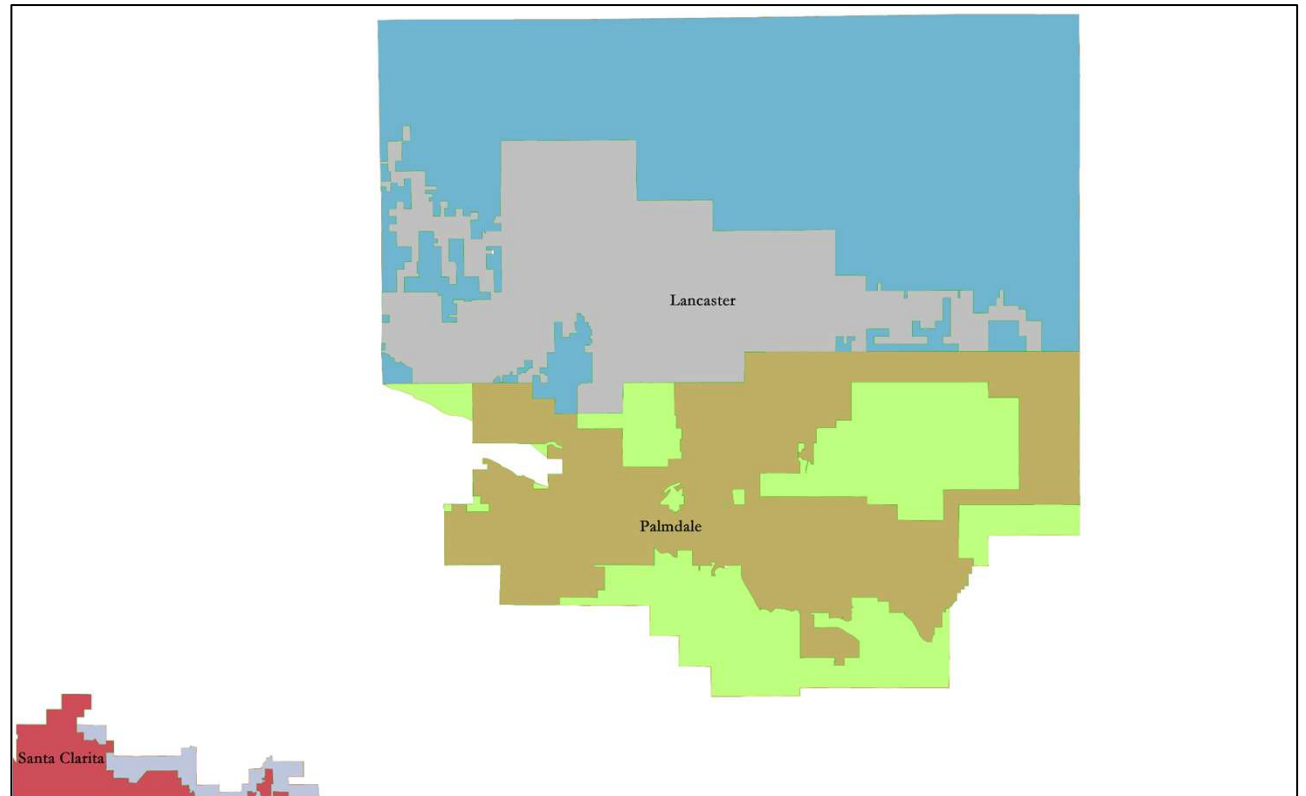
Unincorporated populated areas pose a challenge for defining “communities”

Be creative in using existing data on communities:



# Communities in Unincorporated Areas (2 of 3)

LAFCO-defined (Official) “Spheres of Influence” identify areas closely tied to incorporated cities

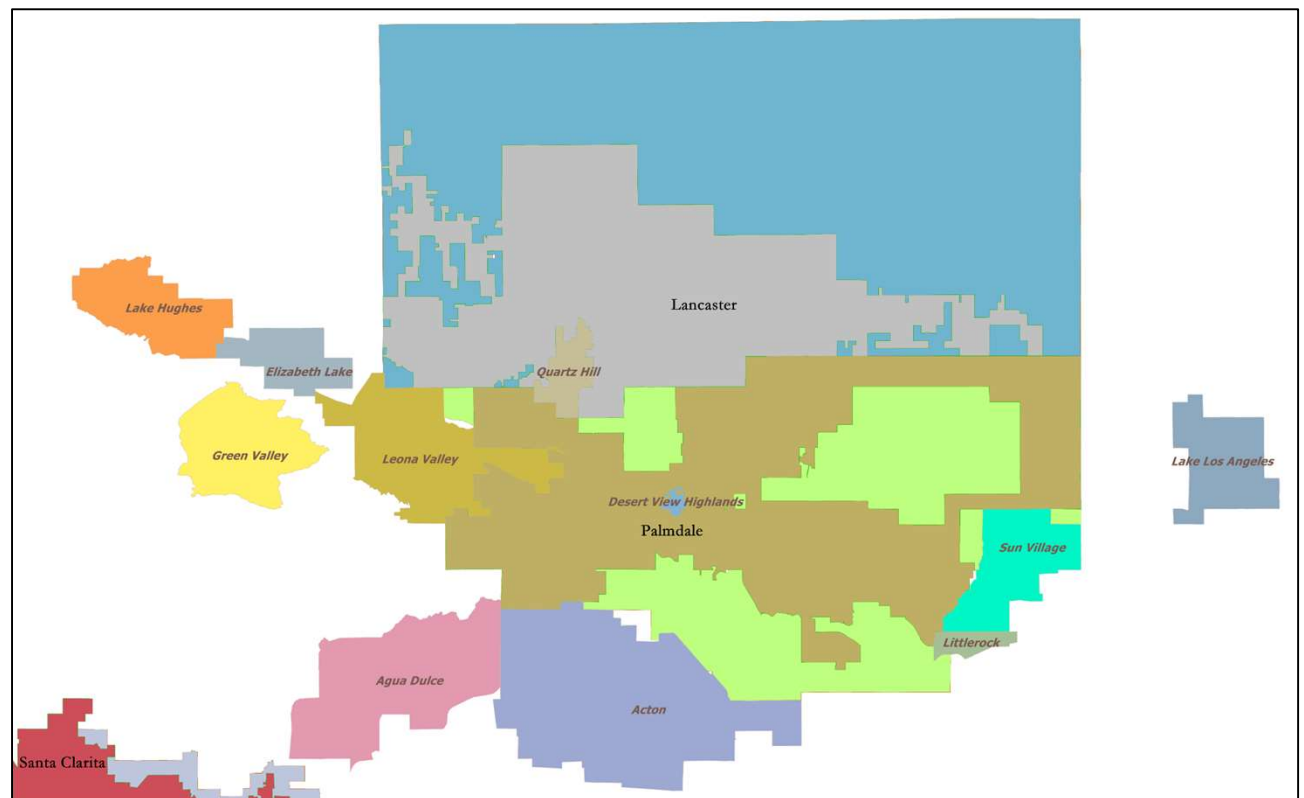




# Communities in Unincorporated Areas (3 of 3)

Census Bureau-identified “Census Designated Places” (CDPs)  
attempt to identify unincorporated neighborhoods:

*Caution: remember that Santa Barbara’s Redistricting Ordinance cites Elections Code Section 21500, which put “neighborhoods” and “communities of interest” ahead of cities and CDPs in the prioritized criteria.*



# Remember: Data Cannot Defend Itself

- Avoid ‘AstroTurf’: Use data to review and confirm public claims
- Empower and encourage public review and input

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# Final Thoughts

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# Courtroom Questionable Assumptions

## □ Exact population deviation in Congressional Districts

- ▣ *Tiny “deviations” of a few people in a 700,000 person-per-district map can lead to judicial rejection of a Congressional map*

## □ 50%+1 CVAP “bright line” tests

- ▣ *Plaintiffs bringing a Voting Rights Act challenge may be required to demonstrate that a 50%+1 CVAP map is possible*

# Guiding Rules

- If the statute or courts say use a given dataset, use it
  - ▣ *Total population counts from the California prison-adjusted 2020 Census counts*
  - ▣ *Citizen Voting Age Population data as the initial VRA data check*
  
- Use the “Best Available” data
  - ▣ *Treat all counts as accurate, but do not get hung up on small differences*
  - ▣ *Look for data validating other data*
    - A 51% CVAP Latino district that is also 50% Latino by registration and turnout makes a strong argument that it really is majority-Latino, even with the CVAP margin of error
  - ▣ *Local data and testimony can trump Census or Statewide data*
    - For example, areas with high percentages of Filipinos or Portuguese will skew surname-based Latino data

# Guiding Principles

- The data presented to you are based on decades of redistricting-related legal rulings, Census Bureau research, and academic research.
- Trust the data, but understand its imprecision.
- The data are just one of many tools in your redistricting toolbox.



# References

- California Statewide Database
  - ▣ *Creating the California Statewide Database Technical Documentation*
- OMB Bulletin No. 00-02 “Guidance on Aggregation and Allocation of Data on Race for Use in Civil Rights Enforcement.”
- Pew Research Census History: Counting Hispanic
- Los Angeles Times Mapping Project
  - ▣ <http://maps.latimes.com/neighborhoods/>
  - ▣ <http://maps.latimes.com/neighborhoods/version-one/>