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# The Exciting World of Redistricting Databases

NCSL National Redistricting Seminar; 1/23/2010

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# Why are we talking about data?

Redistricting = the adjustment of electoral boundaries while meeting certain criteria

Criteria?        - U.S. Constitution  
                      - Federal Voting Rights Act

Specific: for CA - Proposition 11; Constitutional Amendment

for local jurisdictions: Charters,  
Election Codes, etc

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# Criteria example:

## CALIFORNIA CONSTITUTION ARTICLE 21

### REDISTRICTING OF SENATE, ASSEMBLY, CONGRESSIONAL AND BOARD OF EQUALIZATION DISTRICTS

SEC. 2. (a) The Citizens Redistricting Commission shall draw new district lines (also known as "redistricting") for State Senate, Assembly, and Board of Equalization districts.

(d) The commission shall establish single-member districts pursuant to a mapping process using the following criteria as set forth in the following order of priority:

(1) Districts shall **comply with the United States Constitution**.

Senate, Assembly, and State Board of Equalization districts shall have reasonably **equal population** with other districts for the same office, except where deviation is required to comply with the federal Voting Rights Act or allowable by law.

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## more criteria:

(2) Districts shall comply with the federal Voting Rights Act (42U.S.C. Sec. 1971 and following).

(3) Districts shall be geographically contiguous.

(4) The geographic integrity of any city, county, city and county, neighborhood, or community of interest shall be respected to the extent possible without violating the requirements of any of the preceding subdivisions. Communities of interest shall not include relationships with political parties, incumbents, or political candidates.

(5) To the extent practicable, and where this does not conflict with the criteria above, districts shall be drawn to encourage geographical compactness such that nearby areas of population are not bypassed for more distant population.

(6) To the extent practicable, and where this does not conflict with the criteria above, each Senate district shall be comprised of two whole, complete, and adjacent Assembly districts, and each Board of Equalization district shall be comprised of 10 whole, complete, and adjacent Senate districts.

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# ...and data used

- Equal population: Census Data (PL94-171)  
Geography: Census Blocks
- Voting Rights Act: Census Data + Statement of Vote +  
Statement of Registration  
Geography: Census Blocks, Election Precincts
- Contiguity and Compactness: Census Geography
- Respect for Cities & Counties: Census Geography
- Respect for Neighborhoods and Communities of Interest:  
Public Testimony and Submissions, alternative data sources, i.e.  
neighborhood boundary maps from cities?

Nesting: Constructed Districts

[Competition – The Criterion: Voter Registration, Election Returns]

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# Ingredients of a Redistricting Dataset:

## **PL 94-171 / Census**

Data reported include:

- population
- voting age
- race/ethnicity

## **SOR~ Statement of Registration**

Data reported include:

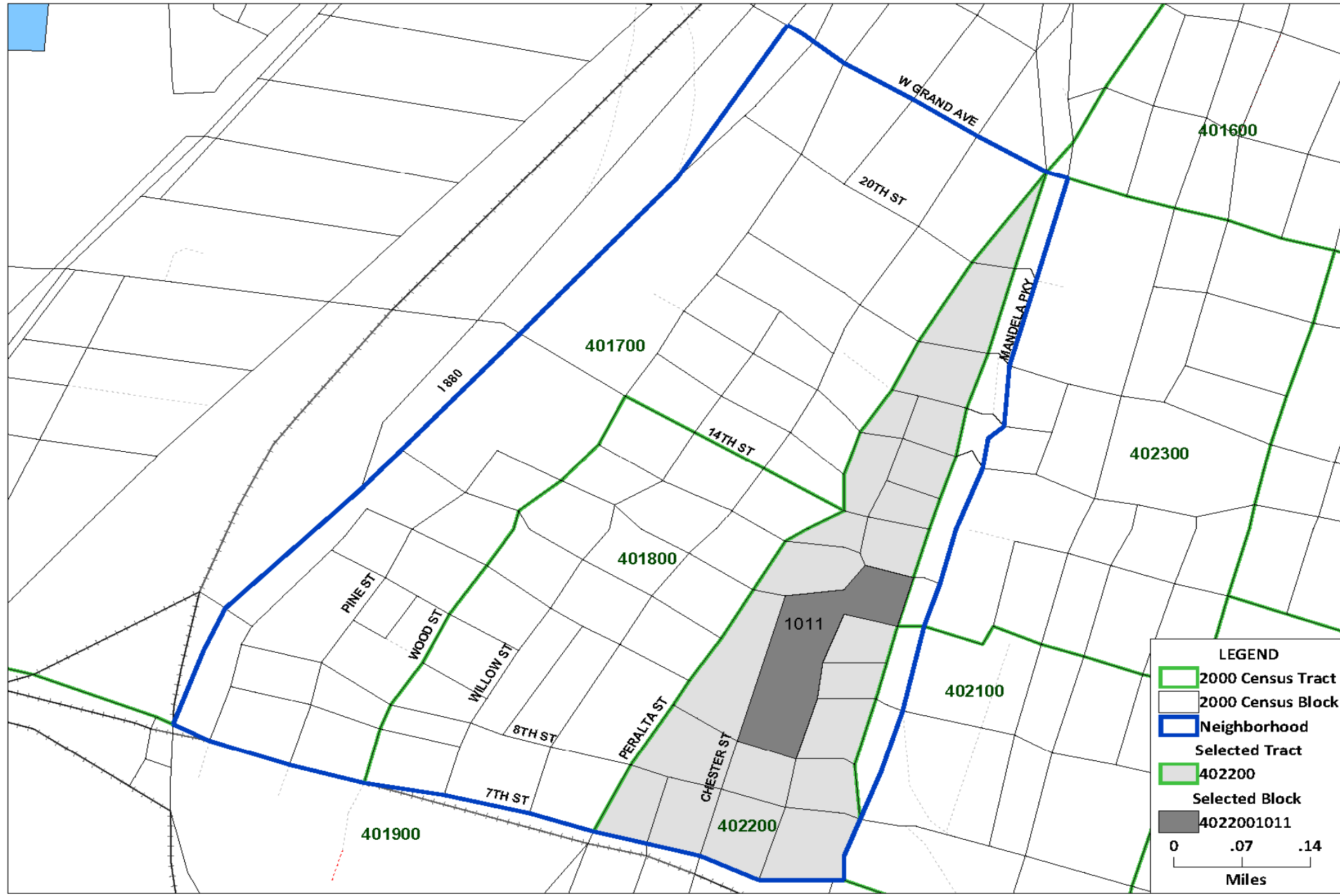
- Total Registration
- Party affiliation
- Sex
- Age

## **SOV~ Statement of Vote**

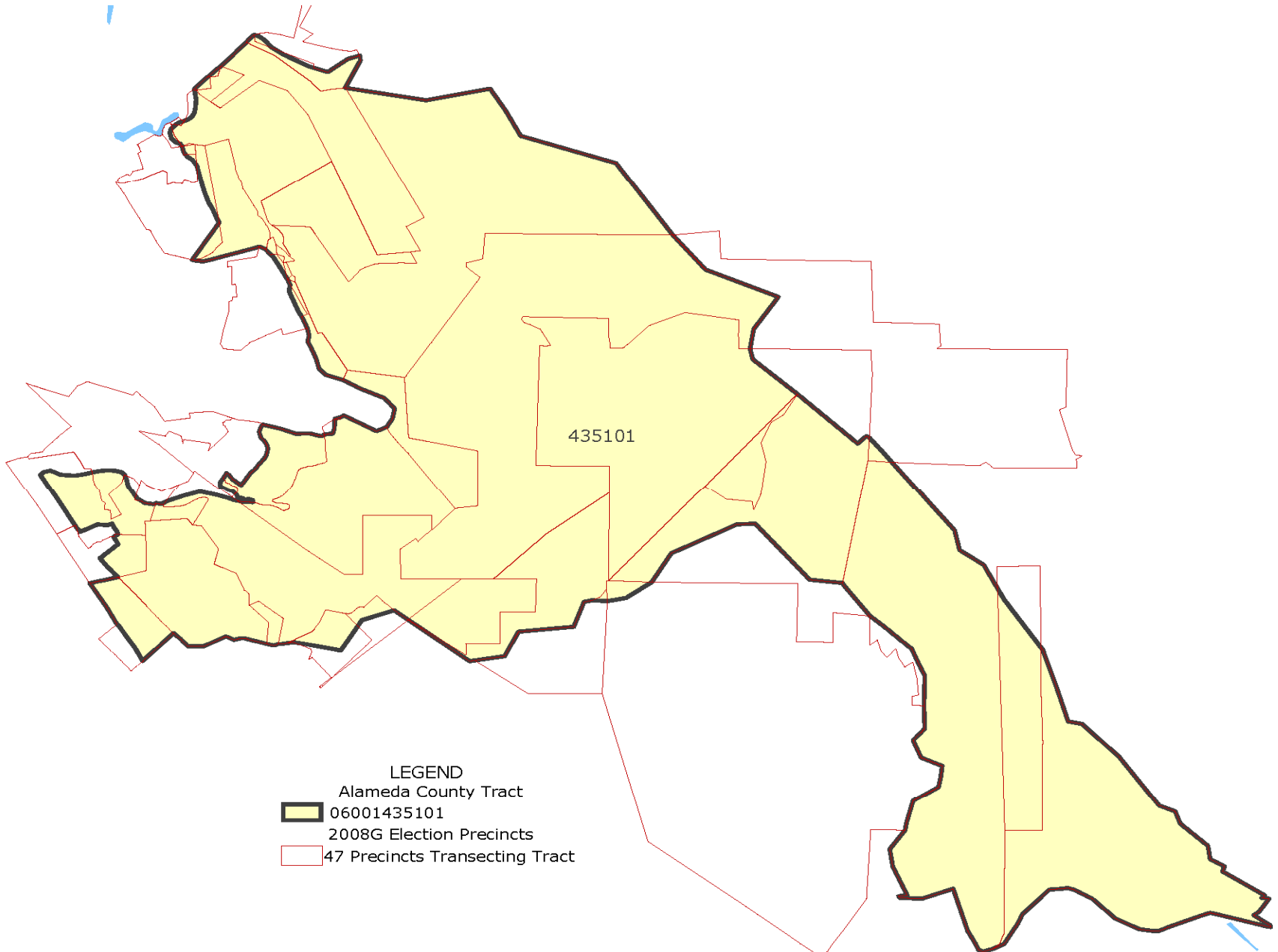
Data reported include:

- Total Vote
  - Votes for candidates
  - Votes for propositions
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# Visualizing geography: Census Blocks and Tracts

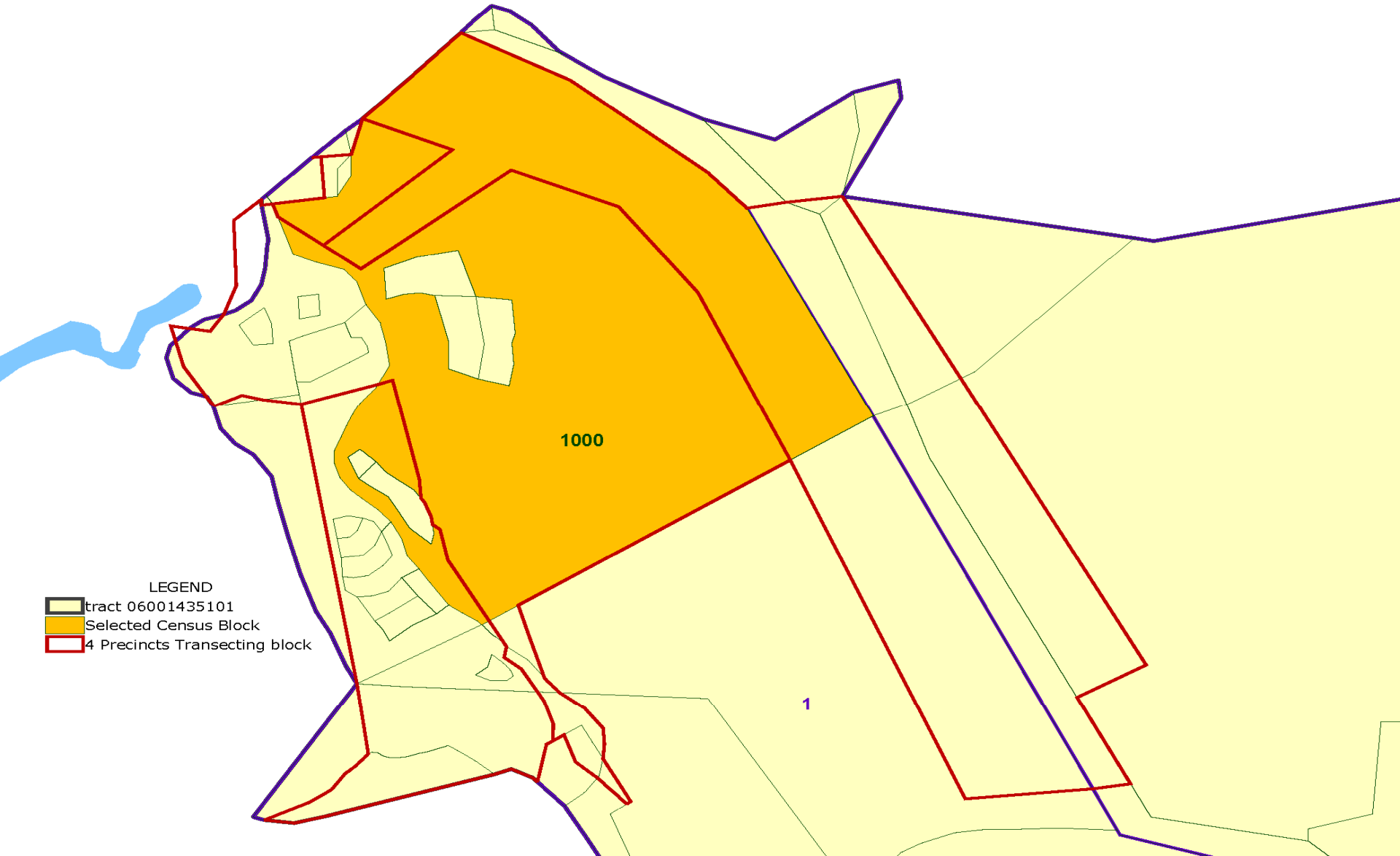


# A note about precincts:





...and this is why you are happy about a census block dataset:



# View of SWDB Data by Census Block in GIS:

ID	6823
BLK	060014022001011
County	06001
Congress	0609
Population	355
[Hispanic Origin]	73
[Not Hispanic]	282
NH_wht	16
NH_Blk	240
NH_Ind	1
NH_Asn	10
NH_Hwn	0
NH_Oth	7
BLOCKKEY	060014022001011
TOTREG_G00	138
DEM	107
REP	1
AIP	3
PAF	2
MSC	2
DCL	18
MALE	63
FEMALE	75
HISPDEM	8
HISPREP	0
HISPDCL	0
HISPOTH	2

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# What is the Statewide Database?

- Redistricting Database for California
- Located at UC Berkeley
  - Non-partisan
  - Academic firewall
  - Public
  - Free
  - Always available

What's in the database?

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**California Election Data Files @ swdb.berkeley.edu**

2010

[2010 General Election Data](#)

[2010 Primary Election Data](#)

2008

[2008 General Election Data](#)

[2008 Primary Election Data](#)

[2008 Special Presidential Primary Election Data](#)

2006

[2006 General Election Data](#)

[2006 Primary Election Data](#)

2005

[2005 Special Election Data](#)

2004

[2004 General Election Data](#)

[2004 Primary Election Data](#)

2003

[2003 Recall Election Data](#)

2002

[2002 General Election Data](#)

[2002 Primary Election Data](#)

2000

[2000 General Election Data](#)

[2000 Primary Election Data](#)

1998

[1998 Primary and General Election Data](#)

1996, 1994, 1992

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[1996, 1994, and 1992 General Election Data](#)

# Datasets available @swdb.berkeley.edu

	<u>SOV</u>	<u>REG</u>	<u>ABS</u>	<u>POLLV</u>	<u>VOTE</u>
<b>California Statewide</b>	<a href="#"><u>by svprec</u></a> <a href="#"><u>by srprec</u></a>	<a href="#"><u>codebook</u></a> <a href="#"><u>by rgprec</u></a> <a href="#"><u>by rrprec</u></a> <a href="#"><u>by srprec</u></a>	<a href="#"><u>codebook</u></a> <a href="#"><u>by rgprec</u></a> <a href="#"><u>by rrprec</u></a> <a href="#"><u>by srprec</u></a>	<a href="#"><u>codebook</u></a> <a href="#"><u>by rgprec</u></a> <a href="#"><u>by rrprec</u></a> <a href="#"><u>by srprec</u></a>	<a href="#"><u>codebook</u></a> <a href="#"><u>by rgprec</u></a> <a href="#"><u>by rrprec</u></a> <a href="#"><u>by srprec</u></a>
<b>County 001 (Alameda)</b>	<a href="#"><u>codebook</u></a> <a href="#"><u>by svprec</u></a> <a href="#"><u>by srprec</u></a>	<a href="#"><u>by rgprec</u></a> <a href="#"><u>by rrprec</u></a> <a href="#"><u>by srprec</u></a>	<a href="#"><u>by rgprec</u></a> <a href="#"><u>by rrprec</u></a> <a href="#"><u>by srprec</u></a>	<a href="#"><u>by rgprec</u></a> <a href="#"><u>by rrprec</u></a> <a href="#"><u>by srprec</u></a>	<a href="#"><u>by rgprec</u></a> <a href="#"><u>by rrprec</u></a> <a href="#"><u>by srprec</u></a>
<b>County 003 (Alpine)</b>	<a href="#"><u>codebook</u></a> <a href="#"><u>by svprec</u></a> <a href="#"><u>by srprec</u></a>	<a href="#"><u>by rgprec</u></a> <a href="#"><u>by rrprec</u></a> <a href="#"><u>by srprec</u></a>	<a href="#"><u>by rgprec</u></a> <a href="#"><u>by rrprec</u></a> <a href="#"><u>by srprec</u></a>	mail-ballot county	<a href="#"><u>by rgprec</u></a> <a href="#"><u>by rrprec</u></a> <a href="#"><u>by srprec</u></a>
<b>County 005 (Amador)</b>	<a href="#"><u>codebook</u></a> <a href="#"><u>by svprec</u></a> <a href="#"><u>by srprec</u></a>	<a href="#"><u>by rgprec</u></a> <a href="#"><u>by rrprec</u></a> <a href="#"><u>by srprec</u></a>	<a href="#"><u>by rgprec</u></a> <a href="#"><u>by rrprec</u></a> <a href="#"><u>by srprec</u></a>	<a href="#"><u>by rgprec</u></a> <a href="#"><u>by rrprec</u></a> <a href="#"><u>by srprec</u></a>	<a href="#"><u>by rgprec</u></a> <a href="#"><u>by rrprec</u></a> <a href="#"><u>by srprec</u></a>

# Basic Registration Statistics in the SWDB:

Variable	Start	End	Format	"	Description
TOTREG	16	20	F5.0	"	Total registration
DEM	21	25	F5.0	"	Democratic Party Registration
REP	26	30	F5.0	"	Republican Party Registration
AIP	31	35	F5.0	"	American Independent Party Registration
PAF	36	40	F5.0	"	Peace and Freedom Party Registration
MSC	41	45	F5.0	"	Miscellaneous Registration
LIB	46	50	F5.0	"	Libertarian Party Registration
NLP	51	55	F5.0	"	Natural Law Party Registration
GRN	56	60	F5.0	"	Green Party Registration
REF	61	65	F5.0	"	Reform Party Registration
DCL	66	70	F5.0	"	Declined to State Registration
MALE	91	95	F5.0	"	Male
FEMALE	96	100	F5.0	"	Female

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# Surname Matched Variables in the SWDB:

HISPDEM	101	105	F5.0	Latino Democrats"
HISPREP	106	110	F5.0	Latino Republicans"
HISPDCL	111	115	F5.0	Latino Declined to State"
HISPOTH	116	120	F5.0	Latino Other Party"

REPEATS for:

Jewish

Korean

Japanese

Chinese

Asian Indian

Vietnamese

Filipino

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# Party Affiliation, Sex and Age:

DEMMUNK	291	295	F5.0	Dem Male age unknown"
DEMM1824	261	265	F5.0	Dem Male age 18-24"
DEMM2534	266	270	F5.0	Dem Male age 25-34"
DEMM3544	271	275	F5.0	Dem Male age 35-44"
DEMM4554	276	280	F5.0	Dem Male age 45-54"
DEMM5564	281	285	F5.0	Dem Male age 55-64"
DEMM65PL	286	290	F5.0	Dem Male age 65 Plus"
DEMFUNK	326	330	F5.0	Dem female age unknown"
DEMF1824	296	300	F5.0	Dem female age 18-24"
DEMF2534	301	305	F5.0	Dem female age 25-34"
DEMF3544	306	310	F5.0	Dem female age 35-44"
DEMF4554	311	315	F5.0	Dem female age 45-54"
DEMF5564	316	320	F5.0	Dem female age 55-64"
DEMF65PL	321	325	F5.0	Dem female age 65 Plus"

REPEATS FOR:

Republican

Declined to State

Other Party



# Party Affiliation and Length of Registration:

RREG1G	541	545	F5.0	"REP registered 1 cycle (since g06)"
RREG2G	546	550	F5.0	"REP registered 2 cycles (since g04)"
RREG3G	551	555	F5.0	"REP registered 3 cycles (since g02)"
RREG4G	556	560	F5.0	"REP registered 4 cycles (since g00)"
RREG5G	561	565	F5.0	"REP registered 5 cycles (since g98)"
RREG6G	566	570	F5.0	"REP registered 6 cycles (since g96)"
RREG7G	571	575	F5.0	"REP registered 7 cycles (since g94)"
RREG8G	576	580	F5.0	"REP registered 8 cycles (since g92)"
RREG9G	581	585	F5.0	"REP no or earlier reg date than 1992"

REPEATS FOR:

Democrat

Declined to State

Other Party

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## Differences to Kim's Model:

- Will be merged to census 2010 but no earlier census data
  - Election Data go back to 1992
  - Has primaries and special elections
  - Is built over time v. end of decade
  - No ACS data  
(might be supplemented)
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# Benefits of the California Model:

- Everyone uses the same database
    - Saves \$\$\$
    - Transparency builds trust!
    - “other side” issue eliminated
    - More time for arguments about politics rather than data
  - Availability to other jurisdictions in CA
    - Saves \$\$\$
    - Cities, counties, special districts – better data!
  - Debugging over time by users
    - Error goes down; issues resolved promptly
  - Allows public to familiarize themselves with data
    - And can be used between redistrictings
  - Avoids building at extreme time pressure
    - Cuts down on data collection issues
    - Leaves time to deal with ‘surprises’
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## Not commonly available data - not in redistricting dataset:

### Communities of Interest:

What is a Community of Interest? It depends...

Group of people with specific common interest

Can be defined geographically

Data source?

What are they NOT? (check if limitations in governing documents)

In CA: Communities of interest shall not include relationships with political parties, incumbents, or political candidates

### Neighborhoods:

Vary in size

Are sometimes defined by cities (often poorly), and/or communities

No data sources available that show neighborhoods statewide

Data source?

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# What might public testimony/submission look like for Community of Interest or Neighborhood?

Map of the boundaries (used Google maps if no GIS available)

Outline of what defines the Community of Interest:

What is the mission or commonality?

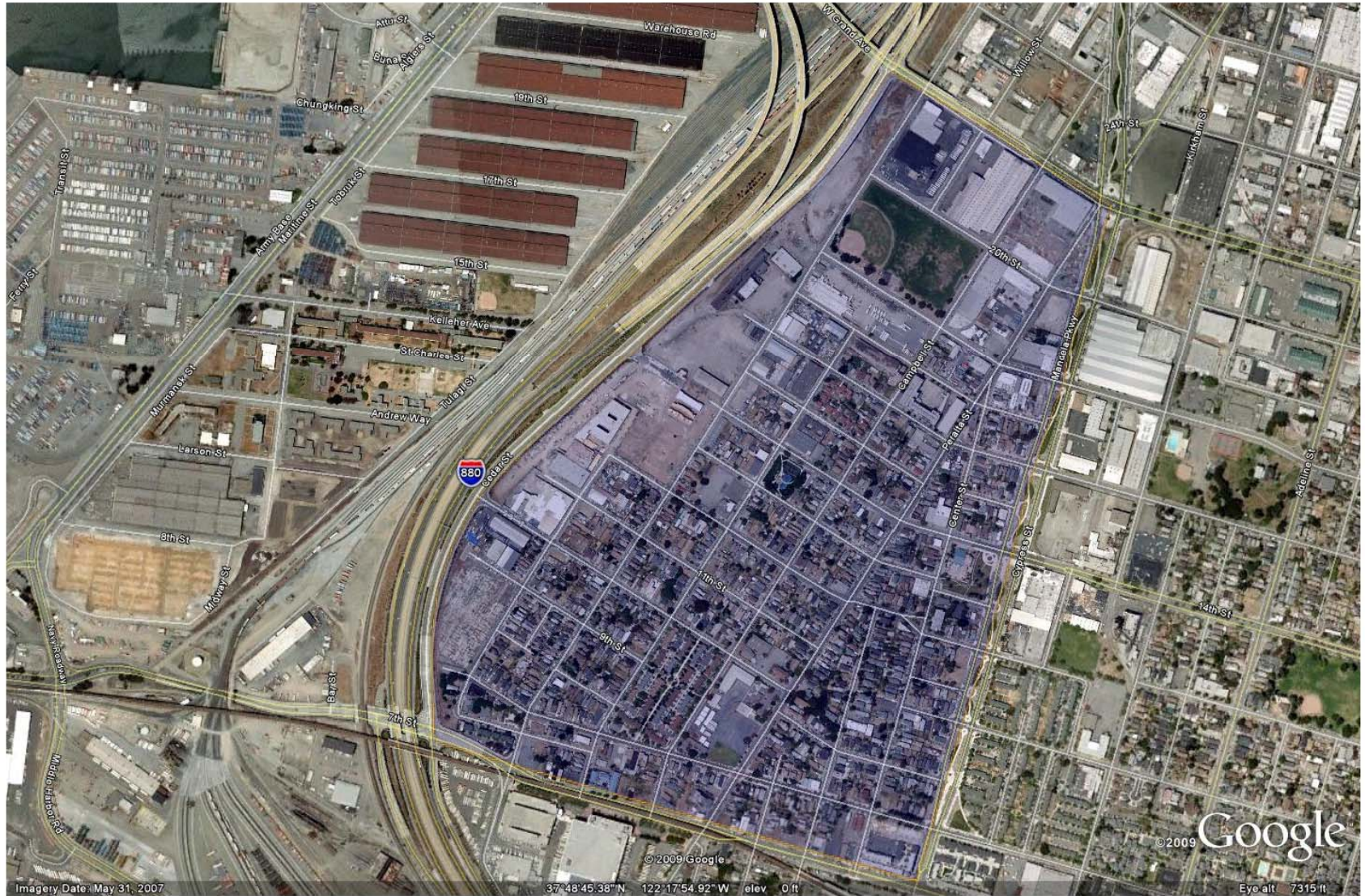
Shows that members live within the boundaries

Explains what is different outside of the boundaries of the Community of Interest

Explains why it is important to be kept whole, and how it would be a disadvantage to be split by an electoral boundary line

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# Community of Interest and Neighborhood map:



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# What do to with “supplemental” data

- Plan ahead!
    - Control method of submission (no napkins!)
  - Build separate database
    - Keep track of submissions (before consideration)
    - Different units of analysis (difficult to incorporate)
    - May not be state coverage
  - Why public submission v ACS for Community of Interest?
    - Avoids claims of ‘stereotyping’
    - “Fresh data”
    - Variables actually define community
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SCHOOL BOARD

YOU FOLKS HERE FOR THE REDISTRICTING HEARINGS TO EASE SCHOOL OVERCROWDING?

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