

The background of the slide is a close-up, slightly blurred image of the stars and stripes of the United States flag. The stars are white and set against a blue field, while the stripes are red and white. The lighting creates a sense of depth and texture.

# **Alternative Data Sets for Redistricting**

**By Kimball Brace**

**Election Data Services, Inc.**

**NCSL Office Hours – April 13, 2021**

NEWS

## Indiana lawmakers planning on re redistricting votes

### Redistricting data

The 2010 Census Public Law 94-171 Redistricting Data Summary File data for Washington state was released in February. Redistricting data was used by state officials to realign congressional and state legislative districts. The redistricting and housing counts for small areas including population by race and ethnicity for both the total population and housing units by occupancy status (occupied and vacant units).

## Indiana legislators won't adjourn when they adjourn

By Network Indiana - April 11, 2021

### FOR IMMEDIATE RELEASE: TUESDAY, DEC. 21, 2010 U.S. Census Bureau Announces 2010 Census Population Counts Apportionment Counts Delivered to President

The U.S. Census Bureau announced today that the 2010 Census showed the resident population of the United States on April 1, 2010, was 308,745,538. The resident population represented an increase of 9.7 percent over the 2000 U.S. resident population of 281,421,906. Commerce Secretary Robert Groves unveiled the official counts at the National Press Club in Washington, D.C. "A big thanks to the American public for its overwhelming response to the 2010 Census," U.S. Commerce Secretary Gary Locke said. "The result was a successful count that came in on time and well under budget, with a final 2010 Census savings of \$1.87 billion."

### 2010 Census Data for Texas Released

New U.S. census data shows the Hispanic population in Texas increased by 42 percent and makes up 38 percent of the population. The state's total population increased by 38 percent since 2000.

BY MATT STILES, JULIÁN AGUILAR AND RYAN MURPHY

FEB. 17, 2011 3 PM CENTRAL

COPY LINK

TEXAS COUNTY POPULATION CHANGE: 2010

### Supreme Court Statement on Redistricting

Redistricting must occur every ten years. 2021 is one of those years. The Iowa Constitution gives the primary responsibility for reapportionment of legislative districts to the general assembly. The general assembly has adopted a nonpartisan redistricting law to perform this task. See Iowa Code ch. 42. Under the Iowa Constitution, the supreme court has responsibility for reapportionment of legislative districts only if the general assembly fails to enact a

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# Late Census Data Complicates Iowa Redistricting

Published April 12

Iowa Supreme

Home > Newsroom > News Releases > Iowa Supreme

April 8, 2021

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POLITICS

## Census delay leaves Oregon's redistricting process in a lurch



## 16 states back Alabama's challenge to Census privacy tool

By MIKE SCHNEIDER 41 minutes ago

## Lawmakers given more time to redraw Oregon political lines

By SARA CLINE April 9, 2021



# What's a State To Do?

*Take that one last vacation before  
the data arrives in September?*



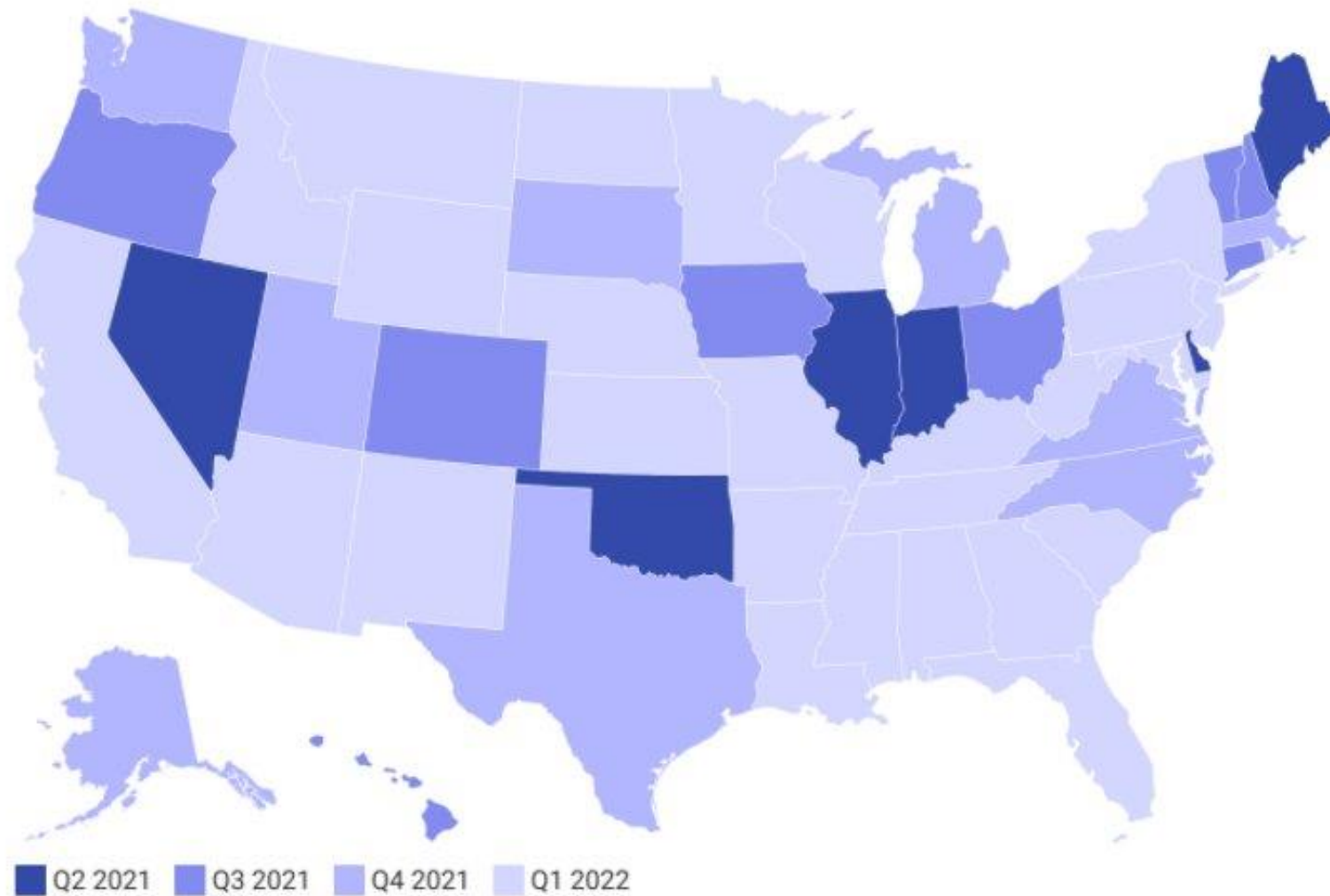
**WRONG**

The background of the image is a close-up, slightly blurred view of the American flag. The stars are prominent in the upper left and center, while the stripes are visible in the lower right. The colors are vibrant, with a deep blue for the stars and stripes, and a bright red for the stripes.

**Calendar  
can be your ally or your  
enemy**

## State legislative redistricting deadlines, 2021-2023

The map below groups states by the quarter in which their redistricting deadlines fall. The legend below the map explains which colors correspond with which quarters.



***So Make Use of Your Calendar***

***Investigate  
Alternative  
Datasets***

**Not a permanent solution**

**Only temporary until PL files are released**

**Some States are  
seeking different data  
to actually draw their  
final plans**

**Exclude  
Non-  
Citizens**

**NOT**  
**In Today's  
Discussion**

**Just  
Registered  
Voters**

# Alternative Data Sets for temporary line drawing

**“ACS”  
American  
Community  
Survey**

**Commercially  
Available  
Databases**

**Pluses  
And  
Minuses**

# **“ACS”**

## **American Community Survey**

### **History**

- **Designed in 1990s by Census Bureau to replace high cost of long-form questionnaire (continuous measurement)**
- **Instead of being created once a decade, could come out between decades**
- **Tests done 2002-2005, sample sites**
- **First appeared 2006 – Yearly estimates (large areas)**
- **3 year estimates – 2008 (2005-2007)**
- **5 year estimates – 2010 (2005-2009) (block groups)**

The background of the slide is a close-up, slightly blurred image of the American flag, showing the stars and stripes in shades of blue, white, and red.

# **“ACS” American Community Survey**

## **Pluses**

- **Created by Census Bureau**
- **Use recognized by the courts**

# **“ACS” American Community Survey**

## **Minuses**

- **Covers long period of time to get small geographic estimates**

## **Current Release**

**2019 – Covers 2015-2019 to get block group level data**

**2015**

**2016**

**2017**

**2018**

**2019**

  
**Midpoint**

**Really 3 years away from 2020**

# **“ACS”**

## **American Community Survey**

### **Minuses**

- It's a survey VS Census count of everyone
- Small Sample size survey
- Like survey's, there are deviations - +/-
- 2009 ACS varied from +14% to -11% from 2010 decennial
- Designed to provide demographic information, not really total population estimates
- At most at block group level, not block

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# **“ACS” American Community Survey**

## **Minuses**

**Currently built off 2010 block groups**

# 2010 Blockgroups

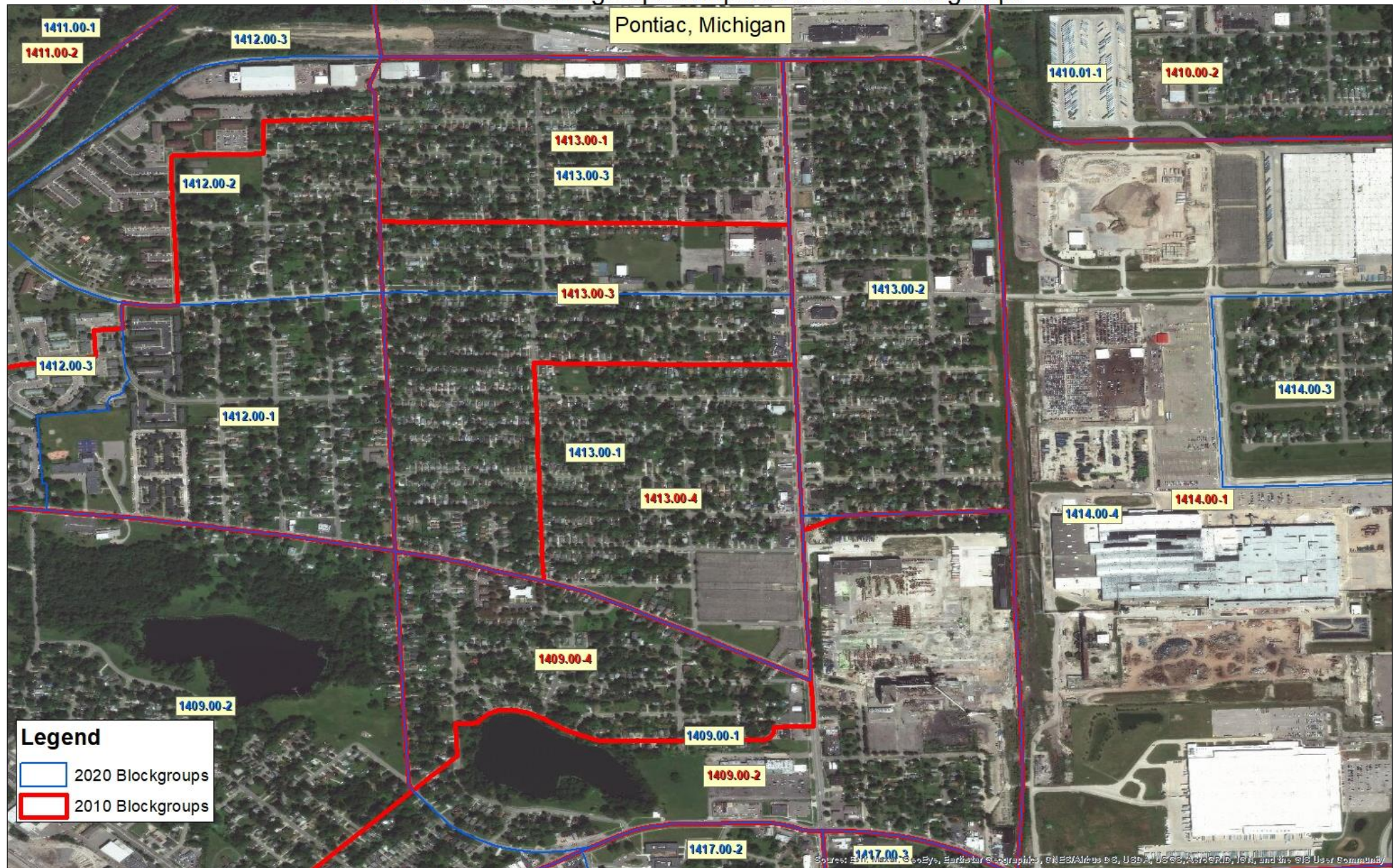
Pontiac, Michigan



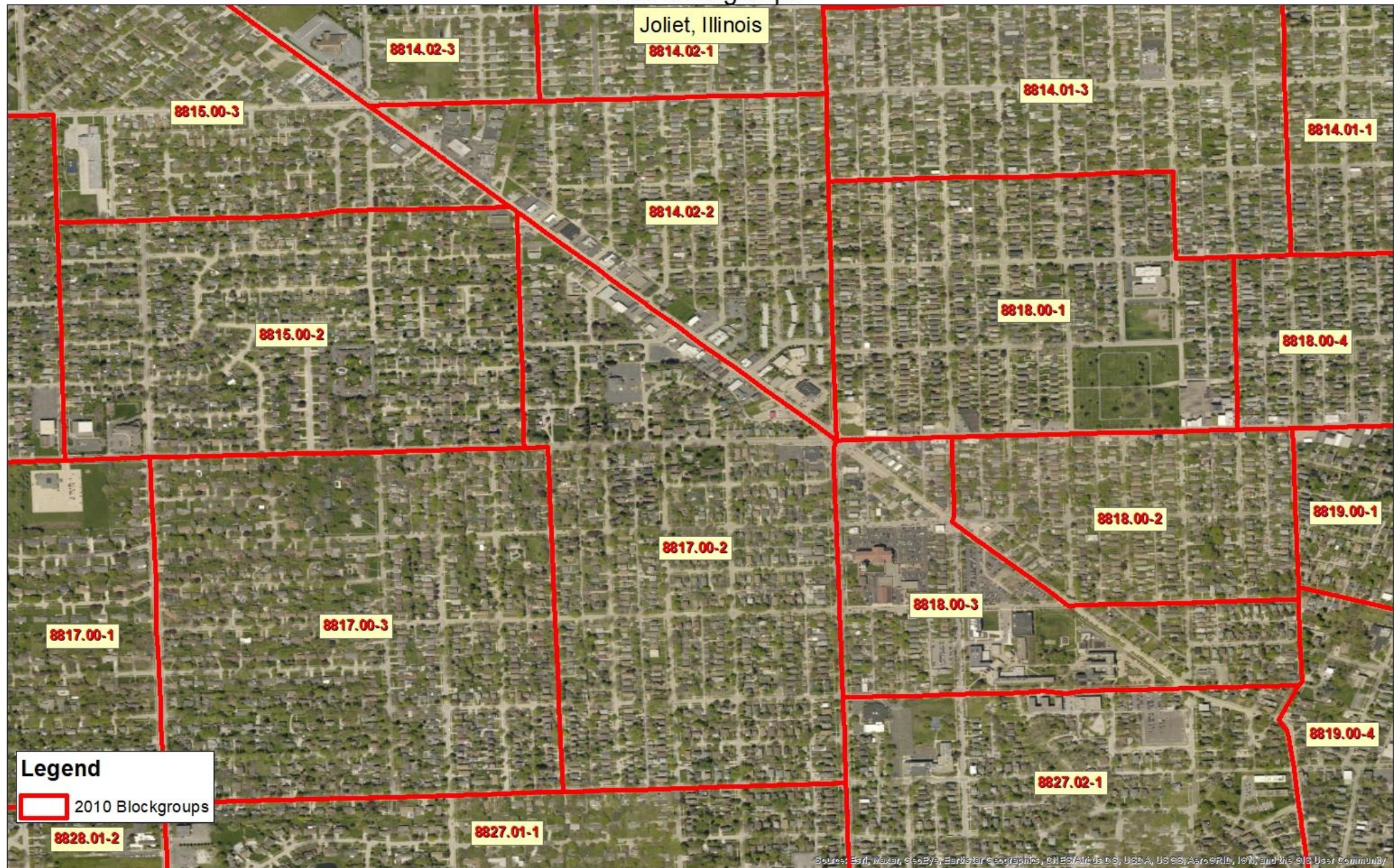
**Legend**  
2010 Blockgroups

Source: Esri, DeLorme, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

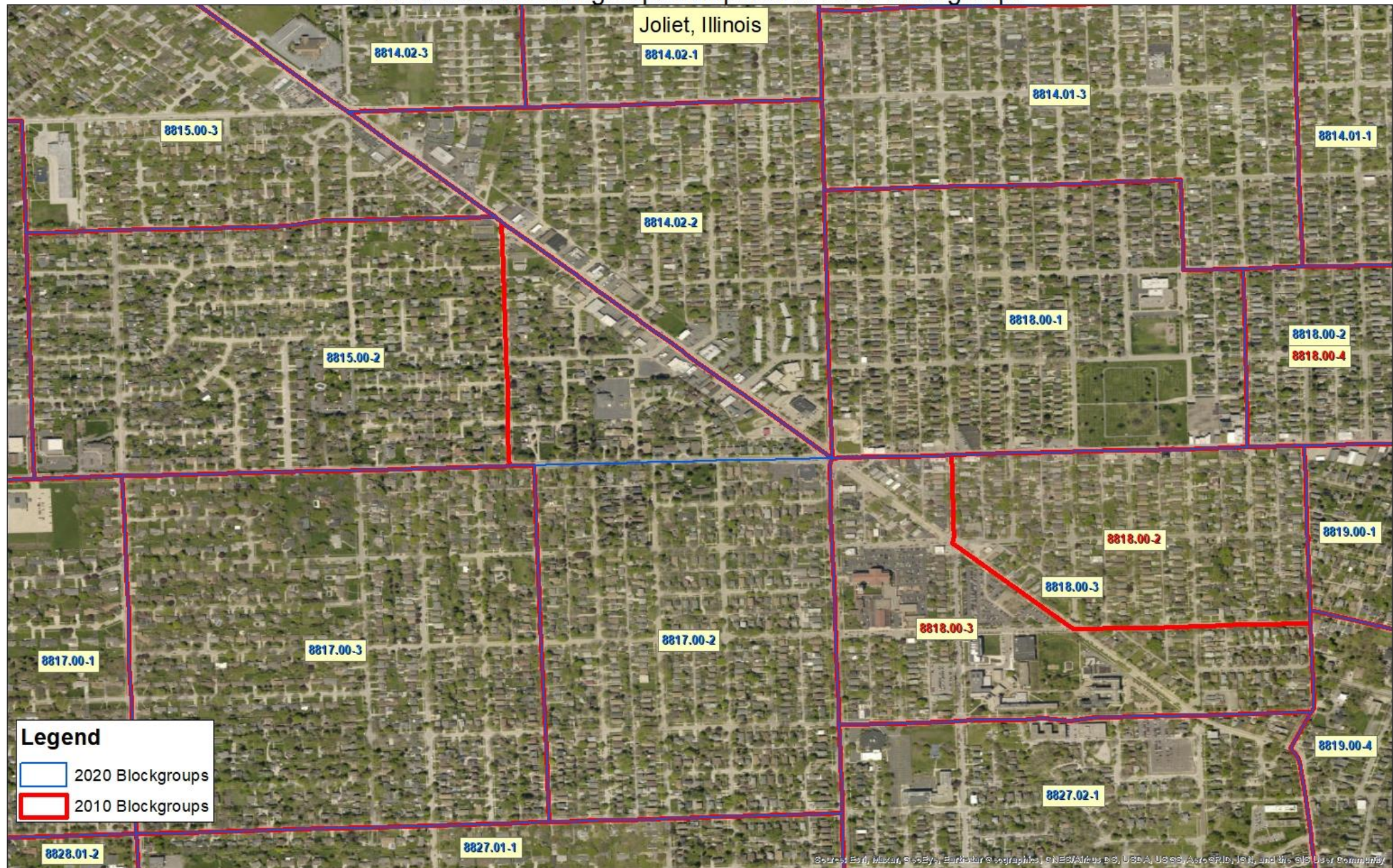
# 2020 Census Blockgroups compared to 2010 Blockgroups



# 2010 Blockgroups



# 2020 Census Blockgroups compared to 2010 Blockgroups



Sources: Esri, Maxar, GeoEye, Earthstar, GeoGraphics, IGN, Aircel, USDA, USGS, AeroGRID, IGN, and the GIS User Community

**Don't be mistaken by**

**Block Group 3 data for 2010**

**NOT** Equals

**Block Group 3 geography for 2020**

The background of the slide is a close-up, slightly blurred image of the American flag, showing the stars and stripes in shades of blue, white, and red.

**Don't go backwards in time  
Only move forward**

**Don't attempt to squeeze 2020 data onto  
your 2010 geography from your old system**

**Use your time now to migrate forward.**

**2020 Geography files released in February.**

**Start studying them now**

# Subtle changes in 2010 to 2020 geography

Bringing a shape file of your districts from your 2010 system will need to be cleaned up to match the 2020 geographic blocks

Bureau has some tools to help, but true “n to n” circumstance

- Single 2010 block = single 2020 block
- Single 2010 block = multiple 2020 blocks
- Multiple 2010 blocks = single 2020 block
- Multiple 2010 blocks = multiple 2020 blocks

Adding 2010 population data to 2020 geography not always easy

# Commercially Available Databases

## Pluses

- Current – data available for 2020
- Has total population estimates, plus racial demographic information

# Commercially Available Databases

## Minuses

- Available at Block Group level
  - Have to disaggregate like precinct data
- Dealing with 2010 Block Groups
- Expense item in budget
  - State estimates: \$5K-\$8K

# Illinois State Senate District 1

## ACS vs ESRI Block Group Pop Comparison

Population of all Block Groups that center within district (not 100% comparable to blocks)  
 ESRI (2020) - 222,553 population  
 ACS (2015-2019) - 211,230 population

ESRI has 5.4% more population than ACS

407 Households  
 Esri = 3.1 avg HH size  
 ACS = 0.7 avg HH size  
 with MoE - 0.4 to 1.1 avg HH size

Inset C - ESRI is 323% larger than ACS



Inset B - ESRI is 204% larger than ACS



Inset A - ACS 44% larger than ESRI



78 Households in left BlockGroup  
 Esri = 3.3 avg HH size  
 ACS = 4.7 avg HH size  
 with MoE - 0.8 to 8.7 avg HH size

330 Households  
 Esri = 3.8 avg HH size  
 ACS = 1.2 avg HH size  
 with MoE - 0.6 to 1.9 avg HH size

539 Households  
 Esri = 2.6 avg HH size  
 ACS = 3.9 avg HH size  
 with MoE - 3 to 4.8 avg HH size



Inset F - ACS 51% larger than ESRI

Inset D - ACS 56% larger than ESRI



244 Address Points  
 Esri = 3.7 avg HH size  
 ACS = 5.7 avg HH size  
 with MoE - 4.1 to 7.3 avg HH size

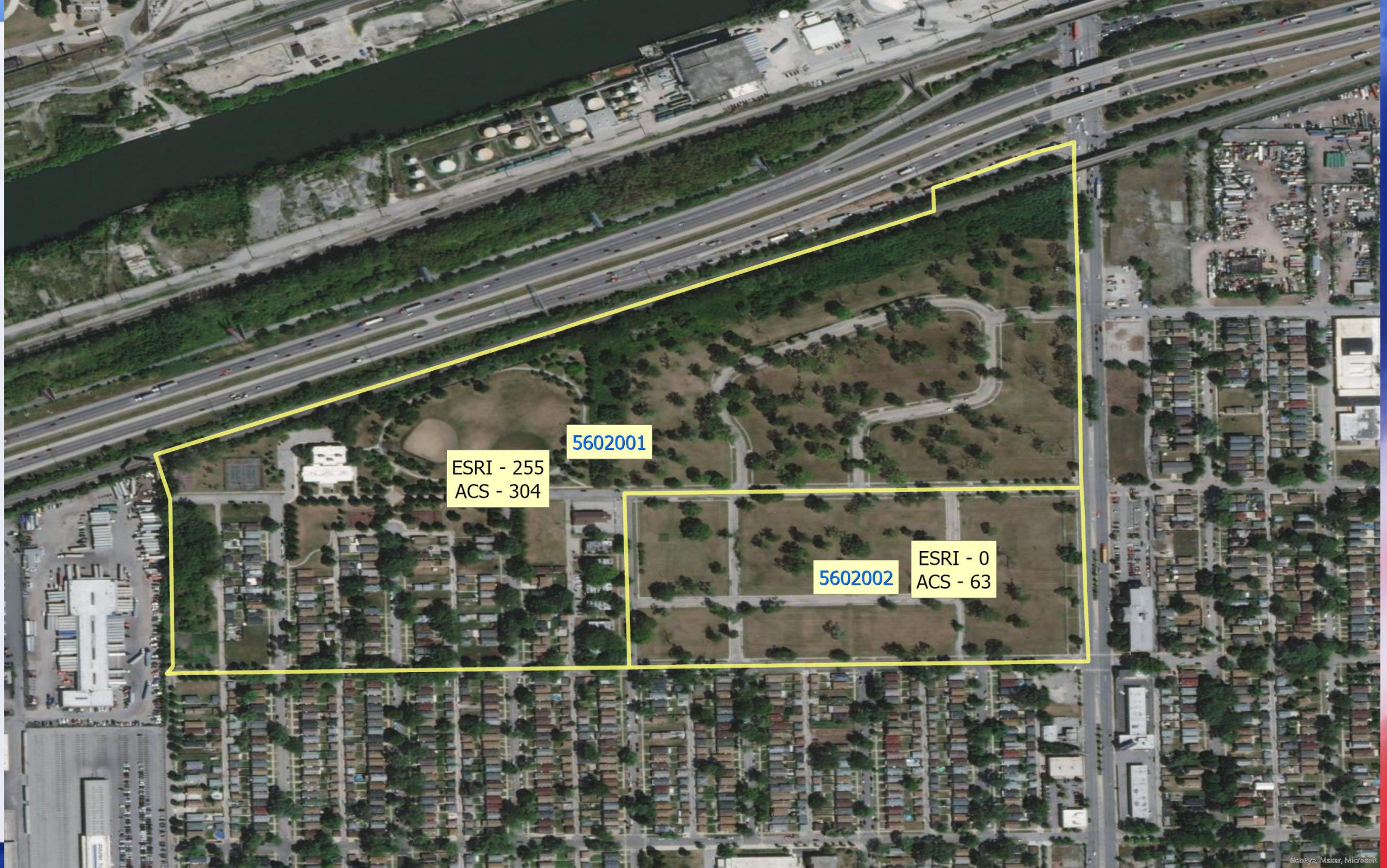
1,145 Households  
 Esri = 3.9 avg HH size  
 ACS = 2.6 avg HH size  
 with MoE - 1.5 to 3.7 avg HH size

Inset E - ESRI 47% larger than ACS



ESRI POP Compared to ACS

- Under 75% (8)
- 75 to 90% (32)
- 90 to 100% (23)
- 100 to 110% (21)
- 110 to 125% (32)
- 125 to 423% (36)



5602001

ESRI - 255  
ACS - 304

5602002

ESRI - 0  
ACS - 63

An aerial photograph of a residential neighborhood. A yellow rectangular box highlights a specific area in the center-right of the image. Within this highlighted area, there is a large, white, rectangular building with a flat roof, which appears to be a commercial or industrial structure. Surrounding this building are various smaller residential houses with different colored roofs (brown, grey, green). To the left of the highlighted area, there is a curved road and a green space with trees. To the right, there are more residential buildings and a street with parked cars. The overall scene is a typical suburban or urban residential area.

3108002

ESRI - 1273  
ACS - 301

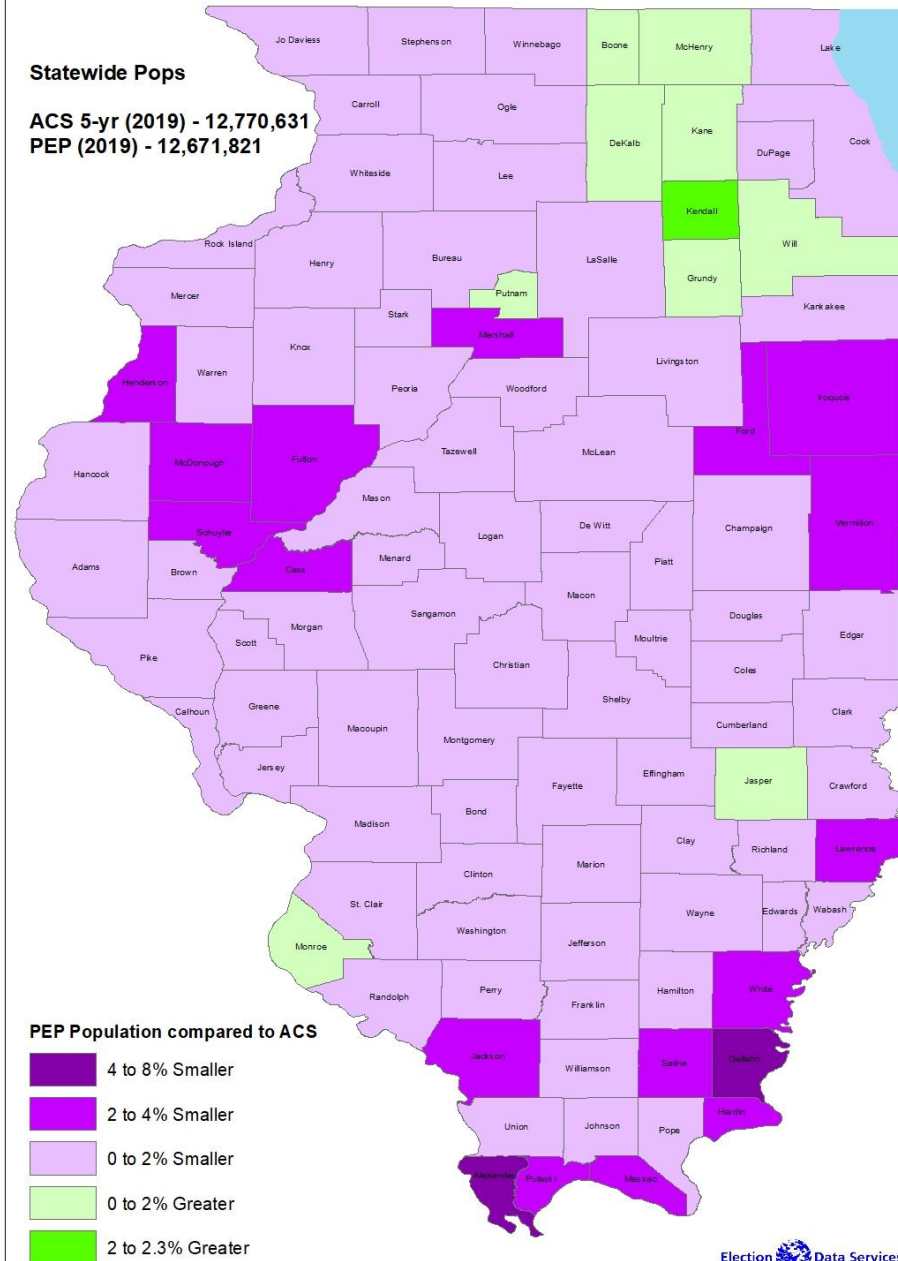
## Illinois Counties

District Population comparison between 2019 Census Pop Estimates and 2019 5-year ACS Estimates

### Statewide Pops

**ACS 5-yr (2019) - 12,770,631**

PEP (2019) - 12,671,821



# State Population Estimates and Census 2010 Counts: Did They Match?

Digging into the estimates data, Pew Research Center demographer Jeffrey Passel has analyzed how the bureau's population estimates for states compare with the official 2010 Census counts for states. He began with state estimates for July 1, 2009 (the latest available), and projected them forward to Census Day based on average growth rates for each state for 2007-2008 and 2008-2009. (This method produces a slightly different total for the nation than the Census Bureau computed, 309,081,328.)

According to his analysis, for most states, the census count and projected population estimates are quite close, showing a difference of less than 1%. In only six states—Arizona, Georgia, Hawaii, North Dakota, Utah and Wyoming—did the count and estimates differ by 2% or more. Arizona had the largest numerical and percentage difference. The population estimates had about 294,000 more people living in the state on Census Day than the 2010 Census counted, a difference of 4.6% from the census count.

# Getting Data Now

- Begin Analyzing population
  - By your jurisdictions
  - Change since 2010
  - Various minority group concentrations
  - District populations & deviations
    - Where are shifts in districts needed

## Remind Members:

Even if their district is setting at the ideal population, unless they are in the corner of the state, some portion of their district will change

*No one is exempt*

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## **Remember**

**“Time is more important  
the later it is in the project”**

**John Morgan**

# Thank you

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**President**

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## Questions?

