Race & Ethnicity in Dave’s Redistricting (DRA)

November 21, 2023 | Redistricting Data Hub
Agenda

1. Race/Ethnicity in Redistricting
2. Race/Ethnicity in DRA
3. Drawing Maps with Race/Ethnicity
4. Analyzing Maps with Race/Ethnicity
5. Visualizing Race/Ethnicity in DRA
6. Questions
Redistricting Data Hub

The mission of the nonpartisan Redistricting Data Hub (RDH) is to make all the data, tools, and knowledge necessary for identifying gerrymandering and drawing legally compliant maps publicly available.

www.redistrictingdatahub.org
Dave’s Redistricting App

The mission of Dave’s Redistricting (DRA) is to empower civic organizations and citizen activists to advocate for fair congressional and legislative districts and increased transparency in the redistricting process.

www.davesredistricting.org
Race/Ethnicity in Redistricting

- Consideration of race and ethnicity in redistricting is guided by two federal principles:
  a. The Fourteenth Amendment’s equal protection clause, which has been interpreted to prohibit using race or ethnicity as the “predominant” factor in drawing
  b. The Voting Rights Act of 1965, and Section 2’s prohibition on discrimination in voting based on race, color, or creed
     - This applies to discriminatory intent as well as effect
- Together, these principles imply that race and ethnicity should be taken into account, but should be the primary consideration in drawing maps.
Race/Ethnicity in Redistricting

- States differ in:
  a. How they define race/ethnicity
     - RDH researched whether redistricting bodies in 14 states publicly defined these categories: see Process Related Data in our Data Accessibility Reports
  b. How they use race/ethnicity data for drawing maps
  c. State laws concerning minority voting rights in redistricting
     - State Voting Rights Acts
     - State prohibitions on racial gerrymandering
Race/Ethnicity in Redistricting

◆ The Census Bureau follows standards for collecting and reporting race and ethnicity put out by the Office of Management and Budget (OMB)

◆ These standards require collecting Hispanic ethnicity and race in two separate questions

◆ Each race question also asks for ethnic origin, to be added by the respondent
5. Please provide information for each person living here. If there is someone living here who pays the rent or owns this residence, start by listing him or her as Person 1. If the owner or the person who pays the rent does not live here, start by listing any adult living here as Person 1.

**What is Person 1’s name? Print name below.**

<table>
<thead>
<tr>
<th>First Name</th>
<th>Middle Initial (MI)</th>
<th>Last Name(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. What is Person 1’s sex? Mark **ONE box.**

- [ ] Male
- [ ] Female

7. What is Person 1’s age and what is Person 1’s date of birth? For babies less than 1 year old, do not write the age in months. Write 0 as the age.

<table>
<thead>
<tr>
<th>Age on April 1, 2000</th>
<th>Month</th>
<th>Day</th>
<th>Year of birth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** Please answer BOTH Question 8 about Hispanic origin and Question 9 about race. For this census, Hispanic origins are not races.

8. Is Person 1 of Hispanic, Latino, or Spanish origin?

- [ ] No, not of Hispanic, Latino, or Spanish origin
- [ ] Yes, Mexican, Mexican Amer., Chicano
- [ ] Yes, Puerto Rican
- [ ] Yes, Cuban
- [ ] Yes, another Hispanic, Latino, or Spanish origin – Print, for example, Salvadoran, Dominican, Colombian, Guatemalan, Spaniard, Ecuadorian, etc.

9. What is Person 1’s race?

Mark **ONE or more boxes AND print origins.**

- [ ] White – Print, for example, German, Irish, English, Italian, Lebanese, Egyptian, etc.
- [ ] Black or African Am. – Print, for example, African American, Jamaican, Haitian, Nigerian, Ethiopian, Somali, etc.
- [ ] American Indian or Alaska Native – Print name of enrolled or principal tribe(s), for example, Navajo Nation, Blackfeet Tribe, Maya, Aztec, Native Village of Barranquitas Traditional Government, Nene Bahsino Community, etc.
- [ ] Chinese
- [ ] Vietnamese
- [ ] Other Asian – Print, for example, Pakistani, Cambodian, Hmong, etc.
- [ ] Some other race – Print race or origin.
Race/Ethnicity in Redistricting

◆ In the 2020 census data for redistricting (PL 94-171 data), race is reported alone or in combination for:
  a. White
  b. Black or African-American
  c. American Indian or Alaska Native
  d. Asian
  e. Native Hawaiian or Other Pacific Islander
  f. Some other race

◆ Counts by race are reported separately as Hispanic or non-Hispanic
Race/Ethnicity in Redistricting

◆ The Census Bureau made a number of changes in how they collect and code race/ethnicity from 2010 to 2020
  a. Read more [here](#)

◆ Advocates are already looking to make changes and improvements in 2030
  a. For example, changing the definition of White to no longer include people of Middle Eastern and Northern African (MENA) descent
Population data by race and ethnicity in DRA comes from two sources:

a. 2020 decennial census data (PL 94-171)

b. American Community Survey (ACS) 5-year estimates

Key differences in these datasets:

a. Enumeration (census) versus sample (ACS)

b. Reference date (2020 for census; 2019 for 2020 ACS 5-year estimates)

c. Level of geography available (census blocks for census; block groups for ACS)
Race/Ethnicity in DRA

◆ DRA currently has:
  a. 2010 and 2020 census data
      ■ Broken down by total population and voting age population (VAP)
  b. 2019 and 2020 ACS data
      ■ Broken down by total population and citizen voting age population (CVAP)
◆ More details on this data can be found [here](#)
Race/Ethnicity in DRA

- In DRA, CVAP and VAP by race/ethnicity are reported as:
  a. White (alone, not Hispanic)
  b. Hispanic (alone or in combination with other races)
  c. Black (Black alone or in combination with other races, including Hispanic)
  d. Asian (Asian alone or in combination with other races, including Hispanic)
  e. Native (AIAN alone or in combination with other races, including Hispanic)
  f. Pacific (NHPI alone or in combination with other races, including Hispanic)

- The sum of these categories is greater than the total population

- VAP by race alone (excluding Hispanic) is also available
Race/Ethnicity in DRA

◆ Thirteen states addressed prison gerrymandering in their congressional and/or state legislative districts by adjusting their population data.

◆ DRA enables you to select adjusted or unadjusted data in the 12 states that publicly released a dataset.

◆ Some states use adjusted data for legislative only or legislative and congressional - it is the user’s responsibility to ensure you are using the correct population data!

◆ Stay tuned for an upcoming mapping snack training on prison gerrymandering analysis in DRA...
Drawing Maps

- Draw at the block, precinct, city, or county level
  a. Race/ethnicity data for individual blocks, precincts, cities and counties can be seen on the right, as you move your mouse across the map
  b. Race/ethnicity data for districts can be seen on the left, by selecting a district and examining District Details

- To change the data displayed, go to:
  a. Settings → Data Selector → Display or Hide Datasets
Race/Ethnicity in DRA
Race/Ethnicity in DRA
Race/Ethnicity in DRA
Drawing Maps
Drawing Maps
Drawing Maps
Drawing Maps
Analyzing Maps

- **Statistics**: provides a breakdown of districts by race/ethnicity
- **Analyze**: provides summary data on the population, and a DRA indicator for ‘opportunities for minority representation’ across the map as a whole
- **Advanced**: contains a Demographic Voting Analysis

To change the data analyzed, go to:

- Settings → Data Selector → Primary datasets
Analyzing Maps
Analyzing Maps
Analyzing Maps
Analyzing Maps
Analyzing Maps

**Statistics:** provides a breakdown of districts by race/ethnicity

<table>
<thead>
<tr>
<th>ID</th>
<th>Total</th>
<th>+/-</th>
<th>Un</th>
<th>Popularity</th>
<th>Dem</th>
<th>Rep</th>
<th>Oth</th>
<th>Total</th>
<th>White</th>
<th>Minority</th>
<th>Hispanic</th>
<th>Black</th>
<th>Asian</th>
<th>Native</th>
<th>Pacific</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>765,137</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>40.98%</td>
<td>57.41%</td>
<td>1.61%</td>
<td>589,266</td>
<td>60.41%</td>
<td>39.59%</td>
<td>6.78%</td>
<td>28.17%</td>
<td>2%</td>
<td>0.29%</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>765,137</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>53.50%</td>
<td>45.36%</td>
<td>1.05%</td>
<td>587,565</td>
<td>49.73%</td>
<td>57.27%</td>
<td>5.12%</td>
<td>49.29%</td>
<td>1.89%</td>
<td>1.54%</td>
<td>0.22%</td>
</tr>
<tr>
<td>3</td>
<td>765,136</td>
<td>-0%</td>
<td>0%</td>
<td>0%</td>
<td>32.08%</td>
<td>66.22%</td>
<td>1.7%</td>
<td>588,319</td>
<td>66.83%</td>
<td>33.17%</td>
<td>5.33%</td>
<td>23.32%</td>
<td>2.55%</td>
<td>2.09%</td>
<td>0.12%</td>
</tr>
<tr>
<td>4</td>
<td>765,135</td>
<td>-0%</td>
<td>0%</td>
<td>0%</td>
<td>75.76%</td>
<td>22.62%</td>
<td>1.61%</td>
<td>589,470</td>
<td>28.25%</td>
<td>71.75%</td>
<td>10.12%</td>
<td>54.52%</td>
<td>6.74%</td>
<td>1.7%</td>
<td>0.13%</td>
</tr>
<tr>
<td>5</td>
<td>765,137</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>80.04%</td>
<td>18.18%</td>
<td>1.78%</td>
<td>621,315</td>
<td>37.92%</td>
<td>62.08%</td>
<td>6.07%</td>
<td>49.8%</td>
<td>3.99%</td>
<td>1.35%</td>
<td>0.14%</td>
</tr>
<tr>
<td>6</td>
<td>765,136</td>
<td>-0%</td>
<td>0%</td>
<td>0%</td>
<td>36.81%</td>
<td>60.69%</td>
<td>2.5%</td>
<td>574,797</td>
<td>66.63%</td>
<td>33.37%</td>
<td>9.11%</td>
<td>9.91%</td>
<td>12.27%</td>
<td>1.77%</td>
<td>0.13%</td>
</tr>
<tr>
<td>7</td>
<td>765,137</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>58.19%</td>
<td>39.69%</td>
<td>2.12%</td>
<td>566,934</td>
<td>32.78%</td>
<td>67.22%</td>
<td>21.27%</td>
<td>29.82%</td>
<td>15.85%</td>
<td>2.07%</td>
<td>0.16%</td>
</tr>
<tr>
<td>8</td>
<td>765,136</td>
<td>-0%</td>
<td>0%</td>
<td>0%</td>
<td>33.74%</td>
<td>65.06%</td>
<td>1.2%</td>
<td>585,857</td>
<td>60.52%</td>
<td>39.48%</td>
<td>6.1%</td>
<td>30.04%</td>
<td>2.03%</td>
<td>1.63%</td>
<td>0.14%</td>
</tr>
<tr>
<td>9</td>
<td>765,137</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>27.54%</td>
<td>70.5%</td>
<td>1.96%</td>
<td>592,520</td>
<td>68.29%</td>
<td>31.71%</td>
<td>12.89%</td>
<td>10.42%</td>
<td>6.45%</td>
<td>2.36%</td>
<td>0.11%</td>
</tr>
<tr>
<td>10</td>
<td>765,135</td>
<td>-0%</td>
<td>0%</td>
<td>0%</td>
<td>35.44%</td>
<td>62.83%</td>
<td>1.73%</td>
<td>588,874</td>
<td>66.2%</td>
<td>33.8%</td>
<td>6.51%</td>
<td>22.6%</td>
<td>2.81%</td>
<td>1.96%</td>
<td>0.12%</td>
</tr>
<tr>
<td>11</td>
<td>765,137</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>37.98%</td>
<td>59.51%</td>
<td>2.51%</td>
<td>595,201</td>
<td>63.99%</td>
<td>36.01%</td>
<td>11.22%</td>
<td>17.95%</td>
<td>4.52%</td>
<td>2.3%</td>
<td>0.13%</td>
</tr>
<tr>
<td>12</td>
<td>765,136</td>
<td>-0%</td>
<td>0%</td>
<td>0%</td>
<td>42.35%</td>
<td>56.29%</td>
<td>1.36%</td>
<td>588,119</td>
<td>54.65%</td>
<td>45.35%</td>
<td>4.87%</td>
<td>36.72%</td>
<td>2.55%</td>
<td>1.67%</td>
<td>0.22%</td>
</tr>
<tr>
<td>13</td>
<td>765,137</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>78.12%</td>
<td>20.53%</td>
<td>1.35%</td>
<td>574,789</td>
<td>18.82%</td>
<td>81.18%</td>
<td>10.52%</td>
<td>66.71%</td>
<td>3.83%</td>
<td>1.71%</td>
<td>0.13%</td>
</tr>
<tr>
<td>14</td>
<td>765,135</td>
<td>-0%</td>
<td>0%</td>
<td>0%</td>
<td>28.77%</td>
<td>69.41%</td>
<td>1.82%</td>
<td>579,058</td>
<td>71.33%</td>
<td>28.67%</td>
<td>10.58%</td>
<td>14.28%</td>
<td>1.5%</td>
<td>2.76%</td>
<td>0.11%</td>
</tr>
<tr>
<td>15</td>
<td>765,136</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>47.18%</td>
<td>51.06%</td>
<td>1.75%</td>
<td>587,152</td>
<td>52.82%</td>
<td>47.18%</td>
<td>9.04%</td>
<td>31.73%</td>
<td>5.07%</td>
<td>1.92%</td>
<td>0.15%</td>
</tr>
</tbody>
</table>
Analyzing Maps

- **Analyze**: provides summary data on the population, and a DRA indicator for ‘opportunities for minority representation’ across the map as a whole
  
a. The first table summarizes the district statistics by counting the frequency of districts with populations between bands of 5 percentage points
  
b. The second table calculates the number of proportional seats
    
    - Both tables include individual race/ethnicity categories as well as all combined (Non-Hispanic Whites relative to all others combined)
Analyzing Maps

Minority Representation

All else equal, prefer maps that give minorities more opportunities to elect representatives.

<table>
<thead>
<tr>
<th>District VAP %</th>
<th>Potential Opportunity Districts (based on map)</th>
<th>Minority Hispanic</th>
<th>Black</th>
<th>Asian</th>
<th>Native</th>
<th>Pacific</th>
</tr>
</thead>
<tbody>
<tr>
<td>35% ≤ VAP &lt; 40%</td>
<td>3 0 1 0 0 0</td>
<td>3 0 1 0 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40% ≤ VAP &lt; 45%</td>
<td>0 0 0 0 0 0</td>
<td>0 0 0 0 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45% ≤ VAP &lt; 50%</td>
<td>1 0 2 0 0 0</td>
<td>1 0 2 0 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50% ≤ VAP &lt; 55%</td>
<td>0 0 1 0 0 0</td>
<td>0 0 1 0 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55% ≤ VAP &lt; 60%</td>
<td>1 0 0 0 0 0</td>
<td>1 0 0 0 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60% ≤ VAP &lt; 100%</td>
<td>4 0 1 0 0 0</td>
<td>4 0 1 0 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Proportional Seats (based on total VAP %)</th>
<th>Minority Hispanic</th>
<th>Black</th>
<th>Asian</th>
<th>Native</th>
<th>Pacific</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total VAP %</td>
<td>47.18% 9.04% 31.73% 5.07% 1.92% 0.15%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportional Seats</td>
<td>7 1 4 1 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rating
Analyzing Maps

◆ **Analyze**: provides summary data on VAP or CVAP, and a DRA indicator for 'opportunities for minority representation' across the map as a whole.

  a. “The rating computes seat probabilities for each category, giving full weight to opportunity-to-elect districts but discounting coalition districts by half, uses what would be a proportional numbers of seats for the different categories as benchmarks, normalizes the number of likely opportunity and coalition districts to a [0–100] scale where bigger is better, and then combines them into a single rating.”

  b. Put another way...
Analyzing Maps

◆ Assume 100% of a racial/ethnic minority group vote as a bloc, 100% of a majority group votes as a bloc, and they turnout at the same rate

◆ Calculate what number of seats a racial/ethnic group is likely to win in this map out of all proportional seats based on their statewide % VAP

◆ Repeat this for all racial/ethnic groups and sum; repeat for all minorities combined

◆ Multiply by 100 (to normalize to a thermometer scale)

◆ Combine these values in a weighted average, with districts for all minorities combined counting half as much as districts for individual racial/ethnic groups
Analyzing Maps

Notes
- Depending on how minorities are spread out across or concentrated within the map, it may not be possible to draw a proportional number of opportunity districts.
- Some districts of the 114th Congress had a Black majority (2, 4, 5, and 13). While no longer in force, Section 5 of the VRA previously required districts for all of GA to be precleared.
- For more information about redistricting & minority communities, see this report, or contact the relevant advocacy groups: the NAACP LDF and the Southern Coalition for Justice (Black), MALDEF (Hispanic), or the AAJC (Asian).

⚠️ Disclaimer: This analysis does not ensure Voting Rights Act (VRA) compliance!
Analyzing Maps

◆ Compliance with the Voting Rights Act (VRA) is complicated, and often requires multiple experts in mapping and statistics to properly assess.

◆ The ‘opportunities for minority representation’ metric in DRA does not assess VRA compliance.

Disclaimer: This analysis does not ensure Voting Rights Act (VRA) compliance!

◆ Read more about how the DRA metric of ‘opportunities for minority representation’ is calculated here.
Analyzing Maps

**Advanced**: contains a Demographic Voting Analysis

a. Select any racial/ethnic group to compare against White or all other groups

b. Within a district, it plots the % VAP (or CVAP) of your selected groups versus the % Democratic vote by precinct

c. It then calculates best fit lines and displays this data visually

d. It uses these best fit lines to estimate what % of the vote would be Democratic or Republican, if a group comprised 100% of a precinct, and then displays it in a table
Analyzing Maps

Demographic Voting

This is a preliminary analysis of the partisan voting patterns of demographic groups.

For district: 6

<table>
<thead>
<tr>
<th>Dem</th>
<th>Hispanic</th>
<th>Not Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>100.0%</td>
<td>0.0%</td>
<td>10.1%</td>
</tr>
<tr>
<td>35.1%</td>
<td>64.9%</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

[Image of scatter plot]

ga_cong_adopted_2021 / District 6
Analyzing Maps
Analyzing Maps

For district 6, the voting patterns of Hispanic and Not Hispanic groups are compared to Everyone Else. The table shows the following:

<table>
<thead>
<tr>
<th>District: 6</th>
<th>Dem</th>
<th>Rep</th>
<th>Std Err</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>100.0%</td>
<td>0.0%</td>
<td>10.1%</td>
</tr>
<tr>
<td>Not Hispanic</td>
<td>35.1%</td>
<td>64.9%</td>
<td>1.5%</td>
</tr>
</tbody>
</table>
Analyzing Maps

Notes
- This analysis does simple linear regression. It is not a full-blown racial voting analysis for VRA compliance. For that you might also need to conduct homogeneous precinct analysis or ecological inference analysis (EI), for two examples.
- It uses the composite of 2016 Pres, 2020 Pres, 2016 Sen, 2020 Sen, 2018 Gov, and 2018 AG general election results which do not include primaries or non-partisan elections.
- The precinct results are not weighted by population or turnout, i.e., each precinct has the same weight.
- The analysis also uses the combination VAP demographic categories from the Census 2020, as opposed to the single race & ethnicity categories.
- You can change these election & voting age datasets using the Data Selector.

⚠️ Disclaimer: This analysis does not ensure Voting Rights Act (VRA) compliance!

Compactness Details

These are compactness measurements by district.
Visualizing Race/Ethnicity

- **Precinct Labels**: show summary statistics for race/ethnicity by precinct
- **Precincts/Districts color by Demographics**: change the coloring of precincts or districts to reflect demographics of your choice
- **Racial Dot Plot**: easily visualize the racial composition of districts and other boundaries
Visualizing Race/Ethnicity

- **Precinct Labels**: show summary statistics for race/ethnicity by precinct
  
  a. Go to Overlays on the left-hand side
  
  b. Select the second “Labels” (with the down arrow)
  
  c. Select up to 3 labels
  
  d. Optional: Select “Show values (except totals) as percentages”
Visualizing Race/Ethnicity
Visualizing Race/Ethnicity
Visualizing Race/Ethnicity

- **Precincts/Districts color by Demographics**: change the coloring of precincts or districts to reflect demographics of your choice
  
a. Go to Colors on the left-hand side

b. Select “Demographics” (with the down arrow) under Districts (top) or Precincts (bottom)

c. Select the racial or ethnic group of your choice, or all minorities
Visualizing Race/Ethnicity
Visualizing Race/Ethnicity
Visualizing Race/Ethnicity

◆ **Racial Dot Plot**: easily visualize the racial composition of districts and other boundaries
  a. Each dot represents a single person
  b. The dot is generated randomly within the census block each person was counted in
  c. As a result, dots might fall in unexpected places (bodies of water)
Visualizing Race/Ethnicity

- Racial/ethnic groups are coded as:
  
a. White: Blue
b. Black: Green
c. Asian: Red
d. Hispanic: Orange
e. Other: Brown
Visualizing Race/Ethnicity

- **Racial Dot Plot**: easily visualize the racial composition of districts and other boundaries
  
a. Go to Overlays
  
b. Select Racial Dot Plot
  
c. Select the down arrow to select Total Population or Voting Age Population (VAP), and change the opacity
Visualizing Race/Ethnicity
Final Takeaways

◆ When drawing or analyzing maps, be sure you understand how the category of race and/or ethnicity you are looking at is defined

  a. For example, does “Native American” mean “Native American alone,” or “any part Native American,” or something else?

◆ Race/ethnicity should not be the predominant factor in drawing, but should be considered for compliance with the Voting Rights Act (VRA)

◆ Analysis metrics in DRA provide useful information, but should not be interpreted as a measure of VRA compliance. Read more about DRA and the VRA here.
Questions?