

# Description of Software, Data, and Criteria

---

## Software Used to Create Plans

In July 2007, the Florida Senate started developing redistricting software. The Senate determined early on that the best and most affordable technology for maximizing public participation would be an open source web application.

In November 2009, the Senate demonstrated for Executive Staff of the U.S. Census Bureau a District Builder prototype built on open source technology (MapServer/PostgreSQL/Apache). That same year, the Senate demonstrated the prototype at National Conference of State Legislatures meetings. The "alpha" version of District Builder (with 2001-2002 redistricting data) was used for NCSL redistricting simulation exercises in Providence, Rhode Island, and Washington, D.C.

In November 2009, the Florida House of Representatives began development of its own web-based, available to the public, open source redistricting software. The software known as MyDistrictBuilder™ is built on a technology stack of Microsoft Silverlight, Bing Maps, and Azure cloud servers with software source code available on Microsoft CodePlex at <http://mydistrictbuilder.codeplex.com/>.

The focus of both redistricting applications is on redistricting. They provide all the functions and information required for building districts and nothing more. They give Floridians two choices with easy and direct access to the same programs, data, and plans that legislators and professional staff themselves use to navigate interactive maps, explore population characteristics, and build districts.

To use the Florida Senate's District Builder, individuals register for a secure account. To use the Florida House's MyDistrictBuilder™, individuals do not need any type of account or password. The application is immediately accessible via a link at <http://www.floridaredistricting.org>.

Senate and House professional staff worked collaboratively to ensure common geographic and data characteristics for the two applications. In addition, Senate and House professional staff shared public submissions. Maps, statistics, and downloads for each submission were posted on both the Senate and House Redistricting websites, regardless of whether the

plan was drawn using District Builder, MyDistrictBuilder™, or some other redistricting application.

### **Data Used in Drafting Plans (and source of data)**

Senate and House professional staff used their respective web applications as the interface for drafting plans. Both applications included:

- 2010 Census Redistricting Data [P.L. 94-171](U.S. Census Bureau).
- The 2010 Census geography (U.S. Census Bureau).
- Reference layers (e.g., road geography from the Florida Department of Transportation, features in Bing Maps).

In addition, professional staff consulted the following data in drafting plans:

- 2010 Census Summary File 1 Data (U.S. Census Bureau);
- 2006-2010 American Community Survey Data (U.S. Census Bureau);
- Public input (public testimony, public hearings, public redistricting plans submissions, public electronic and written communications);
- Bing Maps, Google Maps, Google Earth and Google Street View.

Users of the House of Representatives' MyDistrictBuilder™ application also had access to the following data:

- 2005-2009 American Community Survey Data (U.S. Census Bureau);
- Florida 2010 General Elections History and Florida 2010 Voter Registration Data (Florida Division of Elections, 67 Florida County Supervisors of Election);
- Florida 2008 Presidential Race Elections History and Florida 2008 Voter Registration Data (Florida Division of Elections, 67 Florida County Supervisors of Election);
- Florida 2006 General Elections History (Florida Division of Elections, 67 Florida County Supervisors of Election);

In both applications, county > voting tabulation district (VTD) > block is the primary hierarchy of Census geography. For the 2010 Census, 9,435 VTDs are nested within Florida's 67 counties, and 484,481 blocks are nested within the 9,435 VTDs.

VTDs are an official layer of Census geography submitted to the Census Bureau by supervisors of elections for the express purpose of fostering efficient administration of elections after redistricting. A block is an area bounded on all sides by visible and/or invisible features shown on a map prepared by the U.S. Census Bureau. A block is the smallest geographic entity for which the Census Bureau tabulates decennial census data. In different ways, both applications allow users to view various other county, city, and geographical boundaries as viewable layers or features. Both applications allow users to assign an entire county, city, VTD, or block to a district with a single-click.

For all layers in the 2010 Census Redistricting Data, the Census Bureau enumerates total population in six independent categories of race, plus a seventh category for Hispanic or Latino. The Census Bureau also tabulates voting age population (18 years and older) for the same categories. The dashboards and most reports used for building plans collapsed the resulting 252 categories to 14 or fewer:

- Total Population;
- Deviation (count and percentage);
- Total VAP (Voting Age Population, 18 and older; count and percentage);
- Non-Hispanic White alone VAP (single-race white, count and percentage);
- Non-Hispanic Black VAP (includes Black alone or in combination with other races; count and percentage);
- Hispanic Black VAP (includes Black alone or in combination with other races; count and percentage);
- Hispanic VAP other than Hisp. Black (excludes Hispanic Black VAP; count and percentage);
- Other VAP (not single-race white nor black alone or in combination nor Hispanic; count and percentage).

The “District Statistics” summary reports in Tab E provide district totals for the following:

- Deviation (count and percentage, calculated as the difference between the total population in the district and the total population of the state divided by the number of districts in the plan);
- Total Population (count);
- Total VAP (count);

- Black VAP (Black alone or in combination with other races—including both Hispanic and Non-Hispanic Blacks; count and percentage);
- Hispanic VAP.

The “VAP Each Racial & Ethnic Group” reports in Tab E provide district totals for each racial and ethnic group in the 2010 Census Redistricting Data [P.L. 94-171] supplied by the U.S. Census Bureau.

**Criteria Used in Drafting the Plans:**

The following criteria were used in drafting the apportionment plan:

- The Equal Protection Clause of the United States Constitution, including the “one-person, one-vote” standard.
- Section 2 and Section 5 of the federal Voting Rights Act of 1965.
- The Equal Protection Clause and Article III, Sections 16 and 21 of the Florida Constitution.