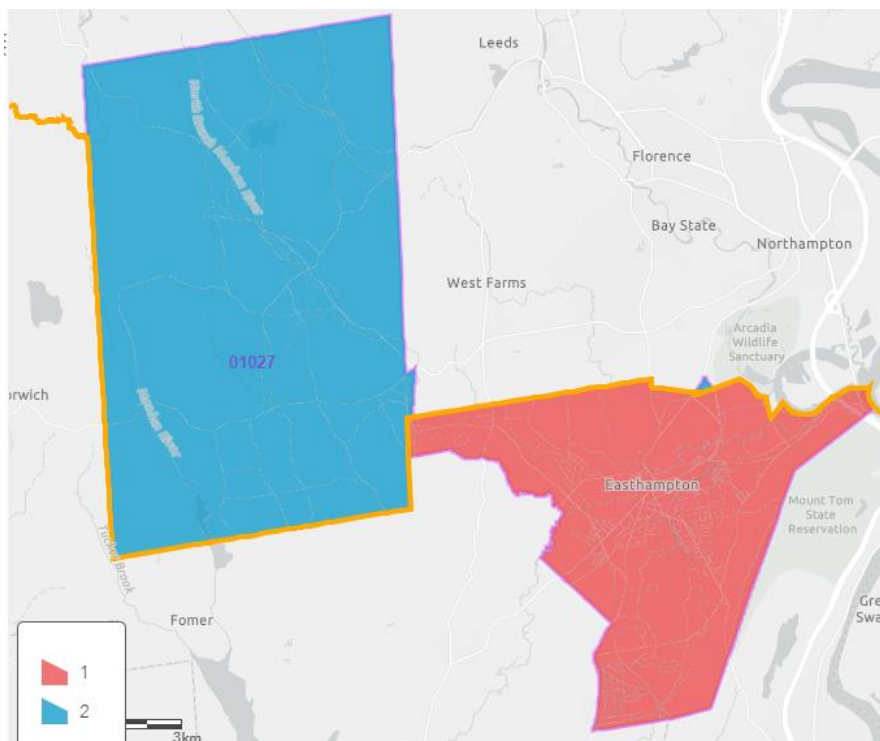# ZIP Code
Congressional
Districts ═══ ★

Population-Weighted Congressional Districts & Demographics

Introduction:

Our regular 5-digit ZIP Code Congressional District product is based on the area that a ZIP Code covers one or more Congressional Districts. For instance, 80% of a ZIP Code may cover District 1 and 20% of that ZIP Code covers District 2. This works well if all that you need is what districts are covered by a ZIP and the percentage isn't important.
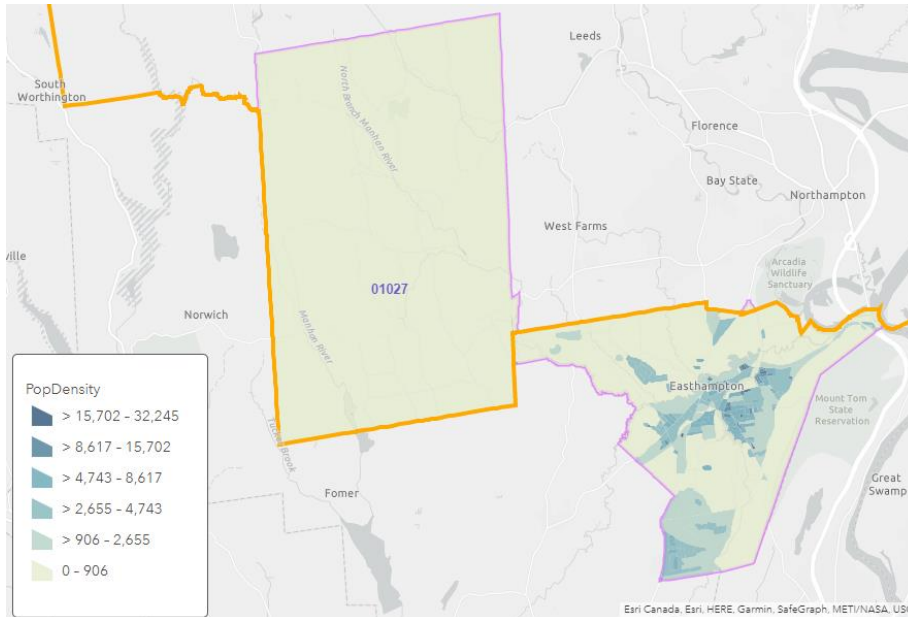
On the other hand, if it's important to you to know the percentage of the ZIP Code within a district, **based on population**, this Population-Weighted Congressional Districts product is what you'll need. Besides the population, there are additional demographics, including population density.

Here's an example of a ZIP Code, based on the area (District 1 is red and District 2 is blue):

In the standard product, District 2 shows 67% of the ZIP and District 1 shows 33%. The problem is that most of District 2 is rural, and most of District 1 has a higher population density (about 91% of the population is in District 1):

Data Files:

We include this file, which had demographics for each ZIP Code and District:

> **Pop-CD-Districts-Full.csv**, which contains all states, **but not the District of Columbia and not territories such as Guam, Puerto Rico, U.S. Virgin Islands**. This file also includes 6 **At-Large** states (states which have a low population, so there's only one congressional district for the state [we code these ZIP Codes as being in District 99]). These states are: **Alaska, Delaware, Montana, North Dakota, South Dakota, Vermont and Wyoming**.

> **Important Note:** this contains demographics for *deliverable* ZIP Codes and not point ZIPs (personal, business and government PO Boxes that have no addresses assigned to them [and therefore no population demographics]). If you need to map PO Boxes to the deliverable ZIP Code where the Post Office that serves the PO Box resides, you can purchase our Parent ZIP Code product.

> **Also Note:** some ZIP Codes cross into another state. Usually, this is in very rural areas and only a small number of houses in that other state. We won't include them in our data.

We also include a spreadsheet of the above CSV file: **Pop-CD-Districts-Full.xlsx**.

Note: if you're viewing a **demo** of this product, the file names above will end in '-demo' instead of '-full'.

Included Demographics:

In this file, the following demographics are included for each ZIP Code / District (note: we include the latest Census Bureau data from the 2020 *counts* which are conducted every 10 years). Also note: the Census Bureau has delayed the full release of the data from the 2020 decennial counts until 2023, but they have released some demographics at the Census Block level, which is the smallest geographic census unit. There is approximately one Census block for every 40 people.

We've taken the Census Blocks (over 8 million records), along with their corresponding demographics, and mapped them to the ZIP Code (ZCTA) level. **A ZCTA is the Census Bureau's approximation of a ZIP Code boundary** and is comprised of Census Blocks.

In well-populated areas, we've found that the ZCTA is either exactly the same as a ZIP Code's boundary, or almost the same. The boundaries of a ZIP Code in a sparsely populated area are more subjective, and every map company differs in their definition of the ZIP Code boundary because there aren't enough addresses to determine a good boundary. Note: The U.S. Postal Service does not define ZIP Code boundaries, they just assign ZIP Codes to an address.

We've also mapped them to the latest Congressional Districts. We've also aggregated the Block demographics at the ZCTA and Congressional District levels. We include the **ZCTA, State, City** and **District** for each *ZIP Code / District combination*, plus these columns:

- Percentage of the ZIP Code within the district, based on population.

- Total Population and Population Density. The way that we calculate the population density is by taking the Total Population and dividing it by the Total Land area (not water area) in square miles of each of the Census Blocks for that ZIP/District. We then aggregate the blocks by ZIP/District. Note: There are about 229 records with zero for the population density, because of rounding. These are records where the population in that ZIP/District is a very small percentage of the ZIP/District land area. This happens mostly in areas with large land areas, but small populations such as Montana and Alaska.

- Total Housing Units, plus Occupied, Vacant and Percentage of Vacant Housing Units.

- Racial Breakdowns: White, Black, Indian, Asian, Hawaiian/Pacific Islander, Other Race, White/Non-Hispanic, Hispanic and Multi-Race.

- Total Under 18, and total Over 18.

- Total Over 18, broken down by the racial breakdowns above.

Additional Files:

These files are also included in this product:

- **reps-full.csv** has the names of each rep in their district which includes:

  o **State Abbreviation** (standard USPS abbreviation).

  o **District Number**. This is a 2-digit number. California has the most districts (currently 53). Note: This will be '98' in the cases of U.S. territories such as Guam and the U.S. Virgin Islands which have congressional delegates, but not true representatives. Also, if there is only one district for a state (due to low population), the district will be '99'.

  o **First Name** (may include middle initials).

  o **Last Name** (may include a suffix such as 'Jr.').

  o **Nick Name**.

  o **Vacancy Flag** (if the seat is vacant, it will have a 'Y', otherwise it will be 'N').

- **reps-detailed-full.csv** has all of the above information, plus we added the Party (D-Democrat, R-Republican, L-Libertarian, I-Independent), Committees and contact info for the representative.

- **ZIP-2020-Voting-full.csv** is a special file that we created that has, by ZIP Code, **an estimate of how many people voted for Donald Trump or Joe Biden in the 2020 election**. This can be used to approximate the ratio of Republicans to Democrats, plus estimate how many may vote in a presidential election (you may want to use this in conjunction with our Census Demographics product). We may update this as new elections occur, if we can find accurate data. We hope that you find this file useful (it took a lot of work to create it). Note: we used the precinct-level data at Harvard Dataverse (https://doi.org/10.7910/DVN/K7760H) and **mapped it to ZIP Codes**.

- **District-2020-Voting-full.csv**: this is the same Trump/Biden info as above, but aggregated at the *District* level.

- **CongressionalDistrictDemographics-Age.xlsx** has the latest population estimates and some age groupings based on the State / District. Note: the demo product has a limited version of this file.

- **CongressionalDistrictDemographics-Race.xlsx** has the latest population estimates and some age groupings based on the State / District. Note: the demo product has a limited version of this file.