

A Short Guide to Dave's Redistricting App (DRA)

Please note that this guide is intended to help the user get started.

DRA has many features not discussed here that the user may want to explore.

Citizens can submit ward plans to the email address:

maps@clevelandcitycouncil.org.

Deadline: Sunday, November 3 at 11:59 pm.

In web browser find “DRA 2020”

Sign up or use an existing account if you have one

The screenshot shows the homepage of Dave's Redistricting (DRA 2020). The browser address bar shows the URL davesredistricting.org/maps#home. The website header includes a navigation menu with "DRA 2020" and a "LOG IN" button circled in red. The main content area features a large map of the United States with states colored red for Republican and blue for Democratic. A legend in the top right corner indicates "2020 Presidential Election" with "306 Dem - 232 Rep". The left sidebar contains the text "Empowering Communities through Fair and Transparent Redistricting" and "Create, Analyze and Share District Maps", along with buttons for "PICK A STATE", "LEARN MORE", and "SUPPORTERS". A disclaimer at the bottom left states "By using this website, you agree to the Terms of Use and Privacy Policy".

Empowering Communities through Fair and Transparent Redistricting

Create, Analyze and Share District Maps

PICK A STATE LEARN MORE

SUPPORTERS

By using this website, you agree to the [Terms of Use and Privacy Policy](#)

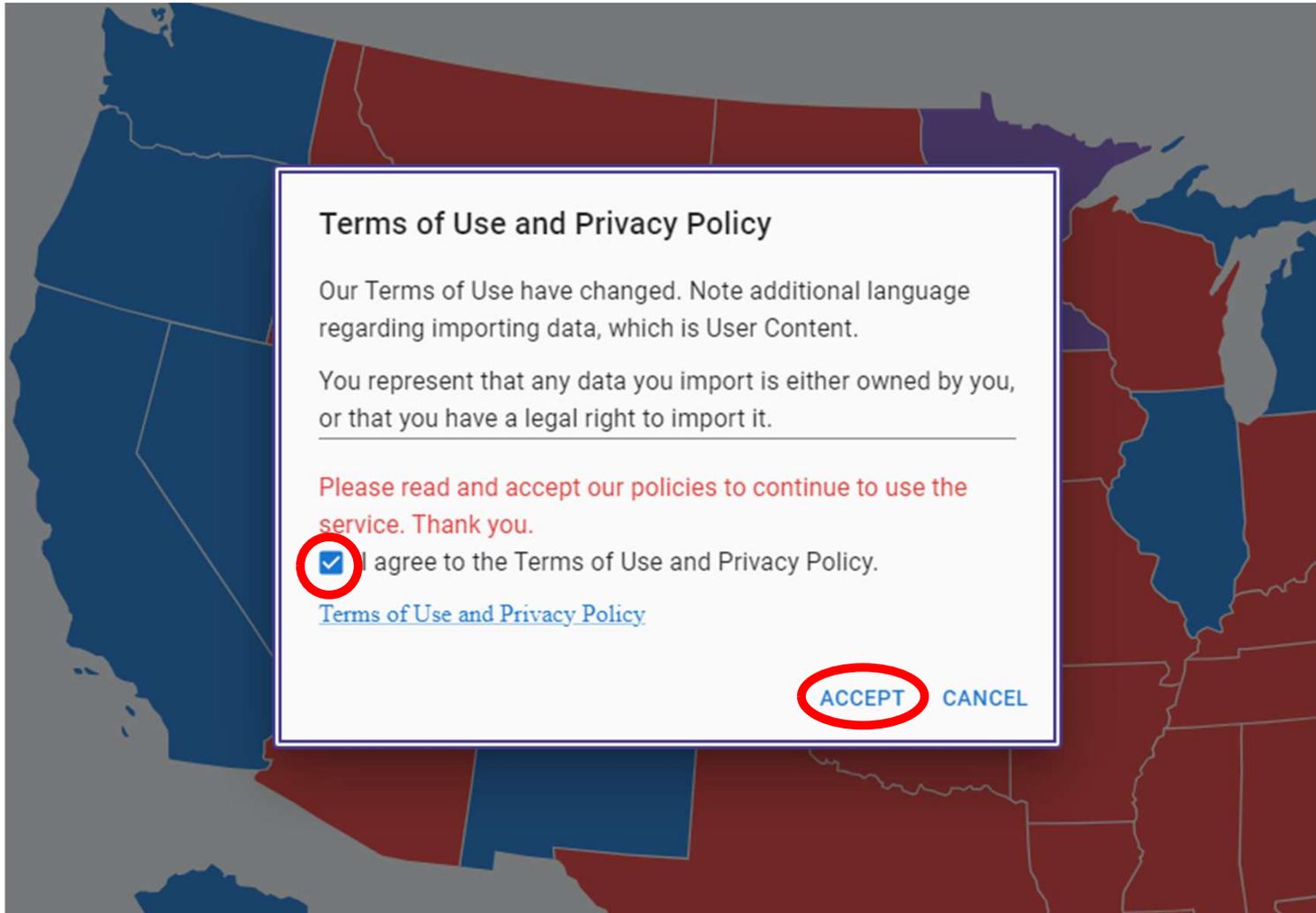
2020 Presidential Election
Republican Democratic
306 Dem - 232 Rep

Click a state to go to its page.

Once you have an account, select Maps in the upper right corner....

The screenshot shows the homepage of 'Dave's Redistricting', a project of Social Good Fund. The top navigation bar includes a hamburger menu, the 'DRA2020' logo, and a 'Maps' link circled in red. Other navigation options include 'Social' and 'Donate'. The main header features the title 'Welcome to Dave's Redistricting' and a legend for 'US House Delegation' with categories: Republican Majority (red), Democratic Majority (blue), and Evenly Split (purple). The legend also shows the current delegation: 220 Rep - 211 Dem - 4 Vac. The central part of the page is a map of the United States with states colored according to the legend. On the left side, there is a sidebar with the text 'Empowering Communities through Fair and Transparent Redistricting' and 'Create, Analyze and Share District Maps'. Below this are three buttons: 'PICK A STATE', 'LEARN MORE', and 'SUPPORTERS'. At the bottom left, there is a disclaimer: 'By using this website, you agree to the Terms of Use and Privacy Policy'. A small text prompt near the map says 'Click a state to go to its page.'

Agree to Terms of Use and Privacy and ACCEPT



Terms of Use and Privacy Policy

Our Terms of Use have changed. Note additional language regarding importing data, which is User Content.

You represent that any data you import is either owned by you, or that you have a legal right to import it.

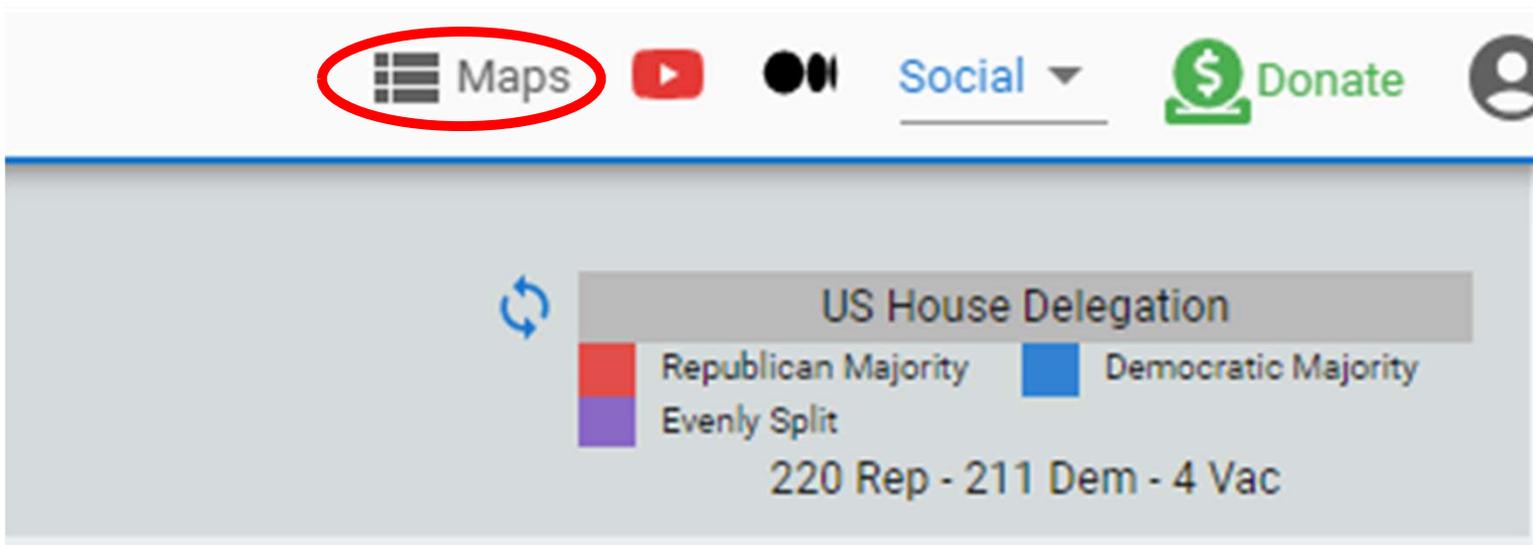
Please read and accept our policies to continue to use the service. Thank you.

I agree to the Terms of Use and Privacy Policy.

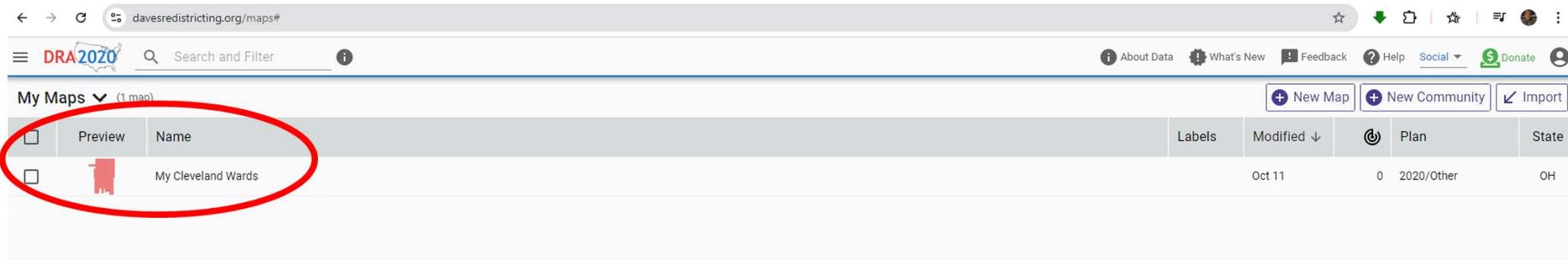
[Terms of Use and Privacy Policy](#)

ACCEPT CANCEL

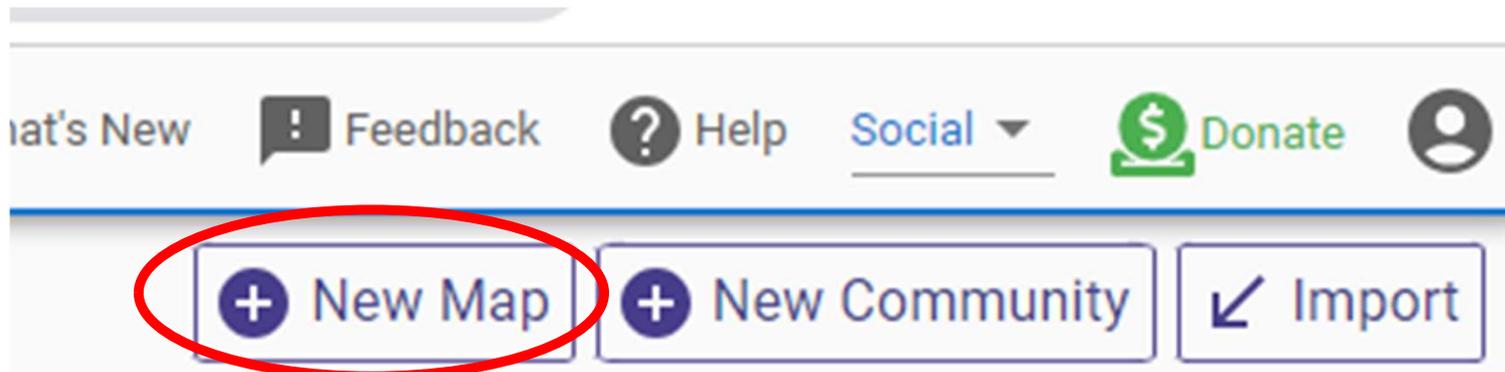
Once you have an account, select Maps in the upper right corner...



Here, I have started a Cleveland ward map so I would just click on it to open a map where I left off.



But when using DRA for the first time you would click on New Map.



My Maps ▾ (23 maps)

[+ New Map](#) [+ New Community](#) [↩ Import](#)

| <input type="checkbox"/> | Preview | Name | Labels | Modified ↓ | 🔁 | Plan | State |
|--------------------------|---------|--------------------------------|--------|------------|-----|---------------|-------|
| <input type="checkbox"/> | | New Area | | 12:24 PM | 0 | 2020/Other | CO |
| <input type="checkbox"/> | | New Map | | Jun 24 | 0 | 2020/Other | CO |
| <input type="checkbox"/> | | Script details | | Jun 24 | 69 | 2020/Other | CO |
| <input type="checkbox"/> | | script map | | Jun 22 | 74 | 2020/Other | CO |
| <input type="checkbox"/> | | part 2 part 2 | | Jun 22 | 0 | 2020/Other | CO |
| <input type="checkbox"/> | | part 2 | | Jun 22 | 100 | 2020/Congress | CO |
| <input type="checkbox"/> | | ? | | Jun 22 | 0 | 2020/Other | CO |
| <input type="checkbox"/> | | OK Latest for Video | | Apr 22 | 0 | 2020/Congress | OK |
| <input type="checkbox"/> | | Copy of AR 116th Congressional | | Apr 22 | 53 | 2010 | AR |
| <input type="checkbox"/> | | 2020 LA Statistics | | Mar 12 | 69 | 2020/Congress | LA |
| <input type="checkbox"/> | | LA Statistics | | Feb 20 | 69 | 2010 | LA |
| <input type="checkbox"/> | | New Map | | Feb 15 | 4 | 2010 | CT |
| <input type="checkbox"/> | | New Map | | Jan 16 | 0 | 2010 | CT |

You will see a window for specifying your map

bel: + New Map + New Community ↩ Import

Map Settings ^

Map Name _____

State _____

Shapes 2020 Precincts

Plan Type Other ▾

Restrict To Entire State

District Count 0 Allow MMD

Districts Have Equal Population Change Palette

Data Selector ▾

APPLY CANCEL

Fill in the window....

Map Name: ?????

State: Ohio

Plan Type: Other

- This will bring up a list of counties or cities
- Click on City
- Find Cleveland and Pick

Change District Count from 17 to 15

Then Apply

The map will then appear...

Map Settings

Map Name My Cleveland Wards

State Ohio

Shapes 2020 Precincts

Plan Type Other

Restrict To Entire State

District Count 15 Allow MMD

Districts Have Equal Population Change Palette

| Label | Color | Target Pop |
|-------|--------------|------------|
| 1 | Red | 786630 |
| 2 | Blue | 786630 |
| 3 | Light Green | 786630 |
| 4 | Cyan | 786630 |
| 5 | Yellow | 786630 |
| 6 | Dark Blue | 786630 |
| 7 | Orange | 786630 |
| 8 | Light Cyan | 786630 |
| 9 | Yellow-Green | 786630 |
| 10 | Dark Blue | 786630 |

Pick How to Restrict the Region for Local Redistricting

Search list

COUNTY CITY MAP

Name ↑

- Clarkstown
- Cleveland
- Clayton
- Cleveland
- Cleveland Heights
- Cleves
- Clifton
- Clinton
- Cloverdale

PICK DISMISS

APPLY CANCEL

Cleveland 1 0 -24,842

County City Precinct Block Tools

District Selector

| District | Population | Deviation |
|----------|------------|-----------|
| Un | 372,624 | 0 |
| 1 | 0 | -24,842 |
| 2 | 0 | -24,842 |
| 3 | 0 | -24,842 |
| 4 | 0 | -24,842 |
| 5 | 0 | -24,842 |
| 6 | 0 | -24,842 |
| 7 | 0 | -24,842 |
| 8 | 0 | -24,842 |
| 9 | 0 | -24,842 |
| 10 | 0 | -24,842 |
| 11 | 0 | -24,842 |
| 12 | 0 | -24,842 |
| 13 | 0 | -24,842 |
| 14 | 0 | -24,842 |
| 15 | 0 | -24,842 |

District Details

Colors

Districts

Map Colors Only Current

Partisan Lean Swing

Demo Custom

Precincts

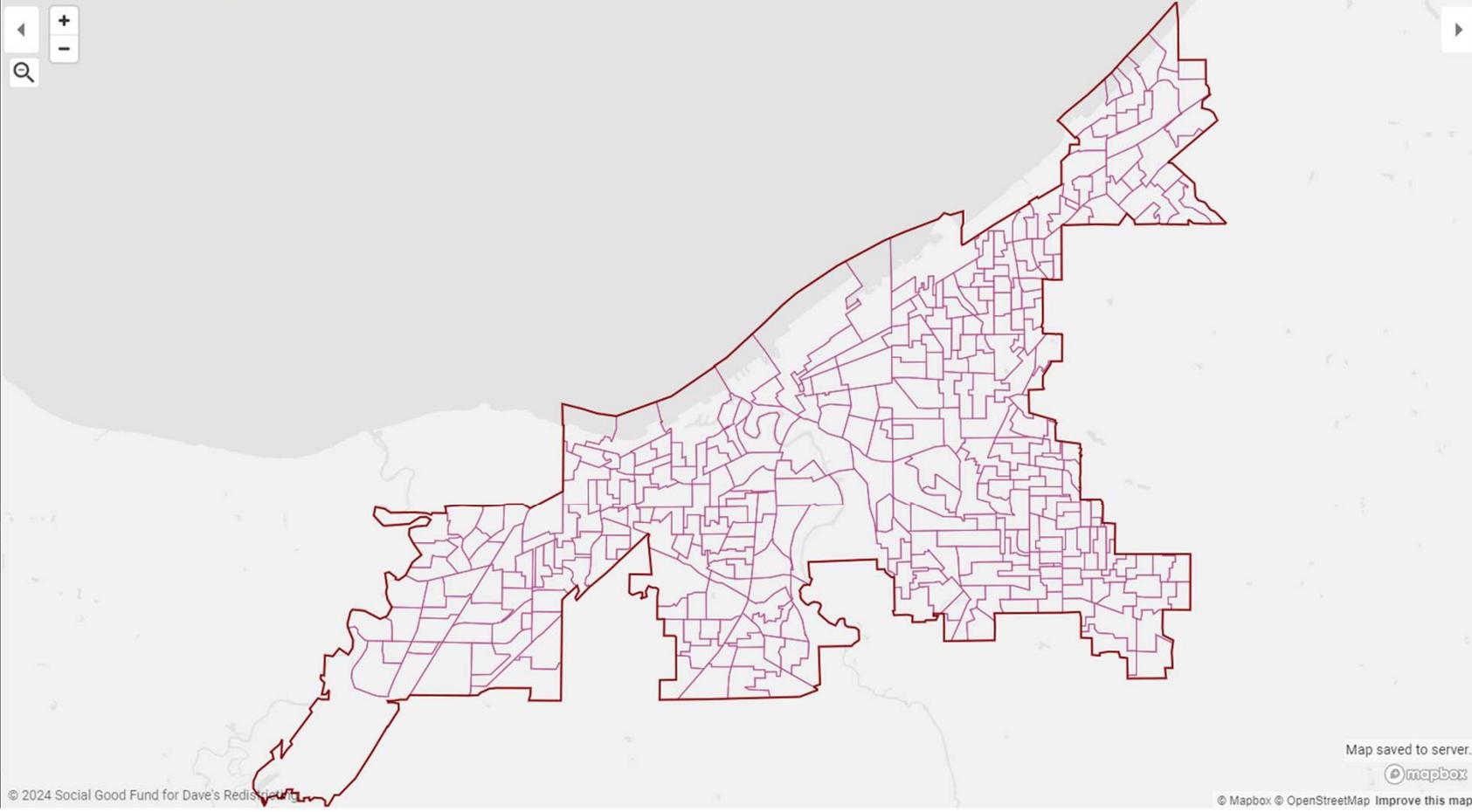
Partisan Lean Swing

Demo Custom

Opacity

Overlays

Custom Overlays



Precinct Details

| Total Population 2020 | | |
|-----------------------|-----|-----|
| | Pop | % |
| Total | 0 | (-) |
| White | 0 | (-) |
| Hispanic | 0 | (-) |
| Black | 0 | (-) |
| Asian | 0 | (-) |
| Native | 0 | (-) |
| Pacific | 0 | (-) |

| Voting Age Pop 2020 | | |
|---------------------|-----|-----|
| | Pop | % |
| Total | 0 | (-) |
| White | 0 | (-) |
| Hispanic | 0 | (-) |
| Black | 0 | (-) |
| Asian | 0 | (-) |
| Native | 0 | (-) |
| Pacific | 0 | (-) |

| Composite 2016-2020 | | |
|---------------------|-------|-----|
| | Votes | % |
| Democratic | 0 | (-) |
| Republican | 0 | (-) |
| Other | 0 | (-) |

District Selector

| District | Population | Deviation |
|----------|------------|-----------|
| Un | 372,624 | 0 |
| 1 | 0 | -24,842 |
| 2 | 0 | -24,842 |
| 3 | 0 | -24,842 |
| 4 | 0 | -24,842 |
| 5 | 0 | -24,842 |
| 6 | 0 | -24,842 |
| 7 | 0 | -24,842 |
| 8 | 0 | -24,842 |
| 9 | 0 | -24,842 |
| 10 | 0 | -24,842 |
| 11 | 0 | -24,842 |
| 12 | 0 | -24,842 |
| 13 | 0 | -24,842 |

District Details

1

Total Population 2020

| Pop | % |
|----------|-------|
| Total | 0 (-) |
| White | 0 (-) |
| Hispanic | 0 (-) |
| Black | 0 (-) |
| Asian | 0 (-) |
| Native | 0 (-) |
| Pacific | 0 (-) |

Voting Age Pop 2020

| Pop | % |
|----------|-------|
| Total | 0 (-) |
| White | 0 (-) |
| Hispanic | 0 (-) |
| Black | 0 (-) |
| Asian | 0 (-) |
| Native | 0 (-) |
| Pacific | 0 (-) |

Composite 2016-2020

| Votes | % |
|------------|-------|
| Democrat | 0 (-) |
| Republican | 0 (-) |
| Other | 0 (-) |

In the **Overlays** window, check the streets and city lines layers.

| | | | | |
|--|----|--|---|---------|
| | 13 | | 0 | -24,842 |
|--|----|--|---|---------|

Colors

Overlays

- Map ▲
- Light lines
- Streets lines
- lines
- City Lines Labels
- Landmarks

Custom Overlays

| | |
|--------------------------|--|
| <input type="checkbox"/> | Dot Map ▼ |
| <input type="checkbox"/> | Labels |
| <input type="checkbox"/> | Labels ▼ |
| <input type="checkbox"/> | Labels |

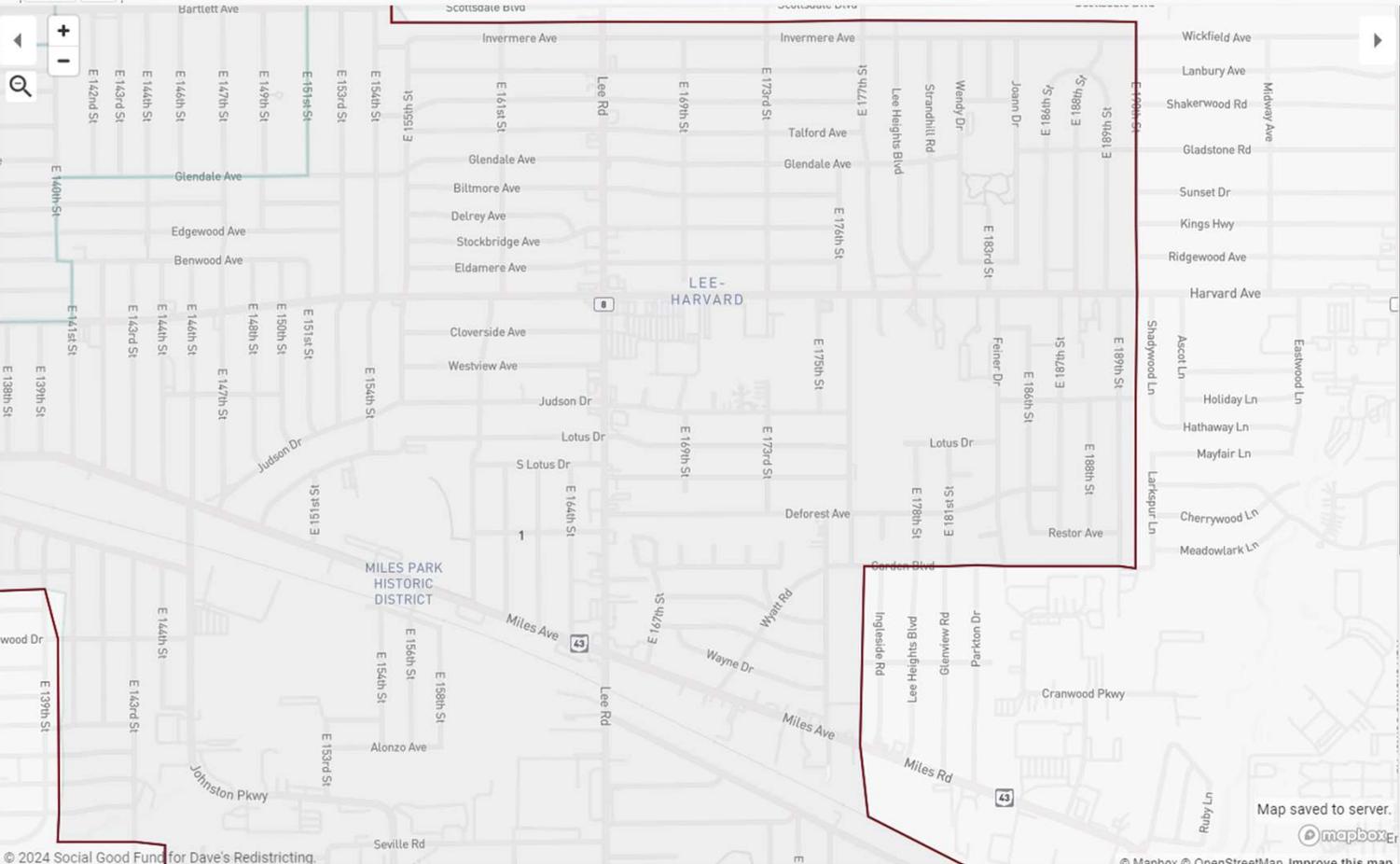
Cleveland 1 0 -24,842

| District | Population | Deviation |
|----------|------------|-----------|
| Un | 372,624 | 0 |
| 1 | 0 | -24,842 |
| 2 | 0 | -24,842 |
| 3 | 0 | -24,842 |
| 4 | 0 | -24,842 |
| 5 | 0 | -24,842 |
| 6 | 0 | -24,842 |
| 7 | 0 | -24,842 |
| 8 | 0 | -24,842 |
| 9 | 0 | -24,842 |
| 10 | 0 | -24,842 |
| 11 | 0 | -24,842 |
| 12 | 0 | -24,842 |
| 13 | 0 | -24,842 |

| Total Population 2020 | |
|-----------------------|-------|
| Pop | % |
| Total | 0 (-) |
| White | 0 (-) |
| Hispanic | 0 (-) |
| Black | 0 (-) |
| Asian | 0 (-) |
| Native | 0 (-) |
| Pacific | 0 (-) |

| Voting Age Pop 2020 | |
|---------------------|-------|
| Pop | % |
| Total | 0 (-) |
| White | 0 (-) |
| Hispanic | 0 (-) |
| Black | 0 (-) |
| Asian | 0 (-) |
| Native | 0 (-) |
| Pacific | 0 (-) |

| Composite 2016-2020 | |
|---------------------|-------|
| Votes | % |
| Democratic | 0 (-) |
| Republican | 0 (-) |
| Other | 0 (-) |



| Total Population 2020 | |
|-----------------------|-------|
| Pop | % |
| Total | 0 (-) |
| White | 0 (-) |
| Hispanic | 0 (-) |
| Black | 0 (-) |
| Asian | 0 (-) |
| Native | 0 (-) |
| Pacific | 0 (-) |

| Voting Age Pop 2020 | |
|---------------------|-------|
| Pop | % |
| Total | 0 (-) |
| White | 0 (-) |
| Hispanic | 0 (-) |
| Black | 0 (-) |
| Asian | 0 (-) |
| Native | 0 (-) |
| Pacific | 0 (-) |

| Composite 2016-2020 | |
|---------------------|-------|
| Votes | % |
| Democratic | 0 (-) |
| Republican | 0 (-) |
| Other | 0 (-) |

Colors

Overlays

Map Dot Map

District Lines Labels

Precinct Lines Labels

County Lines Labels

City Lines Labels

Landmarks

Custom Overlays

Overlays

Wards_2014_from_blo

The goal is to assign **Precincts or Blocks** (with their populations) to the 15 wards such that all the wards are within 5% of the average ward population (24,842). Thus between **23,600** and **26, 084**).

So, pick **Precinct or Block** as the building unit for the wards.

When precincts or blocks are assigned to wards the populations are shown in the District Selector window.

The specific precinct or block population data are shown in the Precinct/Block Details window on the right as you hover of areas.

The ward's population changes as you add either precincts or blocks.

The "Deviation" should be between **+1,242** and **-1,242**.

Starting with precincts is faster, but then turning to blocks to add or "erase" population produces more specific totals for the wards.

The screenshot shows the DRA2020 interface for Cleveland. At the top, it displays 'Cleveland' and a menu icon. Below this is a 'District Selector' table with columns for District, Population, and Deviation. A red circle highlights the 'District Selector' header, and another red circle highlights the row for District 1, which has a population of 12,882 and a deviation of -11,960. A blue arrow points from this row to the 'Precinct/Block Details' window on the right. The 'Precinct/Block Details' window shows demographic data for District 1, including Total Population 2020 (12,882), Voting Age Pop 2020 (9,580), and Composite 2016-2020 (Total: 2,105 White, 486 Hispanic, 6,905 Black, 54 Asian, 173 Native, 7 Pacific). A map in the center shows the geographic area with a red highlight on a specific precinct. The 'Precinct Details' window on the far right shows demographic data for the selected precinct, including Total Population 2020 (0), Voting Age Pop 2020 (0), and Composite 2016-2020 (Total: 0 Democratic, 0 Republican, 0 Other).

| District | Population | Deviation |
|----------|------------|-----------|
| Un | 359,742 | 0 |
| 1 | 12,882 | -11,960 |
| 2 | 0 | -24,842 |
| 3 | 0 | -24,842 |
| 4 | 0 | -24,842 |
| 5 | 0 | -24,842 |
| 6 | 0 | -24,842 |
| 7 | 0 | -24,842 |
| 8 | 0 | -24,842 |
| 9 | 0 | -24,842 |
| 10 | 0 | -24,842 |
| 11 | 0 | -24,842 |
| 12 | 0 | -24,842 |
| 13 | 0 | -24,842 |

| District Details | | |
|-----------------------|--------|--------|
| 1 | | |
| Total Population 2020 | | |
| Pop | % | |
| Total | 12,882 | 100.0% |
| White | 2,397 | 18.6% |
| Hispanic | 709 | 5.5% |
| Black | 9,676 | 75.1% |
| Asian | 89 | 0.7% |
| Native | 225 | 1.7% |
| Pacific | 12 | 0.1% |
| Voting Age Pop 2020 | | |
| Pop | % | |
| Total | 9,580 | 100.0% |
| White | 2,105 | 22.0% |
| Hispanic | 486 | 5.1% |
| Black | 6,905 | 72.1% |
| Asian | 54 | 0.6% |
| Native | 173 | 1.8% |
| Pacific | 7 | 0.1% |
| Composite 2016-2020 | | |
| Votes | % | |
| Democratic | 0 | (-) |
| Republican | 0 | (-) |
| Other | 0 | (-) |

| Precinct Details | | |
|-----------------------|---|-----|
| Total Population 2020 | | |
| Pop | % | |
| Total | 0 | (-) |
| White | 0 | (-) |
| Hispanic | 0 | (-) |
| Black | 0 | (-) |
| Asian | 0 | (-) |
| Native | 0 | (-) |
| Pacific | 0 | (-) |
| Voting Age Pop 2020 | | |
| Pop | % | |
| Total | 0 | (-) |
| White | 0 | (-) |
| Hispanic | 0 | (-) |
| Black | 0 | (-) |
| Asian | 0 | (-) |
| Native | 0 | (-) |
| Pacific | 0 | (-) |
| Composite 2016-2020 | | |
| Votes | % | |
| Democratic | 0 | (-) |
| Republican | 0 | (-) |
| Other | 0 | (-) |

The paint brush allows you to “paint” over the area of precincts or blocks that you want to add to a specific ward.

The screenshot shows the DRA 2020 interface for Cleveland. On the left, a 'District Selector' table lists districts 1 through 4, each with a colored circle icon. District 1 is highlighted with a red circle. The table has columns for District, Population, and Deviation. The values for District 1 are 1, 0, and -24,842 respectively. The main interface features a toolbar with various tools, including a paint brush icon which is circled in red. Other tools include a location pin, a hand, a selection tool, and a zoom tool. The interface also includes a 'Tools' dropdown menu and a 'Tools' label.

| District | Population | Deviation |
|----------|------------|-----------|
| Un | 372,624 | 0 |
| 1 | 0 | -24,842 |
| 2 | 0 | -24,842 |
| 3 | 0 | -24,842 |
| 4 | 0 | -24,842 |

Zoom into the area you want to add to that ward...

Select a ward number. ...I started with Ward 1 in the SE part of the city...

and start “brushing the area of blocks to be assigned to the ward....

Note the population being added...

Note the color in the ward corresponds to the color in the table.

The screenshot displays a GIS application interface for Cleveland. On the left, the 'District Selector' table lists 13 districts with their respective colors and population deviations. The 'District Details' panel for District 1 is highlighted with a red circle, showing demographic data for the 2020 population and 2016-2020 composite. The map on the right shows a red brush highlighting a specific area in the SE part of the city, corresponding to Ward 1. The map includes street names and district labels like 'LEE-HARVARD' and 'MILES PARK HISTORIC DISTRICT'.

| District | Population | Deviation |
|----------|------------|-----------|
| 1 | 2,696 | -22,146 |
| 2 | 0 | -24,842 |
| 3 | 0 | -24,842 |
| 4 | 0 | -24,842 |
| 5 | 0 | -24,842 |
| 6 | 0 | -24,842 |
| 7 | 0 | -24,842 |
| 8 | 0 | -24,842 |
| 9 | 0 | -24,842 |
| 10 | 0 | -24,842 |
| 11 | 0 | -24,842 |
| 12 | 0 | -24,842 |
| 13 | 0 | -24,842 |

| Total Population 2020 | |
|-----------------------|--------------|
| Pop | % |
| Total | 2,696 100.0% |
| White | 27 1.0% |
| Hispanic | 36 1.3% |
| Black | 2,637 97.8% |
| Asian | 14 0.5% |
| Native | 31 1.1% |
| Pacific | 2 0.1% |

| Voting Age Pop 2020 | |
|---------------------|--------------|
| Pop | % |
| Total | 2,212 100.0% |
| White | 20 0.9% |
| Hispanic | 25 1.1% |
| Black | 2,166 97.9% |
| Asian | 10 0.5% |
| Native | 20 0.9% |
| Pacific | 2 0.1% |

| Composite 2016-2020 | |
|---------------------|-------------|
| Votes | % |
| Democratic | 1,400 95.1% |
| Republican | 57 3.9% |
| Other | 15 1.0% |

Keep adding blocks until the population is between 23,600 and 26,084.

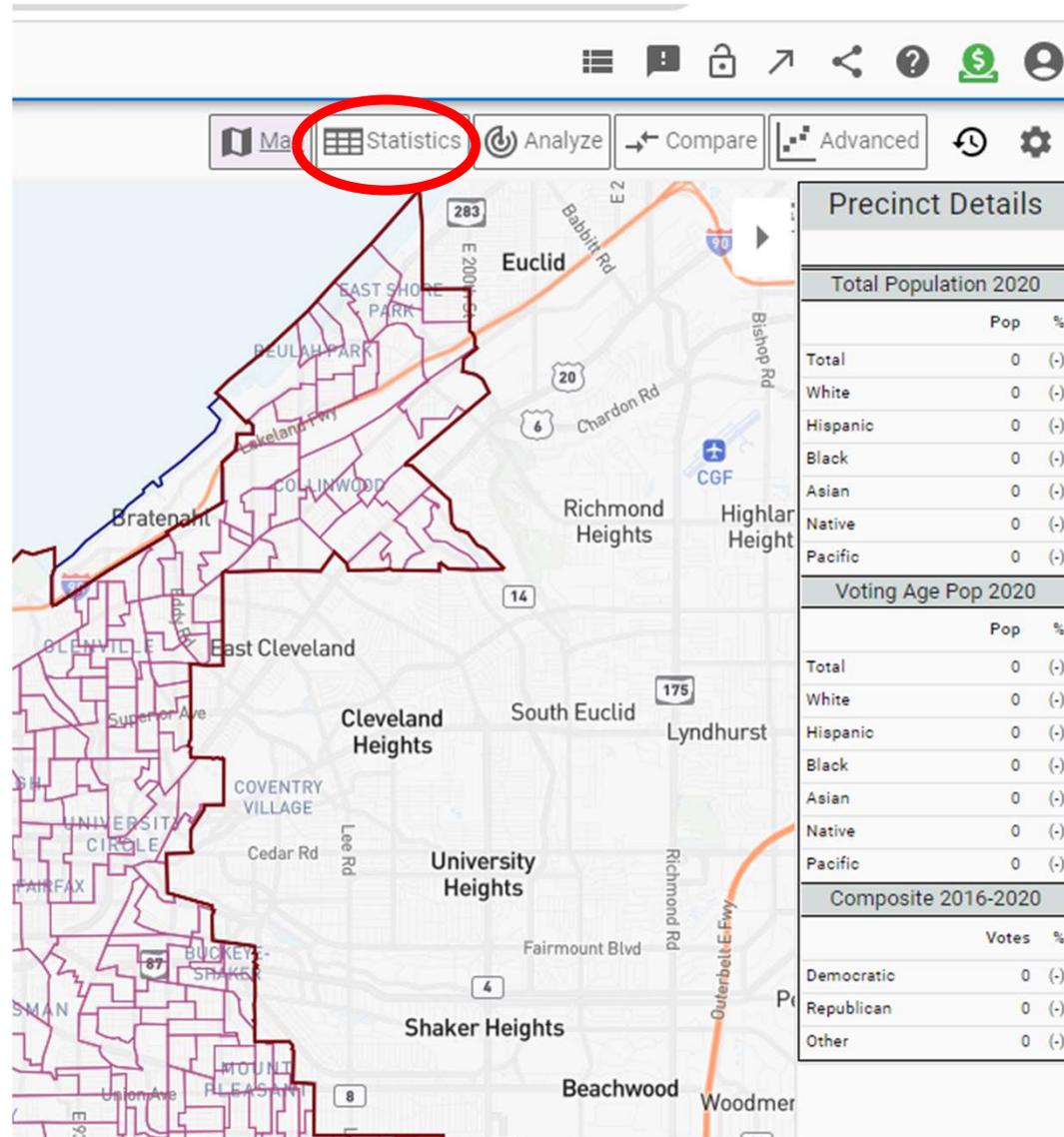
(The “Deviation” in the District Selector window should be between +1,242 and -1,242.)

Then move to another area and start building the next ward until you are done.

Or come back to it later to finish.

Note the Statistics tab.

Seen on the next slide, it shows the population and previous partisan voting results based on the current ward plan you are working on.



It shows the population and previous partisan voting results based on the current ward plan you are working on.

| Population | | Shapes | | Partisan Lean | | | Demographics (VAP) | |
|------------|---------------|-----------|---|---------------|---------------|---------------|--------------------|--------------|
| ID ↑ | Total | +/- | ⊞ | ⊞ | Dem | Rep | Oth | Pacific |
| Un | 369,928 | | | | 81.62% | 16.37% | 2.02% | 0.17% |
| 1 | 2,696 | -89.15% | ✓ | ✓ | 95.11% | 3.87% | 1.02% | 0.09% |
| 2 | 0 | 100% | ✓ | ✓ | 0% | 0% | 0% | 0% |
| 3 | 0 | 100% | ✓ | ✓ | 0% | 0% | 0% | 0% |
| 4 | 0 | 100% | ✓ | ✓ | 0% | 0% | 0% | 0% |
| 5 | 0 | 100% | ✓ | ✓ | 0% | 0% | 0% | 0% |
| 6 | 0 | 100% | ✓ | ✓ | 0% | 0% | 0% | 0% |
| 7 | 0 | 100% | ✓ | ✓ | 0% | 0% | 0% | 0% |
| 8 | 0 | 100% | ✓ | ✓ | 0% | 0% | 0% | 0% |
| 9 | 0 | 100% | ✓ | ✓ | 0% | 0% | 0% | 0% |
| 10 | 0 | 100% | ✓ | ✓ | 0% | 0% | 0% | 0% |
| 11 | 0 | 100% | ✓ | ✓ | 0% | 0% | 0% | 0% |
| 12 | 0 | 100% | ✓ | ✓ | 0% | 0% | 0% | 0% |
| 13 | 0 | 100% | ✓ | ✓ | 0% | 0% | 0% | 0% |
| 14 | 0 | 100% | ✓ | ✓ | 0% | 0% | 0% | 0% |
| 15 | 0 | 100% | ✓ | ✓ | 0% | 0% | 0% | 0% |
| | 24,842 | 0% | ✓ | ✓ | 81.78% | 16.22% | 2.01% | 0.17% |

The populations on the left side indicate whether the wards are within the + or – of population range.

All wards must include contiguous blocks. The left column under the “Shapes” part of the table indicates whether any of the wards are not contiguous.

You can download the data if you like.

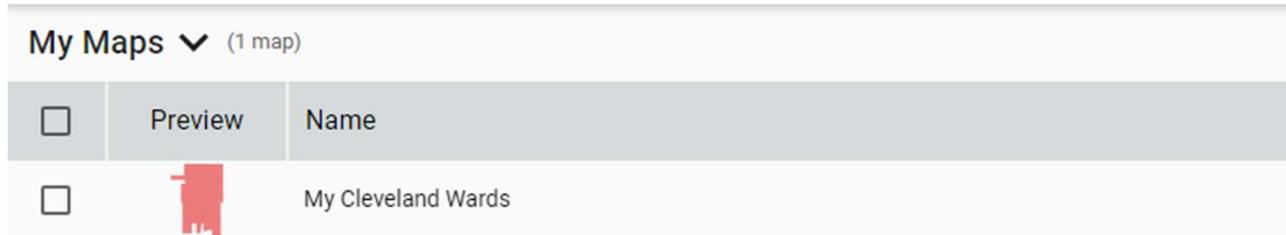
Return to the map and continue assigning blocks until you feel you have a plan to submit for review.

Notes

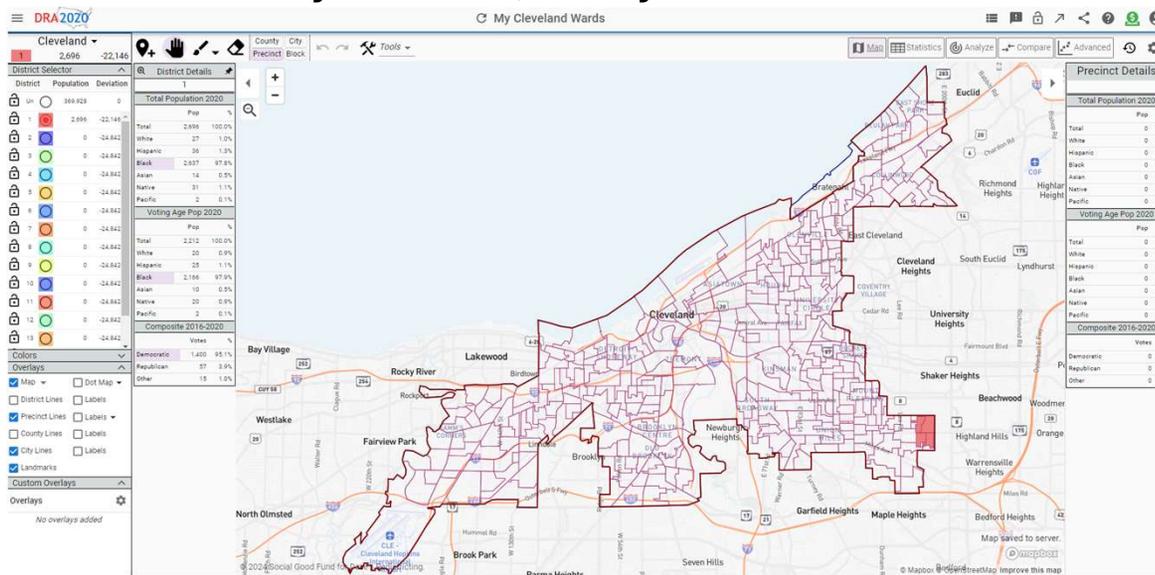
- Precinct Shapes: Census 2020
- Total Population: Census 2020
- Voting Age Population: Census 2020
- Election Result: Composite of 2016 Pres, 2020 Pres, 2016 Sen, 2018 Sen, 2018 Gov, 2018 AG
- Several precincts are unassigned including: 39035018BEW, 39035018BEV, 39035018BGN, 39035018BGM, 39035018BEZ, 39035018BES, 39035018BEY, 39035018BEB, 39035018BEC, and 39035018BED.
- Districts 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, and 15 are empty.

If you want to stop and return later, log out.

Logging in with your account brings you to the map(s) you previously worked on.



Pick the one you want, and you will be taken to where you last left off.



Once all 15 wards are populated in the appropriate range of populations you should save the map and copy the web link to it...

...and email it to maps@clevelandcitycouncil.org so that it can be viewed and evaluated by the public and Council.

Make sure you have done the following:

1. Completed a plan for the entire city. Incomplete plans cannot be adequately evaluated since adding more wards to it may require changes to what you have created.
2. Maps in DRA should be locked so that no one can change them.
3. Populations must be within the accepted + or – 5% range around the average ward population, i.e., between 23,600 and 26,084.
4. Consider racial and Hispanic populations. The federal Voting Rights Act of 1964 requires that where possible, minority populations have the ability to elect a representative of their choice. In Cleveland there are significant numbers of **African Americans** and **Hispanic/Latinos** that should have the chance to elect representatives. Other racial or ethnic minorities, though significantly smaller in number in the city, should not be ignored in seeking some representation for them if possible.
5. The plan's web link should be sent to the following email address:
maps@clevelandcitycouncil.org
6. The deadline for submittal is **Sunday, November 3 at 11:59 pm.**



Resources: Tutorial Videos

<https://www.youtube.com/playlist?list=PL4AsBciFUEivM1isG4XOcB6CZ1wFRbisC>

Specific: “How to create a map”

https://www.youtube.com/watch?v=SfHFkx7E4lg&list=PL4AsBciFUEivM1isG4XOcB6CZ1wFRbisC&index=2&ab_channel=Dave%27sRedistricting

Specific: Local Redistricting

https://www.youtube.com/watch?v=TGu8jiFltnA&list=PL4AsBciFUEivM1isG4XOcB6CZ1wFRbisC&index=11&ab_channel=Dave%27sRedistricting

Another and good one on Local Redistricting

https://www.youtube.com/watch?v=mfk41dLJlos&ab_channel=RedistrictingDataHub

For more, web search for “Dave’s Redistricting App tutorials”.

Questions and Discussion