**Mapping Access to Polling Places**

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1. Find a list of polling places for general elections from your county website.
   1. Ex: [Muscatine County](https://www.co.muscatine.ia.us/DocumentCenter/View/59/Muscatine-County-General-Election-Polling-Locations-PDF?bidId=)
2. Open up a new map in ArcGIS online.
3. Click on “Add.” Then select “Add Map Notes” from the dropdown menu.
   1. Title your layer “Polling Places.”
4. Use the search bar in the top-right corner to locate polling places.
5. When you’re ready to mark the location, click on “Stickpin” in the edit menu on the left. Then click on the appropriate location in order to place the pin.
   1. Title the pin according to precinct/ward (i.e. “Precinct 1”).
   2. Add any other additional information you’d like in the description box.
   3. If you’d like to change the pin, click on “Chance Symbol.”
   4. Click “Close” when you are finished. You can always click on a pin to go back and make further changes.
6. Repeat step #5 for all polling places.
7. Click on “Add.” Then select “Browse Living Atlas Layers” from the dropdown menu. Add the following layers to your map by selecting them, then clicking on “Add to Map.”
   1. 2018 USA Population Density
   2. 2018 USA Average Household Income
   3. 2018 USA Transportation Fuel Spending
   4. USA Diversity Index
   5. CDC’s Social Vulnerability Index (SVI) - 2014 overall SVI, census tract level
8. Next you will add a layer with the boundaries of your community’s precincts. In another tab, go to <https://sos.iowa.gov/shapefiles/City%20Precincts/> and download the .zip file for your community or your county.
9. In ArcGIS, click on “Add.” Then select “Add Layer from File” from the dropdown menu.
   1. Click on “Choose File” and select the .zip file you just downloaded. Select “Keep original features.” Then click “Import Layer.”
10. Next you will set up the viewing preferences for your layer.
    1. For “1: Choose an attribute to show,” it should default to “POPULATION.”
    2. For “2: Select a drawing style,” scroll down to “Types: Unique symbols” and click “Options.”
       1. Click on each of the squares to “change symbol.” Repeat this step as needed until you’ve changed all the squares. We are going to set up your map to be transparent with black outlines.
          1. For “FILL” select “no fill” (which is the white box with a red line through it.
          2. For “OUTLINE” select the black square.
          3. Uncheck the box marked “Adjust outline automatically.”
          4. Change the transparency to 50%.
          5. Click “OK.”
       2. Once you’ve changed all your boxes, click on “OK.” at the bottom. The click on “DONE.” The precinct layer will be added to your map. It will be titled by the name of your city.
11. Click the blue floppy disk and then → “Save As” to save your work.

**Questions**

1. Is access to polling places in your community equal? What is the standard by which we should measure fair and equal access to polling places?

* Population density
* Household income
* Access to transportation
* Level of education
* Race and/or ethnicity

1. Where should polling places be located within precincts? How many voting machines are necessary at each polling place? How much staff?
2. What factors need to be taken into consideration that might not be accounted for on the map?

* Time to vote
* Voter registration (times/locations)
* Voter ID laws
* Learning about candidates
* Understanding ballot use
* …?

**Additional Resources for Classroom Discussion**

John Whitesides. “Polling places become battleground in U.S. voting rights fight.” *Reuters*. 16 Sept 2016. [[Online Article](https://www.reuters.com/article/us-usa-election-vote-precincts-insight-idUSKCN11M0WY)]

Michael Wines. “Critics Say North Carolina Is Curbing Black Vote. Again.” *The New York Times*. 30 Aug 2016. [[Online Article](https://www.nytimes.com/2016/08/31/us/politics/election-rules-north-carolina.html)]

Fernanda Santos. “Angry Arizona Voters Demand: Why Such Long Lines at Polling Sites?” *The New York Times*. 24 Mar 2016. [[Online Article](https://www.nytimes.com/2016/03/25/us/angry-arizona-voters-demand-why-such-long-lines-at-polling-sites.html)]

Santiago Olivella. “Other Frontiers: Voting Precincts and Associated Voting Costs.” *Metric Geometry of Redistricting Workshop*. [[Online Presentation](https://sites.tufts.edu/gerrymandr/files/2018/03/Olivella.pdf)]

