**Project team:** Angela Boardman, Jenny Cain, Paul Swanson, Micah Vandersteen

Our team is proposing an interactive, map-based dashboard showing the boundaries of Minnesota’s 300+ public school districts. Using data from the National Center for Education Statistics (NCES), the Minnesota Department of Education, and the U.S. Census we will display various data points by district, for example

* District size
* Per-pupil expenditures
* Reading proficiency scores
* Teacher salaries within Minnesota
* Median household income

Planned components for the dashboard include

* A Web page incorporating JavaScript and Leaflet
* Interactive map layer controls
* SQL database to hold our source data
* A Python Flask–powered RESTful API for users to access our data
* *We have not yet identified a new JavaScript library to incorporate in our dashboard.*

In an aside from the map we would like to include some national average comparisons for education spending and teacher salaries. The data sources we have identified thus far cover 2018- 2019. The school district boundaries dataset can be joined with the data from the Minnesota Department of Education on a shared district ID.

**Data sources:**

* National Center for Education Statistics (NCES). *School District Boundaries-Current*. Downloaded 4/2/2020 from <https://data-nces.opendata.arcgis.com/datasets/school-district-boundaries-current/data?where=STATEFP%20%3D%20%2727%27>.

Filtered by FIPS code for Minnesota districts only; 340 records. Converted file from CSV to JSON. More information on the dataset is available at

<https://nces.ed.gov/programs/edge/Geographic/DistrictBoundaries>.

* Created CSV with the following data for each district.

Per Pupil Expenditures – calculated by dividing general fund expenditures by average daily membership

* + 2018-2019 General Fund Expenditures (Minnesota Department of Education (MDE). General Fund unreserved Balance for FY 2013-Present. Downloaded 4/4/2020 from <https://public.education.mn.gov/MDEAnalytics/DataTopic.jsp?TOPICID=43>.)
  + 2019 Average Daily Membership (Minnesota Department of Education (MDE). 2019 Average Daily Membership. Downloaded 4/4/2020 from <https://public.education.mn.gov/MDEAnalytics/DataTopic.jsp?TOPICID=2>.)
* 2019 Average Teacher Salary (Minnesota Professional Educator Licensing and Standards Board (PELSB). 2019 Licensed Average Salary by District. Downloaded 4/4/2020 from <https://public.education.mn.gov/MDEAnalytics/PELSB.jsp?TOPICID=437>.)
* 2019 Percent Proficient in Reading (Minnesota Department of Education (MDE). 2019 Reading MCA MTAS Results. Downloaded 4/4/2020 from <https://public.education.mn.gov/MDEAnalytics/DataTopic.jsp?TOPICID=1>.)
* 2018-Minnesota Median Household Income Data. American Community Survey Table S1901. Retrieved from <https://data.census.gov/cedsci/table?q=Minnesota-income.gov>

Mock-up Visualization

