

Literature Review and Research Questions

The dataset I have chosen to evaluate is ProPublica's "Alternative Schools in U.S. School Districts." This dataset consists of school district level data from every state comparing public and alternative schools. The data was collected from a variety of federal and national sources, including but not limited to the Common Core of Data (CCD), Civil Rights Data Collection (CRCD), and requests made to state and local officials. Since charter schools may not be in some of these systems, the Stanford Education Data Archive (SEDA) was used to establish where charter schools should be assigned geographically.

There are nearly 2,000 school districts where data has been collected for the 2013-2014 school year. There are 28 columns of information on each school district. A handful are used for geographic information and identification. There are several columns from which I can draw questions from. The key columns for public and private districts are number of students, State, per capita enrollment, per pupil funding, counselor, student teacher ratio, first/second year teacher ratio, percent of teachers absent more than ten days, and four year adjusted graduation rate. Importantly, there is also a percent difference column for almost all these columns between geographic public and private districts. It should also be noted that this dataset is not as complete as it would be ideally. Many of the sources did not have the proper information available and because of that, nearly every school district is missing values. This will not factor into what questions I have but may impact my ability to answer them.

How does the per pupil state and local funding differ between private and public schools?

This question will help frame the rest of my analysis. The simplest question is how does the funding differ? Based on this, I can adjust and create new questions to answer.

How does the state of the school district affect per pupil state and local funding?

This question should give helpful information about what to expect for a state's funding. Between all states, there seems to be a sizeable variety in per pupil funding. Answering this question will also give me information about what to expect on a per state basis.

How does the percentage point growth enrollment in alternative schools affect the per pupil state and local funding? Does it decrease public school per pupil funding?

This question stems from looking at the data and seeing how the enrollment of private schools has grown considerably since 2000, which is also a datapoint, compared to 2013.

How does the per pupil state and local funding affect the student teacher ratio?

How does the state, per pupil funding and student teacher ratio affect graduation rates?

These past two questions aim to find some of the fundamental trends of the data. I selected the top three factors I hypothesize to be important. First, I will see how each of the individually affect graduation rates, then see how they perform in combination. The only hindrance will be that many of the school districts do not have adjusted graduation rates.

References

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