

## **Problem Statement Formation**

How do alternative schools compare to traditional public schools in metrics such as student-to-teacher ratios, school funding, teacher experience level, teacher absenteeism, access to counseling, and graduation rates?

## **Context**

Alternative schools are defined as schools that offer non-traditional learning experiences. They have been typically established to address the needs of students with behavioral issues that traditional public schools do not have the tools to handle. During the 2013-2014 school year, almost 2,000 school districts in the US had alternative schools.

A medium sized urban school district in the US is considering opening alternative schools as a way to help students being left behind by the traditional school model. As part of their research into this model, they want to better understand the landscape and metrics of alternative schools vs non-alternative schools in districts across the United States as well as identify school districts with the best success rates for alternative schools to further research and potentially adopt their models.

## **Criteria For Success**

By the end of next month, this analysis will determine how alternative and non-alternative schools compare and which school districts, if any, have had the most success with alternative schools.

The deliverables for this project, included in a GitHub repository, are the work for each step - Data Wrangling, EDA, Pre-processing and Training Data Development, Modeling, and Documentation (slide deck and project report).

## **Scope of Solution Space**

The analysis will compare alternative schools to non-alternative schools within nearly 2,000 districts in the US in the areas of student-to-teacher ratios, school funding, teacher experience level, teacher absenteeism, access to counseling, and graduation rates.

## **Constraints**

- The ProPublica data set uses federal data which relies on a chain of reports from states and school districts and thus is only as accurate as states' record-keeping and reporting allows.

- Some districts operate alternative schools as part of a regular school instead of a stand-alone alternative school and are not tracked in this data.

**Stakeholders**

School board members for the medium sized urban school district in the US

**Data Sources**

The data set is available from a ProPublica analysis of U.S. Department of Education data, released in March 2017. ProPublica created the file by combining and summarizing a number of publicly available school-level data sets, primarily from the 2013-2014 school year but does not contain information about individual schools.

The data set details information about the number of students enrolled in alternative schools as well as comparative metrics between alternative and non-alternative schools at the district level including student-to-teacher ratios, school funding, teacher experience level, teacher absenteeism, access to counseling, and graduation rates.