

Executive Summary

Through an analysis of academic year 2020-2021 data from the New York State Educational Data site, we created a model using teacher experience, teacher credentials, chronic absentee rate, and per-pupil funding, to predict individual school success, as measured by a composite score on selected elementary and secondary assessment exams.

Our project serves state and local legislators who determine public and charter school policy, school building and district leaders, who are primarily responsible for policy implementation, as well as parents and teachers.

We created both linear and non-linear models to study this relationship among all variables. Based on these initial models, we find that the selected variables are not sufficient to accurately predict school success. The r-squared value of approximately .4 for our non-linear models indicate that our selected features do predict up to 40% of the variance of the data. Of the features studied, our model shows that chronic absenteeism most accurately predicts school success, with a negative correlation.

Our analysis assists legislators in constructing effective policy by isolating some variables that contribute to school success. Given the breadth of data available on the NYSED BEDS site, our model should be further developed to determine how other features interact to predict other measures of school success, such as graduation rates and college enrollment.

A next step is to refine our work toward a more nuanced analysis. One such refinement might predict whether any of the NYSED reported school features predict how different demographics are served by New York schools. Another analysis might determine whether selected features might predict different outcomes for charter schools than for other public schools.

*In both your slides and executive summary, address your key stakeholders and KPIs. Emphasize the **value** of the results just as much as the results themselves. Every project's stakeholders and KPIs will be different, but they should be clearly defined and explained. In other words, in addition to the questions that your slide deck should answer (see above, sent on 11/20), you should also include "**Who is your project helping? How?**"*