New York School Success

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The code to reproduce this report is available on Github.

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A Appendix: Descriptions of features

Below are the 31 features we used for analysis. Words written in parentheses represent variable names. Unless noted otherwise, all variables are continuous.

Schools - School Standing - Overall Status (OVERALL_STATUS): The status of the school: Good Standing, Targeted Support and Improvement, Comprehensive Support and Improvement, Closing/Closing School. (Categorical variable) - Needs index (NEEDS_INDEX): Need-to-Resource Capacity Category. The need-to-resource capacity (N/RC) index is a measure of a district's ability to meet the needs of its students with local resources.

- Expenditures
 - Federal expenditures (PER_FEDERAL_EXP): Per pupil expenditures using federal funds
 - State and local expenditures (PER_STATE_LOCAL_EXP): Per pupil expenditures using state and local funds
- Staff
 - Number of teachers (NUM_TEACH): Number of teachers as reported in the Student Information Repository System (SIRS), used for determining the percent of inexperienced teachers
 - Number of principals (NUM_PRINC): Number of principals as reported in the Student Information Repository System (SIRS), used for determining the percent of inexperienced principals
 - Number of counselors (NUM COUNSELORS): Total number of school counselors
 - Number of social workers (NUM SOCIAL): Total number of social workers
 - Percent teacher inexperience (PER_TEACH_INEXP): Percent of teachers with fewer than four years of experience in their positions
 - Percent principal inexperience (PER_PRINC_INEXP): Percent of principals with fewer than four years of experience in their positions
 - Teachers teaching out of certification (PER_OUT_CERT): Percent of teachers teaching out of their subject/field of certification

Students - Characteristics - Attendance rate (ATTENDANCE_RATE): Annual attendance rate - Percent suspended (PER_SUSPENSIONS): Percent of students suspended - Percent reduced lunch (PER_REDUCED_LUNCH): Percentage of enrolled students eligible for reduced-price lunch - Percent free lunch (PER_FREE_LUNCH): Percentage of enrolled students eligible for free lunch - Demographics - Percent female (PER_FEMALE): Percent of female students (K-12) - Percent male (PER_MALE): Percent of male students (K-12) - Percent American Indian (PER_AM_IND): Percent of American Indian or Alaska Native students (K-12) - Percent Black (PER BLACK): Percent of Black or African American students (K-12) - Percent Asian (PER ASIAN): Percent of Asian or Native Hawaiian/Other Pacific Islander students (K-12) - Percent Hispanic (PER HISP): Percent of Hispanic or Latino students (K-12) - Percent White (PER WHITE): Percent of White students (K-12) - Percent Multi (PER_MULTI): Percent of Multiracial students (K-12) - Percent English language learners (PER_ELL): Percent of English Language Learners (K-12) - Percent with disabilities (PER SWD): Percent of students with disabilities (K-12) - Percent economically disadvantaged (PER_ECDIS): Percent of economically disadvantaged students (K-12) - Percent migrants (PER MIGRANT): Percentage of migrant students (K-12) - Percent homeless (PER_HOMELESS): Percent of homeless students (K-12) - Percent foster care (PER_FOSTER): Percent of students in foster care (K-12) - Percent parent armed forces (PER ARMED): Percent of students with a parent on active duty in the Armed Forces (K-12)