$(In)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$

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RUTGERS Graduate School of Education

STATE INDICATORS DATABASE

USER'S GUIDE AND CODEBOOK

VERSION 2 (RELEASED 2020)

This School Finance Indicators Database system is a collection of data and analyses measuring the adequacy and fairness of K-12 education finance and resources. The purpose is to provide a single source of data for policymakers, the public, and researchers working in the fields of education finance and economics.

This **State Indicators Database** is the primary public product of the School Finance Indicators Database. It contains a set of state-level equity, spending, salary, staffing, and student outcome measures for each state from 1993 to 2017 (not all variables are available in all years). These indicators are generated in large part using data from our District Indicators Database, available separately by request, including indicators constructed using American Community Survey Data, the Stanford Education Data Archive, the Schools and Staffing Survey, and other sources described herein. This dataset and its documentation are presented in a manner that is accessible to researchers and non-researchers, and the indicators are designed to be relevant to policy.

The full dataset, as well as reports and briefs using the data, are available at: http://schoolfinancedata.org.

SECTIONS

1. **Data use agreement**
2. **Data sources**: a list of data sources used in the School Finance Indicators Database
3. **Guide to variables**: a non-technical description of the variables included in each of 13 types of state indicators, and how they might be used and interpreted
4. **List of variables**: a list of all variables (about 130) in the State Indicators Database, the years in which they are available, special notes, and technical details

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DATA USE AGREEMENT

The School Finance Indicators Database, as well as the contents of this report, are the sole property of the authors. Public use of the datasets and results is encouraged, with proper attribution. Any alternative use of the data, models, or methods of the SFID must be approved by the authors.

You agree not to use the data sets for commercial advantage, or in the course of for-profit activities. Commercial entities wishing to use this Service should contact Rutgers University's Graduate School of Education at this link: http://gse.rutgers.edu/about/contact

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You agree to acknowledge "*Rutgers Graduate School of Education/Albert Shanker Institute: School Finance Indicators Database*" as the source of these data. In publications, please cite the data as:

Baker, B.D., Di Carlo, M., Srikanth, A., Weber, M.A. 2020. *Rutgers Graduate School of Education/Albert Shanker Institute: School Finance Indicators Database.* Retrieved from: http://www.schoolfinancedata.org.

Subject to your compliance with the terms and conditions set forth in this Agreement, Rutgers University and the Albert Shanker Institute grant you a revocable, non-exclusive, non- transferable right to access and make use of the Data Sets.

DATA SOURCES

The external data sources used in our system are:

- Decennial Housing and Income Data
- Decennial District and County Population Density, 2000 & 2010
- American Community Survey
- Education Comparable Wage Index (ECWI)
- Small Area Income and Poverty Estimates (SAIPE)
- F33 School District Fiscal Data, reduced dataset
- F33 School District Fiscal Data, full dataset
- NCES Common Core of Data: local education agency (LEA) level
- NCES Common Core of Data: school level (aggregated to LEA level)
- Stanford Education Data Archive (SEDA)
- NCES Schools and Staffing Survey
- Bureau of Economic Analysis

The raw data drawn from many of these sources, and details about their use, are available in the data and documentation for our District Indicators Database. The district-level data are used to construct the indicators in this state-level database. See below for more information about the data sources used directly in the State Indicators Database.

Previous versions of this data system, and reports based on the data, were published by the Education Law Center, and can be accessed at http://schoolfundingfairness.org.

GUIDE TO VARIABLES

The variables in the State Indicator Database are divided into 13 categories. The table below briefly describes the types of variables within each category and how they might be interpreted. More technical details about the methods used to generate each category of variable can be found in the next section ("List of Variables").

Category	Description and interpretation
1. Geography	Variables for state and region.
2. Fiscal effort	Two indicators measuring state expenditures as a proportion of state economic capacity (measured as either gross state product (GSP) or aggregate personal income) – i.e., how much states spend on K-12 education as a proportion of their capacity to raise revenue for public services. In other words, how much does each spend on education as a proportion of its total "economic pie?" States that spend a larger share of their pies can be viewed as exhibiting more "effort" toward their schools.
3. Predicted revenue/ spending and fairness	Revenue and spending adjusted for student and district characteristics. Specifically, the variables in this section represent average revenue or spending, within a given state, at four different Census poverty levels (0, 10, 20, and 30 percent), controlling for population density, district size, and labor market costs. These statistical controls account for differences in factors, such as district size and labor market costs, that affect the cost of providing education. They therefore allow for more valid comparisons of revenue and spending, within and between states, since they mean you are comparing *similar districts* within and between those states. For example, do the highest poverty (30 percent) districts in one state spend more than similar highest poverty districts in another state? Revenue estimates are available by source (local, state, federal). Revenue and spending variables are also used to calculate progressivity/fairness indicators – for example, whether the highest poverty districts (30 percent) in one state receive/spend more resources than otherwise similar lowest poverty districts (0 percent) in the same state. The dataset includes variables comparing each type of revenue/spending between the highest and lowest poverty districts (ratio of 30 to 0 percent poverty) but users can calculate ratios between any two of the poverty levels (e.g., whether moderate poverty districts [10 or 20 percent] spend/receive more resources than the lowest poverty [0 percent] districts in the same state).

Category	Description and interpretation
4. Adequacy relative to common outcome goals	These indicators permit the comparison of spending that would be required to achieve national average test scores versus how much states actually spend. This is a measure of adequacy based directly on a common "benchmark" or standard – student test outcomes. All estimates are given for each poverty quintile (20 percent lowest poverty districts, 20-40 percent, 40-60 percent, and so on). For example, how much would a given state have to spend for its highest poverty districts to achieve national average testing outcomes, and how does this compare to how much that *actually* spends on its highest poverty districts (i.e., is spending adequate to achieve average test scores)? Note that poverty quintiles are defined state-by-state (e.g., the degree of poverty in the highest poverty districts in one state may be different from that in a different state). There are also variables, again by poverty quintile, for the gap between "target" (national average) test scores and actual test scores (expressed in standard deviations), since states and poverty quintiles with larger gaps will require more spending to achieve the target outcomes. All these estimates are based on the National Education Cost Model (NECM), which is part of our system.
5. Predicted staffing ratios and fairness	Teachers per student (i.e., staffing ratios) adjusted for student and district characteristics. Specifically, the variables in this section represent average staffing ratios, within a given state, at four different Census poverty levels (0, 10, 20, and 30 percent), controlling for population density, district size, and labor market costs. These statistical controls account for differences in factors, such as district size and labor market costs, that affect the cost of providing education. They therefore allow for more valid comparisons of staffing ratios, within and between states, since they mean you are comparing *similar districts* within and between those states. For example, do high poverty (30 percent) districts in one state employ, on average, more teachers per student than similar high poverty districts in another state? This is a measure of how districts in each state *spend* their resources, vis-à-vis similar districts in other states. These variables are also used to calculate progressivity/fairness indicators – i.e., whether high poverty districts in one state have higher/lower staffing ratios than otherwise similar low poverty districts in the same state. The dataset includes a variable comparing staffing ratios between the highest and lowest poverty districts (ratio of 30 to 0 percent poverty) but users can calculate ratios between any two of the poverty levels.

Category	Description and interpretation
6. Early childhood education coverage and gaps	The proportion of each state's 3- and 4-year-olds, and its low income 3- and 4-year-olds, who are enrolled in school. These proportions represent early childhood education "coverage" in each state, for both low-income and all 3-4-year-olds, which is a measure of how states spend their resources. The ratio of coverage among low-income students to that among all students provides a rough measure of unequal access to early childhood education in each state.
7. Teacher/ non-teacher wage competitiveness	Variables comparing teacher with non-teacher wages, by age, and controlling for various characteristics that affect wages (e.g., education, hours). For example, do young teachers in one state earn more than their young counterparts in other states, all else being equal? Teacher and non-teacher wages are estimated for four age ranges (25-30, 31-40, 41-50, and 51-60), and there are four variables that calculate the teacher/non-teacher ratio at specific ages (25, 35, 45, and 55). The latter are measures of how states spend their resources – specifically, whether districts in a given state pay their teachers competitively relative to similar non-teachers in that state, and whether that ratio varies by teacher age (a roughly proxy for experience). Note that these estimates include both public and private school teachers.
8. Predicted class size and fairness	Average class size by district poverty (poverty is calculated as a percentage of poverty within the district's labor market), calculated separately for departmentalized and self-contained classes, controlling for labor market (i.e., class sizes compared between classes in schools in the same labor market). For example, do districts at 60% of their labor market's poverty rate in one state have larger classes than comparable districts in another state? This too is a measure of how states spend their resources. It is similar to predicted staffing ratios (category 5), but uses actual class size instead of teacher/student ratios (unfortunately, however, it can only be calculated every four years due to data availability). These variables are also used to calculate progressivity/fairness indicators – i.e., whether high poverty districts in one state, all else being equal, have higher class sizes than otherwise similar low poverty districts in the same state. The dataset includes a variable comparing only the highest/lowest ratios (ratio of 160 to 60 percent of the labor market poverty rate), but users can calculate ratios between any two of the poverty levels.

Category	Description and interpretation
9. Teacher salary competitiveness and fairness by poverty	Ratio of actual to predicted teacher salaries, adjusted for degree, experience, and labor market, and calculated separately at different poverty rates (with poverty again expressed as a percentage of poverty within the labor market). This is a measure of how districts in each state spend their resources, one that focuses on whether teachers are paid competitively vis-à-vis similar teachers in similar districts in other states. For example, do teachers in districts at 60% of their labor market's poverty rate in one state earn more than comparable teachers in similar districts in another state? Unfortunately, these indicators can only be calculated every four years due to data availability. These variables are also used to calculate a progressivity/fairness measure – i.e., are teachers in high poverty districts paid more than their otherwise similar counterparts in low poverty districts in the same state. The dataset includes a variable comparing only the highest/lowest ratios (ratio of 160 to 60 percent of the labor market poverty rate), but users can calculate ratios between any two of the poverty levels.
10. Family income above/below FRL cutpoints	Average family income above and below the 130 and 185 percent poverty thresholds, which are also the eligibility cutpoints for free and reduced price school lunch, respectively. These variables are also used to calculate the income gap between families above and below both thresholds. This might useful for examining actual average income differences between families above and below the thresholds.
11. Coverage and charter school market share	Percent of each state's 6- to 16-year-olds enrolled in public schools and the statewide share of public school students enrolled in charter schools. Coverage can have important implications for school finance measures. For example, charter school proliferation affects the number and size distribution of districts within a state.
12. Public/ non-public school family income gaps	The average income of families with students in public schools versus that of non-public (i.e., private) school families. These variables are also used to calculate a ratio of average income among public school families to that of non-public school families. If, for instance, private school families tend to be much more affluent than public school families, this may affect the needs-based allocation of resources to districts.
13. State finance litigation	Variables indicating major state finance adequacy and equity court cases and outcomes (not updated since 2013). Users might, for example, examine the relationship between these cases and the other indicators in the database.

LIST OF VARIABLES AND METHODOLOGY

The table below provides a list of all variables in the State Indicators Database, along with descriptions, notes, methods, and the years in which they are available. Below the headers for each of the 13 categories are data sources and technical details. With the exception of the state, region, and the finance litigation variables (category 13), all variables are continuous (numeric).

Variable	Description	Years available	Notes
year	Year of Data	All years	Year refers to the spring of the school year. For example, 2017 refers to the 2016-2017 school year.
1. GEOGRAPHY			
stabbr	State Abbreviation	All years	
state_name	State Name	All years	
statefip	State FIPS Code	All years	Can be used to merge this dataset with other state-level datasets.
region4	Census Region	All years	U.S. Census Bureau regional codes (four categories)
region9	Census Division	All years	U.S. Census Bureau division codes (nine categories)
2. EFFORT			
effort	Total State & Local Direct Education Expenditure as a Proportion of Gross State Product	1998-2000; 2002; 2004-2017	
inc_effort	Total State & Local Direct Education Expenditure as a Proportion of Aggregate State Income	1998-2000; 2002; 2004-2017	
3. PREDICTED REVENUE/SPENDING & FAIRNESS			
Data source(s): District Indicators Database Predicted values based on regression model using district level panel data. Dependent variable in the model below (RESOURCES) can represent state revenue PP, local revenue PP, current expenditures PP, state & local combined revenue PP, or federal revenue PP, each yielding separate sets of estimates for the variables listed below. $$\ln RESOURCES_{dy} = b_0 + b_1 State + b_2 PovRate_{dy} + b_3 State \times PovRate_{dy} + b_4 ECWI_{dy} + b_5 PopDens_{dy} + b_6 PopDens_{dy} \times Enroll{<}100_{dy} + b_7 PopDens_{dy} \times Enroll101to300_{dy} + b_8 PopDens_{dy} \times Enroll301to600_{dy} + b_9 PopDens_{dy} \times Enroll601to1200_{dy} + b_{10} PopDens_{dy} \times Enroll1201to1500_{dy} + b_{11} K12District_{dy} + e_{dy}$$ Models weighted by district enrollment. Each year estimated separately. Predicted values for lnRESOURCES in a K–12 district with x% Census poverty (0/10/20/30), 2,000 or more students, in an average wage labor market (1.0 ECWI):			
predicted_strevpp0_	Predicted State Revenue per Pupil at 0% Poverty	1993-2017	
predicted_strevpp10_	Predicted State Revenue per Pupil at 10% Poverty	1993-2017	
predicted_strevpp20_	Predicted State Revenue per Pupil at 20% Poverty	1993-2017	
predicted_strevpp30_	Predicted State Revenue per Pupil at 30% Poverty	1993-2017	

Variable	Description	Years available	Notes
fairness_strevpp	Progressiveness Ratio: Predicted State Revenue per Pupil at 30% Poverty to 0% Poverty	1993-2017	
predicted_locrevpp0_	Predicted Local Revenue per Pupil at 0% Poverty	1993-2017	
predicted_locrevpp10_	Predicted Local Revenue per Pupil at 10% Poverty	1993-2017	
predicted_locrevpp20_	Predicted Local Revenue per Pupil at 20% Poverty	1993-2017	
predicted_locrevpp30_	Predicted Local Revenue per Pupil at 30% Poverty	1993-2017	
fairness_locrevpp	Progressiveness Ratio: Predicted Local Revenue per Pupil at 30% Poverty to 0% Poverty	1993-2017	
predicted_curexpp0_	Predicted Current Spending per Pupil at 0% Poverty	1993-2017	
predicted_curexpp10_	Predicted Current Spending per Pupil at 10% Poverty	1993-2017	
predicted_curexpp20_	Predicted Current Spending per Pupil at 20% Poverty	1993-2017	
predicted_curexpp30_	Predicted Current Spending per Pupil at 30% Poverty	1993-2017	
fairness_curexpp	Progressiveness Ratio: Predicted Current Spending per Pupil at 30% Poverty to 0% Poverty	1993-2017	
predicted_slocrev0_	Predicted State&Local Revenue per Pupil at 0% Poverty	1993-2017	
predicted_slocrev10_	Predicted State&Local Revenue per Pupil at 10% Poverty	1993-2017	
predicted_slocrev20_	Predicted State&Local Revenue per Pupil at 20% Poverty	1993-2017	
predicted_slocrev30_	Predicted State&Local Revenue per Pupil at 30% Poverty	1993-2017	
fairness	Progressiveness Ratio: Predicted State&Local Revenue per Pupil at 30% Poverty to 0% Poverty	1993-2017	
syst_prog	Systematic Progressivity: Within-State Correlations of Poverty and Revenue	2007-2017	Does not use estimates from model above, but rather state and local revenue and poverty centered around the average of the labor market in which the district is located (in the District Indicators Database, the poverty and revenue variables are *ctr_perpov* and *ctr_slocrevpp*, respectively). The within-state correlations are weighted by enrollment.
predicted_fedrevpp0_	Predicted Federal Revenue per Pupil at 0% Poverty	1993-2017	
predicted_fedrevpp10_	Predicted Federal Revenue per Pupil at 10% Poverty	1993-2017	
predicted_fedrevpp20_	Predicted Federal Revenue per Pupil at 20% Poverty	1993-2017	
predicted_fedrevpp30_	Predicted Federal Revenue per Pupil at 30% Poverty	1993-2017	
fairness_fedrevpp	Progressiveness Ratio: Predicted Federal Revenue per Pupil at 30% Poverty to 0% Poverty	1993-2017	

Variable	Description	Years available	Notes
4. ADEQUACY RELATIVE TO COMMON OUTCOME GOALS			
Data source(s): District Indicators Database; nationally-normed outcome measures from the Stanford Education Data Archive (SEDA) Estimates from the National Education Cost Model (NECM). The NECM uses nationally-normed outcomes (test scores) from the SEDA to model how much state and local spending would be required in order to achieve national average test scores from the previous year, by state-specific poverty quintile (in the list below, these are the five variables NECM_PREDCOST_Q1 – NECM_PREDCOST_Q5). These estimates can then be compared to actual spending, again by state-specific poverty quintile (NECM_PPCSTOT_Q1-Q5). For each state/poverty quintile combination, we also provide the gaps in testing outcomes, expressed in standard deviations (NECM_OUTCOMEGAP_Q1-Q5), enrollment (NECM_ENROLL_Q1-Q5), and the funding gap (NECM_FUNDINGGAP_Q1-Q5), which is simply the difference ($) between predicted required spending and current spending. Estimates for 2017 are from models that use SEDA data from from 2014-2016. For additional details on the methodology of the NECM, see: Baker, Bruce D., Weber, Mark, Srikanth, Ajay, Kim, Robert, and Atzbi, Michael. 2018. *The Real Shame of the Nation: The Causes and Consequences of Interstate Inequity in Public School Investments*. New Brunswick, NY: Rutgers University.			
necm_predcost_q1	Predicted Cost of Average Testing Outcomes - Pov. Quintile 1	2017	Poverty quintile 1 includes the lowest poverty districts.
necm_ppcstot_q1	Spending Per Pupil - Pov. Quintile 1	2017	
necm_enroll_q1	Enrollment - Pov. Quintile 1	2017	
necm_outcomegap_q1	Gap between Current and Average Testing Outcomes - Pov. Quintile 1	2017	
necm_fundinggap_q1	Gap between Current and Predicted Spending - Pov. Quintile 1	2017	
necm_predcost_q2	Predicted Cost of Average Testing Outcomes - Pov. Quintile 2	2017	
necm_ppcstot_q2	Spending Per Pupil - Pov. Quintile 2	2017	
necm_enroll_q2	Enrollment - Pov. Quintile 2	2017	
necm_outcomegap_q2	Gap between Current and Average Testing Outcomes - Pov. Quintile 2	2017	
necm_fundinggap_q2	Gap between Current and Predicted Spending - Pov. Quintile 2	2017	
necm_predcost_q3	Predicted Cost of Average Testing Outcomes - Pov. Quintile 3	2017	
necm_ppcstot_q3	Spending Per Pupil - Pov. Quintile 3	2017	
necm_enroll_q3	Enrollment - Pov. Quintile 3	2017	
necm_outcomegap_q3	Gap between Current and Average Testing Outcomes - Pov. Quintile 3	2017	
necm_fundinggap_q3	Gap between Current and Predicted Spending - Pov. Quintile 3	2017	
necm_predcost_q4	Predicted Cost of Average Testing Outcomes - Pov. Quintile 4	2017	
necm_ppcstot_q4	Spending Per Pupil - Pov. Quintile 4	2017	
necm_enroll_q4	Enrollment - Pov. Quintile 4	2017	
necm_outcomegap_q4	Gap between Current and Average Testing Outcomes - Pov. Quintile 4	2017	
necm_fundinggap_q4	Gap between Current and Predicted Spending - Pov. Quintile 4	2017	
necm_predcost_q5	Predicted Cost of Average Testing	2017	Poverty quintile 5 includes the

Variable	Description	Years available	Notes
	Outcomes - Pov. Quintile 5		highest poverty districts.
necm_ppcstot_q5	Spending Per Pupil - Pov. Quintile 5	2017	
necm_enroll_q5	Enrollment - Pov. Quintile 5	2017	
necm_outcomegap_q5	Gap between Current and Average Testing Outcomes - Pov. Quintile 5	2017	
necm_fundinggap_q5	Gap between Current and Predicted Spending - Pov. Quintile 5	2017	

5. PREDICTED STAFFING RATIOS & FAIRNESS			

Data source(s): District Indicators Database

Predicted values based on regression model using district level panel data. Dependent variable in the model below is Staffing Ratio (SR).

$$lnSR_{dy} = b_0 + b_1State + b_2PovRate_{dy} + b_3State \times PovRate_{dy} + b_4ECWI_{dy} + b_5PopDens_{dy} + b_6 PopDens_{dy} \times Enroll{<}100_{dy} + b_7PopDens_{dy} \times Enroll101to300_{dy} + b_8PopDensdy \times Enroll301to600_{dy} + b_9PopDens_{dy} \times Enroll601to1200_{dy} + b_{10}PopDens_{dy} \times Enroll1201to1500_{dy} + b_{11}K12District_{dy} + e_{dy}$$

Models weighted by district enrollment. Each year estimated separately. Predicted values for lnSR in a K–12 district with x% Census poverty (0/10/20/30), average density, 2,000 or more students, in an average wage labor market (1.0 ECWI).

Variable	Description	Years available	Notes
predicted_tchph0_	Predicted Teachers per 100 Pupils at 0% Poverty	1994-2017	
predicted_tchph10_	Predicted Teachers per 100 Pupils at 10% Poverty	1994-2017	
predicted_tchph20_	Predicted Teachers per 100 Pupils at 20% Poverty	1994-2017	
predicted_tchph30_	Predicted Teachers per 100 Pupils at 30% Poverty	1994-2017	
fairness_tchph	Progressiveness Ratio: Predicted Teachers per 100 Pupils at 30% Poverty to 0% Poverty	1994-2017	

6. EARLY CHILDHOOD COVERAGE AND GAPS			

Data source(s): American Community Survey

Tabulations by state and year weighted by sampling probability.

Variable	Description	Years available	Notes
count	Statewide Census Count of 3&4 Year Olds	1990; 2000-2017	
enrolled	Statewide Census Count of 3&4 Year Olds Enrolled in School	1990; 2000-2017	
lowinc_ec	Statewide Census Count of Low Income 3&4 Year Olds	1990; 2000-2017	
lowinc_enrolled	Statewide Census Count of Low Income 3&4 Year Olds Enrolled in School	1990; 2000-2017	
ec_enrollshare	Statewide Percent of 3&4 Year Olds Enrolled in School	1990; 2000-2017	
ec_lowinc_enrollshare	Statewide Percent of Low Income 3&4 Year Olds Enrolled in School	1990; 2000-2017	
ec_enrollgapratio	Ratio of Low Income 3&4 Year Olds Enrolled to All Enrolled 3&4 Year Olds	1990; 2000-2017	

Variable	Description	Years available	Notes

7. TEACHER/NON-TEACHER WAGE COMPETITIVENESS

Data source(s): American Community Survey

Based on regression model of wage income for teachers and non-teachers, weighted for sampling probability. Competitive wage ratio (INCWAGE), or predicted wage of elementary and secondary teachers divided by predicted wage of nonteachers working in the same state, with a master's degree, at specific ages:

$$\text{lnINCWAGE} = b_0 + b_1\text{State} + b_2\text{K12Teacher} + b_3\text{State} \times \text{K–12Teacher} + b_5\text{Age} + b_6\text{Masters} + b_7\text{ln(hours)} + b_8\text{Weeks/Year} + e$$

Estimated separately for each year, and weighted by sampling probability weight (perwt). Includes only those individuals holding a bachelors or masters degree. State represents a matrix of state dummy variables, K-12Teacher an indicator that the occupation code is for teacher and industry code for elementary/secondary education. Of particular interest is the estimated differential (b_3) between teachers and non-teachers' income from wages in each state (given the baseline difference b_2 between teacher and non-teacher income from wages). Age is a matrix of dummy variables for each age from 25 to 65. Typical hours per week are logged (ln) and weeks per year specified as a matrix of dummy indicators.

Variable	Description	Years available	Notes
tchsalary25_30	Predicted Teacher Annual Wage at Age 25-30	2000-2017	
nontchsal25_30	Predicted Non-Teacher Annual Wage at Age 25-30	2000-2017	
tchsalary31_40	Predicted Teacher Annual Wage at Age 31-40	2000-2017	
nontchsal31_40	Predicted Non-Teacher Annual Wage at Age 31-40	2000-2017	
tchsalary41_50	Predicted Teacher Annual Wage at Age 41-50	2000-2017	
nontchsal41_50	Predicted Non-Teacher Annual Wage at Age 41-50	2000-2017	
tchsalary51_60	Predicted Teacher Annual Wage at Age 51-60	2000-2017	
nontchsal51_60	Predicted Non-Teacher Annual Wage at Age 51-60	2000-2017	
sal_parity25	Teacher/Non-Teacher Salary Parity Ratio at Age 25	2000-2017	
sal_parity35	Teacher/Non-Teacher Salary Parity Ratio at Age 35	2000-2017	
sal_parity45	Teacher/Non-Teacher Salary Parity Ratio at Age 45	2000-2017	
sal_parity55	Teacher/Non-Teacher Salary Parity Ratio at Age 55	2000-2017	

8. PREDICTED CLASS SIZE RATIOS AND INCOME-BASED GAPS

Data source(s): District Indicators Database; NCES Schools and Staffing Survey (SASS) in 1994, 2000, 2004, 2008, 2012

NCES Schools and Staffing Survey school level class size measures for individual teachers merged to district level panel. Regression model estimated to school level class size measures:

$$\text{ClassSize}_{tdy} = b_0 + b_1\text{State} + b_2\text{POV(ctr)}_{dy} + b_3\text{State} \times \text{POV(ctr)}_{dy} + b_4\text{SecTch}_{tdy} + b_5\text{CBSA}_{dy} + e_{tdy}$$

For non-rural schools, where "t" is the individual teacher for whom class size is reported, CTR_POV is the labor market centered census poverty rate of the district and CBSA is the Core Based Statistical Area fixed effect, so as to compare class sizes across teachers in schools within the same labor market. SecTch is an indicator that a teacher is a secondary grades teacher. Regression weighted for sampling probability using balanced repeated replication (brr).

Regression model used to generate predicted values of departmentalized and self-contained class sizes for a teacher working in a district at 60%, 80%, 100%, 120% 140% & 160% of the labor market average district census poverty level.

Variable	Description	Years available	Notes
pred_csd_pov60	Predicted Departmental Class Size at 60% of the Labor Market Average Poverty	1994; 2000; 2004; 2008; 2012	
pred_csd_pov80	Predicted Departmental Class Size at 80% of the Labor Market Average Poverty	1994; 2000; 2004; 2008; 2012	
pred_csd_pov100	Predicted Departmental Class Size at 100% of the Labor Market Average Poverty	1994; 2000; 2004; 2008; 2012	
pred_csd_pov120	Predicted Departmental Class Size at 120% of the Labor Market Average Poverty	1994; 2000; 2004; 2008; 2012	
pred_csd_pov140	Predicted Departmental Class Size at 140% of the Labor Market Average Poverty	1994; 2000; 2004; 2008; 2012	
pred_csd_pov160	Predicted Departmental Class Size at 160% of the Labor Market Average Poverty	1994; 2000; 2004; 2008; 2012	
csd_ratio	Progressiveness Ratio: Predicted Department Class Size in 160% Poverty District to Predicted Department Class Size in 60% Poverty District	1994; 2000; 2004; 2008; 2012	
pred_css_pov60	Predicted Self-Contained Class Size at 60% of the Labor Market Average Poverty	1994; 2000; 2004; 2008; 2012	
pred_css_pov80	Predicted Self-Contained Class Size at 80% of the Labor Market Average Poverty	1994; 2000; 2004; 2008; 2012	
pred_css_pov100	Predicted Self-Contained Class Size at 100% of the Labor Market Average Poverty	1994; 2000; 2004; 2008; 2012	
pred_css_pov120	Predicted Self-Contained Class Size at 120% of the Labor Market Average Poverty	1994; 2000; 2004; 2008; 2012	
pred_css_pov140	Predicted Self-Contained Class Size at 140% of the Labor Market Average Poverty	1994; 2000; 2004; 2008; 2012	
pred_css_pov160	Predicted Self-Contained Class Size at 160% of the Labor Market Average Poverty	1994; 2000; 2004; 2008; 2012	
css_ratio	Progressiveness Ratio: Predicted Self-Contained Class Size in 160% Poverty District to Predicted Self-Contained Class Size in 60% Poverty District	1994; 2000; 2004; 2008; 2012	

Variable	Description	Years available	Notes

9. TEACHER SALARY COMPETITIVENESS BY DISTRICT POVERTY

Data source(s): District Indicators Database; NCES Schools and Staffing Survey (SASS) in 1994, 2000, 2004, 2008, 2012

NCES Schools and Staffing Survey teacher level salary measures for individual teachers merged to district level panel. Construction of the salary competitiveness index involves a two-step process, the first of which uses a regression model to isolate salary variation at constant degree and experience among teachers in the same labor market:

Regression model estimated to school level class size measures:

$$lnSalary_{tdl} = b_0 + b_1Experience_{tdl} + b_2Degree_{tdl} + b_3Labor\ Market_{tdl}$$

where salary is the salary for teacher "t" in district "d" in labor market "l." And where the model includes each year of experience beyond year "0" as dummy variables, and masters, specialist and doctoral degree dummy variables, and finally, a matrix of labor market fixed effects, such that the model residuals are the difference in each individual teacher's salary from the labor market average for a teacher of the same degree and experience level (for full time classroom teachers). We express this residual as a ratio of the teacher's actual salary to the labor market average (predicted value).

$$Competitiveness\ Ratio_{tdl} = Actual_{tdl} / Predicted_{tdl}$$

In the second step, we use another regression model to determine how the competitiveness of teacher salaries varies with respect to district poverty rates, similar to our class size models above:

$$Competitiveness\ Ratio_{tdl} = b_0 + b_1State + b_2POV(ctr)_{dy} + b_3State\ x\ POV(ctr)_{dy} + b_4SecTch_{tdy} + b_7CBSA + e_{tdy}$$

For non-rural schools, where "t" is the individual teacher for whom the salary competitiveness ratio is calculated, CTR_POV is the labor market centered census poverty rate of the district and CBSA is the Core Based Statistical Area fixed effect.

Regression model used to generate predicted values of salary competitiveness ratio for a teacher working in a district at 60%, 80%, 100%, 120% 140% & 160% of the labor market average district census poverty level. That is, are teacher salaries more competitive in lower, or higher poverty settings?

Variable	Description	Years available	Notes
pred_salratio_pov60	Predicted Teacher Salary Competitiveness Ratio at 60% of the Labor Market Average Poverty	1994; 2000; 2004; 2008; 2012	
pred_salratio_pov80	Predicted Teacher Salary Competitiveness Ratio at 80% of the Labor Market Average Poverty	1994; 2000; 2004; 2008; 2012	
pred_salratio_pov100	Predicted Teacher Salary Competitiveness Ratio at 100% of the Labor Market Average Poverty	1994; 2000; 2004; 2008; 2012	
pred_salratio_pov120	Predicted Teacher Salary Competitiveness Ratio at 120% of the Labor Market Average Poverty	1994; 2000; 2004; 2008; 2012	
pred_salratio_pov140	Predicted Teacher Salary Competitiveness Ratio at 140% of the Labor Market Average Poverty	1994; 2000; 2004; 2008; 2012	

Variable	Description	Years available	Notes
pred_salratio_pov160	Predicted Teacher Salary Competitiveness Ratio at 160% of the Labor Market Average Poverty	1994; 2000; 2004; 2008; 2012	
sal_ratio	Progressiveness Ratio: Predicted Teacher Salary Competitiveness in 160% Poverty District to Predicted Teacher Salary Competitiveness in 60% Poverty District	1994; 2000; 2004; 2008; 2012	

10. FAMILY INCOME ABOVE/BELOW FRL CUTPOINTS			
Data source(s): American Community Survey Tabulations by state and year weighted by sampling probability.			
ftotinc_under185pov	Average Family Income for Families Earning Less than 185% of the Federal Poverty Line	1994; 1996; 1998; 2000-2017	185% of the federal poverty line is the typical cutoff point for eligibility for reduced-price school lunch.
ftotinc_over185pov	Average Family Income for Families Earning More than 185% of the Federal Poverty Line	1994; 1996; 1998; 2000-2017	
ftotinc_under130pov	Average Family Income for Families Earning Less than 130% of the Federal Poverty Line	1994; 1996; 1998; 2000-2017	130% of the federal poverty line is the typical cutoff point for eligibility for free school lunch.
ftotinc_over130pov	Average Family Income for Families Earning More than 130% of the Federal Poverty Line	1994; 1996; 1998; 2000-2017	
inc_gap185_ratio	Ratio of Average Family Income Earning Less than 185% of Federal Poverty to Average Family Income Earning More than 185% of Federal Poverty	1994; 1996; 1998; 2000-2017	
inc_gap130_ratio	Ratio of Average Family Income Earning Less than 130% of Federal Poverty to Average Family Income Earning More than 130% of Federal Poverty	1994; 1996; 1998; 2000-2017	

11. COVERAGE AND CHARTER MARKET SHARE			
Data source(s): American Community Survey (coverage); Common Core of Data Public School Universe Survey (state_chartershare) ACS tabulations by state and year weighted by sampling probability.			
coverage	Percent of 6 to 16 Year Olds Enrolled in Public School	2000-2017	
state_chartershare	Statewide Share of Students Enrolled in Charter Schools	1993-2017	

12. PUBLIC/NON-PUBLIC SCHOOL FAMILY INCOME GAPS			
Data source(s): American Community Survey Tabulations by state and year weighted by sampling probability.			

Variable	Description	Years available	Notes
inc_pubsch	Average Income of Families with Students Enrolled in Public Schools	2000-2017	
inc_nonpubsch	Average Income of Families with Students Enrolled in Non-Public Schools	2000-2017	
pubprv_incratio	Ratio of Income of Public School Families to Income of Non-Public School Families	2000-2017	

13. STATE FINANCE LITIGATION			
Data source(s): Compiled by authors from various sources. Has not been updated since 2013.			
case	School Finance Litigation - Case Name	1993-2013	Major equity/adequacy state finance cases in a given state and year (where/when applicable)
citation	School Finance Litigation - Case Citation	1993-2013	
ruling	School Finance Litigation - High Court Ruling	1993-2013	Ruling by high court on major state finance cases – overturned or upheld
casetype	School Finance Litigation - Equity/Adequacy	1993-2013	Whether case addressed equity, adequacy, or both