# **Teaching in the States:** Salary and Beyond Rankings

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**Abstract:** This report investigates factors relevant to choosing locations conducive to both attainment and maintenance of a teaching career. In addition to salary and cost of living, the investigators compiled and ranked variables related to family, such as parental income and education, and differences in political structures that affect careers in education. Also considered were the number and size of schools, class size, and variables related to charter schools. Systems of evaluation at the level of school, principal, and teacher were also considered, as was the degree to which beliefs and standards related to science were conducive to teaching. States are ranked in each of these categories as well as across the categories. Future directions and limitations are discussed.

Running Head: Teaching in the States

## Teaching in the States: Salary and Beyond Rankings

## **Preface**

Every semester I tell my teacher education students the same thing: "You really don't want to teach in this state if you can help it." Everyone knows that the state is not particularly friendly to teachers in terms of pay, support for the union, policies regarding testing and evaluation of teachers and schools using those tests, and general attitude towards teachers. Of course then the governor needed to appoint a panel to figure out why we have a teacher shortage.

This is not what most of the students in my class, or in teacher education, want to hear. Many students dream of teaching at one of their old schools, their hometown, or at least in their state.

Then comes the question I dread, "Well, where should we work then?"

"Out of the country, if you can," I say, "More respect, relatively better pay." That usually is not an option they want to consider.

"No, which states are the best ones to teach in?"

I mumble something about the northeast... Massachusetts... and move on, because I really don't know. I might have some guesses, but I don't know. And that was the basis for this project, to try to determine which states might be the best for teachers. Not just in terms of salary (although that is certainly important), but which states have policies suggesting respect for teachers, public schools, and teaching practices.

This is no easy task. It required establishing and justifying categories, finding the most current data, and determining how to synthesize and display the data. An hour before last year's AERA submission deadline, we gave up. There were too many holes and too many question marks. However, the project continued with categories redefined and data being updated. Although the

project is complete, it is not finished. New data will lead to constant updates and revisions. However, with numerous assumptions made, a mix of somewhat old and very new data, and combinations suggesting all things being equal, for one brief moment in time, we'll have an idea as to which states might be the best to teach in.

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#### **Executive Summary - Select Results**

#### **Families**

Student proficiency exceeded expectations based on parent education in Montana, New Hampshire, and Wyoming, but was worse for Wisconsin and West Virginia.

#### Money

A teacher could move from Chicago to San Antonio, take a \$5,000 pay cut, and still be better off financially due to the difference in cost of living.

#### **Politics**

The most Democratic states were Hawaii, Rhode Island, and California; and the least Democratic were Idaho, North Dakota, and Wyoming.

#### School/Class Size

Kentucky and Oregon had the biggest increases in school enrollment, and Minnesota had the biggest decrease.

#### **Charter Schools**

Montana, Nebraska, North and South Dakota, Vermont, and West Virginia showed the least support for charter schools; and Arizona, Colorado, DC, and Florida were the most supportive of charter schools.

#### **School Ratings**

New Hampshire and California had the least damaging school rating systems, whereas Maine and Arizona had the worst.

#### Science

Despite Kansas's low acceptance of evolution and media coverage related to their science curriculum, it was 13<sup>th</sup> overall in support for science.

#### **Student Achievement**

Massachusetts and Vermont had the highest NAEP scores for children in poverty, and Alaska and DC had the lowest scores.

#### **Teacher Associations**

The states with the strongest unions were HI and OR, and the weakest unions were in FL and AZ.

#### **Teacher Evaluation**

California had the best state teacher evaluation policies with Ohio, Pennsylvania, and Tennessee having the worst.

#### **Total**

There was variation in each category as to which states were the best, but the ratings do tend to hold together. Based on all of the factors, the best states for employment as a teacher are Vermont and New Hampshire, with Idaho and Arizona being the worst.

#### Introduction

On a regular basis, states are ranked on everything from health (United Health Foundation, 2015) to economies (Kiersz, 2015), from where to retire (Bell, 2016) to technology and science (Klowden, Keough, & Barrett, 2014); and from miserableness (Allen, Frohlich, & Hess, 2014) to everything (Alexander & Lynch, 2015). State rankings based on education have a long history and are especially prevalent. For years, the August release of ranking of states by SAT scores was front-page news. The Nation's Report Card of state achievement from National Assessment of Educational Progress (NEP) continues to garner attention (National Center for Educational Statistics, 2016). One of the most recent rankings, and most relevant to this report, was the 2016 *Valuing Public Education: A 50 State Report Card* by the Network for Public Education. This report assigned letter grades to each state based on six categories: No high stakes testing, Professionalization of teaching, resistance to privatization, school finance, spend taxpayer resources wisely, and chance for success.

This report, *Teaching in the States*, takes a slightly different approach by focusing on the question: Which are the best states to work in as a teacher? Many scales have been developed to answer this question. The majority equate teacher income with quality (e.g., Monster Worldwide, 2015); some compare teacher income with the cost of living in an area (e.g., TakePart.com, 2014), as a means of standardizing the value of the dollar across communities. Still others rank cities rather than states, including indices of lifetime earning potential (Kohli, 2014), teaching jobs and amenities available, and high school graduation rates (Southerland, 2015). However, even in such cases, what qualifies a location as better than others is largely based on income; few take into consideration other factors, such as resources available to educators and students, enrollment trends, population growth, student-teacher ratios and the like. The more inclusive scales, such as

those put together by WalletHub (Bernardo, 2015) or the National Education Association (NEA; 2016), look not only at starting- and median- annual salary, cost of living, and other economic indices, or even student/teacher ratios and other resource allocation indices, but also take into consideration commute time, average work hours, changes in enrollment levels, even best and worst states for working moms or the percent of faculty in a state who are male.

However, even these more inclusive ratings systems have left out some factors that are quite relevant to ascertaining where are the best places to work as a teacher. For example, The Wallet Hub (Bernardo, 2015) ranking did not include factors that create problems for teachers, such as charter schools, and the degree to which teacher evaluations are based on student test scores. There was also no consideration of job protections, such as teacher union strength within a state. The NEA (2016) ranking takes into account the number of job openings, as well as how many of the students in a state go into teaching, but leaves out policy concerns, such as the degree of emphasis on merit pay vs. a salary schedule, or the percentage of charter schools in a state. Further, no current ranking system takes into consideration factors like parent education, or acceptance of scientific principles such as evolution (Coyne, 2013), factors that can affect teacher interactions with students and their parents. Although some of the factors in this report may be controversial, there is a firm rationale for their inclusion.

#### Method

For each area investigated multiple internet searches were conducted to identify state scores, ratings, or rankings. Each category within an area was ranked and the rankings were averaged for a total rank for the area. A final total ranking was calculated by averaging the ranks of all ten of the areas. Readers considering the areas or categories within the areas are encouraged to include or exclude areas in their own calculations. For example, if a reader does not believe that

money or student achievement should be considered, they may exclude them and recalculate a total. Readers may also weight certain categories more or less. A more qualitative interpretation of the report might involve a general survey of states of interests in areas of interest.

#### Factors

**Families.** Factors of student family background are related to student success in school and provide (dis)continuity in support from school to home: Parent Education, Student Proficiency/Low Parent Education, Family Income, and Single Parent Families.

**Money.** Teacher salary and cost of living means the difference between a livelihood and a career: Average Teacher Salary, Ten Year Percent Change in Teacher Salary, One Year Percent Change in Teacher Salary, Per Student Revenue Funding, and Cost of Living.

**Politics.** Education is a political enterprise with policies reflecting financial support and respect more advocated by Democrats: Gallup Democrat Advantage, Gallup Liberal Advantage, Governor, State House Democrats, and State Senate Democrats.

**School/Class Size.** Although more students usually mean more schools and more jobs, smaller school and class size has been associated with higher achievement and better teaching: Number of Students in Public School, Percent Change Enrolled, Average School Size, and Student-Teacher Ratio.

Charter Schools. Charter schools and voucher efforts undermine public education (rating of support have been reverse coded): Percent of Total Public Schools, Percent of Total Enrollment, CER Charter School Law Ranking, and NAPCS Charter School Law Ranking.

**School Ratings.** School ratings (A-F) and rankings are counter-productive and usually reflect the SES and resources rather than the quality of instruction: Rating System, What gets measured, and What gets reported.

**Science.** Acceptance of science is indicative of support for logic and objectivity which serves teachers well: Science Grade Score, Acceptance of Evolution, and Next Generation Science Standards.

**Student Achievement.** Higher achieving students means teachers and schools are considered successful and rewarded, or at least do not suffer from some of the pressures and requirements of less success: Grade 4 Reading & Math Achievement, Grade 8 Reading & Math Achievement, Percent Poverty, Average Poverty Scores, Average Poverty/ Non-Poverty Gap, Percent Black, Average Black Scores, Ave Black/White Gap, Percent ELL, Average ELL Scores, and Average ELL/ Non-ELL Gap.

**Teacher Associations.** Union strength means more protection and support for teachers: Resources and Membership, Percent Change in Membership, Involvement in Politics, Scope of Bargaining, State Policies, and Perceived Influence.

Teacher Evaluation. How teachers are evaluated affects many aspects of their career from job security to pay to overall respect: Annual Teacher Evaluation Requirement, Evaluations Significantly Informed by Student Achievement/Growth, Student Growth Preponderant/ Significant Criterion in Teacher Evaluation, Student Growth Preponderant/ Significant Criterion in Principal Evaluation, Teachers Receive Evaluation Feedback, and Teacher Can Get Performance Pay Based on Student Achievement.

**Total.** This is a combination of all major areas.

#### **Color Coding**

Each category within an area as well as the overall ranking for the area are color coded. Green represents a half a standard deviation above the mean for the category. Yellow signifies a score or rating between a half a standard deviation below to a half a standard deviation above the mean. Red is used for scores more than a half a standard deviation below the mean.

#### **Families**

The first category in this report is perhaps the most important. Parents who value education support their children's teachers and schools. They provided the background for appropriate behaviors and the academic success of their children. They create an education team with the teacher and school that provides follow-up and follow-through with their children. Although research has been done on parent values (Paulson, 1994), typically there are no data available on parent values. Instead, there are markers. Other data points related to parent values and student achievement that are recorded and available for consideration.

#### **Factors**

- A. **Parent Education:** 2014. Comprised of percentages of the population in a state who have completed a) high school, b) bachelor's degree, and c) advanced degrees (U. S. Census Bureau, 2016).
- B. **Student Proficiency, Low Parent Education:** 2012 NAEP. The percentage of students in a state from families with no parent having graduated high school who achieve at a proficient level or better in math, reading and science (Hanushek, Peterson, & Woessmann, 2014).
- C. **Family Income:** 2014. The median income for families in a state. (U. S. Census Bureau, 2016).
- D. **Single Parent Families:** 2014-2015 AY. The percentage of students in a state who live in a single parent home (National Kids Count, 2017).

#### **Method Note for Family**

As a measure of parent education level in a state, we used information regarding educational attainment at the levels of 1) high school graduate, 2) Bachelor's degree attainment, and 3) attainment of an advanced degree (e.g. Master's Degree, Ph.D.), as reported by the U. S. Census Bureau (2016) in the three following tables: R1501, R1502, and R1503. Proficiency of students with low parental income was based on data from Hanushek et al. (2014) for all but three areas, due to lack of reporting: Alaska, the District of Columbia, and North Dakota (because of this, student proficiency with low parental income was not factored into the overall ratings for these three areas). Due to lack of science score reporting in Vermont its score in this category was based on the average of the reading and math scores. Family median income was also obtained from the U. S. Census Bureau (2016). Percent of single-parent families in a state was obtained from the Kids Count Data Center table, *Children in single-parent families, 2015* (National Kids Count, 2017).

Table 1. Families

State	Parent Education Rank	Student Proficiency, Low Parental Ed %	Family Income (\$k)	Single Parent Percent	Overall Rank
New					
Hampshire	2	20	81	30	1
New Jersey	9	17	88	30	2
Massachusetts	4	17	88	33	3
Minnesota	7	15	78	28	4
Washington	10	16	74	30	5
Colorado	3	14	75	28	6
Connecticut	6	15	89	32	7
Virginia	11	16	78	32	8
Vermont	4	15	67	28	9
Wyoming	29	20	72	29	10
Montana	15	23	61	28	11
Kansas	13	16	66	30	12
North Dakota	33	NA	75	26	13
Maryland	8	14	90	36	13
Hawaii	12	13	79	31	15
Alaska	21	NA	82	34	16
DC	1	NA NA	84	53	17
South Dakota	30	17	67	32	18
Nebraska	24	15	66	29	19
Utah	14	10	70	19	19
Illinois	16	14	70 72	34	21
Oregon	16	14 16	63	31	22
Maine	20		62	35	23
Delaware	19	15	73	40	24
Iowa	27	11	68	30	25
Michigan	26	15	62	35	26
Texas	41	18	63	36	27
Missouri	31	15	61	35	28
New York	16	11	71	36	28
Idaho	38	13	58	25	30
Pennsylvania	22	11	68	36	30
Ohio	35	15	62	36	32
Wisconsin	25	9	67	32	32
California	28	10	71	34	34
Rhode Island	23	11	71	40	35
North Carolina	33	16	57	37	36
Georgia	31	15	59	39	37
Kentucky	45	17	55	36	38
Indiana	42	14	61	35	39
Oklahoma	44	12	59	35	40
Florida	37	15	57	40	41
Arizona	36	11	60	38	42
Arkansas	48	15	52	36	43
Nevada	47	12	61	39	44
Tennessee	43	12	56	37	45
South Carolina	40	11	56	40	46
Alabama	45	11	54	40	47
New Mexico	38	9	55	41	48
Louisiana	49	10	57	45	49
West Virginia	51	7	52	38	50
Mississippi	50	11	50	48	51
Mean (SD)		14 (3)	67 (11)	34 (6)	
(00)		- (0)	· (11)	2.(0)	

#### **Families**

#### **Results**

Based on parent education rank for each state, comprised of an average of the completion rates for high school, bachelors, and advanced degrees in each state, the top 2 states were the District of Columbia and New Hampshire, and the bottom two states were Mississippi and West Virginia. For student proficiency when parent education was low, the top performing state was Montana (23% proficiency), and New Hampshire and Wyoming tied for second (20% proficiency); the worst performers were West Virginia (7%) and Wisconsin (9%). Median family income was highest in Maryland (\$90,000) and Connecticut (\$89,000), and lowest in Mississippi (\$50,000), and Arkansas and West Virginia (\$52,000). The states with the lowest percentage of children living in single-parent homes were Utah (19%) and Idaho (25%), and Mississippi (48%) and the District of Columbia (53%) had the highest percentages. Based on average ranks, the top two states across these variables were New Hampshire and New Jersey, with West Virginia and Mississippi rounding out the end of the list.

### Money

Although it may be true that money cannot buy happiness, lack of money often results in unhappiness. Money is one of the biggest causes of fights in marriages. In addition to basics, money allows for travel and accessories. Both individual salary and salary compared to others are related to job satisfaction (Kifle, 2014). Job satisfaction, of course, is related to life satisfaction. Salary is an important part of the equation, but how much things cost varies by location. For example, a salary of \$60,000 in Chicago is comparable to a salary of about \$45,000 in San Antonio due to the lower cost of groceries, housing, utilities, transportation, and heath care. This means a teacher could move from Chicago to San Antonio, take a \$5,000 pay cut, and still be better off financially.

However, teachers do not seem to be in it for the money. Out of five reasons for leaving teaching, salary ranked last behind students, emotional aspects of the job, working conditions, and lack of respect (Marlow, Inman, & Betancourt-Smith, 1996). Intrinsic factors of personal teaching efficacy, working with students, and job satisfaction were related to teacher retention, but the extrinsic factors of low salary and role overload were not perceived to be significantly related to satisfaction and retention (Perrachione, Rosser, & Peterson, 2008).

#### **Factors**

- A. **Average Teacher Salary:** 2016. The amount of money earned is the basic bottom line for survival and beyond (National Education Association, 2017).
- B. **Ten Year Percent Change in Teacher Salary:** 2015. This indicates a trend line for supporting teacher pay over a decade (National Education Association, 2016).
- C. One Year Percent Change in Teacher Salary: 2016. This is the "what have you done for me lately" pay indicator (National Education Association, 2017).
- D. **Per Student Revenue Funding:** 2016. With teachers using their own salary to supplement school supplies, the amount of money for salaries, supplies, and all needed resources is important (National Education Association, 2017).
- E. **Cost of Living:** 2017. How much you make is relative to how much things cost. A salary that is adequate in Kansas may be grossly inadequate in California. However, within state variability is probably greater than state-to-state (Missouri Economic Research and Information Center, 2017).

	Average teacher	Percent	Percent Change		Cost of	Overall
State	Salary (\$k)	10 years	1 year	Per Student Revenue (\$k)	Living	Rank
DC	75.81	29	0.40	31.01	153.30	1
New York	79.15	40	2.00	23.71	131.10	2
Vermont	58.90	34	2.20	23.41	120.77	3
Alaska	67.44	27	1.00	21.65	131.50	4
Wyoming	58.14	42	1.30	21.43	94.70	5
Connecticut	72.01	24	0.40	21.43	129.10	6
New Jersey	69.33	22	0.40	21.24	121.20	7
Massachusetts	76.98	38	2.10	18.55	129.40	8
Rhode Island	66.20	23	0.40	17.78	123.20	9
New Hampshire	56.62	33	1.10	17.03	118.00	10
Maryland	66.46	25	1.50	16.99	129.10	11
Pennsylvania	65.15	21	1.10	16.78	102.10	12
Maine	50.50	26	1.10	16.12	115.00	13
Hawaii	57.43	24	0.40	14.93	187.70	14
Delaware	59.96	17	0.40	14.86	102.50	15
West Virginia	45.62	19	(0.40)	14.42	95.30	16
Minnesota	56.91	20	0.40	14.17	99.70	17
Illinois	61.34	6	0.40	13.84	97.10	18
North Dakota	50.47	36	3.10	13.56	99.30	19
Wisconsin	54.12	23	3.50	12.94	99.30	20
	60.36	24	1.50	12.83	127.30	20
Oregon Ohio	56.44	15	3.20	12.77	92.70	22
	49.75	23	0.50	12.77	93.80	23
Louisiana						
Kentucky	52.13	25 36	1.90 1.90	12.50	94.60	24 25
Iowa	54.42			12.46	92.30	25 26
Kansas	47.76	25	0.30	12.41	91.10	
Virginia	50.83	21	0.60	12.29	101.70	27
Indiana	50.72	9	(0.30)	12.19	90.60	28
South Carolina	48.77	15	0.60	11.98	100.50	29
Missouri	47.96	21	1.10	11.96	90.10	30
New Mexico	47.16	18	1.20	11.80	96.20	31
Washington	53.74	15	2.40	11.68	106.10	32
Arkansas	48.22	11	0.80	11.22	87.90	33
Colorado	46.16	13	3.90	11.17	101.60	34
Montana	51.03	32	0.70	10.90	98.00	35
Nebraska	51.39	28	1.70	10.87	93.90	36
South Dakota	42.03	20	2.70	10.82	100.20	37
Texas	51.89	24	2.30	10.68	90.40	38
California	77.18	26	4.20	10.48	136.30	39
Michigan	62.03	18	0.10	9.88	89.50	40
Georgia	54.19	15	1.50	9.79	90.00	41
Florida	49.20	18	0.40	9.75	100.40	42
Tennessee	48.22	14	0.50	9.74	89.70	43
North Carolina	47.94	10	0.30	9.48	94.50	44
Alabama	48.52	27	(0.20)	9.33	90.60	45
Mississippi	42.74	10	0.40	9.23	85.00	46
Oklahoma	45.28	20	(0.10)	9.10	89.10	46
Nevada	56.94	31	0.40	9.06	101.60	48
Utah	46.89	24	0.40	8.50	94.00	49
Arizona	47.22	13	(0.50)	8.08	96.60	50
Idaho	46.12	11	2.00	7.67	90.80	51
Mean (SD)	55.52 (9.52)	22.40 (8.30)	1.16 (1.12)	13.71 (4.80)	105.36 (19.69)	

Mean (SD) 55.52 (9.52) 22.40 (8.30) 1.16 (1.12) 13.71 (4.80) 105.36 (19.69)

## Money

#### Results

As one might expect, many of the states with the highest teacher salaries also have the highest cost of living. Fortunately, these states also seem to be making efforts to further increase teacher salaries. Southern states dominate the lowest ranked states across the Money categories. However, they also rank well on cost of living. Wyoming and Pennsylvania appear to have the best mix of teacher salaries and cost of living, whereas Arizona and South Dakota appear to have the worst.

#### **Politics**

Education is a political enterprise. Elected officials from the governor to the school board members determine policies and practices for schools. Although it might not seem politically correct to favor one political party over the other, the reality is that the Democratic Party has been more supportive of education and especially public education. A recent study found that Democrats are more supportive than Republicans of policies advocated by educational researchers (Marchant, David, & Bacos, 2016). Therefore, the political climate of a state suggests policies, practices, and even attitudes that may benefit or be a detriment to teachers.

#### **Factors**

- A. **Gallup Democrat Advantage:** 2016. The percentage of Gallup poll respondents who identify politically as Democrat (Jones, 2017).
- B. **Gallup Liberal Advantage:** 2017. The percentage point difference between Gallup poll respondents who identify as politically liberal vs those who identify as politically conservative, regardless of party affiliation (Newport, 2017). A negative number in this column indicates a conservative advantage.
- C. **Governor:** 2017. The political affiliation of governors, by state (Wikipedia, 2017).
- D. **State House Democrats:** 2017. The percentage of house seats in a state filled by Democrats (Wikipedia, 2017).
- E. **State Senate Democrats:** 2017. The percentage of senators in a state who are affiliated with the Democratic party (Wikipedia, 2017).

State	Gallup Dem Advantage	Liberal Advantage	Governor	State House Dem	State Senate Dem	Overall Rank
Hawaii	18.7	-2.00	12.50	88.24	100.00	1
Rhode Island	15.0	-4.00	12.50	84.00	86.84	
California	18.3	-1.00	12.50	68.75	65.00	2 2
Massachusetts	24.9	8.00	37.50	78.13	85.00	4
New York	21.1	2.00	12.50	71.33	38.10	5
Delaware	19.3	-7.00	12.50	60.98	52.38	6
Oregon	11.5	-1.00	12.50	58.33	56.67	6
Connecticut	18.3	4.00	12.50	52.32	50.00	8
Vermont	25.5	14.00	37.50	56.00	70.00	9
Maryland	23.2	-1.00	37.50	63.83	70.20	10
Washington	10.1	0.00	12.50	51.02	48.98	11
Illinois	17.9	-4.00	37.50	56.30	62.71	12
New Jersey	10.9	-4.00	37.50	60.00	60.00	13
Colorado	-0.6	-9.00	12.50	56.92	48.57	13
Minnesota	4.7	-9.00	12.50	43.28	49.25	15
Maine	3.9	0.00	37.50	50.33	48.57	16
New Mexico	5.5	-13.00	37.50	54.29	61.90	17
Nevada	-1.5	-13.00	37.50	64.29	52.38	18
Pennsylvania	2.3	-12.00	12.50	39.90	32.00	19
Virginia	0.4	-15.00	12.50	33.33	47.50	20
New Hampshire	-4.3	-9.00	37.50	43.72	41.67	21
Arizona	-0.3	-14.00	37.50	43.72	43.33	22
Alaska	-0.3 -8.5	-11.00	25.00	55.00	30.00	23
North Carolina	-6.3 1.5	-20.00	12.50	38.33	30.00	23
	4.9	-10.00	37.50	40.91	28.95	25
Michigan Wisconsin	2.2	-12.00	37.50	35.35		25 26
	-9.0	-12.00	12.50	37.00	39.39 35.29	20 27
West Virginia Louisiana	-4.4	-27.00	12.50	40.00	35.29 35.90	28
Florida	1.1	-13.00				28 29
	-5.8	-19.00	37.50 37.50	34.17 41.00	37.50 39.58	30
Iowa Montana	-3.8 -16.1	-26.00	12.50		39.38	31
Texas	-3.9	-20.00	37.50	41.00 37.33	35.48	32
	-3.9 -1.2	-19.00		34.44	32.14	33
Georgia	-10.9		37.50	45.90	and the second s	34
Mississippi Ohio	-10.9 -5.1	-31.00	37.50	33.33	42.31 27.27	35
South Carolina	-12.1	-16.00 -25.00	37.50 37.50	35.48	39.13	35 36
Nebraska	-12.1	-18.00	37.50	33.46	39.13	37
		-22.00		26.00	20.05	
Kentucky	-9.2		37.50	36.00	28.95	38 39
Indiana	-8.0	-19.00	37.50	30.00	18.00	
Missouri	-8.3	-21.00	37.50	28.22	26.47	40
Arkansas	-14.3 -16.9	-28.00	37.50	27.00	37.14	41
Kansas		-21.00	37.50	32.00	22.50	42
Tennessee Alabama	-11.5	-26.00	37.50	25.25	15.15	43
	-17.0 22.7	-30.00 25.00	37.50	31.43	22.86	44 45
South Dakota	-22.7 27.6	-25.00	37.50	14.29	17.14	45
Utah	-27.6	-26.00	37.50	20.00	17.24	46
Oklahoma	-17.0 26.2	-30.00	37.50	25.74	12.50	47
Idaho	-26.2	-28.00	37.50	14.29	17.14	48
North Dakota	-20.9	-31.00	37.50	13.83	19.15	49
Wyoming Magn (SD)	-33.8	-35.00	37.50	15.00	10.00	50
Mean (SD)	-1.37 (14.61)	-14.36 (11.49)		43.69 (17.74)	41.31 (19	.90)

Mean (SD) -1.37 (14.61) -14.36 (11.49) 43.69 (17.74) 41.31 (19.90)

## **Politics**

#### **Results**

States traditionally considered "blue" states appear near the top of this list and more red states tend to show up as red near the bottom of the list. For the overall ranking, the governor has the same weight as one legislative house. Functionally, the governor may actually exert more or less political power than this. Some governors appoint the state official in charge of education which could increase the governor's political influence in education.

#### School/Class Size

Size matters for schools and classrooms, and bigger is not better. A school is a community of teachers and learners. When that community gets too big the sense of belonging can get lost for students and teachers. Although bigger schools may have more resources and better football teams, that does not tend to translate into more learning. And as class size grows, teaching and learning suffer. Teachers cannot and do not teach the same way to a small number of students as they do to a larger class. Although one or two students may not make a difference, there is a critical mass where teachers cannot function the same and individualization and differentiation suffer.

#### **Factors:**

- **A. Number of Students in Public School (NEA table B-2):** 2016. Public school enrollment by state, according to the National Education Association (NEA; 2017).
- **B.** Percent Change Enrolled (NEA table B-3): 2016. The percent change in enrollment between fall 2015 and fall 2016, according to the NEA (2017).
- C. Average School Size: 2016. Indicative of per-school enrollment, calculated by dividing the number of students enrolled in a state's public schools (NEA, 2017) by the number of schools in that state (National Center for Education Statistics, 2016a).
- **D.** Student-Teacher Ratio (NEA table C-3): 2016. Students enrolled per teacher in public K-12 schools (NEA, 2017).

#### Method Note for School/Class Size

For information in the Size table, we used the NEA (2017) rankings. For the number of students in a state, we used table B-2 of the NEA Rankings and Estimates (larger number of students in a state was given a higher rank); for the percent change in enrollment from fall 2013-fall 2014, we used table B-3 (again, larger was better); for student/teacher ratio, we used table C-6 (the smaller the better); and the number of schools by state was obtained using the most recent available data (2014-2015 school year; the smaller, the better) from the National Center for Education Statistics (2016a). To calculate average school size, we divided the number of students in a state by the number of schools in that state.

State	# Students in Public School	% Change Enrolled 2015-2016	Average School Size	Student/ Teacher Ratio	Overall Rank
Missouri	885,142	0.30	366.67	12.20	1
South Dakota	130,936	2.50	187.59	13.90	2
North Dakota	103,236	1.30	201.24	12.20	3
Kansas	491,577	1.40	367.67	14.30	4
Nebraska	315,542	1.00	288.96	12.90	5
Texas	5,289,235	1.50	601.19	15.20	6
Wyoming	94,002	1.10	256.14	12.50	7
Virginia	1,286,434	0.70	602.83	12.60	8
Montana	144,532	0.40	175.40	14.20	9
New Jersey	1,342,685	-0.10	522.24	11.90	10
Wisconsin	867,800	0.40	384.83	15.20	11
Tennessee	964,434	0.70	521.03	14.50	12
New York	2,640,250	-0.20	547.09	12.70	12
Alaska	129,588	0.30	255.60	13.80	14
Massachusetts	952,156	0.10	510.27	13.20	15
Colorado	899,473	1.60	488.05	16.40	16
Kentucky	695,450	9.10	449.26	17.00	17
Maine	181,599	-0.50	294.80	12.10	18
Rhode Island	135,551	2.10	441.53	15.10	18
Florida	2,746,269	1.30	635.86	16.10	20
Oklahoma	692,670	0.90	385.67	16.30	21
Mississippi	493,006	1.20	460.32	15.40	21
Vermont	72,390	-0.90	229.08	11.70	23
Louisiana	725,606	1.50	524.66	16.00	23 24
New	723,000	1.30	324.00	10.00	24
Hampshire	181,831	-0.60	372.60	12.50	25
Connecticut	531,923	-0.90	409.49	12.70	23 26
	576,407	4.40	464.10	20.00	26
Oregon Minnesota	848,742	-5.50	348.56	15.10	28
Pennsylvania	1,713,698	-0.20	560.95	14.60	28
Maryland	879,601	0.60	611.68	14.60	30
Illinois	2,060,433	0.00	490.46	16.70	31
Arkansas	475,801	0.30	432.55	15.30	32
North Carolina	1,443,770	0.00	556.58	15.30	32
South Carolina	763,588	1.20	613.82	15.30	32
Iowa	509,063	-1.40	373.21	14.40	35
New Mexico	334,474		373.21	15.50	36
Washington	1,076,870	0.20 0.10	449.07	18.70	36
Ohio	1,792,382	-0.40	493.63	16.00	38
Indiana	1,045,217	0.70	547.23	17.40	39
Idaho	294,471	1.20	396.86	19.20	40
Michigan	1,483,645	-1.40	424.38	17.50	41
California	6,226,814	0.10	604.37	22.50	41
West Virginia	279,825	-1.50	375.60	14.40	43
Alabama	730,563	-0.50	480.95	15.90	44
Arizona	1,062,764	-0.10	465.92	23.80	44
Utah	635,129	1.90	622.68	22.90	43 46
Georgia	1,756,553	-0.90	754.21	15.70	46 47
DC Georgia		0.00		17.60	
Delaware	81,917		357.72		48 49
Nevada	136,027	0.10 1.10	621.13 673.90	15.10 25.70	49 50
Hawaii	448,142 182,486	-0.60	631.44	16.80	51
Mean (SD)	977,092 (1,168,323)	0.05 (1.83)	455.08 (134.82)	15.66 (3.06)	JI
wican (SD)	7/1,092 (1,108,323)	0.03 (1.83)	433.08 (134.82)	13.00 (3.00)	

#### School/Class Size

#### Results

The average number of students per state was 977,092 (SD = 1.17 million). The states with the most students were California (6,226,814) and Texas (5,289,235), but in terms of overall rank, Texas landed among the recommended schools, while California ranked in those we recommended against. In the change in enrollment category from 2015 to 2016, North Dakota came in first with a 9% increase and Oregon second with a 4% increase in enrollment; both states fell in the middle range for overall rank in this category. For school size, the smallest two were Montana (175 students) and South Dakota (188 students), and rounding out the bottom of the list in this category were Nevada (823 students) and Georgia (754 students). For smallest student-to-teacher ratio, the winners were Vermont (11.7:1) and New Jersey (11.9:1), with New Jersey falling among our recommended states. Averaging the ranks overall puts Missouri at the top, followed by South Dakota; Nevada came in second to last above Hawaii.

#### **Charter Schools**

Fewer charter schools in a state means more funding is available for traditional public schools (Chi & Welner, 2008). In addition, the way many charter schools distinguish themselves from their public school counterparts involves experimenting with merit pay (Gross & Dearmond, 2010). More importantly, although one goal of charter schools is to increase autonomy and opportunities for teachers, this autonomy is not always present (Gawlik, 2007). Further, charter schools have a negative impact on teacher unions within a state (Giersch, 2014), thereby weakening teacher ability to influence policy. Because there is no consistent evidence that charter school outperform traditional public schools, yet they carry the message there is something wrong with traditional school, their net effect on the teaching environment is a negative one.

#### **Factors**

- **A.** Percent of Total Public Schools: 2015. The percentage of all public schools that is accounted for by charter schools within a given state (National Center for Education Statistics, 2016b).
- **B.** Percent of Total Enrollment: 2015. The percentage of students in a state that are enrolled in a charter school (National Center for Education Statistics, 2016b).
- **C. CER Charter School Law Ranking**: 2017. Reverse-coded charter school law rankings by state, as reported by The Center for Education Reform (2017).
- **D.** NAPCS Charter School Law Ranking: 2017. Reverse-coded charter school law ranking as reported by the National Alliance for Public Charter Schools (2017).

State	Charter % of Schools	Charter % Enrollment	CER Charter Laws	NAPCS Charter Laws	Charter Rank
Montana	0.0	0.0	0	0	1
Nebraska	0.0	0.0	0	0	1
North Dakota	0.0	0.0	0	0	1
South Dakota	0.0	0.0	0	0	1
Vermont	0.0	0.0	0	0	1
West Virginia	0.0	0.0	0	0	1
Kentucky	0.0	0.0	29	0	7
Iowa	0.2	0.1	6	82	8
Kansas	0.8	0.6	12	65	9
Virginia	0.3	0.1	14	91	10
Mississippi	0.0	0.0	21	160	11
Maryland	3.3	2.2	9	51	12
Wyoming	1.1	0.5	21	87	13
Connecticut	1.7	1.5	25	126	14
Illinois	1.6	3.1	24	123	15
Alabama	0.0	0.0	23	174	16
Washington	0.0	0.0	20	164	17
New Jersey	3.4	2.7	30	124	17
Alaska	5.3	4.7	18	78	17
New Hampshire	5.7	1.4	24	139	20
Missouri	2.6	2.2	37	130	21
Rhode Island	8.1	4.6	20	117	22
Maine	1.0	0.5	26	161	23
Tennessee	4.3	2.2	35	133	24
Arkansas	5.5	4.1	27	132	25
Oregon	10.1	5.3	28	126	26
Oklahoma	1.9	2.4	38	156	27
Georgia	3.8	4.1	35	145	27
Pennsylvania	6.1	7.7	32	131	29
Wisconsin	10.8	5.1	36	104	30
Hawaii	11.8	5.7	29	136	31
Texas	7.7	5.0	39	142	32
Idaho	7.0	6.6	35	150	32
New York	5.1	0.9	42	162	34
South Carolina	5.3	3.6	40	153	34
Delaware	11.0	9.1	26	151	34
Ohio	10.5	7.1	32	147	37
New Mexico	11.0	6.7	34	146	38
Massachusetts	4.3	3.9	41	159	39
Nevada	6.8	6.3	35	159	39
North Carolina	5.7	4.6	39	157	41
Indiana	4.2	3.6	51	176	42
Utah	10.8	9.7	39	146	43
Louisiana	9.8	9.7	35	161	44
Michigan	10.7	9.6	47	137	44
Minnesota	8.4	5.6	47	171	46
California	11.4	8.7	43	154	46
Florida	15.6	9.1	42	161	48
DC	48.2	42.7	56	153	49
Colorado	11.6	11.4	44	164	50
Arizona	27.1	18.6	51	160	51
Mean (SD)	6.31 (7.99)	4.77 (6.67)	28.18 (14.88)	118.51 (55.14)	

#### **Charter Schools**

#### **Methods Note for Charter Schools**

To rank states according to charter school enrollment, we averaged the *percent of total public schools* with the *Percent of total enrollment* that charter schools comprised in a state, as reported by the National Center for Education Statistics (2016b). The rankings were then recoded to reflect the positive nature of less charter schools and charter school enrollment. To rank states according to charter school laws, we used existing ranking systems, one published by The Center for Education Reform (2017), and the other by the National Alliance for Public Charter Schools (2017), and reverse coded these as well to reflect the negative nature of these laws on teachers. We took each of these charter school law ranking categories, combined with the aforementioned categories of information from the NCES, and averaged them. Each state was then ranked, based on this average score. States that did not have a Charter Law ranking in each category were listed with a zero for the score, resulting in those states tying for 1st place in the respective charter law category.

#### Results

The states tied for the lowest percentage of public schools accounted for by charter schools were MT, NE, ND, SD, VT, WV, KY, MS, AL, and WA; the highest percentages were in AZ (27%) and DC (48%). Along with VA, the same states with the lowest percentage of charter schools also had the lowest percentage of students enrolled in charter schools, as did the states with the highest percentage enrollment, with AZ at almost 19% and DC at almost 43%. In terms of charter law rankings, the top states were MT, NE, ND, SD, VT, and WV, while at the bottom were MN and IN.

Based on zero scores for enrollment and charter school laws, six states tied for first in the charter school category: Montana, Nebraska, North Dakota, South Dakota, Vermont, and West Virginia. Colorado came in second to last, and Arizona came in last overall.

## **School Ratings**

#### **Factors**

- A. **Rating System:** 2013. The type of scale used to rate school systems within a particular state (Education Commission of the States, 2016). States using an A-F ranking system were given a 0 in this category. Those using a 1-5 rating system were given a 5 and states using specific categories earned a 10. States scoring on a continuum rather than a set scale as above were earned a 15 in this category, and those having no evident rating system earned 20 points.
- B. What gets measured: 2013. The factors contributing to the grade received by school systems in a state (Education Commission of the States, 2016). Scoring in this category is dependent upon the number of items used in rating a state. Each item used in measuring school system performance earned that state 1 point, up to 15 items. Anything beyond 1 items was scored as 15 for this category.
- C. What gets reported: 2013. The categories of information that are included in the report for any given school in a state (Education Commission of the States, 2016). As with the "What gets measured" category, states earned 1 point for each category of information included in their reports, up to 15. In addition, if one of the factors related to student demographic or socioeconomic characteristics, the state earned an additional 3 points, for a total possible score of 18 in this category.

New Hampshire   20	State	Rating System	What Gets Measured	What Gets Reported	Total (Score)	Rank
Montana   20						1
Pennsylvania						
Illinois   20	and the second s					
Renticky   20	_					
Missouri         10         14         18         42         7           Minnesota         10         13         18         41         8           Wisconsin         10         15         15         40         9           Vermont         20         6         13         39         10           North Dakota         20         7         10         37         11           Washington         10         6         18         34         13           New York         10         6         18         34         13           South Carolina         10         6         18         34         13           Georgia         15         15         4         34         13           Georgia         15         15         4         34         13           Georgia         15         18         33         17           Tennessee         10         5         18         33         17           Remace         10         5         18         33         17           New Mexico         0         18         15         33         17           New Jame						
Minnesota         10         13         18         41         8           Wisconsin         10         15         15         40         9           Vermont         20         6         13         39         10           North Dakota         20         7         10         37         11           Washington         10         8         17         35         12           New York         10         6         18         34         13           South Carolina         10         6         18         34         13           Delaware         20         5         9         34         13           Georgia         15         15         4         34         13           Georgia         15         15         4         34         13           Gorgia         15         15         4         34         13           Alaska         5         10         18         33         17           Tenessee         10         5         18         33         17           New Mexico         0         18         15         33         17 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
Wisconsin         10         15         15         40         9           Vermont         20         6         13         39         10           North Dakota         20         7         10         37         11           Washington         10         8         17         35         12           New York         10         6         18         34         13           South Carolina         10         6         18         34         13           Delaware         20         5         9         34         13           Georgia         15         15         4         34         13           Oklahoma         0         15         18         33         17           Tennessee         10         5         18         33         17           New Aska         5         10         18         33         17           New Mexico         0         18         15         33         17           New dexico         0         18         15         33         17           Indian         0         14         18         32         22						
Vermont         20         6         13         39         10           North Dakota         20         7         10         37         11           Washington         10         8         17         35         12           New York         10         6         18         34         13           South Carolina         10         6         18         34         13           Delaware         20         5         9         34         13           Georgia         15         15         4         34         13           Georgia         15         18         33         17           Alaska         5         10         18         33         17           Alaska         5         10         18         33         17           Penessee         10         5         18         33         17           New Mexico         0         18         15         33         17           New Agrico         0         18         15         33         17           Indian         0         14         18         32         22           New Exico	Minnesota	10				8
North Dakota         20         7         10         37         11           Washington         10         8         17         35         12           New York         10         6         18         34         13           South Carolina         10         6         18         34         13           Delaware         20         5         9         34         13           Georgia         15         15         4         34         13           Oklahoma         0         15         18         33         17           Tennessee         10         5         18         33         17           Tennessee         10         18         33         17           Howled         18         33         17         18         32         22	Wisconsin		15			9
Washington         10         8         17         35         12           New York         10         6         18         34         13           South Carolina         10         6         18         34         13           Delaware         20         5         9         34         13           Oklahoma         0         15         18         33         17           Alaska         5         10         18         33         17           Temnessee         10         5         18         33         17           New Mexico         0         18         15         33         17           New Mexico         0         18         15         33         17           New Mexico         0         18         15         33         17           New Acada         5         13         15         33         17           New Acada         5         13         15         33         17           New Corolina         0         14         18         32         22           Nort Carolina         0         14         18         32         22      <	Vermont	20	6		39	10
New York         10         6         18         34         13           South Carolina         10         6         18         34         13           Delaware         20         5         9         34         13           Georgia         15         15         4         34         13           Oklahoma         0         15         18         33         17           Tennessee         10         5         18         33         17           Tennessee         10         5         18         33         17           New Mexico         0         18         15         33         17           New dexico         13         15         33         17           Indiana         0         14         18         32         22           North Carolina         0         14         18         32         22           Kansas         10         6         15         33         17           Indiana         0         14         18         32         22           Kansas         10         4         18         32         22           Kansas	North Dakota	20	7	10	37	11
New York         10         6         18         34         13           South Carolina         10         6         18         34         13           Delaware         20         5         9         34         13           Georgia         15         15         4         34         13           Oklahoma         0         15         18         33         17           Alaska         5         10         18         33         17           Tennessee         10         5         18         33         17           New Mexico         0         18         15         33         17           New Mexico         0         18         15         33         17           Newada         5         13         15         33         17           Indiana         0         14         18         32         22           New Hexico         10         14         18         32         22           New Jersey         10         4         18         32         22           Kansas         10         6         15         31         25	Washington	10	8	17	35	12
Delaware         20         5         9         34         13           Georgia         15         15         4         34         13           Oklahoma         0         15         18         33         17           Alaska         5         10         18         33         17           New Mexico         0         18         15         33         17           New Actico         0         18         15         33         17           Nevada         5         13         15         33         17           Indiana         0         14         18         32         22           New Jersey         10         4         18         32         22           New Lersey         10         4         18         32         22 <t< td=""><td></td><td>10</td><td>6</td><td>18</td><td>34</td><td>13</td></t<>		10	6	18	34	13
Delaware         20         5         9         34         13           Georgia         15         15         4         34         13           Oklahoma         0         15         18         33         17           Alaska         5         10         18         33         17           New Mexico         0         18         15         33         17           New Actico         0         18         15         33         17           Nevada         5         13         15         33         17           Indiana         0         14         18         32         22           New Jersey         10         4         18         32         22           New Lersey         10         4         18         32         22 <t< td=""><td>South Carolina</td><td>10</td><td>6</td><td>18</td><td>34</td><td>13</td></t<>	South Carolina	10	6	18	34	13
Georgia         15         15         4         34         13           Oklahoma         0         15         18         33         17           Alaska         5         10         18         33         17           Tennessee         10         5         18         33         17           New Mexico         0         18         15         33         17           Nevada         5         13         15         33         17           Indiana         0         14         18         32         22           New Jersey         10         4         18         32         22           Kew Jersey         10         4         18         32         22           Kansas         10         6         15         31         25           Maryland         5         7         18         30         26           West Virginia         15         5         10         30         26           Wyoming         10         9         10         29         28           DC         15         4         10         29         28           Arkansas <td>Delaware</td> <td>20</td> <td><mark>-</mark></td> <td></td> <td>34</td> <td>13</td>	Delaware	20	<mark>-</mark>		34	13
Oklahoma         0         15         18         33         17           Alaska         5         10         18         33         17           Tennessee         10         5         18         33         17           New Mexico         0         18         15         33         17           New Add         5         13         15         33         17           New Add         5         13         15         33         17           Indiana         0         14         18         32         22           North Carolina         0         14         18         32         22           North Carolina         0         14         18         32         22           New Jersey         10         4         18         32         32						
Alaska         5         10         18         33         17           Tennessee         10         5         18         33         17           New Mexico         0         18         15         33         17           New Accada         5         13         15         33         17           Indiana         0         14         18         32         22           North Carolina         0         14         18         32         22           New Jersey         10         4         18         32         22           Kansas         10         6         15         31         25           Maryland         5         7         18         30         26           Wyorling         15         5         10         30         26           Wyoming         10         9         10         29         28           DC         15         4         10         29         28           DC         15         4         10         29         28           Oregon         5         5         18         28         30           Colorado						
Tennessee         10         5         18         33         17           New Mexico         0         18         15         33         17           Nevada         5         13         15         33         17           Indiana         0         14         18         32         22           North Carolina         0         14         18         32         22           New Jersey         10         4         18         32         22           Maryland         5         7         18         30         26           West Virginia         15         5         10         30         26           West Virginia         15         4         10         29         28           Arkansas         5         5         18         28         30						
New Mexico         0         18         15         33         17           Nevada         5         13         15         33         17           Indiana         0         14         18         32         22           North Carolina         0         14         18         32         22           New Jersey         10         4         18         32         22           Kansas         10         6         15         31         25           Maryland         5         7         18         30         26           West Virginia         15         5         10         30         26           Wyoming         10         9         10         29         28           Arkansas         5         5         18         28         30           Oregon         5         5         18         28         30           Oregon         5         5         18         28         30           Colorado         10         9         9         28         30           Massachusetts         5         6         16         27         33           Con						
Nevada         5         13         15         33         17           Indiana         0         14         18         32         22           North Carolina         0         14         18         32         22           New Jersey         10         4         18         32         22           Kansas         10         6         15         31         25           Maryland         5         7         18         30         26           West Virginia         15         5         10         30         26           Wyoming         10         9         10         29         28           DC         15         4         10         29         28           Arkansas         5         5         18         28         30           Oregon         5         5         18         28         30           Colorado         10         9         9         28         30           Colorado         10         9         9         28         30           Massachusetts         5         6         16         27         33           Hawaii <td>and the second s</td> <td></td> <td></td> <td></td> <td></td> <td></td>	and the second s					
Indiana						
North Carolina         0         14         18         32         22           New Jersey         10         4         18         32         22           Kansas         10         6         15         31         25           Maryland         5         7         18         30         26           West Virginia         15         5         10         30         26           Wyoming         10         9         10         29         28           Arkansas         5         5         18         28         30           Oregon         5         5         18         28         30           Colorado         10         9         9         28         30           Colorado         10         9         9         28         30           Massachusetts         5         6         16         27         33           Colorado         10         9         9         28         30           Massachusetts         5         6         16         27         33           Massachusetts         5         6         16         27         33         26						
New Jersey         10         4         18         32         22           Kansas         10         6         15         31         25           Maryland         5         7         18         30         26           West Virginia         15         5         10         30         26           Wyoming         10         9         10         29         28           DC         15         4         10         29         28           Arkansas         5         5         18         28         30           Oregon         5         5         18         28         30           Colorado         10         9         9         28         30           Massachusetts         5         6         16         27         33           Connecticut         5         3         18         26         34           Florida         0         15         11         26         34           Hawaii         10         11         5         26         34           Iowa         20         3         3         26         34           Utah						
Kansas         10         6         15         31         25           Maryland         5         7         18         30         26           West Virginia         15         5         10         30         26           Wyoming         10         9         10         29         28           DC         15         4         10         29         28           Arkansas         5         5         18         28         30           Oregon         5         5         18         28         30           Colorado         10         9         9         28         30           Massachusetts         5         6         16         27         33           Connecticut         5         3         18         26         34           Florida         0         15         11         26         34           Hawaii         10         11         5         26         34           Hawaii         10         11         5         26         34           Utah         0         7         18         25         38           Alabama						
Maryland         5         7         18         30         26           West Virginia         15         5         10         30         26           Wyoming         10         9         10         29         28           DC         15         4         10         29         28           Arkansas         5         5         18         28         30           Oregon         5         5         18         28         30           Colorado         10         9         9         9         28         30           Colorado         10         9         9         9         28         30           Connecticut         5         3         18         26         34           Florida         0         15         11         26         34           Florida         0         15         11         26         34           Hawaii         10         11         5         26         34           Iowa         20         3         3         3         26         34           Utah         0         7         18         25         38						
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Maine 0 5 3 8 51	_					
	Mean (SD)	8.43 (6.89)	9.00 (4.33)	12.96 (5.06)	30.39 (8.86)	

# **School Ratings**

## Results

By this system, the states with the best school rating systems were New Hampshire and California; Arizona and Maine earned the lowest scores.

#### **Science**

#### **Acceptance of Science, Evolution**

Though there are other problems with science education (Holden, 2005), views toward evolution are indicative of science acceptance (Ferguson & Kameniar, 2014; Little, 2013; Opfer, Nehm, & Ha, 2012). The social and intellectual context wherein a school exists must be taken into consideration in order to affect an authentic education in science (Anderson, 2007). Acceptance and understanding of science in a region affects the education process (Entradas, 2015; Glaze & Goldston, 2015). Understanding parent and student acceptance of scientific principles can indicate how students interpret what is being taught (Ferguson & Kameniar, 2014), indicating the fit between a teacher's knowledge and what is learned by his students.

#### **Factors**

- A. **Science Grade Score:** 2012. The degree to which the science standards in a state a) clearly specify content covered, and b) covered appropriate content at a level commensurate with students' grade levels, according to Lerner, Goodenough, Lynch, Schwartz, and Schwartz (2012).
- B. **Acceptance of Evolution:** 2010. The percentage of respondents to a Pew Research Center survey who agreed that evolution was the best explanation for the origins of humanity on Earth (Coyne, 2013).
- C. **Next Generation Science Standards:** 2016. The degree to which a state has adopted education standards that are generous in content and practice and coherently structured across grade levels and disciplines, such that all students are provided with a "benchmarked" science education (Wikipedia, 2016). States that have already adopted these standards are ranked 1<sup>st</sup> (there are 18, plus the District of Columbia; 14 of these were involved in creation of the standards as well); those considered "lead state partners" (i.e. those involved in the development of the standards but have not yet adopted them) are ranked 18<sup>th</sup> (there are 12 states). Those who have neither adopted the standards nor were involved in their creation are ranked 31<sup>st</sup>.

State	Science Grade Score	Accept Evolution (%)	Next Gen Standards Rank	Science Rank
California	10	58	1	1
DC	10	52	1	2
Connecticut	6	65	1	3
Maryland	7	52	1	4
Massachusetts	9	64	18	5
Vermont	5	66	1	6
New Hampshire	4	62	1	7
New York	8	61	18	8
Washington	6	53	1	9
Hawaii	4	55	1	10
Delaware	5	52	1	11
Rhode Island	4	62	1	12
Kansas	7	42	1	13
New Jersey	3	61	1	14
Michigan	6	45	1	14
Illinois	4	52	1	16
Maine	4	60	18	17
Ohio	7	45	18	18
	9	48	31	18
Virginia				
Minnesota	5	48	18	20
Arkansas	7	27	1	21
Nevada	3	47	1	22
Oregon	2	51	1	23
Indiana	9	42	31	24
Iowa	3	44	1	25
Arizona	4	47	18	26
South Carolina	9	41	31	27
Georgia	6	40	18	28
New Mexico	6	46	31	29
Florida	5	51	31	30
Louisiana	7	40	31	31
Texas	6	41	31	32
Colorado	3	52	31	33
North Carolina	4	39	18	34
Alaska	2	58	31	35
Kentucky	3	35	1	35
Missouri	6	39	31	37
West Virginia	4	38	18	38
Utah	7	32	31	39
Pennsylvania	3	46	31	40
Tennessee	4	30	18	41
South Dakota	2	40	18	42
Mississippi	5	33	31	43
Montana	1	41	18	44
Alabama	4	35	31	45
Wisconsin	0	48	31	46
Nebraska	2	44	31	47
Wyoming	2	39	31	48
	2 2			
Idaho		39	31	49
Oklahoma	2	37	31	50
North Dakota	1	36	31	51
Mean (SD)	4.84 (2.48)	46.62 (9.75)		

#### **Method Note for Science**

To rank a state by acceptance of evolution, we used data collected by the Pew Research Center and reported in Coyne (2013), wherein each state was ranked according to the percentage of respondents from that state who endorsed acceptance of evolution. This acceptance was measured using a 5-point, Likert-type item, "Evolution is the best explanation for the origins of human life on earth." (Pew Research Center, 2008), with possible responses of 'completely agree', 'mostly agree', 'mostly disagree', 'completely disagree', or 'don't know/ refused (VOL.)'. The percentage of acceptance for a state was calculated by adding together the percentages of participants who responded either 'completely agree' or 'mostly agree' to the item. For the science grade in a state, we used data from the report, *The State of State Science* Standards (Lerner et al., 2012). The total science grade from this measure was comprised of scores in two categories: 1) content and rigor, and 2) clarity and specificity. Lerner and associates scored each state on a scale from 0-7 points to arrive at the state's content and rigor score. This score is characterized as representing the degree to which science standards in a state a) were comprehensive in terms of content in each of the three core scientific disciplines; b) covered appropriate and well-articulated content; c) distinguished between more and less important content and appropriately cover the content each class; d) ensured a level of rigor in content coverage that is appropriate to the targeted grade levels; and e) did not rely too heavily on 'life experiences' or 'real world' problems, (were not based on fads or contain political or cultural bias, or did not suggest that all perspectives on natural phenomena were equally valid). The clarity and specificity category was scored on a scale from 0-3 points, based on the degree to which the science standards for a state were clear, coherent, and well organized. In cases where the total of these two numbers resulted in a tie, a state with a higher score in the content and rigor category earned a higher rank than a state with a higher score in the clarity and specificity category.

#### **Results**

For science standards, the winners were CA and DC, with OK and ND performing the worst. The states with the highest percentage acceptance of evolution were VT (65.6%) and CT (64.8%), while TN (29.5%) and AR (27%) had the lowest. The locales with the best overall rank in the teaching and acceptance of science category are CA and DC, with MT and ND tying for second to last, and WI at the bottom.

#### **Student Achievement**

Percent poverty, black, and ELL in each state was obtained from the U. S. Census Bureau (2014). For the poverty achievement gap, we used the difference between the average achievement scores for students who did and did not qualify for free or reduced lunch within a state, as indicated by the (National Center for Education Statistics, 2015a, 2015b). For the black and white achievement gap, we used the difference between the average achievement scores for black students and white students, as reported by the (National Center for Education Statistics, 2015a, 2015b). For states that did not report a score for black students or ELL in a category, we used the most recent data available (National Center for Education Statistics, 2011). This affected scores (including average scores for a state) for black and white students in HI, ID, ME, MT, NH, NM, OR, SD, UT, VT, and WY. It affected ELL and non-ELL students in AL, DE, ID, KY, LA, ME, MO, MS, MT, ND, NE, NH, NJ, OR, SD, TN, VT, WV, and WY. When calculating scores in a category missing scores for students, both scores in that category were drawn from the 2011 data, for more accurate comparison (e.g., in 4<sup>th</sup> grade ELL math, scores from 2011 were entered for both ELL and non-ELL students in affected states, even if the current data for non-ELL students was given). Averages and SDs for each category were calculated across states; however, scores drawn from 2011 data were not included in the averages and SDs.

#### Table 1

- **A. Grade 4 Math Achievement:** 2015. Scores for 4<sup>th</sup> graders on the mathematics portion of the National Assessment of Educational Progress (NAEP) achievement tests in 2015 (National Center for Education Statistics, 2015a).
- **B.** Grade 4 Reading Achievement: 2015. Scores for 4<sup>th</sup> graders on the reading portion of the NAEP achievement tests in 2015 (National Center for Education Statistics, 2015b).
- C. Grade 8 Math Achievement: 2015. Scores for 8<sup>th</sup> graders on the mathematics portion of the NAEP achievement tests in 2015 (National Center for Education Statistics, 2015a).
- **D. Grade 8 Reading Achievement:** 2015. Scores for 8<sup>th</sup> graders on the reading portion of the NAEP achievement tests in 2015 (National Center for Education Statistics, 2015b).

#### Table 2

A. **Percent Poverty:** 2013. The percent of students in a state qualifying for free or reduced price lunches (U. S. Census Bureau, 2014).

- B. **Average Poverty Scores:** 2015. The average achievement score of students qualifying for free or reduced price lunches (National Center for Education Statistics, 2015a, 2015b).
- C. **Average Poverty/ Non-Poverty Gap:** 2015. The difference between the average achievement scores of students who do and do not qualify for free or reduced price lunches (National Center for Education Statistics, 2015a, 2015b).
- D. **Percent Black:** 2013. The percentage of students in a state who identify as black (U. S. Census Bureau, 2014).
- E. **Average Black Scores:** 2015. The average achievement scores of black students in a state (National Center for Education Statistics, 2015a, 2015b).
- F. **Ave Black/White Gap:** 2015. The difference between the average achievement scores of black students and white students in a state (National Center for Education Statistics, 2015a, 2015b).
- G. **Percent ELL:** 2013. The percentage of students in a state who are English Language Learners, or those for whom English is not their primary language (U. S. Census Bureau, 2014).
- H. **Average ELL Scores:** 2015. The average achievement score of English Language Learners in a state (National Center for Education Statistics, 2015a, 2015b).
- I. **Average ELL/ Non-ELL Gap:** 2015. The difference between the average achievement scores of English Language Learners and non-English Language Learners (National Center for Education Statistics, 2015a, 2015b).

Once obtained, gap scores were then sorted in order from smallest to largest and ranked accordingly. Where there were ties, decimal places were increased to determine order. Should ties persist, all states having the same score earned the same gap rank, with the subsequent gap rank taking into account the number of states with a tie immediately preceding that rank (e.g., a, b, c, and d tied for 33 in the ELL gap rank, so each was ranked 33<sup>rd</sup>, with the following state being ranked 37<sup>th</sup>).

Color coding was based on mean and SD. Scores that fell more than .5 SD in a positive direction from the mean (conceptually) were coded green, while those that fell more than .5 SD in a negative direction from the mean were coded red. Scores within .5 SD of the mean were coded yellow.

	Grade 4		G	Achievement	
State	Math	Reading	Math	Reading	Rank
Massachusetts	251	235	297	274	1
New Hampshire	249	232	294	275	2
New Jersey	245	229	293	271	3
Vermont	243	230	290	274	4
Wyoming	247	228	287	269	5
Minnesota	250	223	294	270	6
Indiana	248	227	287	268	7
Virginia	247	229	288	267	8
Nebraska	244	227	286	269	9
Wisconsin	243	223	289	270	10
Washington	245	226	287	267	11
Connecticut	240	229	284	273	12
Utah	243	226	286	269	12
Montana	241	225	287	270	14
North Dakota	245	225	288	267	15
Pennsylvania	243	227	284	269	16
Iowa	243	224	286	268	17
Maine	242	224	285	268	18
Colorado	242	224	286	268	19
Ohio	244	225	285	266	19
Kentucky	242	228	278	268	21
North Carolina	244	226	281	261	22
Maryland	239	223	283	268	23
Idaho	239	222	284	269	24
Florida	243	227	275	263	25
South Dakota	240	220	285	267	26
Kansas	241	221	284	267	27
Rhode Island	238	225	281	265	28
Texas	244	218	284	261	29
Missouri	239	223	281	267	30
Oregon	238	220	283	268	31
Illinois	237	222	282	267	32
Delaware	239	224	280	263	33
Tennessee	241	219	278	265	34
New York	237	223	280	263	35
Oklahoma	240	222	275	263	36
Arizona	238	215	283	263	37
Georgia	236	222	279	262	38
Michigan	236	216	278	264	39
South Carolina	237	218	276	260	40
Hawaii	238	215	279	257	41
Alaska	236	213	280	260	42
Arkansas	235	218	275	259	43
West Virginia	235	216	271	260	44
Nevada	234	214	275	259	45
California	232	213	275	259	46
Louisiana	234	216	268	255	47
Alabama	234	217	267	259	48
Mississippi	234	214	271	252	49
New Mexico	234	207	271	253	50
DC	231	217	263	233	50 51
					31
Mean (SD)	240 (5)	222 (6)	282 (7)	265 (6)	

		Poverty			Black			ELL		
States	%	Score	Gap	%	Score	Gap	%	Score	Gap	Rank
West Virginia	25	241	17	4	234	13	1	243*	2*	1
Maine	19	245	19	3	233*	13*	3	227*	30*	2
Oklahoma	22	242	19	8	233	22	7	225	26	3
Wyoming	13	246	18	1	247*	13*	3	225*	33*	4
Louisiana	28	237	21	37	231	22	2	228*	16*	5
Montana	19	245	20	1	254*	8*	3	223*	37*	6
Arkansas	26	239	21	18	229	24	7	232	16	7
Kentucky	26	245	22	9	236	21	3	224*	32*	8
Florida	24	244	21	20	238	23	9	222	32	9
New Hampshire	13	247	21	2	241*	22*	2	229*	32*	9
Indiana	22	247	21	11	238	25	5	235	24	9
North Dakota	15	242	20	3	239	21	3	219*	40*	12
New Mexico	30	235	21	2	236*	22*	16	211	35	13
Vermont	16	247	21	2	237*	23*	2	227*	33*	13
Delaware	18	240	19	25	237	24	6	216*	38*	15
Idaho	19	243	20	1	240*	19*	6	209*	47*	16
Mississippi	29	236	25	43	231	25	2	227*	14*	17
Nevada	22	237	21	9	231	27	16	220	31	18
Alabama	28	234	23	30	228	24	2	214*	33*	19
Missouri	21	241	24	14	231	26	3	225*	28*	20
Georgia	26	240	26	33	237	23	5	220	31	20
Texas	25	242	24	12	239	26	15	228	28	22
Hawaii	15	237	22	2	245*	14*	9	205	46	23
Kansas	18	242	24	6	231	28	9	235	20	24
Tennessee	26	240	25	20	231	25	3	219*	30*	24
South Dakota	18	240	22	2	240*	20*	4	210*	46*	26
South Carolina	27	237	26	31	230	29	6	235	13	27
Michigan	23	236	24	16	225	29	4	229	20	28
New York	23	241	22	16	235	25	8	213	41	29
Iowa	15	242	23	5	229	30	4	225	32	30
Utah	13	243	21	1	234*	25*	6	205	53	31
Oregon	22	243	23	2	231*	25*	9	210*	46*	32
Arizona	26	239	25	5	242	22	6	203	50	33
Ohio	23	241	27	15	232	28	2	222	34	34
Wisconsin	18	239	27	9	224	39	5	228	30	34
North Carolina	24	242	28	23	237	26	7	217	38	36
Virginia	16	241	28	20	238	26	7	225	34	37
Nebraska	16	243	25	6	231	32	6	219*	38*	38
Rhode Island	20	238	26	7	236	26	6	209	47	38
Maryland	13	237	29	31	236	29	6	223	32	40
Alaska	16	233	28	3	237	24	11	205	49	41
Illinois	20	240	27	16	231	31	9	215	40	42
Colorado	15	240	28	4	238	28	12	219	40	43
DC	26	229	41	58	231	56	10	209	31	43
Washington	18	242	29	4	238	26	9	218	42	45
Massachusetts	15	249	28	8	242	29	8	225	42	46
California	23	234	28	5	232	28	23	212	41	46
New Jersey	16	241	29	14	241	27	4	221*	42*	48
Minnesota	15	242	28	8	233	34	6	221	41	49
Connecticut	15	237	30	11	233	34	6	214	44	50
Pennsylvania	19	240	29	13	230	33	3	210	47	51
Mean (SD)	20 (5)	240 (4)	2 (4)	13(12)	234 (4)	27 (6)	6 (4)	219 (9)	35 (10)	31
Micuil (DD)	20 (3)	4-10 (4)	~ ( <del>†</del> )	13(14)	237 ( <del>1</del> )	27 (0)	U ( <del>1</del> )	217 (3)	55 (10)	

#### Student Achievement

#### Results

For National Assessment of Educational Progress (NAEP) scores in 4<sup>th</sup> and 8<sup>th</sup> grade overall, the top two states were Massachusetts and New Hampshire; the states with the lowest average scores were in (#50) New Mexico and (#51) District of Columbia (National Center for Education Statistics, 2015a, 2015b). The breakdown is as follows: The top two states for 4<sup>th</sup> grade math are Massachusetts and Minnesota, and the bottom two are New Mexico and Alabama; in 4<sup>th</sup> grade reading, the top two are Massachusetts and New Hampshire, and the bottom two are District of Columbia and New Mexico; for 8<sup>th</sup> grade math, the top two were again Massachusetts and New Hampshire, with Alabama and DC at the bottom; in 8<sup>th</sup> grade reading, the top 2 were New Hampshire and Massachusetts, and the bottom two Mississippi and DC. Finally, of the 13 states reporting 12<sup>th</sup> grade scores, the top two in math were New Hampshire and Massachusetts, and the top two in reading were Connecticut and New Hampshire; the bottom two for 12<sup>th</sup> grade in both reading and math were Tennessee and West Virginia (National Center for Education Statistics, 2015a, 2015b). Scores on the NAEP 4<sup>th</sup> and 8<sup>th</sup> grade data; 12<sup>th</sup> grade is not available for 2015, so the results are from the data.

#### **Poverty**

States with the highest average achievement scores for students in the poverty category were Massachusetts (248.56) and Vermont (246.84), while Alaska (233.29) and DC (228.53) rounded out the bottom of this category (National Center for Education Statistics, 2015a, 2015b). The states with the lowest gap between poverty and non-poverty scores were West Virginia (17 points) and Wyoming (18 points), with Connecticut (30 points) and DC (41 points) at the bottom with the largest average gap in scores. The state with the lowest rates of child poverty was Wyoming (12.8%), with New Hampshire and Maryland tying for second place with 13% of their children in poverty (U. S. Census Bureau, 2014). The two states with the highest child poverty rates were Mississippi (29.4%) and New Mexico (29.5%).

#### Race

States with the highest average achievement scores for black students (and the lowest gap in achievement scores) were Montana (254; gap of 8 points) and Wyoming (247; gap of 12.5 points), with Michigan (225) and Wisconsin (224) at the low end in scores, while Wisconsin and DC had the largest achievement gaps between blacks and whites, at 39 and 56 points, respectively (National Center for Education Statistics, 2015a, 2015b). Wyoming, Idaho, Montana, and Utah each had about 1% of the student population who were black, while Mississippi (43%) and DC (58%) had the largest percentage of the student population who were black (U. S. Census Bureau, 2014).

#### **English Language Learners**

The state with the lowest percentage of students that were English language learners (ELL), by far, was West Virginia (0.7%), followed by Vermont, with 1.6% (U. S. Census Bureau, 2014); the states with the most ELL students were New Mexico (15.8%) and California (22.8%). West Virginia was also at the top of the list with the lowest average gap (2.25 points; National Center for Education Statistics,

2015a, 2015b) between ELL and non-ELL students' achievement scores, followed by South Carolina (13.2 points); and had the highest average achievement score for ELL students (243), followed by Indiana (235.38), with South Carolina within 1/100<sup>th</sup> of a point of tying for second with Indiana. The states with the lowest scores for ELL students were Hawaii (204.6) and Arizona (203). The states with the largest gap between ELL and non-ELL students' scores were Arizona (50 points) and Utah (53 points). Of particular note on achievement scores is that 2011 NAEP data shows West Virginia's 4<sup>th</sup> grade ELL students performing better than their non-ELL counterparts in math achievement (254 points for ELL, vs. 236 for non-ELL), and their 8<sup>th</sup> grade ELL students performing better than their non-ELL counterparts in reading (268 for ELL, vs 257 for non-ELL).

#### **Overall**

Finally, across all three categories (poverty, race, and English language learner status), the states with the lowest gap in average achievement scores were West Virginia (1.67 points) and Maine (6.67 points; National Center for Education Statistics, 2015a, 2015b). At the bottom of the list were Connecticut(46.67 points) and Pennsylvania (47 points).

9.

### **Teacher Associations**

Factors: from a state-by-state comparison conducted by the Fordham institute (Winkler, Scull, & Zeehandelaar, 2012):

- **A. Resources and Membership:** 2012. Resources internal to the union in a state, including members, revenue, and other resources (Winkler et al., 2012).
- B. **Percent Change in Membership:** 2017. The percent change in active union membership from 2015 to 2016, by state (Antonucci, 2017).
- C. **Involvement in Politics:** 2012. Contributions to state candidates, and representation at national conventions for the two primary parties (Winkler et al., 2012).
- D. **Scope of Bargaining**: 2012. The degree to which unions can mandate fee deductions for non-members, and the legality of teacher strikes (Winkler et al., 2012).
- E. **State Policies:** 2012. Alignment of rules governing teacher employment and charter school policies with interests considered typical for unions (Winkler et al., 2012).
- F. **Perceived Influence:** 2012. how stakeholders in a state perceive the strength of teacher unions in a given state as compared with other states, including perceived influence on policy makers and perceived effectiveness of ability to stop policies not in line with teacher/union interests (Winkler et al., 2012).

New Jersey	State	Resources Membership	% Change in Membership	Involvement in Politics	Scope of Bargaining	State Policies	Perceived Influence	Union Strength
New Jersey Rhode Island Rhode Island Rhode Island Rhode Island Roes Virginia 31 3-3.1 4 28 1 6 6 7-6 8 4 34 34 3 3 6 West Virginia 31 3.5 3.5 32 11 18 9 Pennsylvania 13 0.3 10 7 41 7 8 Remore Island	Hawaii	3	0.5	1	9	9	23	1
New Jersey Rhode Island Rhode Island Rhode Island Rhode Island Roes Virginia 31 3-3.1 4 28 1 6 6 7-6 8 4 34 34 3 3 6 West Virginia 31 3.5 3.5 32 11 18 9 Pennsylvania 13 0.3 10 7 41 7 8 Remore Island	Montana	20	3.3	10	6	6	5	2
Rhode Island   6	New Jersey							3
Oregon         9         7.6         8         4         34         3           West Virginia         31         -3.1         4         28         1         6           Washington         3         3.5         32         11         18         9           Pennsylvania         13         0.3         10         7         41         7         8           California         20         3.0         18         1         37         1         6           California         20         3.0         18         1         37         1         6           New York         1         4.0         13         19         24         21         10           Vermont         6         4.9         44         8         2         22         11         10           Wisconsin         13         -6.3         8         41         24         17         11           Minichigan         6         -6.1         4         22         51         20         11         11           Minichigan         6         -6.1         4         22         51         20         11         11         11								4
West Virginia         31         -3.1         4         28         1         6           Washington         3         3.5         32         11         18         9           Pennsylvania         13         0.3         10         7         41         7         8           California         20         3.0         18         1         37         1         9           New York         1         4.0         13         19         24         21         11           Vermont         6         4.9         44         8         2         22         1           Vermont         6         4.9         44         8         2         22         1           Visconsin         13         -6.3         8         41         24         17         11           Michigan         6         -6.1         4         22         51         20         14           Maine         20         -1.0         44         16         7         11         11         11         11         11         11         11         11         11         11         13         12         2         14								5
Washington         3         3.5         32         11         18         9           Pennsylvania         13         0.3         10         7         41         7         8           California         20         3.0         18         1         37         1         9           New York         1         4.0         13         19         24         21         10           Vermont         6         4.9         44         8         2         22         11           Vermont         6         6.4.9         44         8         2         22         11           Wisconsin         13         -6.3         8         41         24         17         12           Michigan         6         -6.1         4         22         51         20         14           Maine         20         -1.0         44         16         7         11         11         11           Illinois         18         -0.3         12         3         39         28         10           North Dakota         28         0.0         23         33         3         2         14         17 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>6</td>								6
Pennsylvania   13						_		7
California         20         3.0         18         1         37         1         9           New York         1         4.0         13         19         24         21         10           Vermont         6         4.9         44         8         2         22         1           Connecticut         9         0.3         29         13         13         27         1.           Wisconsin         13         -6.3         8         41         24         17         1.           Michigan         6         -6.1         4         22         51         20         14           Maine         20         -1.0         44         16         7         11         12         12         11         12         12         13         13         14         16         19								8
New York					1		1	9
Vermont         6         4.9         44         8         2         22         1           Connecticut         9         0.3         29         13         13         27         17           Wisconsin         13         -6.3         8         41         24         17         13           Michigan         6         -6.1         4         22         51         20         14           Mines         20         -1.0         44         16         7         11         11           Illinois         18         -0.3         12         3         39         28         16           North Dakota         28         0.0         23         33         2         14         17           Minnesota         3         0.1         32         2         46         19         18           Minnesota         3         0.1         32         2         46         19         18           Minnesota         3         0.1         32         2         46         19         18           Massachusetts         13         1.3         40         12         21         16         19					10		21	
Connecticut         9         0.3         29         13         13         27         12           Wisconsin         13         -6.3         8         41         24         17         12           Michigan         6         -6.1         4         22         51         20         14           Maine         20         -1.0         44         16         7         11         12           Maine         20         -1.0         44         16         7         11         12           Maine         20         -1.0         44         16         7         11         12           Maricol         28         0.0         23         33         2         14         17           Minnesota         3         0.1         32         2         46         19         18           Massachusetts         13         1.3         40         12         21         16         18           Massachusetts         13         1.3         40         12         21         16         18           Massachusetts         13         1.3         40         12         21         16         4								
Wisconsin         13         -6.3         8         41         24         17         12           Michigan         6         -6.1         4         22         51         20           Maine         20         -1.0         44         16         7         11         12           Illinois         18         -0.3         12         3         39         28         16           North Dakota         28         0.0         23         33         2         14         17         11           Minnesota         3         0.1         32         2         46         19         18           Massachusetts         13         1.3         40         12         21         16         19         18           Massachusetts         13         1.3         40         12         21         16         19         18           Massachusetts         13         1.1         40         12         21         16         19         18           Massachusetts         13         1.1         40         12         21         16         19         18           Kewatac         28         4.2 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>								
Michigan         6         -6.1         4         22         51         20         1-6           Maine         20         -1.0         44         16         7         11         11           Minnes         18         -0.3         12         3         39         28         10           North Dakota         28         0.0         23         33         2         14         17           Minnesota         3         0.1         32         2         46         19         18           Massachusetts         13         1.3         40         12         21         16         19           Ohio         20         1.2         17         10         23         35         20           Nevada         28         -4.2         18         27         28         10         22           Maryland         26         2.0         40         20         16         4         22           Maryland         26         2.0         40         20         16         4         22           Maryland         26         2.0         40         20         16         4         22								
Maine         20         -1.0         44         16         7         11         13           Illinois         18         -0.3         12         3         39         28           North Dakota         28         0.0         23         33         2         14         17           Minnesota         3         0.1         32         2         46         19         18           Massachusetts         13         1.3         40         12         21         16         19           Ohio         20         1.2         17         10         23         35         22           Nevada         28         -4.2         18         27         28         10         22           Kentucky         35         0.2         26         26         10         11         22           K								
Illinois   18								
North Dakota         28         0.0         23         33         2         14         17           Minnesota         3         0.1         32         2         46         19         18           Massachusetts         13         1.3         40         12         21         16         19           Ohio         20         1.2         17         10         23         35         20           Nevada         28         -4.2         18         27         28         10         22           Delaware         9         0.5         29         15         36         18         22           Maryland         26         2.0         40         20         16         4         22           Kentucky         35         0.2         26         26         10         11         22           Kentucky         35         0.2         26         26         10         11         22           Kentucky         35         0.2         26         26         10         11         22           Kentucky         35         0.2         26         26         26         10         11								
Minnesota         3         0.1         32         2         46         19         18           Massachusetts         13         1.3         40         12         21         16         19           Ohio         20         1.2         17         10         23         35         22           Nevada         28         -4.2         18         27         28         10         2           Delaware         9         0.5         29         15         36         18         2           Maryland         26         2.0         40         20         16         4         22           Kentucky         35         0.2         26         26         10         11         22           Alaska         13         1.1         36         4         21         36         22           Alasha         24         -0.4         1         45         18         25         20           Kansas         33         -4.1         18         31         14         30         22           Wyoming         31         -5.0         13         28         30         26         26								
Massachusetts         13         1.3         40         12         21         16         18           Ohio         20         1.2         17         10         23         35         20           Nevada         28         -4.2         18         27         28         10         22           Delaware         9         0.5         29         15         36         18         22           Maryland         26         2.0         40         20         16         4         22           Kentucky         35         0.2         26         26         10         11         22           Alaska         13         1.1         36         4         21         36         22           Alaskas         13         1.1         36         4         21         36         22           Alaska         13         1.1         36         4         21         36         22           Alaska         13         1.1         36         4         21         36         22           Alaska         13         1.1         36         2.1         32         33         32         31								
Ohio         20         1.2         17         10         23         35         20           Nevada         28         -4.2         18         27         28         10         2           Delaware         9         0.5         29         15         36         18         22           Maryland         26         2.0         40         20         16         4         22           Kentucky         35         0.2         26         26         10         11         24           Kentucky         35         0.2         26         26         10         11         22           Kentucky         35         0.2         26         26         10         11         22           Alaska         13         1.1         36         4         21         36         22           Kansas         33         1.1         18         31         14         30         22           Wyoming         31         -5.0         13         28         30         26         22           Iowa         27         0.7         23         32         11         31         29								
Nevada         28         -4,2         18         27         28         10         21           Delaware         9         0.5         29         15         36         18         22           Maryland         26         2.0         40         20         16         4         22           Kentucky         35         0.2         26         26         10         11         22           Alaska         13         1.1         36         4         21         36         22           Alabama         24         -0.4         1         45         18         25         26           Kansas         33         -4.1         18         31         14         30         27           Wyoming         31         -5.0         13         28         30         26         22           Iowa         27         0.7         23         32         11         31         27         38         30         26         22           Iowa         27         0.7         23         32         11         31         29         38         30         26         22           Iowa         <								19
Delaware         9         0.5         29         15         36         18         22           Maryland         26         2.0         40         20         16         4         22           Kentucky         35         0.2         26         26         10         11         22           Alaska         13         1.1         36         4         21         36         22           Alabama         24         -0.4         1         45         18         25         26           Kansas         33         -4.1         18         31         14         30         22           Wyoming         31         -5.0         13         28         30         26         28           Iowa         27         0.7         23         32         11         31         22           Nebraska         18         -1.1         13         37         27         38         36           Indiana         9         -0.6         13         39         44         32         33           North Carolina         47         -8.5         29         48         12         11         33								20
Maryland         26         2.0         40         20         16         4         22           Kentucky         35         0.2         26         26         10         11         24           Alaska         13         1.1         36         4         21         36         25           Alabama         24         -0.4         1         45         18         25         26           Kansas         33         -4.1         18         31         14         30         22           Wyoming         31         -5.0         13         28         30         26         28           Iowa         27         0.7         23         32         11         31         29           Nebraska         18         -1.1         13         37         27         38         30           Indiana         9         -0.6         13         39         44         32         33           New Hampshire         24         2.4         40         14         17         40         32           North Carolina         47         -8.5         29         48         12         11         33 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>21</td>								21
Kentucky         35         0.2         26         26         10         11         24           Alaska         13         1.1         36         4         21         36         22           Alabama         24         -0.4         1         45         18         25         20           Kansas         33         -4.1         18         31         14         30         22           Wyoming         31         -5.0         13         28         30         26         28           Iowa         27         0.7         23         32         11         31         25           Iowa         27         0.7         23         32         11         31         25           Nebraska         18         -1.1         13         37         27         38         30           Indiana         9         -0.6         13         39         44         32         31           New Hampshire         24         2.4         40         14         17         40         32           North Carolina         47         -8.5         29         48         12         11         33								22
Alaska         13         1.1         36         4         21         36         25           Alabama         24         -0.4         1         45         18         25         22           Kansas         33         -4.1         18         31         14         30         22           Wyoming         31         -5.0         13         28         30         26         28           Iowa         27         0.7         23         32         11         31         22           Nebraska         18         -1.1         13         37         27         38         30           Indiana         9         -0.6         13         39         44         32         33           New Hampshire         24         2.4         40         14         17         40         32           North Carolina         47         -8.5         29         48         12         11         33           New Mexico         46         -1.0         32         35         29         8         34           Colorado         37         -0.9         18         25         48         29         35							4	23
Alabama         24         -0.4         1         45         18         25         26           Kansas         33         -4.1         18         31         14         30         22           Wyoming         31         -5.0         13         28         30         26         28           Iowa         27         0.7         23         32         11         31         22           Nebraska         18         -1.1         13         37         27         38         33           Indiana         9         -0.6         13         39         44         32         31           New Hampshire         24         2.4         40         14         17         40         32           New Mexico         46         -1.0         32         35         29         8         34           New Mexico         46         -1.0         32         35         29         8         32           South Dakota         40         0.4         1         33         34         49         36           Utah         37         0.2         25         28         30         39         37 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>24</td>								24
Kansas         33         -4.1         18         31         14         30         22           Wyoming         31         -5.0         13         28         30         26         26           Iowa         27         0.7         23         32         11         31         22           Nebraska         18         -1.1         13         37         27         38         30           Indiana         9         -0.6         13         39         44         32         33           New Hampshire         24         2.4         40         14         17         40         32           North Carolina         47         -8.5         29         48         12         11         33           New Mexico         46         -1.0         32         35         29         8         32           Colorado         37         -0.9         18         25         48         29         33           South Dakota         40         0.4         1         33         34         49         36           Utah         37         0.2         25         28         30         39         33	Alaska	13	1.1	36	4		36	25
Wyoming         31         -5.0         13         28         30         26         26           Iowa         27         0.7         23         32         11         31         25           Nebraska         18         -1.1         13         37         27         38         33           Indiana         9         -0.6         13         39         44         32         3           New Hampshire         24         2.4         40         14         17         40         32           North Carolina         47         -8.5         29         48         12         11         33           New Mexico         46         -1.0         32         35         29         8         34           Colorado         37         -0.9         18         25         48         29         35           South Dakota         40         0.4         1         33         34         49         36           Utah         37         0.2         25         28         30         39         37           DC         17         4.7         NA         21         49         41         38     <	Alabama			-				26
Iowa         27         0.7         23         32         11         31         29           Nebraska         18         -1.1         13         37         27         38         30           Indiana         9         -0.6         13         39         44         32         33           New Hampshire         24         2.4         40         14         17         40         32           North Carolina         47         -8.5         29         48         12         11         33           New Mexico         46         -1.0         32         35         29         8         32           Colorado         37         -0.9         18         25         48         29         33           South Dakota         40         0.4         1         33         34         49         36           Utah         37         0.2         25         28         30         39         37           DC         17         4.7         NA         21         49         41         38           Idaho         30         0.6         4         42         45         42         35 <td>Kansas</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>27</td>	Kansas							27
Nebraska         18         -1.1         13         37         27         38         30           Indiana         9         -0.6         13         39         44         32         31           New Hampshire         24         2.4         40         14         17         40         32           North Carolina         47         -8.5         29         48         12         11         33           New Mexico         46         -1.0         32         35         29         8         34           Colorado         37         -0.9         18         25         48         29         35           South Dakota         40         0.4         1         33         34         49         36           Utah         37         0.2         25         28         30         39         37           DC         17         4.7         NA         21         49         41         33           Idaho         30         0.6         4         42         45         42         39           Missouri         33         1.4         47         23         40         24         40	Wyoming							28
Indiana         9         -0.6         13         39         44         32         33           New Hampshire         24         2.4         40         14         17         40         32           North Carolina         47         -8.5         29         48         12         11         32           New Mexico         46         -1.0         32         35         29         8         34           Colorado         37         -0.9         18         25         48         29         35           South Dakota         40         0.4         1         33         34         49         36           Utah         37         0.2         25         28         30         39         37           DC         17         4.7         NA         21         49         41         36           Idaho         30         0.6         4         42         45         42         35           Missouri         33         1.4         47         23         40         24         40           Virginia         40         -3.7         50         48         4         33         42     <	Iowa	27	0.7			11		29
New Hampshire         24         2.4         40         14         17         40         32           North Carolina         47         -8.5         29         48         12         11         33           New Mexico         46         -1.0         32         35         29         8         34           Colorado         37         -0.9         18         25         48         29         35           South Dakota         40         0.4         1         33         34         49         36           Utah         37         0.2         25         28         30         39         37           DC         17         4.7         NA         21         49         41         38           Idaho         30         0.6         4         42         45         42         39           Missouri         33         1.4         47         23         40         24         40           Tennessee         37         -7.2         18         38         42         42         41           Virginia         40         -3.7         50         48         4         33         42	Nebraska		-1.1				38	30
North Carolina         47         -8.5         29         48         12         11         33           New Mexico         46         -1.0         32         35         29         8         34           Colorado         37         -0.9         18         25         48         29         35           South Dakota         40         0.4         1         33         34         49         36           Utah         37         0.2         25         28         30         39         37           DC         17         4.7         NA         21         49         41         38           Idaho         30         0.6         4         42         45         42         39           Missouri         33         1.4         47         23         40         24         40           Tennessee         37         -7.2         18         38         42         42         41           Virginia         40         -3.7         50         48         4         33         42           Louisiana         40         -2.8         44         24         33         44         43     <	Indiana	9	-0.6	13	39	44	32	31
New Mexico         46         -1.0         32         35         29         8         34           Colorado         37         -0.9         18         25         48         29         35           South Dakota         40         0.4         1         33         34         49         36           Utah         37         0.2         25         28         30         39         37           DC         17         4.7         NA         21         49         41         38           Idaho         30         0.6         4         42         45         42         39           Missouri         33         1.4         47         23         40         24         40           Tennessee         37         -7.2         18         38         42         42         41           Virginia         40         -3.7         50         48         4         33         42           Louisiana         40         -2.8         44         24         33         44         43           Georgia         35         -6.3         36         48         30         34         44	New Hampshire	24	2.4	40	14	17	40	32
Colorado         37         -0.9         18         25         48         29         35           South Dakota         40         0.4         1         33         34         49         36           Utah         37         0.2         25         28         30         39         37           DC         17         4.7         NA         21         49         41         38           Idaho         30         0.6         4         42         45         42         39           Missouri         33         1.4         47         23         40         24         40           Tennessee         37         -7.2         18         38         42         42         41           Virginia         40         -3.7         50         48         4         33         42           Louisiana         40         -2.8         44         24         33         44         43         44           Texas         44         -8.4         36         48         30         34         44           Georgia         35         -6.3         36         48         26         45         42 </td <td>North Carolina</td> <td>47</td> <td>-8.5</td> <td>29</td> <td>48</td> <td>12</td> <td>11</td> <td>33</td>	North Carolina	47	-8.5	29	48	12	11	33
South Dakota         40         0.4         1         33         34         49         36           Utah         37         0.2         25         28         30         39         37           DC         17         4.7         NA         21         49         41         38           Idaho         30         0.6         4         42         45         42         39           Missouri         33         1.4         47         23         40         24         40           Tennessee         37         -7.2         18         38         42         42         41           Virginia         40         -3.7         50         48         4         33         42           Louisiana         40         -2.8         44         24         33         44         42           Texas         44         -8.4         36         48         30         34         44           Georgia         35         -6.3         36         48         26         45         45           Mississispipi         49         -1.7         40         43         7         51         46	New Mexico	46	-1.0	32	35	29	8	34
South Dakota         40         0.4         1         33         34         49         36           Utah         37         0.2         25         28         30         39         37           DC         17         4.7         NA         21         49         41         38           Idaho         30         0.6         4         42         45         42         39           Missouri         33         1.4         47         23         40         24         40           Tennessee         37         -7.2         18         38         42         42         41           Virginia         40         -3.7         50         48         4         33         42           Virginia         40         -2.8         44         24         33         44         42           Texas         44         -8.4         36         48         30         34         44           Georgia         35         -6.3         36         48         26         45         45           Mississisppi         49         -1.7         40         43         7         51         46	Colorado	37	-0.9	18	25	48	29	35
DC         17         4.7         NA         21         49         41         38           Idaho         30         0.6         4         42         45         42         39           Missouri         33         1.4         47         23         40         24         40           Tennessee         37         -7.2         18         38         42         42         41           Virginia         40         -3.7         50         48         4         33         42           Louisiana         40         -2.8         44         24         33         44         42           Texas         44         -8.4         36         48         30         34         44           Georgia         35         -6.3         36         48         26         45         45           Mississispipi         49         -1.7         40         43         7         51         46           Arkansas         50         -5.8         47         45         20         37         47           Oklahoma         44         -5.7         26         40         43         46         48	South Dakota	40	0.4	1	33	34	49	36
DC         17         4.7         NA         21         49         41         38           Idaho         30         0.6         4         42         45         42         39           Missouri         33         1.4         47         23         40         24         40           Tennessee         37         -7.2         18         38         42         42         41           Virginia         40         -3.7         50         48         4         33         42           Louisiana         40         -2.8         44         24         33         44         42           Texas         44         -8.4         36         48         30         34         44           Georgia         35         -6.3         36         48         26         45         45           Mississispipi         49         -1.7         40         43         7         51         46           Arkansas         50         -5.8         47         45         20         37         47           Oklahoma         44         -5.7         26         40         43         46         48	Utah	37	0.2	25	28	30	39	37
Idaho         30         0.6         4         42         45         42         39           Missouri         33         1.4         47         23         40         24         40           Tennessee         37         -7.2         18         38         42         42         41           Virginia         40         -3.7         50         48         4         33         42           Louisiana         40         -2.8         44         24         33         44         43           Texas         44         -8.4         36         48         30         34         44           Georgia         35         -6.3         36         48         26         45         45           Mississispipi         49         -1.7         40         43         7         51         46           Arkansas         50         -5.8         47         45         20         37         47           Oklahoma         44         -5.7         26         40         43         46         48           South Carolina         51         -4.3         35         43         38         47         49 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>38</td>								38
Missouri       33       1.4       47       23       40       24       40         Tennessee       37       -7.2       18       38       42       42       41         Virginia       40       -3.7       50       48       4       33       42         Louisiana       40       -2.8       44       24       33       44       43         Texas       44       -8.4       36       48       30       34       44         Georgia       35       -6.3       36       48       26       45       45         Mississisppi       49       -1.7       40       43       7       51       46         Arkansas       50       -5.8       47       45       20       37       47         Oklahoma       44       -5.7       26       40       43       46       48         South Carolina       51       -4.3       35       43       38       47       49         Florida       47       -0.4       36       35       46       50       50         Arizona       40       2.9       49       45       49       48 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>39</td></t<>								39
Tennessee         37         -7.2         18         38         42         42         41           Virginia         40         -3.7         50         48         4         33         42           Louisiana         40         -2.8         44         24         33         44         43           Texas         44         -8.4         36         48         30         34         44           Georgia         35         -6.3         36         48         26         45         45           Mississisppi         49         -1.7         40         43         7         51         46           Arkansas         50         -5.8         47         45         20         37         47           Oklahoma         44         -5.7         26         40         43         46         48           South Carolina         51         -4.3         35         43         38         47         49           Florida         47         -0.4         36         35         46         50         50           Arizona         40         2.9         49         45         49         48         51								40
Virginia       40       -3.7       50       48       4       33       42         Louisiana       40       -2.8       44       24       33       44       43         Texas       44       -8.4       36       48       30       34       44         Georgia       35       -6.3       36       48       26       45       45         Mississisppi       49       -1.7       40       43       7       51       46         Arkansas       50       -5.8       47       45       20       37       47         Oklahoma       44       -5.7       26       40       43       46       48         South Carolina       51       -4.3       35       43       38       47       49         Florida       47       -0.4       36       35       46       50       50         Arizona       40       2.9       49       45       49       48       51								41
Louisiana       40       -2.8       44       24       33       44       42         Texas       44       -8.4       36       48       30       34       44         Georgia       35       -6.3       36       48       26       45       45         Mississisppi       49       -1.7       40       43       7       51       46         Arkansas       50       -5.8       47       45       20       37       47         Oklahoma       44       -5.7       26       40       43       46       48         South Carolina       51       -4.3       35       43       38       47       49         Florida       47       -0.4       36       35       46       50       50         Arizona       40       2.9       49       45       49       48       51								42
Texas       44       -8.4       36       48       30       34       44         Georgia       35       -6.3       36       48       26       45       45         Mississippi       49       -1.7       40       43       7       51       46         Arkansas       50       -5.8       47       45       20       37       47         Oklahoma       44       -5.7       26       40       43       46       48         South Carolina       51       -4.3       35       43       38       47       49         Florida       47       -0.4       36       35       46       50       50         Arizona       40       2.9       49       45       49       48       51								43
Georgia     35     -6.3     36     48     26     45     45       Mississippi     49     -1.7     40     43     7     51     46       Arkansas     50     -5.8     47     45     20     37     47       Oklahoma     44     -5.7     26     40     43     46     48       South Carolina     51     -4.3     35     43     38     47     49       Florida     47     -0.4     36     35     46     50     50       Arizona     40     2.9     49     45     49     48     51				and the second				44
Mississippi       49       -1.7       40       43       7       51       46         Arkansas       50       -5.8       47       45       20       37       47         Oklahoma       44       -5.7       26       40       43       46       48         South Carolina       51       -4.3       35       43       38       47       49         Florida       47       -0.4       36       35       46       50       50         Arizona       40       2.9       49       45       49       48       51								45
Arkansas     50     -5.8     47     45     20     37     47       Oklahoma     44     -5.7     26     40     43     46     48       South Carolina     51     -4.3     35     43     38     47     49       Florida     47     -0.4     36     35     46     50     50       Arizona     40     2.9     49     45     49     48     51								46
Oklahoma     44     -5.7     26     40     43     46     48       South Carolina     51     -4.3     35     43     38     47     49       Florida     47     -0.4     36     35     46     50     50       Arizona     40     2.9     49     45     49     48     51								47
South Carolina       51       -4.3       35       43       38       47       49         Florida       47       -0.4       36       35       46       50       50         Arizona       40       2.9       49       45       49       48       51								48
Florida 47 -0.4 36 35 46 50 50 Arizona 40 2.9 49 45 49 48 51								49
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								51
Mean (SD) 25 (15) -1 (4) 24 (15) 26 (15) 26 (15)	Mean (SD)							

9.

# **Teacher Associations**

# Results

The states with the strongest unions were HI and MT, while the weakest unions were in FL and AZ.

### **Teacher Evaluations**

How teachers are evaluated within a state affects many aspects of job quality, including pay, and job security (Berliner, 2013). Across the country, education agencies are adopting more rigorous means of evaluating teachers, including value-added models, using improvement in student test scores as measure teacher performance (Balch & Koedel, 2014), and basing pay largely on such evaluations (i.e. merit pay). Such value-added measures can be problematic (Ballou & Springer, 2015; Berliner, 2013), not only due to concerns about the statistical robustness and reliability of value-added models (Podgursky & Springer, 2007), but also because many such models attribute deficits in student performance primarily to the quality of teaching they receive, rather than taking into consideration other factors (Berliner, 2013), such as socioeconomic status, or wage inequality, which have a far bigger impact on student achievement (McCreary, Edwards, & Marchant, 2015). Alternatives to such measures may yield a more accurate (and appropriate) measure of teacher performance (e.g. Callister, Everson, Feinauer, & Sudweeks, 2013), enhancing the quality of the teaching experience in states adopting these and similar alternative measures.

#### **Factors**

- A. **Annual Teacher Evaluation Requirement:** 2015. Whether or not a state requires annual evaluation of teachers (Doherty & Jacobs, 2015). States that did not have this requirement were scored a 1 in this category; states that did were given a 0.
- B. Evaluations Significantly Informed by Student Growth: 2016. Whether or not a state requires teacher evaluations to be significantly informed by student growth or achievement (Walsh, Joseph, Lakis, & Lubell, 2017). A 1 indicates a lack of this requirement. A 0 indicates that there is a requirement, though not explicitly defined, and a -1 indicates that the requirement is explicitly defined and significant, or preponderant.
- C. Student Growth Preponderant/ Significant Criterion in Teacher Evaluation: 2016. Whether or not a state uses student growth/ achievement as either the primary criterion or it is highly significant in teacher evaluations (Walsh et al., 2017). States that did not have this requirement scored a 1 in this category, while states that did scored a 0.
- D. Student Growth Preponderant/ Significant Criterion in Principal Evaluation: 2015. Whether or not a state uses student growth/ achievement as either the primary criterion or it is highly significant in teacher evaluations (Doherty & Jacobs, 2015). States that did not have this requirement scored a 1 in this category, while states that did scored a 0.
- E. **Teachers Receive Evaluation Feedback:** 2015. Whether or not evaluations are used in a formative manner, informing and improving the teacher's practice (Doherty & Jacobs, 2015). States that do this were given a 1 in this category, while states that did not were given a 0.

F. **Teacher Can Get Performance Pay Based on Student Achievement:** 2015. Whether or not teachers in a state are given pay increases based on positive student outcomes (Doherty & Jacobs, 2015). States that make this a practice scored a 0, while states that did not scored a 1 in this category.

State	Annual Teach E. Required	Includes Student Growth	Growth Major in Teach E.	Growth Major in Prin E.	Teachers Receive Feedback	Teacher Student Perf. Pay	Rank
California	1	1	1	1	1	1	1
Iowa	1	1	1	1	0	1	2
Kansas	1	0	1	1	1	1	2
Maine	1	0	1	1	1	1	2
Massachusetts	1	0	1	1	1	1	2
Missouri	1	0	1	1	1	1	2
Montana	1	1	1	1	0	1	2
Nebraska	1	1	1	1	0	1	2
New	1	1	1	1	0	1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Oregon	1	0	1	1	1	1	2
South Dakota	1	0	1	1	1	1	2
Texas	1	0	1	1	1	1	2
Vermont	1	1	1	1	0	1	2
Virginia	1	0	1	1	1	1	2
Alabama	0	1	1	1	0	1	15
Alaska	1	1	1	0	0	1	15
Illinois	1	-1	1	1	1	1	15
Indiana	0	0	1	1	1	1	15
North	0	1	1	0	l	I	15
North Dakota	0	0	1	1	1	1	15
Oklahoma	1	1	1	0	l	0	15
Rhode Island	1	-1	1	1	1	1	15
South	1	0	1	1	1	0	15
Utah	0	0	1	1	l	1	15
Washington	0	0	1	1	l	1	15
West Virginia	0	0	l	I	l	1	15
Wisconsin	1	0	l	0	l	1	15
Wyoming	0	0	l	1	l	1	15
Arizona	0	-1	l	1	l	1	29
Arkansas	0	0	l	1	l	0	29
DC	0	0	l	0	1	l	29
Florida	0	-1	l 1	1	1	1	29
Maryland	0	0	l 1	1	0	1	29
Michigan	0	-1 1	1 1	0	1 1	1	29
Mississippi	0	1	1 1	0	1	0	29
Delaware Hawaii	1	-1	1	0	1 1	1	36
	0	-1 1	1	1	0	1	36
Idaho Kentucky	1	-1 -1	$\stackrel{1}{0}$	$\stackrel{\scriptstyle 1}{0}$	1	1	36 36
Minnesota	1	-1 -1	1	1	0	0	36
Nevada	$\stackrel{\scriptstyle 1}{0}$	-1 -1	1	1	0	1	36
New Jersey	0	-1 -1	0	1	1	1	36
Colorado	0	-1 -1	0	0	1	1	43
Connecticut	0	-1 -1	0	0	1	1	43
Georgia	0	-1 -1	1	0	1	0	43
Louisiana	0	-1 -1	0	0	1	1	43
New Mexico	0	-1 -1	0	0	1	1	43
New York	0	-1 -1	0	0	1	1	43
Ohio	0	-1 -1	1	0	0	0	43 49
Pennsylvania	0	-1 -1	0	0	0	1	49
Tennessee	0	-1 -1	0	0	1	0	49
Telliessee	U	-1	U	U	1	0	<b>T</b> )

**10.** 

# **Teacher Evaluations**

# **Results**

The state that performed the best when it comes to teacher evaluations was California. States that performed poorly in this category were Ohio, Pennsylvania, and Tennessee.

Total

State	Family	Money	Politics	Size	Charter	Rating System	Science					Overall
Vermont	9	3	9	23	1	10	6	4	13	11	2	1
New Hampshire	1	10	21	25	20	1	7	2	9	32	2	2
Montana	11	35	31	9	1	3	44	14	6	2	2	3
Massachusetts	3	8	4	15	39	33	5	1	46	19	2	4
New Jersey	2	7	13	10	17	22	14	3	48	3	36	4
Maine	23	13	16	18	23	51	17	18	2	15	2	6
Washington	5	32	11	36	17	12	9	11	45	7	15	7
North Dakota	13	19	49	3	1	11	51	15	12	17	15	8
Kansas	12	26	42	4	9	25	13	27	24	27	2	9
Wyoming	10	5	50	7	13	28	48	5	4	28	15	10
Connecticut	7	6	8	26	14	34	3	12	50	12	43	11
New York	28	2	5	12	34	13	8	35	29	10	43	12
Maryland	13	11	10	30	12	26	4	23	40	23	29	13
Rhode Island	35	9	2	18	22	38	12	28	38	4	15	13
Illinois	21	18	12	31	15	4	16	32	42	16	15	15
Oregon	22	21	6	26	26	30	23	31	32	5	2	16
Virginia	8	27	20	8	10	46	18	8	37	42	2	17
Wisconsin	32	20	26	11	30	9	46	10	34	13	15	18
Minnesota	4	17	15	28	46	8	20	6	49	18	36	19
Alaska	16	4	23	14	17	17	35	42	41	25	15	20
Kentucky	38	24	38	17	7	4	35	21	8	24	36	21
Missouri	28	30	40	1	21	7	37	30	20	40	2	22
Hawaii	15	14	1	51	31	34	10	41	23	1	36	23
Delaware	24	15	6	49	34	13	11	33	15	22	36	24
Iowa	25	25	30	35	8	34	25	17	30	29	2	25
California	34	39	2	41	46	2	1	46	46	9	1	26
West Virginia	50	16	27	43	1	26	38	44	1	6	15	26
Nebraska	19	36	37	5	1	45	47	9	38	30	2	28
South Dakota	18	37	45	2	1	41	42	26	26	36	2	29
Pennsylvania	30	12	19	28	29	4	40	16	51	8	49	30
Indiana	39	28	39	39	42	22	24	7	9	31	15	31
Texas	27	38	32	6	32	46	32	29	22	44	2	32
Colorado	6	34	13	16	50	30	33	19	43	35	43	33
DC	17	1		48	49	28	2	51	43	38	29	34
North Carolina	36	44	24	32	41	22	34	22	36	33	15	35
Ohio	32	22	35	38	37	43	18	19	34	20	49	36
South Carolina	46	29	36	32	34	13	27	40	27	49	15	37
Michigan	26	40	25	41	44	49	14	39	28	14	29	38
Oklahoma	40	46	47	21	27	17	50	36	3	48	15	39
Arkansas	43	33	41	32	25	30	21	43	7	47	29	40
New Mexico	48	31	17	36	38	17	29	50	13	34	43	41
Florida	41	42	29	20	48	34	30	25	9	50	29	42
Nevada	44	48	18	50	39	17	22	45	18	21	36	43
Georgia	37	41	33	47	27	13	28	38	20	45	43	44
Tennessee	45	43	43	12	24	17	41	34	24	41	49	45
Utah	19	49	46	46	43	38	39	12	31	37	15	46
Louisiana	49	23	28	24	44	41	31	47	5	43	43	47
Alabama	47	45	44	44	16	38	45	48	19	26	15	48
Mississippi	51	46	34	21	11	48	43	49	17	46	29	49
Idaho	30	51	48	40	32	44	49	24	16	39	36	50
Arizona	42	50	22	45	51	50	26	37	33	51	29	51
Alizula	42	30	22	43	31	50	20	31	33	$\mathcal{J}1$	29	JI

### Conclusion

Like most other rankings, salary and cost of living were considered; however, in coming to the final assessment of the best states for employment as a teacher, many other factors were considered. We have included variables related to family, including parental income, education, and other socioeconomic factors. We investigated differences in political structures that are more or less favorable to careers in education. We have looked at the number and size of schools, class size, and variables related to charter schools. We have looked at systems of evaluation at the level of school, principal, and teacher, and we investigated the degree to which beliefs and standards related to science were conducive to teaching. There has been some variation in each category as to which states are the best, but the ends of the ratings do tend for the most part to hang together. Based on the factors we have taken into consideration, the best states for employment as a teacher are Vermont and New Hampshire, with Idaho and Arizona finishing at the bottom of the list.

#### Limitations

The list of limitations for this report could be longer than the actual report. At the heart of any "best" ranking is the definition of "best." Categories and data may be questioned, and syntheses misguided. Perhaps the most obvious concern must be that the differences within each state are likely to be greater than the differences between states (which is probably always the case with state rankings). Every school in a state is not better then every school in another state. A school is a sanctuary where children, teachers, administrators, and support staff create their own culture. And within that, the teacher creates a family team with a mission. It is possible for the best of schools to exist in the worst of communities and states. But why should they have to? Why shouldn't states create environments that suggest support for teachers and schools? Governors do not need to appoint a committee to try to figure out why they have a teacher shortage in their state. Teachers should not have to work in a state despite the policies and attitudes of the legislators.

### References

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