# Is School Funding Fair? A National Report Card

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#### **About the Authors**

Bruce Baker is Associate Professor in the Department of Educational Theory, Policy and Administration in the Graduate School of Education at Rutgers University. He is co-author of *Financing Education Systems* with Preston Green and Craig Richards, author of numerous peer-reviewed articles on education finance, and sits on the editorial boards of the *Journal of Education Finance* and *Education Finance* and *Policy* as well as serving as a research fellow for the Education and the Public Interest Center.

**David Sciarra** is Executive Director of the Education Law Center (ELC) in Newark, New Jersey. A practicing civil rights lawyer since 1978, he has litigated a wide range of cases involving socioeconomic rights, including affordable housing, shelter for the homeless, and welfare rights. Since 1996, he has litigated to enforce access for low-income and minority children to an equal and adequate education under state and federal law, and served as counsel to the plaintiff students in New Jersey's landmark *Abbott v. Burke* case. He also does research, writing and lecturing on education law and policy in such areas as school finance, early education and school reform.

**Danielle Farrie** is Research Director at the Education Law Center (ELC). She maintains a large database of educational data and conducts analysis to support litigation and public policy for ELC and partner organizations. Before joining ELC, she conducted research in the field of urban education on such topics as school choice, White flight and school segregation, and has co-authored several peer-reviewed articles on parental involvement among low-income families. She holds a Ph.D. in sociology from Temple University.

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# I. Introduction

# Fair School Funding: The Key to Improving the Nation's Public School Systems

The evolving debate in the United States about how to improve the public education systems in the 50 states and the District of Columbia is ongoing in local communities, state capitals and Washington, D.C. From year to year, educators, school board members, civil rights organizations, parent groups, state and federal elected officials, business leaders and concerned citizens consider, adopt and implement various policies, strategies and "reforms" in an effort to boost outcomes for all students, particularly students attending high-poverty or "high-need" public schools. Of late, efforts have focused on raising learning standards and assessing student and school progress with the stated goal of closing "achievement gaps" and preparing students for engaged citizenship and participation in the economy.

In recent years, the debate on public school improvement has taken on a new, national economic imperative. The United States is increasingly characterized as losing its competitive edge against nations in Europe and Asia. Our public education systems are considered to be lagging behind those of other nations. Better education is viewed as the key to creating jobs and restoring economic prosperity.

Often left out of this debate is the fact that having a predictable, stable and equitable system of education finance is of critical importance to the success of any improvement effort. Sufficient school funding, fairly distributed to districts to address concentrated poverty, is an essential precondition for the delivery of a high-quality education through the states. Without this foundation, education reforms, no matter how promising or effective, cannot be achieved and sustained.

In addition, the adoption of standards-based education offers a new opportunity for states to develop and implement school finance systems driven by the actual cost of providing all students, including low-income students and students with special needs, the opportunity to meet the state's established standards. Unfortunately, only a few states have even made the effort to "cost out" the delivery of standards-based education, and then to provide funding to local school districts based on those costs. As a Colorado judge stated in a recent school funding decision, the Colorado funding system "has never been adjusted to address the cost of meeting [state] standards. Although the primary purpose of standards-based education was to provide objective measures of achievement that could be costed-out and funded, the two systems have remained out of touch and actually diverging, with no meaningful effort to analyze and align funding levels with educational costs."

As the United States emerges from difficult economic times, the challenges of increasing child poverty, revenue declines and state budget cuts appear more daunting. Yet, so too is the national challenge of ensuring all students, especially low-income students and students with special needs, the opportunity to receive a rigorous, standards-based education to prepare them for today's economy. In order to address the challenges of concentrated student poverty and meet the needs of English-language learners and students with disabilities, states must develop and implement the next generation of standards-driven school finance systems, expressly designed to provide a sufficient level of funding, fairly distributed in relation to student and school need.

The inaugural edition of the National Report Card, issued in late 2010, served to focus attention on these important issues. This second edition, which analyzes data through 2009, seeks to continue and sharpen that focus. Amidst the ongoing effort to improve our nation's public schools, fair school funding is critical to being successful and sustaining progress. Creating and maintaining state systems of fair school funding is essential to improving our nation's public schools.

## The State K-12 Systems: Decentralized, With Concentrated Poverty

Two features dominate the landscape of the nation's systems of public education and heavily influence school funding: decentralization and concentrated student poverty.

First, kindergarten through 12th grade (K–12) public education provided through the state systems is highly decentralized. To deliver public education at the local level, the states have legally established approximately 16,000 school districts and 100,000 schools. These districts and schools — and the education of students enrolled in these schools — are funded through financing systems authorized and administered under state law through mechanisms commonly known as the school funding or finance "formula." These formulas deliver some combination of state and local revenues to schools, supplemented by a small amount of federal education aid. The most recent national data show the state share at 48.3%, the local share at 43.5%, and the federal share at 8.2% of public school spending.<sup>2</sup>

Second, the state education systems face the challenge of educating growing numbers of students living in poverty. Using the U.S. Census standard, the national child poverty rate in the nation's public schools is 16%. This is a 0.2% increase over the rate in 2007 and translates to one million more children falling below the poverty line. Eleven states have child poverty rates of over 20%, two more states than in 2007, with Washington, D.C., at 29%, Mississippi at 28% and Arkansas at 24%. While the Census poverty rate differentiates above and below poverty at 100% of the federal poverty level (approximately \$22,000 for a family of four), it is more common in education to assess poverty levels using eligibility for the federal free and reduced-price lunch (FRL) program. The threshold for this program is 185% of the federal poverty level, or approximately \$41,000 for a family of four. When poverty rates are expressed in this commonly used metric for student poverty, the national rate is 44%. Eleven states have average FRL rates over 50%, with Mississippi (68%), Washington, D.C. (67%) and Louisiana (65%) topping the list. In California, the nation's largest public school system, the student poverty rate is 52%, with more than three million children qualifying for federal free and reduced-price lunch.<sup>3</sup> (See Appendix A for both child and student poverty rates for all states.)

Even more striking than the child and student poverty rates is the extent to which poverty is concentrated in school districts within states (see Table 1). Nationally, 10% of school districts have Census poverty concentrations over 30%. Seventeen states serve more than a tenth of their students in these high-poverty schools, and in five states over a fifth of the state's students are in such districts. Even as the U.S. economy just began to enter the recent downturn, significant shifts had taken place in the poverty concentrations of the nation's schools. The number of districts with less than 10% poverty declined by nearly a quarter from more than 4,300 districts in 2007 to only about 3,500 in 2009. In contrast, the number of high-poverty districts (over 30% poor), increased by 30%, from less than 1,000 in 2007 to nearly 1,400 in 2009. In fact, school districts across the country were more than twice as likely to experience increasing poverty rather than declining poverty between 2007 and 2009. The rise in poverty — and concentrated poverty — in states and local school districts is reflective of the economic conditions facing the country during this period.

Unlike other countries, the United States has no national right to education. The legal right and responsibility to provide education rests with each of the 50 states. David G. Sciarra, Enhancing Court Capacity to Enforce Education Rights, Foundation for Law, Justice and Society, Oxford University (2009).

<sup>&</sup>lt;sup>2</sup> "Percentage distribution of revenues for public elementary and secondary education in the United States, by source: 2007-08." U.S. Department of Education, Education Finance Statistics Center. (http://www.nces.ed.gov/edfin/graph\_topic.asp?INDEX=4)

U.S. Census Bureau, Small Area Income and Poverty Estimates, "School District Data Files," 2009; U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2008–09.

Table 1. Concentrated Student Poverty in U.S. School Districts

|                      |           | Under 10%                               |              |           | 10% to 20% | 6            |           | 20% to 30% | 6            | 30% and Over |            |              |
|----------------------|-----------|---|--------------|-----------|------------|--------------|-----------|------------|--------------|--------------|------------|--------------|
| State                | Districts | Enrollment                              | % Enrollment | Districts | Enrollment | % Enrollment | Districts | Enrollment | % Enrollment | Districts    | Enrollment | % Enrollment |
| Alabama              | 7         | 63,827                                  | 8%           | 30        | 273,976    | 34%          | 62        | 348,165    | 43%          | 35           | 127,686    | 16%          |
| Alaska               | 21        | 112,786                                 | 87%          | 17        | 6,676      | 5%           | 9         | 5,609      | 43%          | 6            | 4,012      | 3%           |
| Arizona              | 19        | 101,605                                 | 8%           | 72        | 554,641    | 46%          | 71        | 379,635    | 31%          | 55           | 174,884    | 14%          |
|                      |           |   |              |           |            |              |           |            |              |              |            |              |
| Arkansas             | 1         | 295                                     | 0%           | 61        | 171,922    | 34%          | 119       | 224,935    | 45%          | 70           | 108,031    | 21%          |
| California           | 229       | 1,176,598                               | 18%          | 372       | 2,779,701  | 42%          | 247       | 2,306,729  | 35%          | 117          | 418,717    | 6%           |
| Colorado             | 31        | 327,755                                 | 38%          | 78        | 301,025    | 35%          | 47        | 224,448    | 26%          | 22           | 10,054     | 1%           |
| Connecticut          | 141       | 380,897                                 | 64%          | 18        | 102,645    | 17%          | 7         | 113,973    | 19%          |              |            |              |
| Delaware             | 1         | 6,419                                   | 4%           | 12        | 124,130    | 84%          | 3         | 16,718     | 11%          |              |            |              |
| District of Columbia |           |   |              |           |            |              | 1         | 76,892     | 100%         |              |            |              |
| Florida              | 1         | 31,549                                  | 1%           | 25        | 1,554,223  | 54%          | 32        | 1,264,115  | 44%          | 9            | 41,881     | 1%           |
| Georgia              | 7         | 166,083                                 | 9%           | 37        | 768,694    | 42%          | 75        | 581,548    | 32%          | 64           | 316,252    | 17%          |
| Hawaii               |           |   |              | 1         | 201,374    | 100%         |           |            |              |              |            |              |
| Idaho                | 6         | 38,917                                  | 13%          | 70        | 208,928    | 71%          | 32        | 43,456     | 15%          | 7            | 2,953      | 1%           |
| Illinois             | 292       | 705,791                                 | 31%          | 380       | 648,388    | 28%          | 163       | 868,335    | 38%          | 33           | 60,911     | 3%           |
| Indiana              | 61        | 250,539                                 | 22%          | 172       | 519,718    | 45%          | 48        | 275,002    | 24%          | 11           | 98,261     | 9%           |
| lowa                 | 130       | 169,257                                 | 33%          | 203       | 300,625    | 59%          | 29        | 38,941     | 8%           | 1            | 335        | 0%           |
| Kansas               | 66        | 171,125                                 | 34%          | 189       | 194,944    | 39%          | 37        | 111,140    | 22%          | 1            | 22,357     | 4%           |
| Kentucky             | 7         | 61,124                                  | 8%           | 39        | 327,129    | 45%          | 68        | 209,654    | 29%          | 62           | 128,393    | 18%          |
| Louisiana            | 1         | 5,554                                   | 1%           | 17        | 235,290    | 29%          | 35        | 450,689    | 56%          | 16           | 112,415    | 14%          |
| Maine                | 36        | 56,962                                  | 28%          | 117       | 101,971    | 51%          | 70        | 37,619     | 19%          | 19           | 3,862      | 2%           |
| Maryland             | 12        | 772,577                                 | 80%          | 9         | 92,934     | 10%          | 3         | 105,818    | 11%          |              |            |              |
| Massachusetts        | 227       | 581,074                                 | 55%          | 64        | 233,610    | 22%          | 9         | 176,950    | 17%          | 4            | 55,517     | 5%           |
| Michigan             | 98        | 492,039                                 | 28%          | 267       | 576,741    | 33%          | 141       | 308,199    | 18%          | 46           | 356,831    | 21%          |
| Minnesota            | 114       | 432,838                                 | 48%          | 182       | 328,962    | 37%          | 34        | 83,760     | 9%           | 7            | 51,262     | 6%           |
| Mississippi          |           | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |              | 15        | 120,127    | 22%          | 50        | 187,110    | 34%          | 84           | 238,002    | 44%          |
| Missouri             | 54        | 266,398                                 | 26%          | 187       | 354,713    | 35%          | 183       | 281,979    | 27%          | 97           | 124,719    | 12%          |
| Montana              | 53        | 11,568                                  | 7%           | 200       | 107,288    | 68%          | 112       | 27,396     | 17%          | 60           | 11,138     | 7%           |
| Nebraska             | 68        | 99,635                                  | 31%          | 148       | 205,447    | 65%          | 33        | 10,670     | 3%           | 4            | 1,172      | 0%           |
| Nevada               | 1         | 10,137                                  | 2%           | 14        | 459,645    | 96%          | 2         | 7,681      | 2%           | -            | 1,172      | 0 70         |
| New Hampshire        | 105       | 128,326                                 | 60%          | 61        | 80,666     | 38%          | 11        | 5,254      | 2%           | 1            | 135        | 0%           |
| New Jersey           | 388       | 907,258                                 | 61%          | 134       | 250,155    | 17%          | 29        | 191,924    | 13%          | 10           | 141,229    | 9%           |
| New Mexico           | 1         | 3,272                                   | 1%           | 23        | 201,095    | 56%          | 34        | 93,862     | 26%          | 31           | 60,021     | 17%          |
| New York             | 278       | 932,985                                 | 29%          | 297       | 631,783    | 20%          | 96        | 1,492,929  | 47%          | 13           | 141,777    | 4%           |
| North Carolina       | 210       | 932,903                                 | 29 70        | 35        |            |              | 60        |            |              | 23           | 116,846    |              |
|                      | CE        | EC ECE                                  | EC0/         |           | 923,023    | 57%          |           | 573,261    | 36%          |              |            | 7%           |
| North Dakota         | 65        | 56,565                                  | 56%          | 95        | 37,549     | 37%          | 14        | 1,933      | 2%           | 10           | 4,523      | 4%           |
| Ohio                 | 162       | 527,656                                 | 27%          | 279       | 654,891    | 33%          | 134       | 401,429    | 20%          | 39           | 390,823    | 20%          |
| Oklahoma             | 34        | 99,461                                  | 15%          | 228       | 241,827    | 37%          | 186       | 216,374    | 33%          | 84           | 89,326     | 14%          |
| Oregon               | 15        | 91,484                                  | 15%          | 90        | 353,210    | 57%          | 69        | 160,982    | 26%          | 23           | 19,226     | 3%           |
| Pennsylvania         | 179       | 841,114                                 | 41%          | 225       | 589,029    | 29%          | 77        | 246,896    | 12%          | 19           | 351,280    | 17%          |
| Rhode Island         | 25        | 78,978                                  | 47%          | 7         | 34,675     | 21%          | 2         | 19,405     | 12%          | 2            | 33,628     | 20%          |
| South Carolina       | 2         | 24,399                                  | 3%           | 20        | 265,622    | 35%          | 43        | 413,374    | 54%          | 22           | 66,322     | 9%           |
| South Dakota         | 37        | 25,282                                  | 18%          | 79        | 92,107     | 66%          | 24        | 9,005      | 6%           | 16           | 13,582     | 10%          |
| Tennessee            | 4         | 98,988                                  | 9%           | 28        | 337,438    | 32%          | 82        | 457,282    | 43%          | 22           | 173,979    | 16%          |
| Texas                | 110       | 683,794                                 | 14%          | 393       | 1,430,410  | 30%          | 348       | 1,633,658  | 34%          | 181          | 1,074,594  | 22%          |
| Utah                 | 13        | 341,717                                 | 57%          | 19        | 184,496    | 31%          | 8         | 65,185     | 11%          | 1            | 3,703      | 1%           |
| Vermont              | 106       | 40,880                                  | 44%          | 133       | 46,275     | 49%          | 28        | 6,513      | 7%           | 3            | 133        | 0%           |
| Virginia             | 30        | 711,068                                 | 54%          | 58        | 369,761    | 28%          | 44        | 191,035    | 15%          | 6            | 42,175     | 3%           |
| Washington           | 54        | 305,335                                 | 27%          | 132       | 559,804    | 50%          | 84        | 215,320    | 19%          | 25           | 38,516     | 3%           |
| West Virginia        |           |   |              | 15        | 90,613     | 32%          | 35        | 177,155    | 63%          | 5            | 12,705     | 5%           |
| Wisconsin            | 171       | 346,984                                 | 37%          | 201       | 415,470    | 44%          | 45        | 65,567     | 7%           | 8            | 118,158    | 12%          |
| Wyoming              | 21        | 33,028                                  | 36%          | 24        | 57,157     | 62%          | 1         | 603        | 1%           | 2            | 841        | 1%           |

## **Existing Measures of State School Finance**

Several reports analyze state school funding systems:

- The National Center for Education Statistics (NCES) publishes the most commonly used metric for state school funding: "state and local revenue per pupil," a decades-old measure frequently used to compare states with each other. This measure focuses on state and local revenue provided to local districts and schools, exclusive of federal revenue and without regard to current expenses and regional cost-of-living differences.
- Education Week publishes state school finance data and calculates the distribution of funding
  within states. In an advance over the NCES per-pupil revenue measure, Ed Week adjusts the
  student denominator in the calculation by using a "weighting," or an estimate of the extra
  cost of educating low-income students and students with disabilities.<sup>4</sup> The estimates also are
  adjusted to reflect regional wage variations. Ed Week also assigns a "grade" to each state
  using several measures.
- Education Trust, a Washington, D.C.-based advocacy group, periodically publishes a measure comparing state and local spending in school districts with the highest and lowest concentrations of low-income, minority and English language learning students.<sup>5</sup> The measure accounts for regional wage variations, and adjusts for children in poverty, limited English proficiency and children with disabilities.<sup>6</sup> Education Trust calculates "funding gaps" between higher- and lower-need school districts, and higher- and lower-minority school districts, within a given state.
- In 2011, the U.S. Department of Education (DOE) published a measure of funding equity called the "Education Dashboard." The DOE measure shows the difference in per-pupil expenditures in high, high-middle, low-middle and low poverty districts across the country. Users can select their own "preferred" weighted adjustment for student poverty in 10% increments from 0 to 100%.

#### Limitations

These existing measures have serious shortcomings:

- The NCES per-pupil revenue measure masks differences in school funding within states, differences that can be as large as or larger than differences across states. This measure also does not account for differences in education costs within and across states and regions, and across labor markets, nor does it capture variations in student need and the variations in the resources needed to ensure that students with differing needs are able to meet common achievement and outcome standards, both within states and across states and regions. The NCES measure ignores the increased needs and costs of educating low-income students, especially those in concentrated poverty.
- While the Ed Week, Education Trust, and the DOE Dashboard measures attempt to recognize
  differences in student need, particularly with regard to low-income students, they assign different, assumed or "preferred" values or "weights" to account for those differences. In fact,
  one assigns a value nearly twice as large as the other, and none are based on actual data from
  the states or research on what it would actually take to close achievement gaps between poor
  and non-poor children.

<sup>4</sup> A "weighting" is an adjustment to per-pupil revenue or expenditure data designed to address differences in needs and costs. Some state school finance formulas use weightings to drive different amounts of funding to districts based on a variety of different needs. In the Education Week analysis, students in poverty are assigned a weight of 1.2 and students in special education a weight of 1.9.

<sup>&</sup>lt;sup>5</sup> Carmen G. Arroyo, The Funding Gap, The Education Trust, January 2008.

<sup>6</sup> Education Trust assigns a weight of 1.4 to students in poverty, and 1.6 and 1.9 to limited English proficient students and students with disabilities, respectively. Funding Gap 2006. (http://www.edtrust.org/sites/edtrust.org/files/publications/files/FundingGap2006.pdf)

- Neither Ed Week, Education Trust nor the DOE Dashboard accounts for the large differences in state and local revenues that exist in very small, sparse rural districts versus larger urban and suburban districts
- The imprecise methods used by Ed Week, Education Trust and the DOE Dashboard lead
  to strikingly different and inconsistent rankings among these measures. The correlations
  between Ed Week's restricted range, Education Trust's funding gaps and the DOE Dashboard
  are reported to range between .14 and .71.7

## A Better Measure: Analyzing School Funding Fairness

Building a more accurate, reliable and consistent method of analyzing how states fund public education starts with a critical question: What is fair school funding? In this report, "fair" school funding is defined as a state finance system that ensures equal educational opportunity by providing a sufficient level of funding distributed to districts within the state to account for additional needs generated by student poverty.

This report presents the National Report Card on Fair School Funding, Second Edition. The first edition, issued in September of 2010, presented indicators for 2007. This second edition updates those indicators using data from 2009.

Like the inaugural edition, the second edition of the National Report Card measures the fairness of the school finance systems in all 50 states and the District of Columbia, as defined above. The central purpose of the Report Card is to evaluate the extent to which state systems ensure equality of educational opportunity for all children, regardless of background, family income, where they live or where they attend school. As noted, equal educational opportunity means that all children (and the public schools that serve them) have access to those resources, inputs and services necessary to provide the "opportunity to learn" — that is, the opportunity to achieve established outcome goals.

#### **The Fairness Principles**

The Report Card is built on the following core principles:

- Varying levels of funding are required to provide equal educational opportunities to children with different needs.
- The costs of education vary based on geographic location and other factors, particularly regional differences in teacher salaries, school district size, population density and various student characteristics. It is critical to account for as many of these variables as possible, given the availability of reliable data.
- The level of funding should increase relative to the level of concentrated student poverty. That is, state finance systems should provide more funding to districts serving larger shares of students in poverty. Economists often evaluate systems as "progressive" or "regressive." As used in this report, a "progressive" finance system allocates more funding to districts with high levels of student poverty; a "regressive" system allocates less to those districts; and a "flat" system allocates roughly the same amount of funding across districts with varying needs.
- Student poverty especially concentrated student poverty is the most critical variable

Epstein, Diana (2011). "Measuring Inequity in School Funding." The Center for American Progress, Washington, D.C. CAP, a Washington, D.C.-based advocacy group, also calls for a "fiscal equity measure" that captures the extent to which school funding in the states correlates to student poverty. However, CAP endorses the Education Trust and DOE dashboard measures, even though they fail to account for the actual level and distribution of funding to districts within states.

affecting funding levels. Student and school poverty correlates with, and is a proxy for, a multi-tude of factors that impact the costs of providing equal education opportunity — most notably, gaps in educational achievement, school district racial composition, English-language proficiency and student mobility. State finance systems should deliver greater levels of funding to higher-poverty versus lower-poverty settings, while controlling for differences in other cost factors.<sup>8</sup>

- While the distribution of funding to account for student poverty is crucial, the overall level of funding still matters — greatly. The state finance system should allocate sufficient funding to ensure equal education opportunity to all students. If the overall level of funding generated by the state system is woefully inadequate, it is of little consolation that students in high-poverty districts receive more resources than those in lower-poverty districts.
- The sufficiency of the overall funding level in any given state can be assessed based on comparisons with other states, particularly those in the same region with similar conditions and characteristics. Using available national data, average differences in state and local revenues between states, as well as within states, can be projected and indexed to compare expected state and local revenues per pupil for districts of similar characteristics. An "expected" value for state and local revenues is a "predicted" value based on a statistical model of school district characteristics. These "expected values" allow for more direct comparisons of districts having similar characteristics across states.

#### Why Measure Fairness?

Based on these core principles, the data and measures presented in the National Report Card focus on the central question concerning the 50 state school finance systems: Do they support equal educational opportunity for all students and, in particular, for low-income students in school districts with concentrated poverty? Put simply, do the states provide fair school funding?

Understanding the fairness of the state finance systems is crucial to the national effort to ensure access to high-quality education and to close opportunity and achievement gaps among subgroups of students, particularly low-income students. It is also a prerequisite to the federal, state and local efforts to improve "underperforming" schools and schools serving urban and rural communities.<sup>9</sup> Policymakers, educators, business leaders, parents — and the public at large — urgently need better and more reliable information to understand the fairness of our existing finance systems, identify problems with those systems, and devise and implement policy solutions to advance school funding fairness.

#### The Fairness Measures

The Report Card consists of four separate but interrelated fairness measures. States are evaluated on each of these measures. The four measures are:

• Funding Level – This measures the overall level of state and local revenue provided to school districts, and compares each state's average per-pupil revenue with that of other states,

<sup>&</sup>lt;sup>8</sup> Current data do not permit inclusion of measures for additional student characteristics, particularly students with disabilities and limited English proficiency, without compromising the relationship between school funding and poverty, the main focus of this report. For more information, see the "Research Method" section of this report.

Also of concern is the extent to which disparities exist across schools within districts. Sufficient data for evaluating funding differences at the school level are not available nationally, but are available in some states. However, research underscores the fact that funding disparities between districts resulting from the state finance systems are a major impediment to fair funding for all schools within districts. See Bruce D. Baker & Kevin G. Welner (2010), "Premature Celebrations: The persistence of inter-district spending disparities." Education Policy Analysis Archives 18 (9).

including states within the region. To recognize the variety of interstate differences, each state's revenue level is adjusted to reflect differences in regional wages, poverty, economies of scale and population density.

- Funding Distribution This measures the distribution of funding across local districts within a state, relative to student poverty. The measure shows whether a state provides more or less funding to schools based on their poverty concentration, using simulations ranging from 0% to 30% child poverty.
- Effort This measures differences in state spending for education relative to state fiscal capacity. "Effort" is defined as the ratio of state spending to state per capita gross domestic product (GDP).
- Coverage This measures the proportion of school-age children attending the state's public schools, as compared with those not attending the state's public schools (primarily parochial and private schools, but also home schooling). The share of the state's students in public schools, and the median household income of those students, is an important indicator of the distribution of funding relative to student poverty (especially where more affluent households simply opt out of public schooling), and the overall effort to provide fair school funding.

It is important to note that not all of these fairness measures are entirely within the control of state policymakers. For example, the level of funding is a function of both the state's effort and wealth. When evaluating a state's funding level, it is important to consider whether the funding level is a function of effort, wealth (that is, fiscal capacity) or a combination of the two. In addition, the extent to which children attend public schools is not entirely a function of the quality of the public system. Some states historically have a larger supply of private schools and higher degree of private-school attendance. However, numerous empirical studies do validate that the quality of a state's public education system can influence coverage. <sup>10</sup>

#### **Research Method**

The fairness measures use a combination of simple descriptive and more complex statistical modeling methods. Effort and Coverage are straightforward descriptive measures. State-level indicators are calculated from available descriptive data, allowing states to be graded and ranked from most to least fair.

Funding Level and Funding Distribution require more advanced statistical techniques. The purpose of these measures is to compare school funding both across and within states. Because education costs vary based on a number of factors — for example, regional differences in teacher salaries, school district size, population density and various student characteristics — a research method is needed that 1) simulates comparable conditions, or holds variables constant, across states to ensure a fair comparison, and 2) characterizes the relationship between revenue (funding) and poverty within states, while controlling for variations in other cost-affecting conditions.

A regression analysis achieves these goals by predicting an outcome — in this case, school funding levels — based on relevant variables such as student poverty, regional wage variation, and school district size and density. The regression model provides an estimate that quantifies the relationship between the outcome and each variable in the model. The model also allows for an examination of pertinent issues, such as changes in spending in relation to student poverty, or changes in

<sup>10</sup> See, for example, Thomas Downes & David Schoeman (1998), "School Finance Reform and Private School Enrollment: Evidence from California." Journal of Public Economics, 43 (3), 418–443.

relation to school district size. It is important to note, however, that additional measures of student characteristics, such as disability rates and limited English proficiency, are not included in the statistical model. The current measures of these characteristics are weak and irregular across states, and they complicate the interpretation of the poverty effect within states, a critical focus of the model.<sup>11</sup>

Funding Level: The regression model predicts an average per-pupil funding level for each state, while holding all other factors constant. The model eliminates the variation in funding associated with characteristics that vary between districts and across states, and determines average funding at the state level under a hypothetical, yet meaningful, set of conditions. The model simulates average revenue levels for each state by assigning the national averages for each of the variables in the model. This yields a determination of spending differences among states, and removes the expected variation resulting from differences in labor costs, district size, student characteristics, etc.

It is important to note that the state averages, while calculated from actual revenue levels, are predictions based on a hypothetical set of conditions necessary to make meaningful comparisons among states; therefore, they will vary from the average spending levels reported in the NCES measure.

Funding Distribution: The same regression model is used for predicting the distribution of funding within each state, relative to poverty. Essentially, the model is used to estimate the relationship between student poverty and school funding for each state. Funding levels are predicted at three levels of poverty — 0%, 10% and 30% — under the average conditions within each state. The model estimates, on average, whether funding levels increase or decrease as district poverty increases.

A separate technical report is available for more detail on the statistical analyses used in this report.

#### **Research Framework**

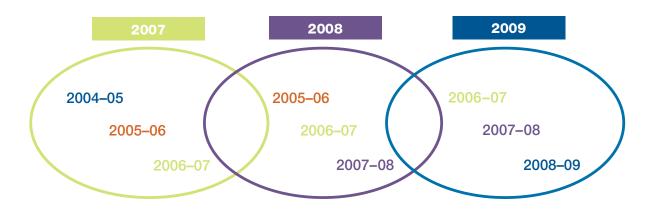
The key elements of the research used to construct the fairness measures are:

- Districts as the unit of analysis: This level of data is used because a) districts are the primary organizational units charged with managing and operating schools; b) districts are the locus of the most significant disparities in school funding; c) students remain highly sorted and segregated between districts, more so than within districts; and d) many states allow districts to retain a significant degree of fiscal independence to raise revenues via local property taxes. This district focus also sheds light on claims that funding differences and disparities are caused primarily by district misallocation among schools within districts, rather than the overall level and distribution of state and local revenues authorized by states through their respective finance systems.
- State and local revenue: These data, rather than current operating expenditures, allow for a
  more precise focus on the state's school finance policy, reliance on local property taxes and the
  distribution of state aid to local districts. Current operating expenditures include other revenue
  sources, such as federal funding. The only federal-source funds included are those intended by
  federal policy to offset lost state or local revenue in other words, federal impact aid and Indian
  schools aid, both of which are relatively small for most states.

It is also important to note that this regression model is only able to compare expenditure differences across similar settings, and cannot fully control for the "costs" of achieving "comparable outcomes." A true education cost model requires a common outcome measure across all settings in the model, and such outcome measures are not currently available for all school districts nationally.

- Funding distribution relative to poverty: These data allow for an in-depth examination of the relationship between funding generated by the state finance systems and student poverty. Using census data on children in poverty ages 5 to 17 residing in local districts allows for an analysis of the extent to which higher-poverty districts have systematically more or less state and local revenue per pupil than lower-poverty districts. No assumptions are made about how much additional funding should be provided to students in poverty. Rather, the fairness measures calculate the relationship between funding and poverty to ascertain whether the state finance system results in a more fair ("progressive"), less fair ("regressive"), or flat pattern of funding distribution among districts within the state.
- Cost variation: These data not only account for regional variation in competitive wages using the NCES Comparable Wage Index, but also compensate for differences in economies of scale and population density.
- Longitudinal data: The regression models used to predict funding level and funding distribution use three years of the most recently available data. This approach limits the effect of occasional capital projects, one-time revenue bumps and other kinds of funding aberrations, thereby "smoothing out" the final results. When comparisons are made between previous years' data, those analyses rely on overlapping data samples. So, for example, the 2007 indicators are based on a pooled sample from 2005, 2006 and 2007, while the 2009 indicators are based on a pooled sample from 2007, 2008 and 2009. This necessarily lends some stability to the model and minimizes year-to-year changes. While this stability is intentional, it also means that drastic one-year cuts, such as might have been observed at the start of the national recession, will not be as prominent as if a single year's data had been used.<sup>12</sup>

Figure 1. Pooled Data Samples



Given the lag in the availability of the data used in the fairness measures, this Second Edition of the National Report Card does not fully capture developments in the states since 2009, particularly the widespread cuts in school aid among the states in response to the economic downturn. Future editions, however, will reflect these changes.

#### **II. The Four Fairness Measures**

## **Evaluating the States**

Each state is evaluated on all four fairness measures. The evaluations are comparative in nature, analyzing how an individual state compares with other states in the nation and region. States are not evaluated using specific thresholds of education cost and school funding that might be considered "adequate" or "equitable" if applied nationally or regionally. This type of evaluation would require positing hard definitions of education cost and student need based on the complex conditions in each state. Such an exercise is beyond the scope of this report.<sup>13</sup>

States are evaluated by two methods — a grading curve and rank. Funding Distribution and Effort, the two measures over which states have direct control, are given letter grades that are based on a typical grading "curve" and range from "A" to "F." A standardized score (z-score) is calculated as the state's difference from the mean on the indicator of interest, expressed in standard deviations. The standardized scores are then collapsed into grades.<sup>14</sup>

On the Funding Level and Coverage measures, the states are ranked, not graded, because these measures are influenced not only by state policy, but by other historic and contextual factors. States are ranked from highest to lowest based on their Funding Level. The Coverage measure is ranked using two factors: the proportion of students educated in the public system, with greater percentages ranked higher; and the private/public income ratio, with small ratios receiving a higher ranking. Standardized scores for these two elements are averaged to create a final score upon which states are ranked.

It is important to note that, because the evaluations are comparative, when a state receives a high grade or rank on an indicator, it does not mean that its funding system is perfect or without room for improvement. Rather, it simply means that the state is doing better than other states in the nation. Even those states positioned at the top can do more to improve funding fairness.

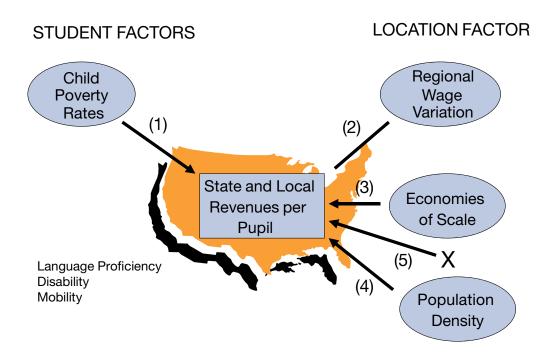
## Fairness Measure #1: Funding Level

The first fairness measure is the overall level of per-pupil funding for each state, as compared with the 50 states. As noted, several major factors influence the level of state and local revenue — or funding — generated by the state finance systems. These are: 1) student poverty, 2) regional wage variation, 3) economies of scale, 4) population density, and 5) the interplay between population density and economies of scale. The factors are illustrated in Figure 1. This model includes key elements that, when put together, yield an understanding of how the above factors influence state and local education revenues nationally. The model, in turn, estimates the impact of these factors on the revenues produced by individual state finance systems.

<sup>&</sup>lt;sup>13</sup> As previously noted, the United States has no established outcome measures for the states. In addition, no national uniform program or input standards have been adopted that would allow for measuring the "cost" of providing equal educational opportunities across all states. Thus, it is not feasible at present to compare current funding levels with a research-based measure of the cost of educating all students in U.S. public schools to achieve accepted national outcomes.

Grades are as follows: A = 2/3 standard deviation above the mean (z > 1.67); B = between 1/3 and 2/3 standard deviations above the mean (1.33 < z < 1.67); C = between 1/3 standard deviation below and 1/3 standard deviation above the mean (-1.33 < z < 1.33); D = between 1/3 and 2/3 standard deviations below the mean (-1.33 > z > -1.67); E = 2/3 standard deviation below the mean (z < -1.67). In some cases, the tables show states that have the same numerical score but different letter grades because their unrounded scores place them on opposite sides of the grading cutoffs.

Figure 2. Factors Influencing State and Local Education Costs



To measure the funding level, state and local education revenues are adjusted to the national average poverty level — about 16%. The revenues also are adjusted for differences in the other factors — regional wage variation, economies of scale, and population density. This adjusted per-pupil funding level puts all states onto a more equal footing by controlling for a variety of factors outside state control. Table 2 shows the mean actual state and local revenues per pupil for each state, the same per-pupil revenues predicted using the adjustments described above, and the difference between the two amounts. Each state also is ranked for the fairness of the per-pupil funding level, using the predicted per-pupil amount to rank states with higher spending levels as more fair than states with low per-pupil revenues.

Table 2 shows the predicted funding levels and rankings for each of the three years analyzed. It is important to remember that each year's predicted values are based on a pooled three-year sample with the intention of maintaining a degree of stability for cross-year comparisons. The model works to "smooth-out" the data and limits the impact one one-time funding aberrations. With this in mind, a general consistency of rankings from one year to the next is expected.

The national average funding level, as adjusted, is \$10,774 per pupil (in 2008–09), with 23 states above and 28 below the average. This is \$642 above levels reported in 2006–07, showing a slight increase in average funding levels. Wyoming remains the state with the highest funding level at \$19,520, providing two-and-two-thirds times the funding provided by Tennessee, which also maintains its standing as the lowest-funded state (\$7,306). The general pattern from 2007 to 2008 was an overall increase in funding levels for most states, while the 2009 data begins to show some per-pupil reductions for nearly half of the states. However, only eight states are spending below the baseline funding levels from 2007. Even after adjusting for regional wage variation and population density, low-funding states predominate in the South and West regions, while the highest-funding states are in the Northeast and Midwest. <sup>16</sup>

<sup>&</sup>lt;sup>15</sup> Other modeling options were considered, particularly allowing the effect of the various "cost" factors to be estimated for each state individually. These resulted in adding a level of complexity to the model without significantly changing the results. We attempted to control for the grade range configuration of districts (i.e., unified, elementary and secondary), but this also did not substantively change the results.

Washington, D.C.'s high funding level may be partially explained by the large proportion of special-education students in the district, a factor we were unable to control for in the regression model.

Table 2. Fairness Measure #1: Funding Level

|                      | 2007                        |      |                             | 2008 |                    |                             | 2    | 009                |                     |
|----------------------|-----------------------------|------|-----------------------------|------|--------------------|-----------------------------|------|--------------------|---------------------|
|                      | Predicted                   |      | Predicted                   |      |                    | Predicted                   |      |                    |                     |
| State                | State &<br>Local<br>Revenue | Rank | State &<br>Local<br>Revenue | Rank | One-Year<br>Change | State &<br>Local<br>Revenue | Rank | One-Year<br>Change | Change<br>from 2007 |
| Wyoming              | \$16,947                    | 1    | \$18,736                    | 1    | \$1,789            | \$19,520                    | 1    | \$784              | \$2,573             |
| Alaska               | \$14,764                    | 6    | \$18,036                    | 2    | \$3,272            | \$17,967                    | 2    | -\$70              | \$3,203             |
| New York             | \$15,320                    | 5    | \$16,263                    | 6    | \$943              | \$17,375                    | 3    | \$1,112            | \$2,055             |
| New Jersey           | \$16,101                    | 2    | \$16,565                    | 4    | \$464              | \$16,817                    | 4    | \$252              | \$716               |
| Connecticut          | \$14,126                    | 8    | \$14,923                    | 7    | \$797              | \$15,693                    | 5    | \$770              | \$1,567             |
| Vermont              | \$15,557                    | 4    | \$16,302                    | 5    | \$745              | \$15,020                    | 6    | -\$1,282           | -\$536              |
| District of Columbia | \$15,594                    | 3    | \$17,194                    | 3    | \$1,601            | \$14,596                    | 7    | -\$2,598           | -\$998              |
| Massachusetts        | \$13,338                    | 9    | \$13,873                    | 8    | \$535              | \$14,091                    | 8    | \$218              | \$753               |
| Maryland             | \$11,592                    | 13   | \$13,228                    | 9    | \$1,636            | \$13,505                    | 9    | \$277              | \$1,913             |
| Rhode Island         | \$12,260                    | 11   | \$13,069                    | 11   | \$810              | \$13,047                    | 10   | -\$22              | \$788               |
| Delaware             | \$12,745                    | 10   | \$13,176                    | 10   | \$431              | \$13,031                    | 11   | -\$144             | \$286               |
| Pennsylvania         | \$11,623                    | 12   | \$12,456                    | 12   | \$833              | \$12,976                    | 12   | \$520              | \$1,353             |
| Hawaii               | \$14,351                    | 7    | \$12,430                    | 14   | -\$2,472           | \$12,445                    | 13   | \$566              | -\$1,906            |
| New Hampshire        | \$10,346                    | 18   | \$11,023                    | 17   | \$677              | \$12,445                    | 14   | \$1,183            | \$1,860             |
| Maine                |                             |      |                             |      | \$376              |                             |      | \$228              |                     |
|                      | \$11,522                    | 14   | \$11,898                    | 13   |                    | \$12,125                    | 15   |                    | \$604               |
| Minnesota            | \$11,151                    | 15   | \$11,649                    | 15   | \$498              | \$11,533                    | 16   | -\$116             | \$382               |
| Indiana              | \$9,274                     | 27   | \$10,083                    | 24   | \$809              | \$11,065                    | 17   | \$982              | \$1,791             |
| Kansas               | \$9,861                     | 20   | \$10,649                    | 19   | \$788              | \$11,060                    | 18   | \$411              | \$1,198             |
| Wisconsin            | \$10,573                    | 16   | \$11,030                    | 16   | \$457              | \$10,807                    | 19   | -\$224             | \$234               |
| U.S.                 | \$10,132                    |      | \$10,653                    |      | \$521              | \$10,774                    |      | \$121              | \$642               |
| lowa                 | \$9,954                     | 19   | \$10,456                    | 20   | \$502              | \$10,764                    | 20   | \$307              | \$809               |
| Ohio                 | \$10,435                    | 17   | \$10,813                    | 18   | \$378              | \$10,625                    | 21   | -\$189             | \$190               |
| Virginia             | \$9,815                     | 21   | \$10,194                    | 21   | \$379              | \$10,621                    | 22   | \$427              | \$806               |
| Nebraska             | \$9,563                     | 25   | \$9,941                     | 25   | \$379              | \$10,404                    | 23   | \$463              | \$842               |
| Louisiana            | \$9,085                     | 30   | \$9,848                     | 28   | \$763              | \$10,289                    | 24   | \$441              | \$1,204             |
| New Mexico           | \$8,898                     | 34   | \$9,923                     | 26   | \$1,025            | \$10,113                    | 25   | \$190              | \$1,214             |
| West Virginia        | \$9,368                     | 26   | \$9,645                     | 32   | \$277              | \$9,995                     | 26   | \$351              | \$627               |
| Illinois             | \$9,120                     | 29   | \$9,681                     | 31   | \$561              | \$9,841                     | 27   | \$161              | \$721               |
| North Carolina       | \$8,320                     | 44   | \$8,736                     | 43   | \$416              | \$9,754                     | 28   | \$1,018            | \$1,434             |
| Washington           | \$8,906                     | 32   | \$9,429                     | 33   | \$523              | \$9,686                     | 29   | \$257              | \$780               |
| South Carolina       | \$9,162                     | 28   | \$9,867                     | 27   | \$705              | \$9,657                     | 30   | -\$210             | \$495               |
| Michigan             | \$9,678                     | 23   | \$9,777                     | 30   | \$99               | \$9,611                     | 31   | -\$166             | -\$67               |
| North Dakota         | \$8,457                     | 40   | \$9,144                     | 37   | \$687              | \$9,542                     | 32   | \$398              | \$1,085             |
| Georgia              | \$9,671                     | 24   | \$10,086                    | 23   | \$415              | \$9,458                     | 33   | -\$628             | -\$213              |
| Montana              | \$8,547                     | 38   | \$9,203                     | 36   | \$656              | \$9,300                     | 34   | \$97               | \$753               |
| Colorado             | \$8,727                     | 35   | \$9,078                     | 39   | \$351              | \$9,198                     | 35   | \$120              | \$471               |
| Missouri             | \$8,390                     | 43   | \$8,898                     | 41   | \$508              | \$9,163                     | 36   | \$264              | \$772               |
| Oregon               | \$8,565                     | 37   | \$9,304                     | 35   | \$739              | \$9,129                     | 37   | -\$175             | \$564               |
| Nevada               | \$8,475                     | 39   | \$9,109                     | 38   | \$634              | \$9,094                     | 38   | -\$15              | \$619               |
| Alabama              | \$8,901                     | 33   | \$9,804                     | 29   | \$903              | \$9,071                     | 39   | -\$733             | \$171               |
| Florida              | \$9,691                     | 22   | \$10,189                    | 22   | \$498              | \$8,975                     | 40   | -\$1,214           | -\$716              |
| Kentucky             | \$8,685                     | 36   | \$8,984                     | 40   | \$300              | \$8,930                     | 41   | -\$54              | \$245               |
| California           | \$9,030                     | 31   | \$9,327                     | 34   | \$296              | \$8,897                     | 42   | -\$430             | -\$134              |
| Texas                | \$8,427                     | 42   | \$8,682                     | 44   | \$255              | \$8,862                     | 43   | \$180              | \$435               |
| Arkansas             | \$8,292                     | 45   | \$8,670                     | 45   | \$378              | \$8,808                     | 44   | \$138              | \$516               |
| South Dakota         | \$8,445                     | 41   | \$8,778                     | 42   | \$333              | \$8,575                     | 45   | -\$203             | \$130               |
| Mississippi          | \$7,444                     | 47   | \$7,977                     | 47   | \$533              | \$7,930                     | 46   | -\$47              | \$486               |
| Arizona              | \$7,969                     | 46   | \$8,315                     | 46   | \$346              | \$7,899                     | 47   | -\$416             | -\$70               |
| Idaho                | \$6,990                     | 49   | \$7,430                     | 49   | \$440              | \$7,509                     | 48   | \$79               | \$519               |
| Oklahoma             | \$6,903                     | 50   | \$7,278                     | 51   | \$376              | \$7,449                     | 49   | \$171              | \$546               |
| Utah                 | \$7,098                     | 48   | \$7,468                     | 48   | \$370              | \$7,449                     | 50   | -\$89              | \$281               |
| Tennessee            | \$6,839                     | 51   | \$7,380                     | 50   | \$570              | \$7,306                     | 51   | -\$74              | \$467               |
| 10111103300          | ψυ,υυσ                      | 31   | Ψ1,000                      | 50   | ΨUTI               | Ψ1,000                      | 31   | -ψ14               | Ψ-107               |

#### Fairness Measure #2: Funding Distribution

The second fairness measure examines the distribution of funding to districts within states, relative to student poverty. As noted, this measure addresses a key question: To what extent are existing state funding systems or formulas sensitive to changes in the rate of student poverty?

Table 3 shows the results for each state for the 2007–2009 models. Hawaii and the District of Columbia are not included because each has only one school district. For 2009, the per-pupil funding amounts for districts within the state are presented across the poverty slope, simulated at 0%, 10%, 20% and 30%. The variation of the within-state funding distribution is then shown as a percentage between the highest poverty simulation and the lowest. A state with a high ratio between high- and low-poverty districts is a progressively funded state — in other words, poor districts get more funding than wealthy districts. A state with a low ratio is a regressively funded state — in other words, poor districts receive less funding than wealthy districts. The poverty ratio is presented along with the state's grades for the 2007 and 2008 models.

State funding distribution patterns relative to student poverty also are shown in Figure 3. The blue bars show states where a district with 30% student poverty is expected to receive more than 5% more state and local revenue per pupil than a district with 0% poverty. These states distribute funding in a "progressive" pattern, and rank high on funding fairness. The green-shaded bars are states where a district with 30% poverty is expected to receive more than 5% less than a district with 0% poverty. These states distribute funding in a "regressive" pattern, and rank low on fairness. Orange bars indicate states where there is no predicted increase or decrease in spending in relation to poverty, though this may be because all districts are funding at similar levels, or because there is variation in spending, but that variation is not related to poverty. The yellow, light blue and light green bars represent states where there is a nonsystematic, or statistically insignificant, relationship. Though the high-poverty districts are predicted to get more (light blue) or less (light green) than districts with 0% poverty, there is too much variation among individual school districts to suggest a definitive pattern.

On Funding Distribution, some of the key findings are:

- Only 17 states have progressive funding systems, providing greater funding to high-poverty districts than to low-poverty districts. This is a small increase over the 14 progressive states in 2008. The most progressive funding systems are in Utah, New Jersey and Ohio.
- 16 states have regressive funding systems, providing high-poverty districts with less state and local revenue than low-poverty districts, though the pattern is nonsystematic in 11 of those states. Illinois, North Carolina, Alabama and Texas show clearly regressive funding patterns. New Hampshire and Delaware were previously identified as regressive states and have since improved. Though New Hampshire remains regressive, the relationship is no longer statistically significant. Delaware previously received a "D" and was identified as "flat," but now receives a "C" with a moderately progressive funding system.
- 15 states have "flat" systems, with no appreciable difference in funding to low- and highpoverty districts.
- Progressive, regressive and flat funding states are located in every region.

<sup>&</sup>lt;sup>17</sup> Alaska is excluded from the within-state distribution analysis because the unique geography and sparse population of the state, being so highly correlated with poverty levels, result in inconsistent estimates of within-state resource distribution in our models. As such, it is extremely difficult to compare Alaska with the other states in the nation.

Table 3. Fairness Measure #2: Funding Distribution

|                | 200          | 07    | 200          | 08    |                  |                   | 2009              |                   |              |       |
|----------------|--------------|-------|--------------|-------|------------------|-------------------|-------------------|-------------------|--------------|-------|
| State          | High/<br>Low | Grade | High/<br>Low | Grade | At 0%<br>Poverty | At 10%<br>Poverty | At 20%<br>Poverty | At 30%<br>Poverty | High/<br>Low | Grade |
| Utah           | 151%         | Α     | 152%         | Α     | \$5,772          | \$6,732           | \$7,851           | \$9,157           | 159%*        | Α     |
| New Jersey     | 140%         | Α     | 139%         | Α     | \$13,961         | \$15,687          | \$17,626          | \$19,805          | 142%*        | Α     |
| Ohio           | 131%         | Α     | 136%         | Α     | \$8,993          | \$9,983           | \$11,082          | \$12,301          | 137%*        | Α     |
| Minnesota      | 138%         | Α     | 135%         | Α     | \$10,026         | \$10,945          | \$11,948          | \$13,043          | 130%*        | В     |
| Massachusetts  | 119%         | В     | 123%         | В     | \$12,598         | \$13,513          | \$14,496          | \$15,550          | 123%*        | В     |
| South Dakota   | 126%         | В     | 124%         | В     | \$7,794          | \$8,274           | \$8,784           | \$9,326           | 120%*        | В     |
| Indiana        | 117%         | С     | 120%         | В     | \$10,137         | \$10,709          | \$11,313          | \$11,951          | 118%*        | С     |
| Connecticut    | 114%         | С     | 115%         | С     | \$14,468         | \$15,223          | \$16,019          | \$16,855          | 117%*        | С     |
| Montana        | 117%         | В     | 119%         | В     | \$8,577          | \$9,023           | \$9,492           | \$9,986           | 116%*        | С     |
| Delaware       | 89%          | D     | 114%         | С     | \$12,125         | \$12,685          | \$13,271          | \$13,884          | 115%         | С     |
| Wyoming        | 108%         | С     | 112%         | С     | \$18,167         | \$19,003          | \$19,877          | \$20,792          | 114%         | С     |
| Tennessee      | 112%         | С     | 113%         | С     | \$6,872          | \$7,141           | \$7,420           | \$7,710           | 112%*        | С     |
| California     | 103%         | С     | 108%         | С     | \$8,410          | \$8,712           | \$9,024           | \$9,348           | 111%*        | С     |
| Kentucky       | 103%         | C     | 106%         | С     | \$8,561          | \$8,790           | \$9,026           | \$9,268           | 108%*        | C     |
| Nebraska       | 99%          | C     | 104%         | C     | \$9,990          | \$10,248          | \$10,511          | \$10,782          | 108%*        | C     |
| Georgia        | 103%         | C     | 105%         | C     | \$9,083          | \$9,316           | \$9,555           | \$9,800           | 108%*        | C     |
| New Mexico     | 114%         | C     | 107%         | C     | \$9,776          | \$9,985           | \$10,200          | \$10,419          | 107%*        | С     |
| Arkansas       | 104%         | C     | 107%         | C     | \$8,608          | \$8,732           | \$8,859           | \$8,987           | 107%         | С     |
|                |              | C     |              | C     |                  |                   | ,                 |                   |              | С     |
| Oklahoma       | 107%         |       | 105%         |       | \$7,294          | \$7,391           | \$7,489           | \$7,588           | 104%*        |       |
| Oregon         | 109%         | С     | 105%         | С     | \$8,987          | \$9,076           | \$9,165           | \$9,255           | 103%*        | С     |
| U.S.           | 101%         | С     | 101%         | С     | \$10,684         | \$10,728          | \$10,814          | \$10,948          | 102%         | С     |
| West Virginia  | 100%         | С     | 103%         | С     | \$9,905          | \$9,962           | \$10,018          | \$10,076          | 102%*        | С     |
| Kansas         | 92%          | D     | 98%          | С     | \$10,962         | \$11,023          | \$11,085          | \$11,147          | 102%*        | С     |
| Vermont        | 97%          | С     | 98%          | С     | \$14,896         | \$14,974          | \$15,052          | \$15,130          | 102%         | С     |
| Rhode Island   | 102%         | С     | 102%         | С     | \$12,974         | \$13,020          | \$13,066          | \$13,111          | 101%*        | С     |
| South Carolina | 102%         | С     | 102%         | С     | \$9,679          | \$9,665           | \$9,652           | \$9,638           | 100%*        | С     |
| Louisiana      | 91%          | D     | 97%          | С     | \$10,336         | \$10,307          | \$10,277          | \$10,248          | 99%*         | С     |
| Iowa           | 105%         | С     | 101%         | С     | \$10,824         | \$10,786          | \$10,748          | \$10,711          | 99%*         | С     |
| Maryland       | 89%          | D     | 94%          | D     | \$13,584         | \$13,535          | \$13,485          | \$13,435          | 99%*         | С     |
| Arizona        | 104%         | С     | 100%         | С     | \$8,005          | \$7,939           | \$7,872           | \$7,807           | 98%*         | С     |
| Wisconsin      | 96%          | С     | 96%          | С     | \$10,984         | \$10,873          | \$10,762          | \$10,653          | 97%*         | С     |
| Mississippi    | 96%          | С     | 95%          | D     | \$8,086          | \$7,988           | \$7,891           | \$7,795           | 96%*         | С     |
| Washington     | 96%          | С     | 97%          | С     | \$9,884          | \$9,759           | \$9,636           | \$9,515           | 96%*         | С     |
| Colorado       | 92%          | D     | 94%          | D     | \$9,490          | \$9,306           | \$9,126           | \$8,949           | 94%          | D     |
| Texas          | 93%          | С     | 94%          | D     | \$9,182          | \$8,980           | \$8,782           | \$8,589           | 94%*         | D     |
| Michigan       | 93%          | D     | 92%          | D     | \$9,979          | \$9,747           | \$9,520           | \$9,299           | 93%*         | D     |
| Idaho          | 88%          | D     | 91%          | D     | \$7,869          | \$7,642           | \$7,420           | \$7,206           | 92%          | D     |
| Florida        | 91%          | D     | 88%          | D     | \$9,427          | \$9,141           | \$8,864           | \$8,595           | 91%          | D     |
| Virginia       | 84%          | D     | 86%          | D     | \$11,253         | \$10,853          | \$10,467          | \$10,094          | 90%          | D     |
| Pennsylvania   | 84%          | D     | 86%          | D     | \$13,788         | \$13,274          | \$12,778          | \$12,302          | 89%          | D     |
| Maine          | 85%          | D     | 86%          | D     | \$12,914         | \$12,414          | \$11,934          | \$11,472          | 89%          | D     |
| Alabama        | 89%          | D     | 87%          | D     | \$9,702          | \$9,302           | \$8,918           | \$8,551           | 88%*         | D     |
| New York       | 82%          | D     | 84%          | D     | \$18,702         | \$17,859          | \$17,055          | \$16,286          | 87%          | D     |
| Missouri       | 88%          | D     | 86%          | D     | \$9,886          | \$9,426           | \$8,988           | \$8,571           | 87%          | D     |
| North Dakota   | 82%          | D     | 79%          | F     | \$10,774         | \$9,985           | \$9,254           | \$8,577           | 80%          | F     |
| North Carolina | 84%          | D     | 88%          | D     | \$11,111         | \$10,240          | \$9,438           | \$8,699           | 78%*         | F     |
| New Hampshire  | 64%          | F     | 65%          | F     | \$13,958         | \$12,833          | \$11,799          | \$10,849          | 78%          | F     |
| Illinois       | 78%          | F     | 79%          | F     | \$11,312         | \$10,367          | \$9,501           | \$8,707           | 77%*         | F     |
| Nevada         | 74%          | F     | 80%          | F     | \$10,561         | \$9,617           | \$8,757           | \$7,974           | 76%          | F     |

Figure 3. State Funding Distribution

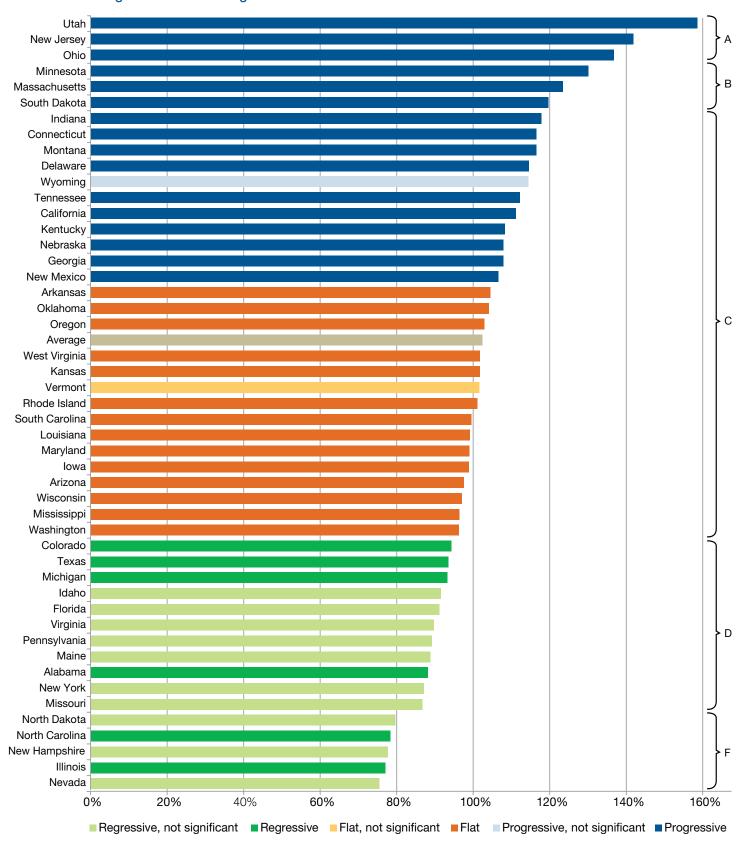
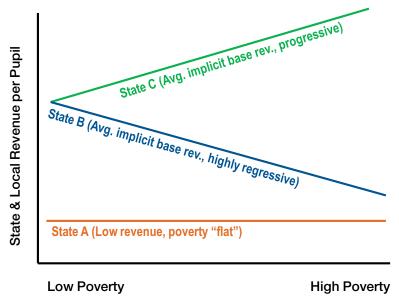


Figure 4. State Fairness Profiles



#### The State Fairness Profiles

The Funding Distribution measure also can be illustrated by a "state fairness profile." The fairness profiles of three hypothetical states are displayed in Figure 4. State A is a "flat" state, distributing very low revenue at the same level to districts regardless of poverty. State B and State C share a common intercept: predicted state and local revenue for a district with 0% poverty, which represents the implicit base funding per pupil for these states. But State B has an overall downward or "regressive" funding distribution slope, while State C has an upward or "progressive" distribution slope, resulting in markedly differing funding levels for high-poverty districts in each state.

Figure 5. Mid-Atlantic: Delaware, Maryland, New Jersey, New York

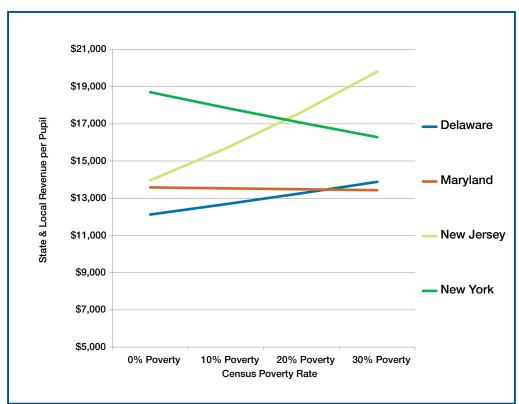


Figure 6. Big Sky: Idaho, Montana, Utah, Wyoming

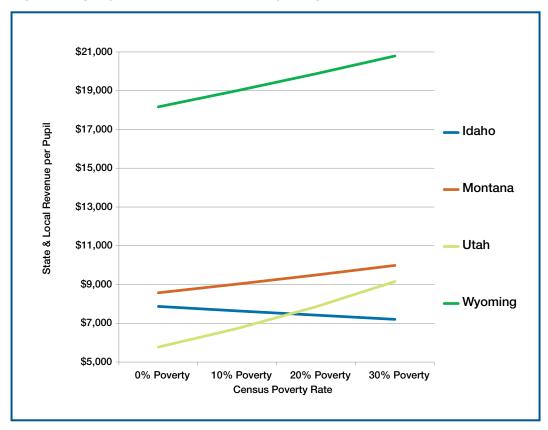


Figure 7. Gulf Coast: Alabama, Louisiana, Mississippi, Texas



Figure 8. Southeast: Arkansas, Kentucky, Missouri, Oklahoma, Tennessee, West Virginia

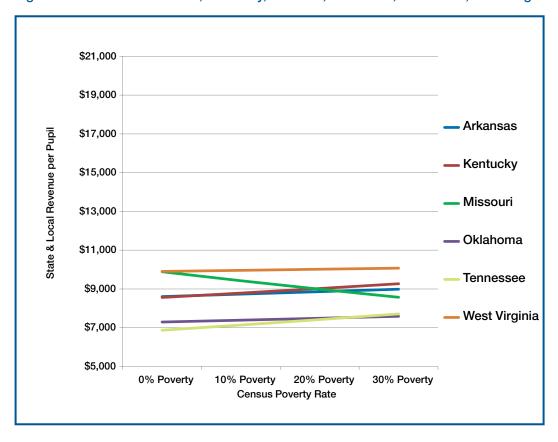


Figure 9. New England: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

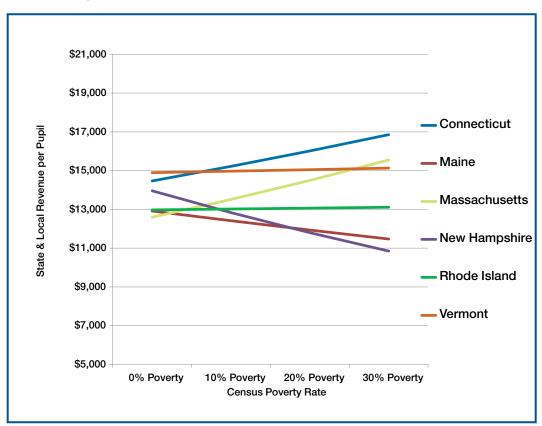


Figure 10. North Central: Illinois, Iowa, Minnesota, Wisconsin

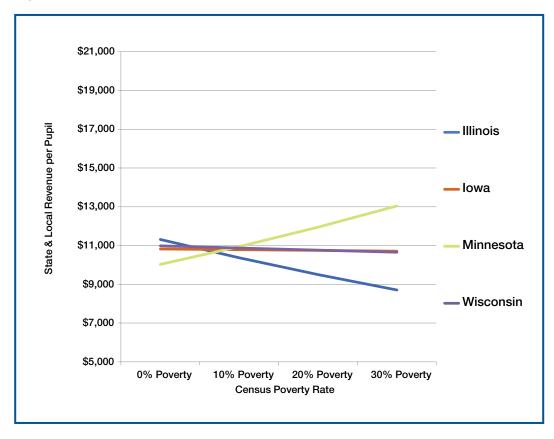


Figure 11. Pacific: California, Oregon, Washington

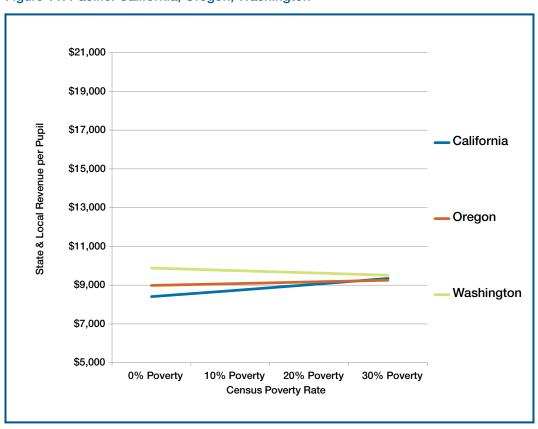


Figure 12. Prairie: Kansas, Nebraska, North Dakota, South Dakota

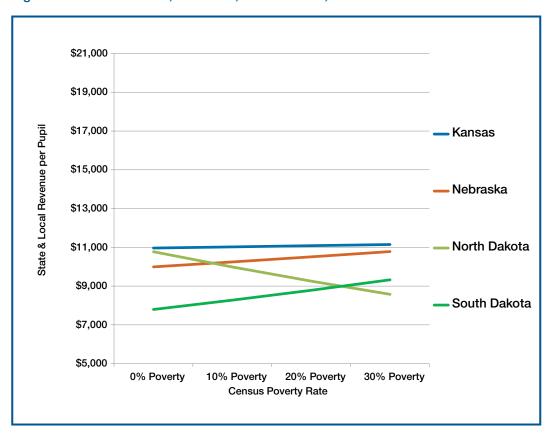
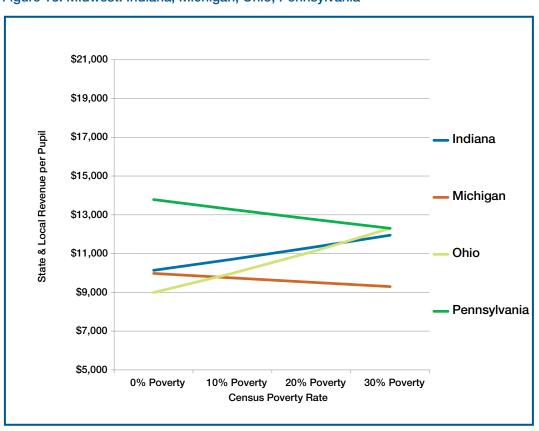


Figure 13. Midwest: Indiana, Michigan, Ohio, Pennsylvania





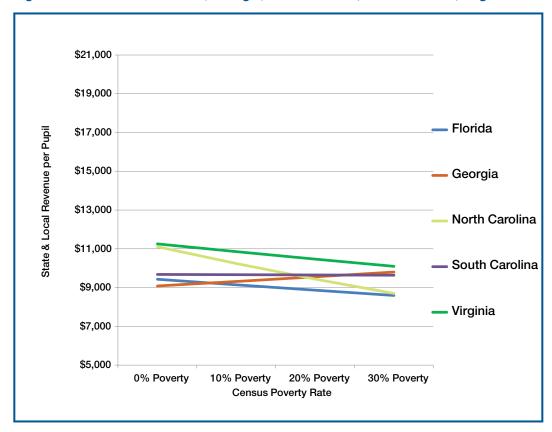


Figure 15. Southwest: Arizona, Colorado, Nevada, New Mexico

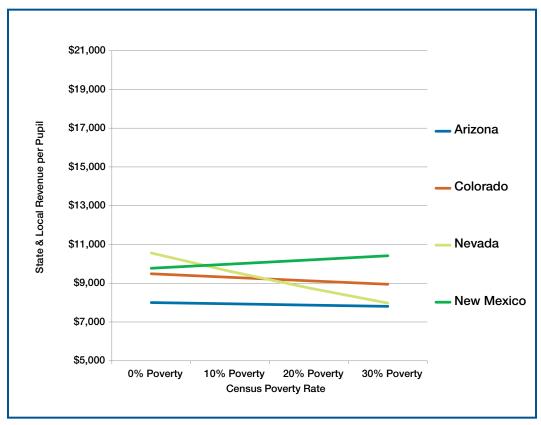


Table 4. Fairness Measure #3: State Effort

|                | 20              | 007   |                 | 2008  |                        | 2009  |                 |       |                        |                        |
|----------------|-----------------|-------|-----------------|-------|------------------------|---|-----------------|-------|------------------------|------------------------|
| State          | Effort<br>Index | Grade | Effort<br>Index | Grade | One-<br>Year<br>Change | Per capita<br>real GDP by<br>state<br>(in 2000<br>dollars | Effort<br>Index | Grade | One-<br>Year<br>Change | Change<br>from<br>2007 |
| Vermont        | 0.063           | Α     | 0.064           | Α     | 0.001                  | \$36,789  | 0.057           | Α     | -0.007                 | -0.006                 |
| New Jersey     | 0.050           | Α     | 0.050           | Α     | -0.000                 | \$49,840  | 0.050           | Α     | 0.001                  | 0.001                  |
| New York       | 0.043           | Α     | 0.044           | Α     | 0.001                  | \$49,976  | 0.049           | Α     | 0.005                  | 0.006                  |
| New Hampshire  | 0.042           | Α     | 0.043           | Α     | 0.001                  | \$40,566  | 0.045           | Α     | 0.002                  | 0.003                  |
| Indiana        | 0.038           | С     | 0.041           | В     | 0.002                  | \$36,168  | 0.045           | Α     | 0.004                  | 0.006                  |
| West Virginia  | 0.044           | Α     | 0.043           | Α     | -0.001                 | \$30,124  | 0.044           | Α     | 0.001                  | 0.000                  |
| Maryland       | 0.042           | В     | 0.045           | Α     | 0.004                  | \$44,917  | 0.044           | Α     | -0.001                 | 0.002                  |
| South Carolina | 0.042           | Α     | 0.045           | Α     | 0.003                  | \$30,845  | 0.044           | Α     | -0.001                 | 0.001                  |
| Michigan       | 0.043           | Α     | 0.042           | В     | -0.001                 | \$32,839  | 0.043           | Α     | 0.000                  | 0.000                  |
| New Mexico     | 0.038           | С     | 0.039           | С     | 0.001                  | \$34,360  | 0.043           | Α     | 0.004                  | 0.005                  |
| Ohio           | 0.042           | В     | 0.042           | В     | 0.000                  | \$36,421  | 0.042           | Α     | 0.001                  | 0.001                  |
| Kansas         | 0.040           | В     | 0.041           | В     | 0.001                  | \$39,913  | 0.042           | Α     | 0.001                  | 0.002                  |
| Pennsylvania   | 0.041           | В     | 0.041           | В     | 0.000                  | \$39,033  | 0.042           | В     | 0.001                  | 0.001                  |
| Wyoming        | 0.043           | Α     | 0.043           | Α     | -0.001                 | \$65,199  | 0.042           | В     | -0.001                 | -0.001                 |
| Rhode Island   | 0.041           | В     | 0.042           | Α     | 0.001                  | \$40,752  | 0.041           | В     | -0.001                 | 0.000                  |
| Georgia        | 0.041           | В     | 0.043           | Α     | 0.002                  | \$36,252  | 0.041           | В     | -0.002                 | 0.000                  |
| Connecticut    | 0.039           | С     | 0.040           | В     | 0.001                  | \$56,389  | 0.041           | В     | 0.001                  | 0.002                  |
| Arkansas       | 0.041           | В     | 0.041           | В     | 0.000                  | \$31,769  | 0.041           | В     | -0.000                 | 0.000                  |
| Wisconsin      | 0.041           | В     | 0.041           | В     | 0.000                  | \$38,140  | 0.041           | В     | -0.001                 | 0.000                  |
| Alaska         | 0.034           | D     | 0.039           | С     | 0.006                  | \$63,846  | 0.040           | С     | 0.000                  | 0.006                  |
| Mississippi    | 0.040           | В     | 0.041           | В     | 0.001                  | \$29,225  | 0.039           | С     | -0.002                 | -0.001                 |
| Montana        | 0.037           | С     | 0.038           | С     | 0.001                  | \$32,859  | 0.039           | С     | 0.001                  | 0.002                  |
| Kentucky       | 0.036           | С     | 0.038           | С     | 0.002                  | \$32,149  | 0.039           | С     | 0.001                  | 0.002                  |
| Iowa           | 0.037           | С     | 0.037           | С     | 0.001                  | \$41,247  | 0.039           | С     | 0.001                  | 0.002                  |
| Alabama        | 0.039           | С     | 0.041           | В     | 0.002                  | \$32,390  | 0.038           | С     | -0.003                 | -0.001                 |
| Texas          | 0.035           | D     | 0.034           | D     | -0.001                 | \$43,032  | 0.038           | С     | 0.004                  | 0.003                  |
| Massachusetts  | 0.037           | С     | 0.037           | С     | -0.001                 | \$50,023  | 0.037           | С     | 0.001                  | 0.000                  |
| Illinois       | 0.034           | D     | 0.036           | С     | 0.001                  | \$43,378  | 0.037           | С     | 0.001                  | 0.002                  |
| Idaho          | 0.034           | D     | 0.037           | С     | 0.002                  | \$32,082  | 0.036           | С     | -0.000                 | 0.002                  |
| Nebraska       | 0.035           | D     | 0.035           | D     | 0.000                  | \$42,605  | 0.036           | С     | 0.001                  | 0.001                  |
| Minnesota      | 0.035           | D     | 0.035           | D     | 0.000                  | \$44,600  | 0.036           | С     | 0.001                  | 0.001                  |
| Missouri       | 0.034           | D     | 0.035           | D     | 0.000                  | \$35,594  | 0.035           | D     | 0.001                  | 0.001                  |
| Virginia       | 0.034           | D     | 0.035           | D     | 0.001                  | \$46,609  | 0.035           | D     | 0.000                  | 0.001                  |
| North Carolina | 0.030           | F     | 0.031           | F     | 0.000                  | \$38,437  | 0.035           | D     | 0.004                  | 0.005                  |
| Hawaii         | 0.044           | Α     | 0.035           | D     | -0.009                 | \$45,308  | 0.035           | D     | 0.000                  | -0.009                 |
| Maine          | 0.048           | Α     | 0.048           | Α     | -0.000                 | \$34,535  | 0.035           | D     | -0.013                 | -0.013                 |
| Utah           | 0.031           | F     | 0.035           | D     | 0.003                  | \$36,759  | 0.033           | F     | -0.002                 | 0.001                  |
| Florida        | 0.036           | С     | 0.037           | С     | 0.001                  | \$35,653  | 0.033           | F     | -0.004                 | -0.003                 |
| Nevada         | 0.029           | F     | 0.031           | F     | 0.002                  | \$42,319  | 0.032           | F     | 0.001                  | 0.003                  |
| Louisiana      | 0.028           | F     | 0.028           | F     | 0.001                  | \$42,755  | 0.032           | F     | 0.003                  | 0.004                  |
| Oklahoma       | 0.033           | F     | 0.032           | F     | -0.000                 | \$39,881  | 0.031           | F     | -0.001                 | -0.001                 |
| Washington     | 0.031           | F     | 0.031           | F     | 0.001                  | \$45,881  | 0.031           | F     | -0.000                 | 0.000                  |
| California     | 0.034           | D     | 0.033           | F     | -0.000                 | \$46,992  | 0.031           | F     | -0.002                 | -0.003                 |
| Colorado       | 0.030           | F     | 0.030           | F     | -0.000                 | \$46,199  | 0.031           | F     | 0.001                  | 0.001                  |
| Oregon         | 0.030           | F     | 0.032           | F     | 0.002                  | \$41,435  | 0.031           | F     | -0.001                 | 0.001                  |
| Arizona        | 0.031           | F     | 0.033           | F     | 0.002                  | \$35,000  | 0.030           | F     | -0.003                 | -0.001                 |
| Tennessee      | 0.028           | F     | 0.029           | F     | 0.001                  | \$34,828  | 0.030           | F     | 0.001                  | 0.002                  |
| North Dakota   | 0.029           | F     | 0.029           | F     | -0.000                 | \$44,970  | 0.029           | F     | 0.000                  | 0.000                  |
|                |                 |       |                 |       |                        |   |                 |       |                        |                        |
| South Dakota   | 0.027           | F     | 0.027           | F     | 0.000                  | \$44,261  | 0.026           | F     | -0.001                 | -0.001                 |

The funding distribution pattern — progressive, regressive or flat — within each state also is shown in the state fairness profile, as displayed in Figure 3. The fairness profile for each state is presented below, grouped by regions. These regional groupings allow for a more accurate comparison of states that have similar characteristics, such as poverty rates and variations in cost.

To find a fairness profile for a specific state, locate the region in which the state is grouped. The state's profile is clearly marked, alongside those of other states in the region.

#### Fairness Measure #3: Effort

The third measure of fairness is the state's effort to fund its public schools, based on the percentage of the state's Gross Domestic Product (GDP) allocated to education, as shown in Table 4. The state GDP represents the value added in production by the labor and capital located within the state. The state GDP is derived as the sum of the gross domestic product by a state originating in all industries in a state. In concept, an industry's GDP by state, referred to as its "value added," is equivalent to its gross output (sales or receipts and other operating income, commodity taxes and inventory change) minus its intermediate inputs (consumption of goods and services imported or purchased from other U.S. industries). Thus, the GDP used in this fairness measure is the state counterpart of the nation's GDP, the measure of U.S. output.

More importantly, this fairness measure examines the degree of state fiscal capacity to raise funds to support public education. This measure addresses a critical question: What level of effort is a state making to fairly fund its public schools? State effort, as shown in Table 4, is calculated by dividing the sum of state and local revenue per pupil by the state GDP. The measure is essentially a measure of the percent of state-level economic productivity allocated to or spent on public education.

There is wide variation among states on funding effort. Delaware, South Dakota, Louisiana and Tennessee are the states with the lowest effort (.024 to .028). Vermont, New Jersey and New York represent the states that allocate the greatest share of economic activity to education (.049 to .057). The effort index does not appear to be related to the overall wealth of the state. For example, Delaware has the third largest per capita GDP in the nation (\$61,248) and ranks as the state with the lowest effort made toward education (.025). But Connecticut and Wyoming, also states with a very large per capita GDP, have average effort indices. Tennessee and Arizona have relatively low per capita GDP, and also very low effort.

The overall level of resources available for schools in any given state is partly a function of the state's effort to fund schools and partly a function of the wealth of the state. For example, Mississippi exerts average effort, but because it is very poor, its overall funding levels are low. By contrast, Tennessee is ranked last in the nation on funding level, but this is partially because it does not take advantage of its fiscal capacity to fund its school system, as evidenced by the "F" it receives on the Effort Index.

In general, the overall trend was for states to increase their funding effort between 2007 and 2009. Thirty-four states showed a net gain in the effort index, though the changes were mostly small in magnitude. Two high-effort states — Hawaii and Maine — showed a particularly large disinvestment in public education by reducing their funding effort by over 20%. Both states saw increased GDP, but decreased the proportion that was spent on education. In Hawaii, this resulted in a substantial decrease in funding levels, while in Maine funding levels per pupil were maintained.

The regional groupings are borrowed from Nate Silver's electoral analysis. These categories group states based not only on geography, but also in terms of other social and economic characteristics. (http://www.fivethirtyeight.com)

Table 5. Fairness Measure #4: Coverage

|                      | 2  | 2007                                  |      |  | 2  | 2009  |                                       |      |
|----------------------|--|---------------------------------------|------|--|--|---|---------------------------------------|------|
| State                | % 6- to<br>16-Year-Olds<br>in Public<br>School | Private/<br>Public<br>Income<br>Ratio | Rank | % 6- to<br>16-Year-Olds<br>in Public<br>School | Median<br>Household<br>Income<br>(Public School) | Median<br>Household<br>Income<br>(Private School) | Private/<br>Public<br>Income<br>Ratio | Rank |
| Wyoming              | 94%  | 1.26                                  | 1    | 93%  | \$78,152   | \$92,206  | 1.18                                  | 1    |
| Utah                 | 93%  | 1.31                                  | 2    | 93%  | \$79,227   | \$106,068   | 1.34                                  | 2    |
| Alaska               | 90%  | 1.30                                  | 5    | 90%  | \$84,361   | \$103,564   | 1.23                                  | 3    |
| Idaho                | 91%  | 1.32                                  | 4    | 90%  | \$65,689   | \$84,502  | 1.29                                  | 4    |
| Maine                | 90%  | 1.12                                  | 3    | 89%  | \$65,485   | \$83,688  | 1.28                                  | 5    |
| Montana              | 89%  | 1.35                                  | 7    | 89%  | \$66,676   | \$83,134  | 1.25                                  | 6    |
| Arizona              | 91%  | 1.52                                  | 6    | 91%  | \$69,431   | \$108,548   | 1.56                                  | 7    |
| New Hampshire        | 88%  | 1.25                                  | 10   | 88%  | \$91,940   | \$116,861   | 1.27                                  | 8    |
| West Virginia        | 91%  | 1.59                                  | 8    | 91%  | \$56,439   | \$91,150  | 1.62                                  | 9    |
|                      | 88%  | 1.34                                  | 11   | 88%  |  | \$96,284  | 1.33                                  | 10   |
| lowa                 |  |                                       |      |  | \$72,282   |   |                                       |      |
| Colorado             | 89%  | 1.41                                  | 12   | 89%  | \$81,889   | \$117,606   | 1.44                                  | 11   |
| Vermont              | 90%  | 1.42                                  | 9    | 89%  | \$74,167   | \$110,873   | 1.49                                  | 12   |
| North Dakota         | 88%  | 1.49                                  | 14   | 88%  | \$71,992   | \$104,735   | 1.45                                  | 13   |
| South Dakota         | 88%  | 1.33                                  | 13   | 88%  | \$66,975   | \$96,053  | 1.43                                  | 14   |
| Michigan             | 88%  | 1.52                                  | 16   | 88%  | \$70,634   | \$107,287   | 1.52                                  | 15   |
| Oregon               | 88%  | 1.50                                  | 17   | 88%  | \$69,490   | \$105,341   | 1.52                                  | 16   |
| Nevada               | 92%  | 1.95                                  | 15   | 92%  | \$72,886   | \$146,783   | 2.01                                  | 17   |
| Kansas               | 88%  | 1.55                                  | 19   | 88%  | \$71,517   | \$109,262   | 1.53                                  | 18   |
| New Mexico           | 90%  | 1.72                                  | 18   | 89%  | \$55,686   | \$96,371  | 1.73                                  | 19   |
| Oklahoma             | 90%  | 1.85                                  | 23   | 90%  | \$59,605   | \$108,656   | 1.82                                  | 20   |
| New Jersey           | 85%  | 1.31                                  | 21   | 85%  | \$103,525  | \$140,003   | 1.35                                  | 21   |
| Texas                | 91%  | 2.00                                  | 26   | 91%  | \$66,405   | \$132,227   | 1.99                                  | 22   |
| Massachusetts        | 87%  | 1.49                                  | 22   | 87%  | \$97,824   | \$146,406   | 1.50                                  | 23   |
| Washington           | 88%  | 1.69                                  | 27   | 88%  | \$77,329   | \$130,633   | 1.69                                  | 24   |
| Virginia             | 88%  | 1.66                                  | 28   | 88%  | \$86,985   | \$141,207   | 1.62                                  | 25   |
| Minnesota            | 87%  | 1.46                                  | 20   | 86%  | \$85,970   | \$126,831   | 1.48                                  | 26   |
| Arkansas             | 90%  | 1.94                                  | 30   | 90%  | \$55,114   | \$101,377   | 1.84                                  | 27   |
| Connecticut          | 88%  | 1.64                                  | 25   | 88%  | \$109,953  | \$185,511   | 1.69                                  | 28   |
| Indiana              | 86%  | 1.50                                  | 29   | 86%  | \$67,084   | \$101,113   | 1.51                                  | 29   |
| Wisconsin            | 84%  | 1.37                                  | 35   | 84%  | \$74,481   | \$98,050  | 1.32                                  | 30   |
| Nebraska             | 86%  | 1.39                                  | 24   | 85%  | \$68,635   | \$101,122   | 1.47                                  | 31   |
| South Carolina       | 87%  | 1.71                                  | 34   | 87%  | \$60,754   | \$103,590   | 1.71                                  | 32   |
| California           | 89%  | 1.88                                  | 32   | 89%  | \$77,925   | \$147,536   | 1.89                                  | 33   |
| Illinois             | 86%  | 1.55                                  | 33   | 86%  | \$79,898   | \$126,334   | 1.58                                  | 34   |
| North Carolina       | 89%  | 1.85                                  | 31   | 89%  | \$65,057   | \$122,463   | 1.88                                  | 35   |
| Rhode Island         | 86%  | 1.62                                  | 37   | 85%  | \$77,539   | \$121,775   | 1.57                                  | 36   |
| Ohio                 | 84%  | 1.50                                  | 36   | 85%  | \$68,719   | \$103,964   | 1.51                                  | 37   |
| Alabama              | 86%  | 1.77                                  | 38   | 87%  | \$60,004   | \$106,844   | 1.78                                  | 38   |
| Georgia              | 88%  | 1.96                                  | 39   | 88%  | \$67,372   | \$133,712   | 1.98                                  | 39   |
| Kentucky             | 86%  | 1.78                                  | 41   | 86%  | \$57,905   | \$106,238   | 1.83                                  | 40   |
| Pennsylvania         | 83%  | 1.45                                  | 43   | 83%  | \$74,577   | \$109,136   | 1.46                                  | 41   |
| Missouri             | 83%  | 1.58                                  | 44   | 83%  | \$66,114   | \$103,532   | 1.57                                  | 42   |
| Mississippi          | 88%  | 1.93                                  | 40   | 87%  | \$50,104   | \$100,966   | 2.02                                  | 43   |
| New York             | 84%  | 1.55                                  | 42   | 83%  | \$81,140   | \$129,974   | 1.60                                  | 44   |
| Florida              | 86%  | 1.94                                  | 46   | 86%  | \$67,406   | \$130,689   | 1.94                                  | 45   |
| Tennessee            | 87%  | 2.03                                  | 45   | 87%  | \$60,239   | \$122,705   | 2.04                                  | 46   |
|                      | 81%  | 1.62                                  | 45   | 82%  | \$93,997   | \$152,705   | 1.62                                  | 47   |
| Maryland<br>Hawaii   | 81%  | 1.53                                  | 48   | 79%  |  |   |                                       | 48   |
|                      |  |                                       |      |  | \$81,893   | \$128,526   | 1.57                                  |      |
| Delaware             | 79%  | 1.85                                  | 50   | 80%  | \$71,792   | \$133,779   | 1.86                                  | 49   |
| Louisiana            | 81%  | 1.99                                  | 49   | 81%  | \$55,270   | \$110,546   | 2.00                                  | 50   |
| District of Columbia | 78%  | 3.57                                  | 51   | 78%  | \$55,993   | \$195,651   | 3.49                                  | 51   |

#### Fairness Measure #4: Coverage

The share of school-age children attending the state's public schools, and the median household income of those children, is a critical but often overlooked factor affecting school funding fairness. As previously noted, the extent to which school-age children attend public school is only partially within the control of state policymakers. However, the extent of public-school coverage in a given state, and the overall income level of those students, impacts the effort necessary to fairly fund its public schools. A higher percentage of students in public schools require a greater state funding effort. Further, a high concentration of children from low-income households in public schools requires not only more state funding effort, but also fair funding distribution. Perhaps most importantly, a high share of private-school students from higher-income households affects the public and political will necessary to generate fair funding through the state's finance system.<sup>19</sup>

The Coverage measure for all states is shown in Table 5, including data on the difference in household income between public and private school students. The states are ranked by a combined score of the percentage of students who attend public schools and the household income ratio between public- and private-school students.

Coverage rates vary significantly among the states, from a low of 78% in Washington, D.C., to 93% in Wyoming and Utah. In addition, the median household income of public- and private-school students varies widely. Washington, D.C., also has the highest income ratio (3.49), with a median household income of \$195,651 for private-school students to \$55,993 for public-school students.

The Coverage data further illuminate the state fairness profiles. Public schools in Louisiana and Delaware, for example, enroll about 80% of their school-age children, with those students disproportionately from lower-income households. As a result, the fairness profile in these states — funding level and distribution to districts relative to poverty — does not capture the one-fifth of school-age children who are enrolled in private schools and are disproportionately from higher-income households.

The Coverage rankings maintain a great degree of stability over the three years of data. This is not surprising given the slow pace of change in the proportion of students attending public schools. However, it should be noted that the Coverage indicators are based on pooled Census data from 2005–2009, so noticeable shifts in behavior will be slower to emerge.

The Coverage measure is a significant equity concern in many of the state fairness profiles. In states that have a high proportion of private-school students, the fairness profiles do not include a significant portion of the school population. To the extent that these private-school students are disproportionately from higher-income households, a degree of bias is introduced into the fairness profiles.

# **III. The National Report Card: Second Edition**

The National Report Card grades and ranks the states on how fairly they fund their public schools. The first two columns show the state grades on Funding Distribution and Effort. The grades address two key questions: What effort does a state make to fairly fund its public schools, and does the state distribute funding to address concentrated student poverty? The last two columns show the state rankings on Funding Level and Coverage. These rankings address two additional questions: How much funding does a state provide for a typical school district, and to what extent does the state's public education system serve its school-age population?

In examining the Report Card results, consideration should be given to all four measures, rather than to any one. The combination of the measures offers deeper insight into state finance systems. For example, Utah shows a progressive funding distribution pattern, receiving an "A," but its funding and effort levels are extremely low. Nevada and North Dakota each received an "F" on funding effort and have regressive distribution patterns, as shown in their fairness profile. Alabama and Illinois make an average effort towards funding their schools, yet fund their higher-poverty schools at lower levels than their lower-poverty schools. New York is high spending, high effort, but regressive.

The complexities, and sometimes inconsistencies, of the finance systems require careful consideration of the state's performance as a whole.

Although the Report Card results should be approached with caution, certain findings stand out:

- Six states are positioned relatively well on all four measures, receiving a grade of "C" or higher on Effort and Funding Distribution and a rank in the top half in Funding Level and Coverage. These states are lowa, Kansas, Massachusetts, New Jersey, New Mexico and Vermont. Massachusetts and New Jersey perform consistently well with high funding levels and progressively distributed funding. Vermont performs very well on Effort and Funding Level, but could improve by directing more funding to higher-need districts. As a result of a successful school finance case, Kansas began to implement remedies to address inadequate and unfairly distributed school funding and moved from a regressive distribution to a "flat" one while also increasing funding levels. Unfortunately, the remedies were abandoned in the midst of the economic downturn, so continued improvements are not expected. While above average in all areas, states like lowa and New Mexico have plenty of room for improvement.
- Most of the states have at least one area in which they could improve. To focus on the areas over which states exert the most control, Colorado, Florida, Maine, Missouri, Nevada, North Carolina, North Dakota and Virginia received a grade of "D" or "F" on both State Effort and Funding Distribution. So not only do these states dedicate a low proportion of their fiscal capacity toward their education systems, they also have allocated that money in a way that does not systematically ensure that districts with higher poverty levels get more funding.
- Three states Florida, Missouri and North Carolina received low ratings in each of the four indicators. These are low-effort, regressive states receiving a grade of "D" or "F" on both indicators, and ranking in the bottom half in terms of the overall level of funding provided and Coverage.

Table 6. The National Report Card State Funding

| State                | Funding<br>Distribution Grade |               | Effort | Grade         | Fun<br>Level | ding<br>Rank  | Coverage Rank |               |  |
|----------------------|-------------------------------|---------------|--------|---------------|--------------|---------------|---------------|---------------|--|
| Alabama              | D                             | $\rightarrow$ | С      | $\rightarrow$ | 39           | <b>↓</b>      | 38            | $\rightarrow$ |  |
| Alaska               |                               | $\rightarrow$ | С      | <b>↑</b>      | 2            | <b>↑</b>      | 3             | <b>1</b>      |  |
| Arizona              | С                             | $\rightarrow$ | F      | $\rightarrow$ | 47           | <b>↓</b>      | 7             | 1             |  |
| Arkansas             | С                             | <b>→</b>      | В      | <b>→</b>      | 44           | 1             | 27            | <b>↓</b>      |  |
| California           | С                             | $\rightarrow$ | F      | <b>↓</b>      | 42           | <b>↓</b>      | 33            | 1             |  |
| Colorado             | D                             | <b>→</b>      | F      | <b>→</b>      | 35           | <b>→</b>      | 11            | 1             |  |
| Connecticut          | С                             | $\rightarrow$ | В      | <b>↑</b>      | 5            | <b>↑</b>      | 28            | 1             |  |
| Delaware             | С                             | <b>↑</b>      | F      | <b>→</b>      | 11           | <b>↓</b>      | 49            | 1             |  |
| District of Columbia |                               |               |        |               | 7            | į.            | 51            | $\rightarrow$ |  |
| Florida              | D                             | $\rightarrow$ | F      | <b>↓</b>      | 40           | į.            | 45            | <b>↓</b>      |  |
| Georgia              | С                             | $\rightarrow$ | В      | <b>→</b>      | 33           | į             | 39            | $\rightarrow$ |  |
| Hawaii               |                               |               | D      | <b>↓</b>      | 13           | į             | 48            | <b>→</b>      |  |
| Idaho                | D                             | $\rightarrow$ | С      | <b>†</b>      | 48           | <b>†</b>      | 4             | $\rightarrow$ |  |
| Illinois             | F                             | <b>→</b>      | С      | <b>†</b>      | 27           | <b>†</b>      | 34            | 1             |  |
| Indiana              | С                             | <b>→</b>      | Α      | <b>†</b>      | 17           | <b>†</b>      | 29            | ->            |  |
| lowa                 | С                             | <b>→</b>      | С      | <b>→</b>      | 20           | j             | 10            | <b>↓</b>      |  |
| Kansas               | С                             | <b>↑</b>      | Α      | <b>↑</b>      | 18           | Ť             | 18            | Ĭ             |  |
| Kentucky             | С                             | <b>→</b>      | С      | <b>→</b>      | 41           | j             | 40            | Ţ             |  |
| Louisiana            | С                             | 1             | F      | <b>→</b>      | 24           | <b>*</b>      | 50            | •             |  |
| Maine                | D                             | <b>→</b>      | D      | 1             | 15           | 1             | 5             | 4             |  |
| Maryland             | С                             | 1             | A      | <b>†</b>      | 9            | <b>*</b>      | 47            | ->            |  |
| Massachusetts        | В                             | <b>→</b>      | C      | <b>→</b>      | 8            | 4             | 23            | 4             |  |
| Michigan             | D                             | <b>→</b>      | A      |               | 31           | 1             | 15            |               |  |
| Minnesota            | В                             | <b>↓</b>      | C      | 1             | 16           | Ţ             | 26            | 4             |  |
| Mississippi          | С                             | <b>→</b>      | С      |               | 46           | <b>▼</b>      | 43            | <b>A</b>      |  |
| Missouri             | D                             | <b>→</b>      | D      | <b>→</b>      | 36           | <b>A</b>      | 42            |               |  |
| Montana              | С                             | <b>↓</b>      | С      | <b>→</b>      | 34           | <b>A</b>      | 6             | , v           |  |
| Nebraska             | С                             | <b>∀</b>      | С      | 1             | 23           | <b>A</b>      | 31            | •             |  |
|                      | F                             | →             | F      | <b>→</b>      | 38           | <b>A</b>      | 17            | <b>A</b>      |  |
| Nevada               | F                             |               | A      |               | 14           | T             | 8             |               |  |
| New Hampshire        |                               | <b>→</b>      |        | <b>→</b>      |              | T             |               | •             |  |
| New Jersey           | A                             | <b>→</b>      | A      | <b>→</b>      | 4            | •             | 21            | <b>A</b>      |  |
| New Mexico           | С                             | <b>→</b>      | A      | 1             | 25           | T             | 19            | T             |  |
| New York             | D                             | →<br>         | A      | <b>→</b>      | 3            | T             | 44            | T             |  |
| North Carolina       | F                             | <b>+</b>      | D      | 1             | 28           | <b>↑</b>      | 35            | T             |  |
| North Dakota         | F                             | <b>↓</b>      | F      | <b>→</b>      | 32           | <b>1</b>      | 13            | •             |  |
| Ohio                 | Α                             | <b>→</b>      | A      | 1             | 21           | <b>↓</b>      | 37            | T             |  |
| Oklahoma             | С                             | <b>→</b>      | F      | <b>→</b>      | 49           | 1             | 20            |               |  |
| Oregon               | С                             | <b>→</b>      | F      | <b>→</b>      | 37           | <b>→</b>      | 16            | Ψ.            |  |
| Pennsylvania         | D                             | $\rightarrow$ | В      | <b>→</b>      | 12           | <b>→</b>      | 41            | <b>ψ</b>      |  |
| Rhode Island         | С                             | <b>→</b>      | В      | <b>→</b>      | 10           | <b>↑</b>      | 36            |               |  |
| South Carolina       | С                             | $\rightarrow$ | Α      | <b>→</b>      | 30           | <b>+</b>      | 32            | ,             |  |
| South Dakota         | В                             | <b>→</b>      | F      | <b>→</b>      | 45           | <b>†</b>      | 14            | Ţ             |  |
| Tennessee            | С                             | $\rightarrow$ | F      | <b>→</b>      | 51           | $\rightarrow$ | 46            | 1             |  |
| Texas                | D                             | <b>↓</b>      | С      | <b>↑</b>      | 43           | <b>↓</b>      | 22            | <b>↓</b>      |  |
| Utah                 | Α                             | $\rightarrow$ | F      | $\rightarrow$ | 50           | <b>—</b>      | 2             | <b>→</b>      |  |
| Vermont              | С                             | $\rightarrow$ | Α      | <b>→</b>      | 6            | <b>↓</b>      | 12            | <b>↑</b>      |  |
| Virginia             | D                             | $\rightarrow$ | D      | $\rightarrow$ | 22           | <b>↓</b>      | 25            | <b>+</b>      |  |
| Washington           | С                             | <b>→</b>      | F      | <b>→</b>      | 29           | <b>†</b>      | 24            | <b>↓</b>      |  |
| West Virginia        | С                             | $\rightarrow$ | Α      | $\rightarrow$ | 26           | $\rightarrow$ | 9             | <b>↑</b>      |  |
| Wisconsin            | С                             | <b>→</b>      | В      | <b>→</b>      | 19           | <b>↓</b>      | 30            | <b>↓</b>      |  |
| Wyoming              | С                             | $\rightarrow$ | В      | <b>↓</b>      | 1            | <b>→</b>      | 1             | $\rightarrow$ |  |

# **IV. Improving Public Education**

The purpose of the National Report Card is to deepen the understanding of the public, education stakeholders and policymakers about the condition of the nation's systems for financing public education. The Report Card also is intended to spark a more informed and vigorous discussion and debate — at the local, state and federal levels — concerning the steps needed to improve, strengthen and sustain fair funding as a key element of the national drive to ensure equal education opportunity for all students.

Several education reform initiatives have dominated the public discourse in recent years. Closing achievement gaps, increasing college and career readiness, and improving teacher quality are all laudable goals, but are goals that cannot be achieved and sustained without the fundamental base of a fair school funding system.

To facilitate the discussion of the relationship between fair school funding and an improved education system, we provide a brief discussion of the importance of fair school funding to building equitable and successful systems of public schools in the states.

## **Fair School Funding and Student Achievement**

The primary goal driving current education policy is improving student achievement. More specifically, legislators, policymakers, business leaders and others have made reducing the achievement gap between low-income/minority students and higher-income/non-minority students a top priority. This call to "close the achievement gap," however, is often accompanied by misleading assertions about school funding, such as "Increased funding will have little or no impact on achievement levels" or "Our schools need to do more with less."<sup>20</sup>

More recently, some commentators have been using data on education spending spanning decades to support the claim that while overall spending has increased, achievement levels have remained stagnant. In other words, the U.S. spends "a lot" on education, but "has little to show for it." This assertion makes for a good sound bite, but is very misleading. The claim that there has been no improvement in NAEP scores over time, however, is certainly contested. <sup>21</sup> Further, this claim ignores the reality that, as the National Report Card makes clear, the U.S. has no national education system or national system of school funding, but rather 50 state systems, many of which fail to provide sufficient funding, fairly distributed to account for student and school need. It also ignores the shifts in the demographic makeup of the public school enrollments in the states, particularly the growing concentration of student poverty, and policy changes that account for a significant share of increases in spending since the 1970s, such as federal law requiring schools to serve students with disabilities.

The bottom line: To improve student achievement, the states need to go well beyond the limits of politically popular "school reforms" to developing strong systems of public education, built upon sufficient funding, distributed progressively. Only then will the states be in a position to implement and sustain those initiatives necessary to boost student achievement, from a rigorous, well-rounded K–12 curriculum to high-quality early education.

<sup>&</sup>lt;sup>20</sup> Baker, B.D., & Welner, K. (2011). School Finance and Courts: Does Reform Matter, and How Can We Tell? Teachers College Record, No. 113 (11), p. 2374–2414.

<sup>&</sup>lt;sup>21</sup> Martin, K. (2011, April 20). "Fact-Challenged Policy." The Seattle Journal. Retrieved November 6, 2011 from http://www.theseattlejournal.com/2011/04/20/fact-challenged-policy/.

### **Fair School Funding and Teacher Quality**

Advancing "teacher quality" has emerged as a central element of current education reform efforts in the states. Of course, high-quality instruction delivered by effective teachers is critical to improving student achievement. However, often neglected is the central role that fair school funding can play in the recruitment, support and retention of high-quality teachers. Under-funded high-poverty schools and districts simply cannot compete with well-funded low-poverty districts when large salary disparities exist, or even when salaries are merely comparable.

In other words, it is exceedingly difficult to attract, support and retain a high-quality teacher workforce in high-need districts when those districts are funded merely equal to, or substantially below, more affluent districts in the same teacher labor market. Further, beyond leveling the playing field for teachers among districts, fair funding is essential to ensure competitive wages, benefits and working conditions relative to other professional occupations. Fair school funding, therefore, is critical to building the next-generation, high-quality teacher workforce needed to improve student achievement in the nation's public schools, particularly those with high student need.

# **Fair School Funding and Federal Policy**

Perhaps the most enduring and disturbing feature of public education in many states is the deep disparity in the opportunity to learn for students in low-wealth, high-poverty communities as compared to their more advantaged peers in more-affluent public schools and districts.

As underscored by the National Report Card, the root cause of these disparities is the searing inequity in so many of the state school finance systems. Most of these systems are broken, failing to deliver the funding needed to ensure that all students — especially low-income (at-risk) students, students in high-poverty schools and English-language learners — have access to, and can achieve, rigorous academic standards and be college- and workforce-ready upon graduation.

Even worse, most states allocate more state and local resources to low-poverty (higher-wealth) districts and schools than schools serving high concentrations of student poverty and need. Except for New Jersey, Massachusetts, Vermont and a few others, public school funding in the states is inadequate, unfair and regressive, resulting in a lack of effective teachers, course offerings, student supports and other resources essential for a meaningful opportunity to learn for students in the nation's high-poverty districts and schools.

Unfortunately, federal education funding, although small, continues to flow into the states blind to how fairly states fund their schools. In states with unfair funding, federal Title I and other funds subsidize and perpetuate inequity, and even allow states to reduce fiscal effort during economic downturns.

In light of this condition, the current federal reform agenda — "turning around" low-performing schools, expanding charter schools, changing tenure and layoff policies, etc. — are likely not to have much long-term or systemic impact on improving opportunities and outcomes for the nation's most disadvantaged students. High-quality charter schools and effective turnarounds also require sufficient funding; speculative positive effects of reducing teacher job security will likely be offset without counterbalancing increases in salaries; and improving teacher evaluation systems costs money.

Changes in federal policy could play an important role in pressing states to remediate the underlying funding and resource deficits embedded in their finance systems. Congress could start by passing legislation that would require states, as a condition of receipt of federal funds, to meet a minimum "maintenance of effort" level. In addition, Congress could develop new federal regulations to

encourage states to redesign their school finance systems so that they fund the cost of delivering rigorous common standards, and allocate funding based on student and school need.

#### Conclusion

Policymakers, elected officials, educators, parents and advocates are currently engaged in longoverdue dialogue about how to improve our nation's public schools. Unfortunately, when it comes to school funding, the conversation is framed by recurring, but outmoded, adages: "Does money matter?" or "Can we do more with less?" or "Our state already spends too much."

The National Report Card seeks to inform and change the national dialogue about how our states finance public education. The data is presented so that stakeholders, politicians, taxpayers and concerned citizens can think more carefully about the role of school funding in achieving better education outcomes of the nation's children. The Report encourages readers to think not just about "how much" we spend on education, but whether schools have sufficient funding to deliver a high-quality education to all students. The Report also encourages readers to think more deeply about states' finance mechanisms and the decisions state legislators and governors make in constructing and funding these systems. Are these funding systems fair, do they target sufficient resources to those children who need them most, and are funds being leveraged to produce the most equitable and successful outcomes?

The data in this report describe the status of state school finance systems at the outset of an economic recession. The Report Card depicts a nation where many states were already in need of significant reform in the way they fund their schools. Substantial cuts have followed, including systematically greater funding cuts in higher-poverty districts in many states. Many states already had a lot of work to do to ensure that their funding systems provide sufficient resources, equitably distributed, so that all students are capable of achieving at high standards.

This report demonstrates the need to understand fair school funding as the essential precondition for the delivery of high-quality education. As the nation engages in the important discussions of how to improve our schools, we encourage stakeholders to recognize that no reform can be successful unless built upon an equitable and fair funding system. As these important debates about educational improvement continue, we hope that the National Report Card will contribute valuable information that helps determine the direction of public education policy at the local, state and federal levels.

# **Appendix**

# **Appendix A: National Child and Student Poverty Rates**

|                      |                              | %                          | Predicte              | d Free/Reduced        | Lunch at:             |
|----------------------|------------------------------|----------------------------|-----------------------|-----------------------|-----------------------|
| State                | Census SAIPE<br>Poverty Rate | % Free/Reduced Lunch (CCD) | 10% Census<br>Poverty | 20% Census<br>Poverty | 30% Census<br>Poverty |
| District of Columbia | 29%                          | 67%                        | 5%                    | 38%                   | 72%                   |
| Mississippi          | 28%                          | 68%                        | 40%                   | 56%                   | 72%                   |
| Arkansas             | 24%                          | 57%                        | 34%                   | 52%                   | 70%                   |
| New Mexico           | 23%                          | 62%                        | 38%                   | 56%                   | 74%                   |
| Kentucky             | 23%                          | 52%                        | 35%                   | 49%                   | 62%                   |
| Alabama              | 22%                          | 52%                        | 28%                   | 49%                   | 70%                   |
| Louisiana            | 22%                          | 65%                        | 46%                   | 59%                   | 71%                   |
| West Virginia        | 22%                          | 50%                        | 35%                   | 48%                   | 61%                   |
| Texas                | 22%                          | 49%                        | 41%                   | 46%                   | 52%                   |
| South Carolina       | 21%                          | 52%                        | 31%                   | 52%                   | 72%                   |
| Tennessee            | 21%                          | 50%                        | 29%                   | 49%                   | 69%                   |
| Georgia              | 20%                          | 53%                        | 36%                   | 53%                   | 71%                   |
| North Carolina       | 20%                          | 34%                        | 26%                   | 38%                   | 50%                   |
| Arizona              | 20%                          | 48%                        | 25%                   | 45%                   | 66%                   |
| Oklahoma             | 20%                          | 56%                        | 37%                   | 57%                   | 77%                   |
| Florida              | 19%                          | 50%                        | 33%                   | 52%                   | 72%                   |
| California           | 18%                          | 52%                        | 33%                   | 59%                   | 85%                   |
| Michigan             | 18%                          | 42%                        | 25%                   | 44%                   | 63%                   |
| Ohio                 | 18%                          | 36%                        | 14%                   | 29%                   | 44%                   |
| Montana              | 18%                          | 37%                        | 24%                   | 41%                   | 58%                   |
| New York             | 17%                          | 45%                        | 25%                   | 51%                   | 76%                   |
|                      |                              |                            |                       |                       |                       |
| Missouri             | 17%                          | 39%                        | 28%                   | 44%                   | 61%                   |
| Oregon               | 17%                          | 46%                        | 31%                   | 52%                   | 73%                   |
| Illinois             | 17%                          | 39%                        | 23%                   | 51%                   | 78%                   |
| Indiana              | 16%                          | 42%                        | 27%                   | 50%                   | 72%                   |
| Idaho                | 16%                          | 40%                        | 30%                   | 50%                   | 71%                   |
| Rhode Island         | 16%                          | 40%                        | 24%                   | 48%                   | 72%                   |
| Nevada               | 15%                          | 39%                        | 16%                   | 42%                   | 69%                   |
| Maine                | 15%                          | 38%                        | 28%                   | 48%                   | 67%                   |
| South Dakota         | 15%                          | 35%                        | 25%                   | 38%                   | 50%                   |
| Pennsylvania         | 14%                          | 33%                        | 23%                   | 45%                   | 67%                   |
| Delaware             | 14%                          | 40%                        | 34%                   | 49%                   | 64%                   |
| Washington           | 14%                          | 38%                        | 30%                   | 53%                   | 77%                   |
| Kansas               | 14%                          | 43%                        | 33%                   | 61%                   | 89%                   |
| Wisconsin            | 14%                          | 33%                        | 26%                   | 49%                   | 71%                   |
| Colorado             | 14%                          | 35%                        | 26%                   | 52%                   | 77%                   |
| Virginia             | 13%                          | 33%                        | 28%                   | 46%                   | 64%                   |
| Nebraska             | 13%                          | 38%                        | 32%                   | 58%                   | 85%                   |
| Hawaii               | 12%                          | 42%                        | 39%                   | 50%                   | 60%                   |
| lowa                 | 12%                          | 34%                        | 29%                   | 53%                   | 76%                   |
| Minnesota            | 12%                          | 33%                        | 29%                   | 53%                   | 77%                   |
| Utah                 | 12%                          | 31%                        | 30%                   | 54%                   | 79%                   |
| New Jersey           | 11%                          | 30%                        | 26%                   | 55%                   | 83%                   |
| Vermont              | 11%                          | 30%                        | 28%                   | 51%                   | 74%                   |
| North Dakota         | 11%                          | 32%                        | 28%                   | 46%                   | 63%                   |
| Massachusetts        | 11%                          | 31%                        | 26%                   | 55%                   | 84%                   |
| Wyoming              | 11%                          | 31%                        | 29%                   | 51%                   | 74%                   |
| Alaska               | 10%                          | 34%                        | 32%                   | 51%                   | 69%                   |
| Connecticut          | 10%                          | 30%                        | 29%                   | 61%                   | 94%                   |
| Maryland             | 10%                          | 35%                        | 35%                   | 61%                   | 87%                   |
| New Hampshire        | 9%                           | 20%                        | 22%                   | 45%                   | 69%                   |