# Education Funding and Teacher Compensation In Indiana: Evaluation and Recommendations

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## Executive Summary

This report looks at how public schools in Indiana are funded, how funding for public education in Indiana compares to other states and how it has changed over time, how monies are allocated between teachers and other uses, and how well teachers are compensated in the state. The report relies on data from the U.S. Census Bureau's annual surveys of public school finances and the National Education Association.

Among the main conclusions from the study are the following:

- Nationally, Indiana ranks below average on most metrics related to total education funding (27th in funding per student, 27th in funding per capita, and 21st in funding per $1,000 personal income)
- Indiana does not compare favorably to its five bordering states (Illinois, Kentucky, Michigan, Ohio, Wisconsin) in terms of public education funding and teacher salaries
- Of particular concern is that Indiana has lost substantial ground nationally in recent years compared to other states in terms of the level of total financial support provided for public education. Between 2009-10 and 2015-16, Indiana's rankings fell by 11 places on funding per student, 17 places on funding per capita, and 16 places on funding per $1,000 personal income.
- In 2015-16, Indiana ranked 34th in terms of instructional spending per student, 42nd on spending on instructional salaries per student, and 23rd in spending on instructional benefits per student. These rankings are substantially lower than what were found for Indiana only ten years prior.

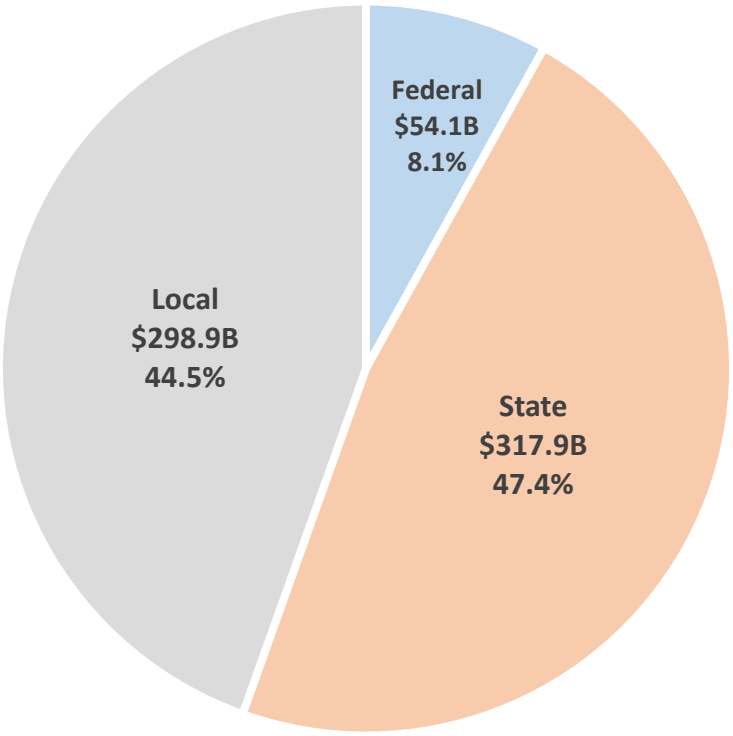
- As of 2016-17, Indiana ranked 26th nationally and last among its bordering states in terms of average teacher salaries. The state's national rank on this metric has fallen seven to ten places over the last five years.
- Indiana has also lost substantial ground in the last five years in terms of its national ranking on average salaries for new teachers.
- Indiana's pension plan for public school teachers has the lowest formula multiplier in the nation (1.1% for each year of service).
- Indiana has a relatively high ratio of students to teachers, and a relatively low ratio of students to non-teachers, suggesting that staffing reallocations could be used to hire more teachers and/or raise teacher salaries with existing financial resources.
- Indiana would need to increase its investment in public education by about $1.49 billion / year to reach parity with the average of its neighbors, or by $3.33 billion / year to return to its national ranking only five years earlier. Policy options for achieving these goals include raising the per-student foundation amount, reallocating state dollars towards K-12 education, and directing local taxes towards education.

## How Public Schools Are Funded

As with any other industry, public K-12 education need money to operate. Schools require funding to pay for teachers, supplies, equipment, and everything else that is used to educate children. For this reason, it is important to understand the way in which public K-12 schools are funded in the United States. The level of funding and how it is used has obvious impacts on the quantity and quality of services provided to students. Likewise, because public education is a very labor-intensive industry, education funding affects the quantity and quality of teachers who provide these services, which in turn affects students.

Public schools rely on revenues from three main sources: federal, state, and local. Figure 1 shows the breakdown in total funding by these three sources for the U.S. in the 2015-16 fiscal year. Federal funding is usually the smallest of the three components, accounting for about eight percent of total revenues for public schools. Federal revenues are provided to schools for specific programs such as Title 1, Special Education, and Food Services (free/reduced price lunch). State funding is on average the largest revenue source for public K-12 education (47%), and this comes primarily from the state's funding formula or appropriation process, plus supplemental funding for programs such as vocational and special education. Finally, local funding comprises on average the remaining 44% of revenues and comes from property taxes and supplemental sources. The majority of state and local funding is used by public schools for their day-to-day operations.

**Figure 1: U.S. Public K-12 Education Funding by Source, 2015-16**

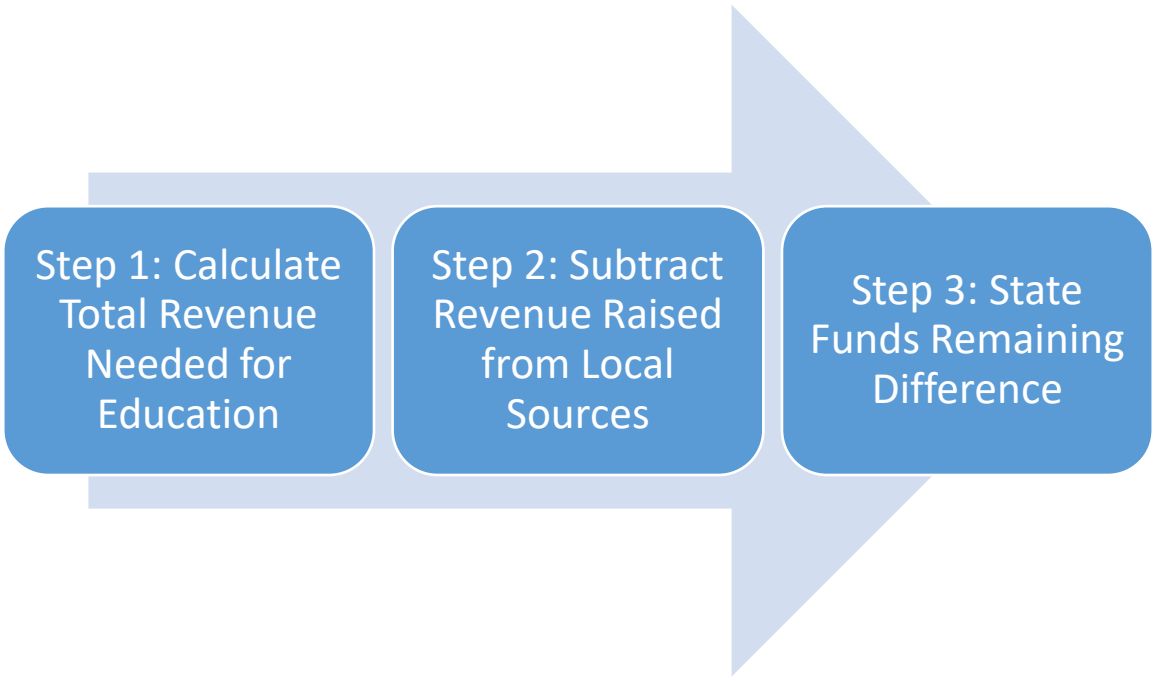



*Source*: U.S. Census Bureau, Annual Survey of School System Finance 2015-16, Table 1.

## State Foundation Programs

The degree to which public schools rely on state versus local funding is determined by each state. Most states use what is known as a "foundation program" (or funding formula) to specify how much funding is allocated to public schools, and how funding is to be divided between state and local sources. The general structure of a foundation program is depicted in Figure 2:

**Figure 2: General Depiction of State Foundation Program for Public Schools**




Under a foundation program, the state first determines the total amount of money (state plus local) deemed necessary for its public schools to provide education services. Total funding in these formulas is usually driven by enrollments; however, some states provide additional funding for schools that educate more at-risk students, as well as separate funding for special education and specific programs and initiatives. Second, the portion of total funding that can be raised locally to support education (primarily through local property taxes) is determined. This is most often done by calculating the assessed value of taxable property and multiplying it by a specific tax rate earmarked for education. Finally, the remaining portion of total revenues that cannot be covered by local property tax revenues is designated as the level of state support needed by schools.

In this way, state funding is intended to fill the gap between what schools need to function and how much the local community can raise through property taxes. Accordingly,

foundation programs are intended to ensure that public schools have sufficient revenues to operate, and that schools located in lower socioeconomic areas are not at a financial disadvantage relative to schools in wealthier areas in terms of having enough money to properly educate children.

Although most states use some form of foundation program to determine funding for public schools, there are wide variations across states in how this is done. First, states can choose different values of per-student funding that is used to determine total funding needed for education. For example, one state may use a per-student value of $9,000/student and another state could choose a smaller value such as $7,000/student. The per-student values in the funding formula are rarely driven by rigorous estimates of funding needed to produce adequate student outcomes, but rather emerge through the political process at the state level. Nonetheless, the choice of per-student funding parameter is very important for determining how much money public schools have at their disposal for providing education services to students.

A second important difference among states is with regard to how funding for schools is divided between state and local sources. Although these revenue sources appear to be independent of each other, in fact they are closely related due to the way in which foundation programs are designed. States control the relative level of local funding for schools through the property tax rate used for public schools in the foundation program. For example, a state's foundation program may dictate that a local tax rate of two dollars per $1,000 assessed property value be imposed to help fund public schools. As a result, when examining a state's effort to fund public education it is important to consider both state and local funding and not simply focus on the state's share of total funding.

## Indiana's Foundation Program

Dating back to 1949, Indiana has relied on a foundation program to determine the level and distribution of funding for public schools. As noted in the work by the Center for Education and Evaluation Policy at Indiana University and summarized in Table 1, the state's foundation program has undergone a number of significant changes over time.[1] The current version of the funding formula can be traced back to major changes that were made in 1993 as part of a lawsuit filed by Lake Central School Corporation requiring the state to provide additional funding to schools in lower socioeconomic areas. However, beginning in 2009 Indiana modified its Foundation Program by replacing the local contribution (called "Tuition Support Levy") with state funding. Local funding for public education is still collected by the state through property taxes, but the revenues are now used for transportation, construction, and debt service. Public school corporations also have the option of passing additional property tax levies to add funding for their local schools. Another important change in the state's funding formula at this time was that additional funding for lower-socioeconomic schools was broken out from basic funding and placed into a separate category.

**Table 1: Periods of Major Funding Formula Changes for K-12 Education in Indiana**

| Years | General Description of Funding Formula | Adjustments for Socioeconomic Status of Community |
|---|---|---|
| 1949 to 1973 | State funding is set equal to the difference between the minimum funding level for each corporation based on enrollments, and what corporations can raise through local property taxes | No adjustments were made for the socioeconomic status of the community |
| 1974 to 1992 | State funding is set equal to the prior year's funding level plus a guaranteed per-pupil increase from the state | No adjustments were made for the socioeconomic status of the community |
| 1993 to 2009 | State funding is set equal to the difference between the minimum funding level for each corporation based on enrollments, and what corporations can raise through local property taxes | Per-pupil funding increased for corporations located in lower socioeconomic communities |
| 2009-10 to present | Local property taxes are removed from the calculation of the state's Basic Grant | Per-pupil funding is divided into base funding per pupil and additional funding through the Complexity Grant |

The total level of funding determined by the foundation program in Indiana is referred to as State Tuition Support. This total figure is calculated as the sum of five grants as shown in Table 2 for the years 2015-16 through 2017-18:

**Table 2: Breakdown of State Tuition Support for Indiana's Public Schools**

| Grant | 2015-16 | 2016-17 | 2017-18 |
|---|---|---|---|
| Basic Grant | $5,074,826,228 | $5,207,854,356 | $5,428,623,210 |
| Complexity Grant | $891,554,291 | $887,063,363 | $768,522,710 |
| Honors Grant | $24,234,800 | $27,711,200 | $28,673,200 |
| Special Education Grant | $544,217,100 | $550,956,483 | $566,487,796 |
| Career and Technical Ed Grant | $105,821,750 | $109,641,000 | $113,863,650 |
| Total: State Tuition Support | $6,640,654,169 | $6,783,226,402 | $6,906,170,566 |

*Source*: Indiana Department of Education Office of School Finance (August, 2018). *Indiana K-12 State Tuition Support Annual Report*, Tables 4-8. Excludes revenues for Choice Scholarships, Mitch Daniels Early Graduation Scholarships, and miscellaneous adjustments.

The largest single category for most public schools in Indiana is the Basic Grant, which represents 77% of State Tuition Support in FY2018. The Basic Grant is found by multiplying the number of students ("Average Daily Membership" or ADM) by the designated base amount of funding per student set by the state. Aside from periodic adjustments due to transitions in the foundation program, the base amount of funding per student is the same for all schools and thus variations in the Basic Grant are primarily due to enrollments.

The Complexity Grant provides additional funding to public schools based on the socioeconomic characteristics of the school corporation. The Complexity Index has undergone a number of changes over time, and is currently determined by the percentage of students who qualified for Supplemental Nutrition Assistance Program (SNAP), Temporary Assistance for Needy Families (TANF) or foster care. The goal of the Complexity Grant is to provide more funding to public schools with greater shares of lower-income students to help meet their educational needs. The Complexity Grant represents 11% of State Tuition Support in FY2018. The remaining three grants are referred to as "categorical grants" in the state's Foundation Program and collectively account for a total of 12% of state funding for public education. More specific details about the way in which State Tuition Support is determined can be found in the publication *Indiana K-12 State Tuition Support Annual Report* produced by the Indiana Department of Education.

The changes that Indiana has made to its foundation program over time make it difficult to examine how funding for public education has changed. For example, prior to 2010 the Complexity Grant was included as part of the Basic Grant. Beginning in 2010, however, this was broken out into a separate revenue category. Accordingly, the amount of funding per student in the Basic Grant fell because a portion of the old base amount was now applied to the new

Complexity Grant. Likewise, transitions to new versions of the funding formula over time also altered the base amount of per-student funding in the foundation program. For these reasons, it is best to focus attention on total funding and compare it to total funding in other states as opposed to specific components of State Tuition Support.

## Public School Funding in Indiana and U.S.

This section of the report focuses on public education funding in Indiana and how it compares to the rest of the United States. The data used in this section were obtained from the U.S. Census Bureau for the years 2001-02 through 2015-16 through their Annual Survey of School System Finances.[2] The Census Bureau provides breakdowns for public education of revenues by source, and expenditures by main usage categories. The Census Bureau data have the advantages of being collected in a consistent manner for all states, and spanning a number of years allowing for time trend analyses of revenues and expenditures.

Table 3 shows a breakdown of total revenue by source for Indiana in the most current year reported by the Census Bureau (2015-16). Public education funding in Indiana for this year from all sources totaled $12.5 billion. The vast majority of funding came from the state (62%), followed by local funding (30%) and then federal funding (8%). Because the state controls the education funding for state and local sources, it is important to consider both of these when making comparisons across states in education funding. Otherwise, a state such as Indiana that has chosen to rely less heavily on local tax dollars to fund education may appear to be more generous in terms of education funding. From the perspective of public schools, however, they

are primarily interested in the total funding from all sources than the revenues from either the state or local sources.

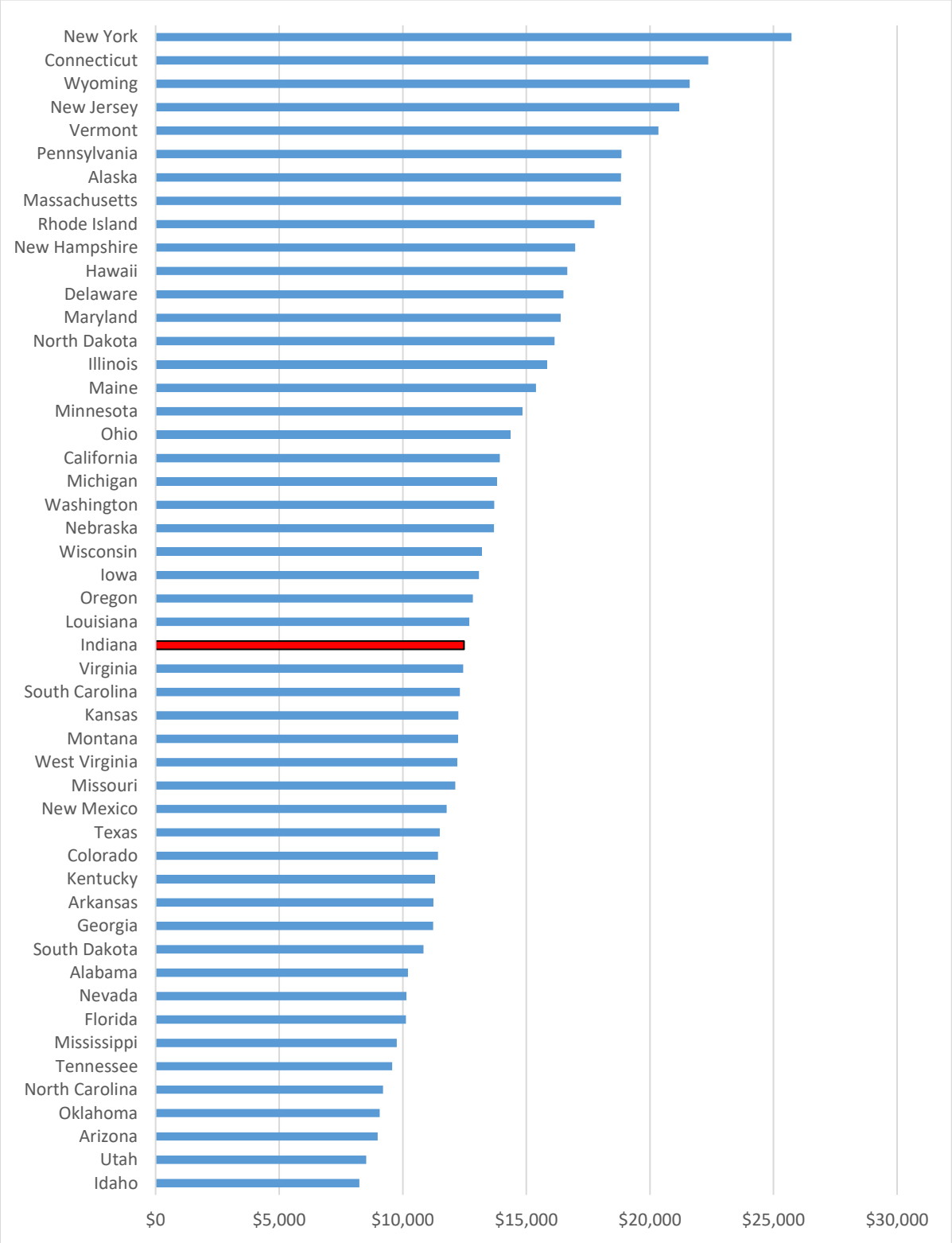
**Table 3: Revenue by Source for Indiana Public K-12 Education 2015-16 (in $1000s)**

| Revenue Source | Category | Funding ($1000s) |
|---|---|---|
| **Federal** | Title 1 | 236,462 |
| | Special Education | 228,156 |
| | Child Nutrition | 314,344 |
| | Vocational Programs | 6,378 |
| | Other Federal | 169,497 |
| | **Subtotal: Federal** | **954,837** |
| | | |
| **State** | Foundation Program | 6,595,587 |
| | Compensatory Programs | 9,503 |
| | Special Education | 1,314 |
| | Vocational Programs | 3,421 |
| | Transportation | 40 |
| | Payments for LEA | 1,053,109 |
| | Other State | 117,737 |
| | **Subtotal: State** | **7,780,711** |
| | | |
| **Local** | Property Taxes | 2,572,369 |
| | Other Taxes | 1,005 |
| | Nonschool Local Government | 309,703 |
| | School Lunch | 182,130 |
| | Transportation and Tuition | 3,917 |
| | Other Local | 706,066 |
| | **Subtotal: Local** | **3,775,190** |
| | | |
| **Grand Total** | | **12,510,738** |

*Source*: U.S. Census Bureau, Annual Survey of School System Finance 2015-16

Figure 3 shows how Indiana compares to other states in the US in terms of total education funding per student in the 2015-16 fiscal year.[3] Because federal funding does not vary significantly across states, most of the variations in total revenues are attributable to differences in the amounts of state and local funding directed to public K-12 education. According to the data collected by the Census Bureau, in this year Indiana (shown in red) ranked 27th out of 50 states in terms of total revenue per student for public K-12 education. Indiana also ranked ahead of only one of its five neighboring states in terms of total revenue per student (ahead of Kentucky, behind Ohio, Illinois, Michigan, and Wisconsin).

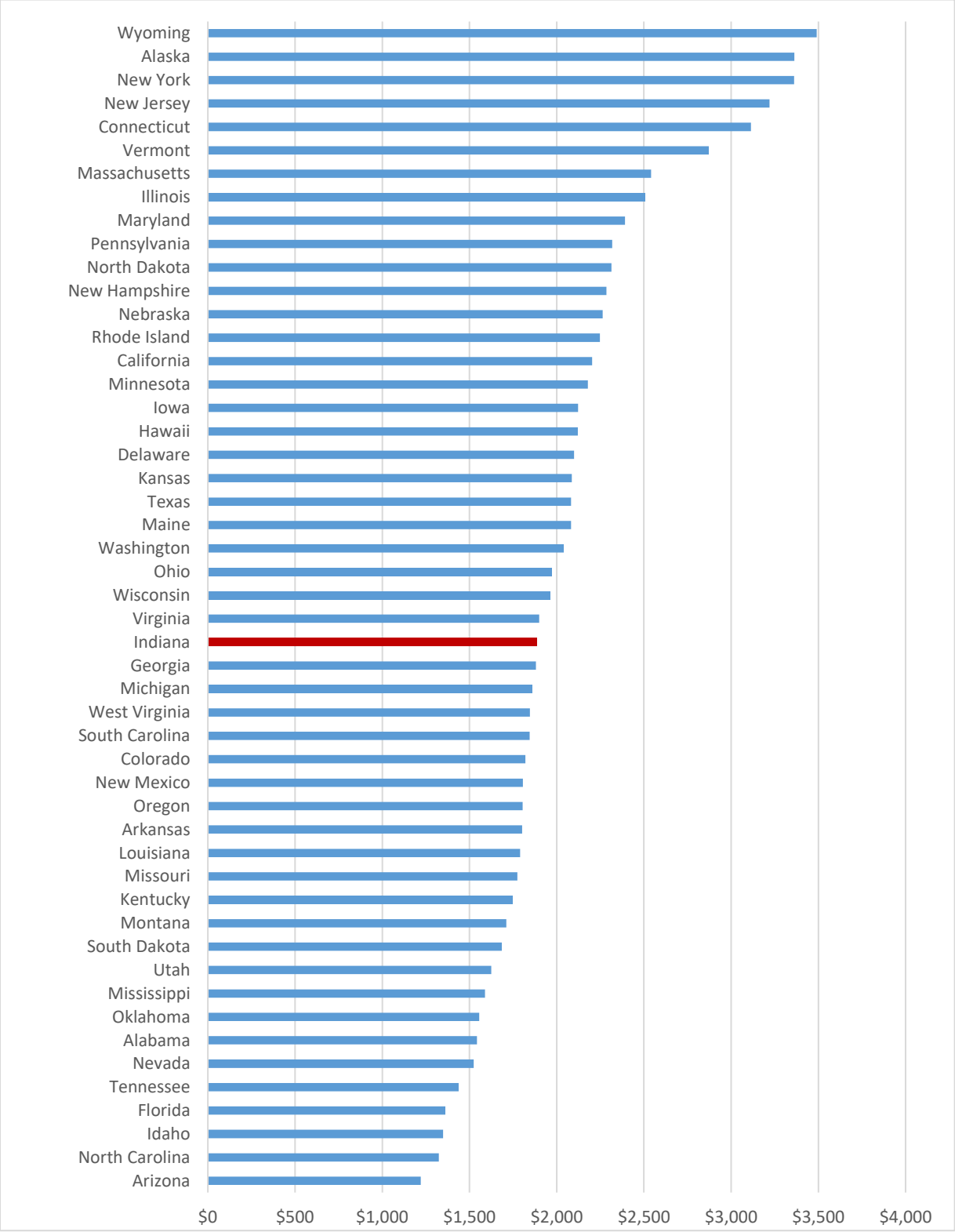
**Figure 3: Total Revenues per Student by State, 2015-16**




*Source*: U.S. Census Bureau, Annual Survey of School System Finance 2015-16

Another way to examine funding for public K-12 education across states is to express total revenue on a per-capita basis by dividing total revenues by the state's population. This is shown in Figure 4. It can be seen that Indiana also ranked 27$^{th}$ out of 50 states in terms of total public education funding per capita, and trailed all but one of its neighboring states (Kentucky) in terms of public education funding per capita.

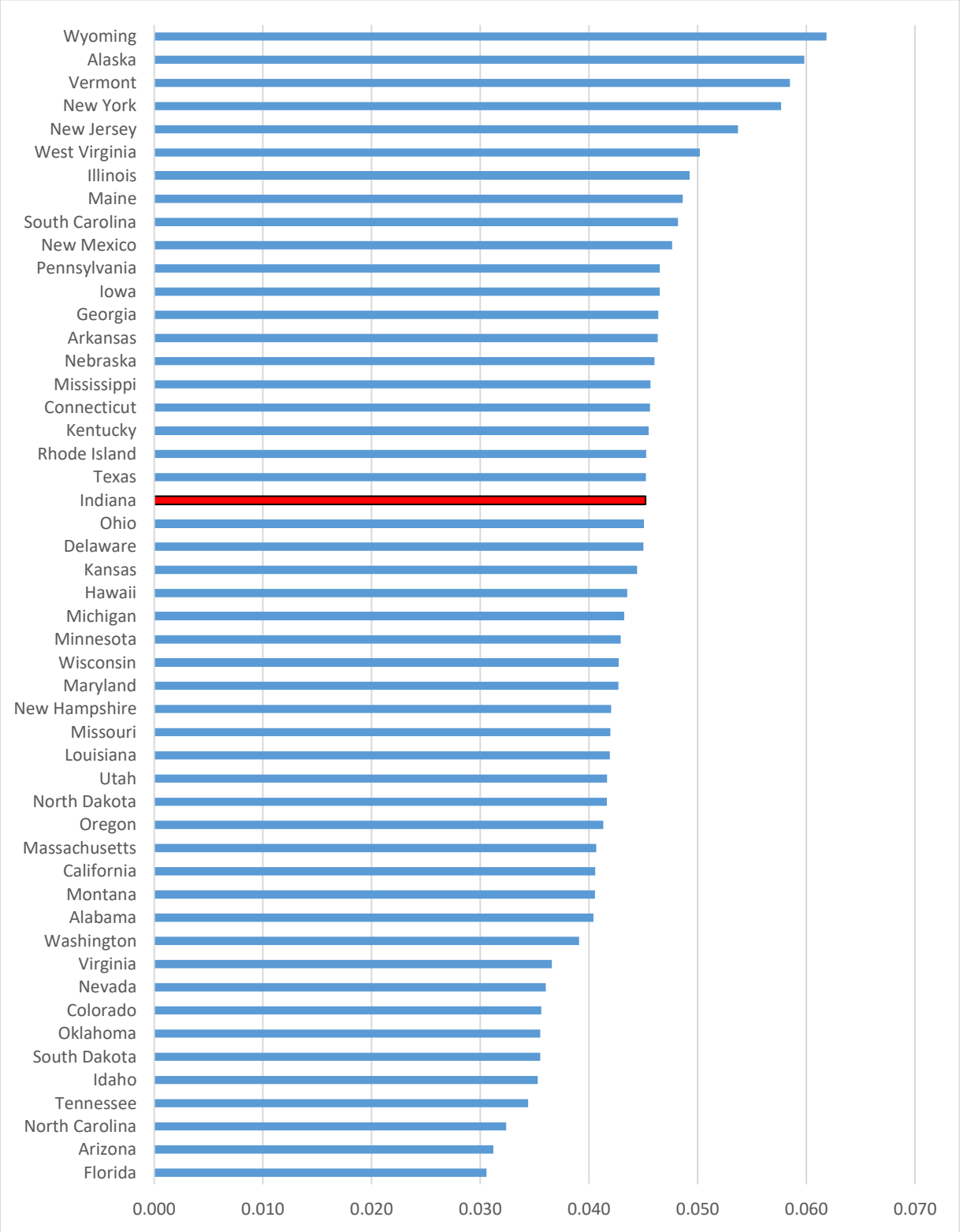
**Figure 4: Total Revenues per Capita by State, 2015-16**




*Source*: U.S. Census Bureau, Annual Survey of School System Finance 2015-16

The comparisons in the previous two charts overlooked the fact that states vary in terms of their financial capacity to fund education. All else constant, it would be expected that states with wealthier citizens would have a greater ability than other states to fund public education. As an alternative, Figure 5 ranks states in terms of their total public K-12 education funding per $1,000 personal income in 2015-16. The average for the United States in 2015-16 was five cents per $1,000 personal income. Using this metric, Indiana ranked slightly higher nationally (21st in the nation) and regionally (third out of six) than on a per-student or per-capita basis.

**Figure 5: Total Revenues per $1,000 Personal Income by State, 2015-16**




*Source*: U.S. Census Bureau, Annual Survey of School System Finance 2015-16

## Trends in Indiana Public K-12 Education Funding

This section of the report focuses on how public education funding in Indiana has changed over time. Table 4 shows the trend from 2001-02 to 2015-16 in total K-12 education funding expressed on either a per-student, per-capita, or per-$1,000 personal income basis. The dollar figures for revenue per student and revenue per capita have been adjusted for inflation using the Consumer Price Index (base year = 2016):

**Table 4: Changes in Total Education Funding in Indiana, 2002-03 to 2015-16**

| Year | Total Public Education Revenue | | |
|---|---|---|---|
| | Per Student[1] | Per Capita[1] | Per $1,000 Personal Income |
| 2001-02 | $12,151 | $1,962 | 0.053 |
| 2002-03 | $10,434 | $1,684 | 0.046 |
| 2003-04 | $12,946 | $2,091 | 0.057 |
| 2004-05 | $13,946 | $2,258 | 0.061 |
| 2005-06 | $13,175 | $2,145 | 0.058 |
| 2006-07 | $11,520 | $1,881 | 0.051 |
| 2007-08 | $12,017 | $1,944 | 0.052 |
| 2008-09 | $13,871 | $2,221 | 0.057 |
| 2009-10 | $14,620 | $2,311 | 0.064 |
| 2010-11 | $12,463 | $1,957 | 0.054 |
| 2011-12 | $12,605 | $1,941 | 0.051 |
| 2012-13 | $12,298 | $1,877 | 0.047 |
| 2013-14 | $12,219 | $1,865 | 0.048 |
| 2014-15 | $12,330 | $1,872 | 0.046 |
| 2015-16 | $12,477 | $1,886 | 0.045 |

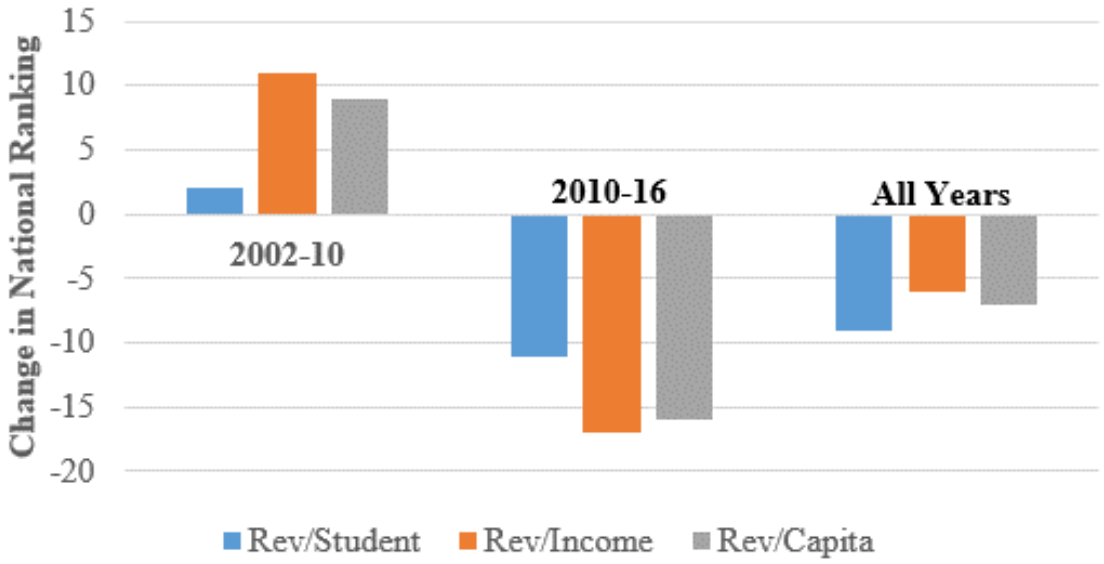
*Source*: U.S. Census Bureau, Annual Surveys of School System Finance 2001-02 to 2015-16. [1]Adjusted for inflation

Of particular note in this table is the sharp decline in funding in Indiana that occurred between 2009-11. During this period, revenue per student fell by 8.5% and an even larger drop (~15%) occurred for funding per $1,000 personal income. The figures for the subsequent years shows that Indiana has maintained this lower level of public K-12 education funding ever since, and

funding per $1,000 personal income has continued to decline. The period 2009-11 also coincides with the change in Indiana's funding formula for the state to play a larger role in funding public schools.

The decline in financial support for public K-12 education in Indiana has led to a significant drop in the state's relative position in education funding over the last 10-15 years. Figure 6 shows the change in Indiana's national ranking on each of these three metrics from 2002 through 2016. It can be seen that although the state made progress between 2002 and 2010 in terms of its US rankings, the drop in financial support after 2010 led to a sizable decline in the state's rankings:

**Figure 6: Changes in Indiana's National Ranking in Public Education Funding**



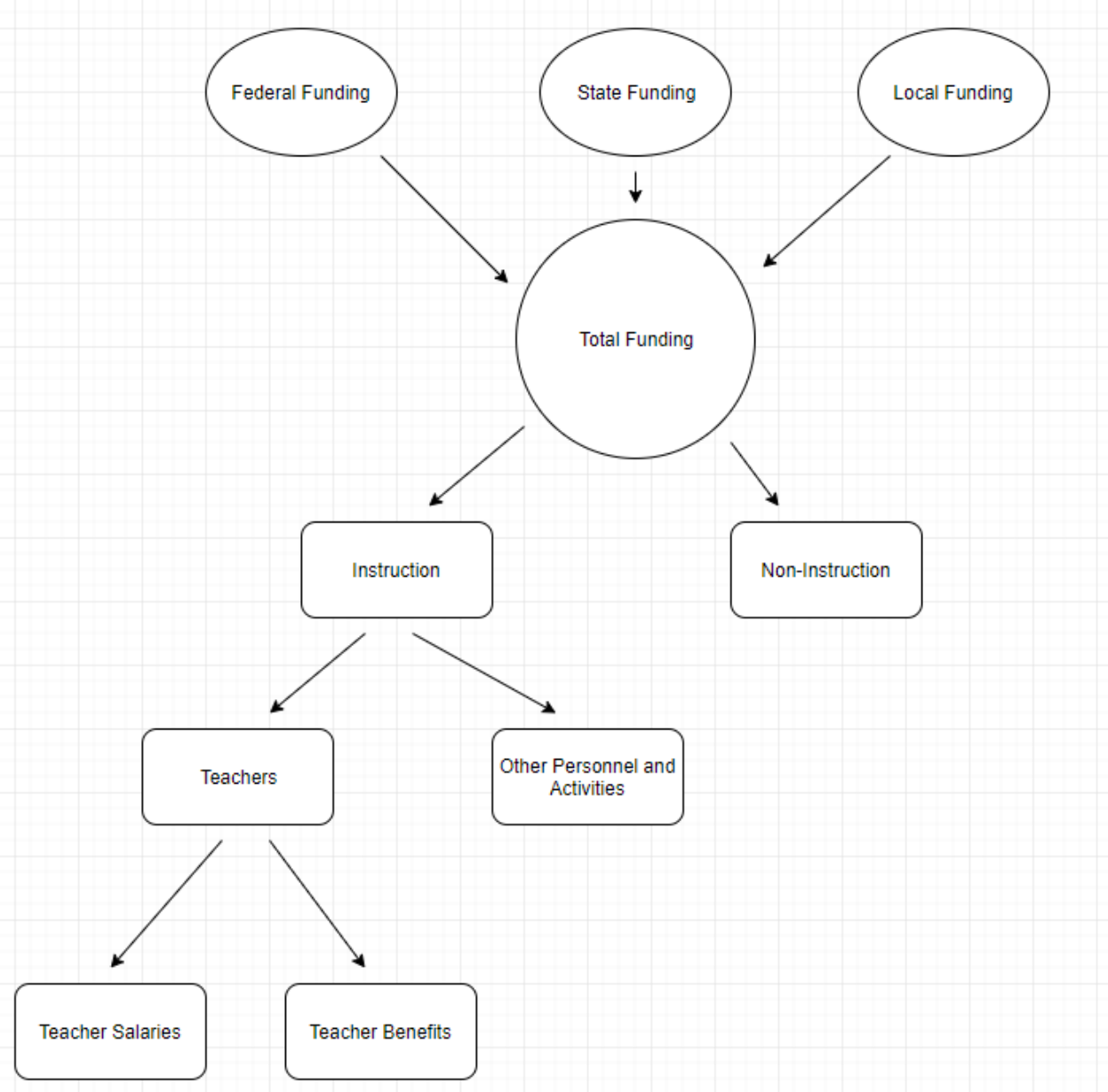

*Source*: U.S. Census Bureau, Annual Surveys of School System Finance 2001-02 to 2015-16 (calculations by author)

In only a five-year period, Indiana fell behind eleven states in funding per student, sixteen states in funding per capita, and seventeen states in funding per $1,000 personal income. In fact, Indiana ranks next to last in terms of the percentage changes in these three revenue metrics from 2010 to 2016 (ahead of only North Carolina).

## Public School Spending on Instruction

Education is a very labor-intensive industry. The majority of funding for public schools goes towards compensation for employees, and nationally teachers occupy about half of all K-12 employees. Figure 7 illustrates the connection between revenues, expenditures and teacher salaries and benefits. Revenues are shown in circles and ellipses, and expenditures are shown in rectangles. As described in the previous section, public schools receive funding from federal, state, and local sources. These monies are then spent on instruction and a range of non-instructional support activities such as transportation and administration. Accordingly, states must make decisions not only about the level of financial support to give to its public schools, but also how much of this support goes towards arguably the most important facet of providing direct education services, namely teachers.

**Figure 7: Connection between Revenues, Expenditures and Teacher Compensation**




The following table shows the breakdown of per-pupil public K-12 education expenditures for Indiana in 2015-16 by use.[4] The first three rows illustrate that over half (55%) of all expenditures

were used for salaries and wages, and another 30% for employee benefits. The majority of total expenditures (58%) went towards instruction. Out of the instructional expenditures, almost all of the total (96%) was used for salaries and benefits.

**Table 5: Breakdown of Indiana Education Expenditures by Use, 2015-16**

| Expenditure Level | Category | Per-Pupil Expenditures | Percentage |
|---|---|---|---|
| | | | |
| Current Spending | Salaries | $5,433 | 55% |
| | Benefits | $2,928 | 30% |
| | Other | $1,495 | 15% |
| Current Spending | | | |
| | Instruction | $5,706 | 58% |
| | Non-Instruction | $4,150 | 42% |
| Current Spending on Instructional | | | |
| | Salaries | $3,570 | 63% |
| | Benefits | $1,874 | 33% |
| | Other | $262 | 5% |

*Source*: U.S. Census Bureau, Annual Survey of School System Finance 2015-16, Table 8.

It is therefore not surprising that states that allocate more money towards public education also spend more money on instruction and have teachers who are better compensated. This is reflected in Table 6, where breakdowns in education spending by state are calculated for the 2015-16 year. Indiana ranked 34$^{th}$ in terms of education spending per student and was lower than all of its neighboring states. With regard to salaries and benefits, Indiana ranked very low (41$^{st}$) on spending for employee salaries and wages, but notably higher (21$^{st}$) with regard to spending per student on employee benefits.

**Table 6: Breakdown of Education Expenditures by Usage and State, 2015-16**

| State | Total Expenditures Per-Student | Rank | Spending on Salaries Per-Student | Rank | Spending on Benefits Per-Student | Rank |
|---|---|---|---|---|---|---|
| Alabama | $9,236 | 39 | $5,155 | 44 | $2,085 | 34 |
| Alaska | $17,510 | 5 | $8,330 | 9 | $5,001 | 3 |
| Arizona | $7,613 | 48 | $4,538 | 47 | $1,447 | 49 |
| Arkansas | $9,846 | 35 | $5,742 | 38 | $1,640 | 44 |
| California | $11,495 | 22 | $6,668 | 23 | $2,790 | 24 |
| Colorado | $9,575 | 38 | $6,004 | 29 | $1,783 | 40 |
| Connecticut | $18,958 | 2 | $10,615 | 2 | $5,254 | 2 |
| Delaware | $14,713 | 11 | $7,887 | 13 | $4,094 | 10 |
| Florida | $8,920 | 43 | $5,065 | 46 | $1,589 | 46 |
| Georgia | $9,769 | 36 | $5,882 | 34 | $2,175 | 32 |
| Hawaii | $13,748 | 14 | $7,587 | 16 | $3,120 | 16 |
| Idaho | $7,157 | 49 | $4,268 | 49 | $1,545 | 48 |
| Illinois | $14,180 | 13 | $7,251 | 17 | $4,515 | 6 |
| **Indiana** | **$9,856** | **34** | **$5,434** | **41** | **$2,928** | **21** |
| Iowa | $11,150 | 27 | $7,122 | 18 | $2,352 | 30 |
| Kansas | $9,960 | 32 | $5,883 | 33 | $1,762 | 41 |
| Kentucky | $9,863 | 33 | $5,998 | 30 | $2,443 | 29 |
| Louisiana | $11,038 | 28 | $5,981 | 31 | $3,047 | 18 |
| Maine | $13,278 | 16 | $8,009 | 12 | $3,220 | 15 |
| Maryland | $14,206 | 12 | $9,551 | 7 | $3,765 | 13 |
| Massachusetts | $15,593 | 7 | $9,857 | 5 | $3,770 | 12 |
| Michigan | $11,668 | 20 | $5,763 | 35 | $3,740 | 14 |
| Minnesota | $12,382 | 17 | $7,701 | 15 | $2,719 | 26 |
| Mississippi | $8,702 | 46 | $5,151 | 45 | $1,755 | 42 |
| Missouri | $10,313 | 30 | $6,436 | 26 | $1,987 | 37 |
| Montana | $11,348 | 25 | $6,571 | 24 | $2,032 | 35 |
| Nebraska | $12,299 | 18 | $7,103 | 20 | $2,488 | 28 |
| Nevada | $8,960 | 42 | $5,324 | 42 | $2,209 | 31 |
| New Hampshire | $15,340 | 10 | $8,308 | 10 | $3,886 | 11 |
| New Jersey | $18,402 | 3 | $10,492 | 3 | $4,914 | 4 |
| New Mexico | $9,693 | 37 | $5,754 | 36 | $2,022 | 36 |
| New York | $22,366 | 1 | $12,303 | 1 | $6,461 | 1 |
| North Carolina | $8,792 | 45 | $5,571 | 39 | $1,855 | 39 |
| North Dakota | $13,373 | 15 | $8,037 | 11 | $2,948 | 20 |
| Ohio | $12,102 | 19 | $6,986 | 21 | $2,727 | 25 |
| Oklahoma | $8,097 | 47 | $4,490 | 48 | $1,551 | 47 |
| Oregon | $10,842 | 29 | $5,746 | 37 | $3,111 | 17 |

| State | Total Expenditures Per-Student | Rank | Spending on Salaries Per-Student | Rank | Spending on Benefits Per-Student | Rank |
|---|---|---|---|---|---|---|
| Pennsylvania | $15,418 | 9 | $7,879 | 14 | $4,631 | 5 |
| Rhode Island | $15,532 | 8 | $9,096 | 8 | $4,208 | 9 |
| South Carolina | $10,249 | 31 | $5,909 | 32 | $2,169 | 33 |
| South Dakota | $9,176 | 40 | $5,456 | 40 | $1,609 | 45 |
| Tennessee | $8,810 | 44 | $5,313 | 43 | $1,722 | 43 |
| Texas | $9,016 | 41 | $6,273 | 28 | $1,097 | 50 |
| Utah | $6,953 | 50 | $3,992 | 50 | $1,963 | 38 |
| Vermont | $17,873 | 4 | $10,143 | 4 | $4,449 | 7 |
| Virginia | $11,432 | 24 | $7,121 | 19 | $2,800 | 23 |
| Washington | $11,534 | 21 | $6,857 | 22 | $2,593 | 27 |
| West Virginia | $11,291 | 26 | $6,291 | 27 | $3,034 | 19 |
| Wisconsin | $11,456 | 23 | $6,476 | 25 | $2,819 | 22 |
| Wyoming | $16,442 | 6 | $9,622 | 6 | $4,315 | 8 |

*Source*: U.S. Census Bureau, Annual Survey of School System Finance 2015-16, Table 8

The next table shows how Indiana fares relative to other states in terms of spending on instruction. The first two columns focus on spending per student on instruction, and the remaining columns contain data on the share of instructional spending for salaries and benefits. Overall, Indiana's relative position with regard to instructional spending is similar to that for overall spending. In 2015-16 the state ranked 34th in terms of per-student instructional spending, 42nd on per-student spending on instructional salaries, and 23rd on instructional benefits.

**Table 7: Breakdown of Instructional Expenditures by Usage and State, 2015-16**

| State | Spending on Instruction Per-Student | Rank | Instruction -- Salaries Per-Student | Rank | Instruction -- Benefits Per-Student | Rank |
|---|---|---|---|---|---|---|
| Alabama | $5,257 | 44 | $3,343 | 44 | $1,286 | 38 |
| Alaska | $9,449 | 8 | $5,368 | 14 | $3,129 | 4 |
| Arizona | $4,077 | 50 | $2,821 | 49 | $877 | 49 |
| Arkansas | $5,539 | 36 | $3,669 | 40 | $1,049 | 45 |
| California | $6,849 | 21 | $4,280 | 25 | $1,752 | 26 |
| Colorado | $5,423 | 40 | $3,759 | 37 | $1,069 | 43 |
| Connecticut | $11,656 | 2 | $7,429 | 2 | $3,617 | 2 |
| Delaware | $9,191 | 10 | $5,596 | 10 | $2,950 | 8 |
| Florida | $5,478 | 39 | $3,207 | 46 | $971 | 48 |
| Georgia | $5,975 | 32 | $3,974 | 28 | $1,536 | 30 |
| Hawaii | $8,066 | 15 | $5,209 | 16 | $2,099 | 16 |
| Idaho | $4,262 | 49 | $2,932 | 47 | $1,042 | 46 |
| Illinois | $8,636 | 13 | $4,941 | 18 | $3,060 | 6 |
| **Indiana** | **$5,706** | **34** | **$3,570** | **42** | **$1,874** | **23** |
| Iowa | $6,787 | 23 | $4,754 | 19 | $1,549 | 29 |
| Kansas | $6,063 | 31 | $3,890 | 30 | $1,161 | 41 |
| Kentucky | $5,708 | 33 | $3,874 | 31 | $1,530 | 31 |
| Louisiana | $6,199 | 29 | $3,852 | 32 | $1,915 | 20 |
| Maine | $7,587 | 18 | $5,336 | 15 | $2,185 | 15 |
| Maryland | $8,848 | 12 | $5,731 | 9 | $2,616 | 13 |
| Massachusetts | $9,713 | 6 | $6,744 | 4 | $2,723 | 12 |
| Michigan | $6,823 | 22 | $3,841 | 33 | $2,508 | 14 |
| Minnesota | $8,074 | 14 | $5,416 | 13 | $1,942 | 19 |
| Mississippi | $4,951 | 46 | $3,337 | 45 | $1,125 | 42 |
| Missouri | $6,156 | 30 | $4,251 | 26 | $1,294 | 37 |
| Montana | $6,701 | 24 | $4,462 | 22 | $1,346 | 34 |
| Nebraska | $8,008 | 16 | $5,059 | 17 | $1,820 | 25 |
| Nevada | $5,183 | 45 | $3,410 | 43 | $1,404 | 32 |
| New Hampshire | $9,610 | 7 | $5,959 | 8 | $2,781 | 10 |
| New Jersey | $10,716 | 4 | $6,870 | 3 | $3,116 | 5 |
| New Mexico | $5,418 | 41 | $3,807 | 35 | $1,319 | 35 |
| New York | $15,746 | 1 | $9,407 | 1 | $5,101 | 1 |
| North Carolina | $5,513 | 38 | $3,828 | 34 | $1,255 | 39 |
| North Dakota | $8,005 | 17 | $5,446 | 12 | $2,042 | 17 |
| Ohio | $7,071 | 19 | $4,571 | 21 | $1,691 | 27 |
| Oklahoma | $4,528 | 47 | $2,883 | 48 | $1,010 | 47 |
| Oregon | $6,327 | 28 | $3,735 | 38 | $1,982 | 18 |

| State | Spending on Instruction Per-Student | Rank | Instruction -- Salaries Per-Student | Rank | Instruction -- Benefits Per-Student | Rank |
|---|---|---|---|---|---|---|
| Pennsylvania | $9,446 | 9 | $5,532 | 11 | $3,217 | 3 |
| Rhode Island | $9,035 | 11 | $6,181 | 7 | $2,801 | 9 |
| South Carolina | $5,629 | 35 | $3,788 | 36 | $1,362 | 33 |
| South Dakota | $5,360 | 43 | $3,706 | 39 | $1,069 | 44 |
| Tennessee | $5,406 | 42 | $3,623 | 41 | $1,195 | 40 |
| Texas | $5,514 | 37 | $4,199 | 27 | $706 | 50 |
| Utah | $4,467 | 48 | $2,698 | 50 | $1,300 | 36 |
| Vermont | $10,720 | 3 | $6,743 | 5 | $3,015 | 7 |
| Virginia | $6,966 | 20 | $4,717 | 20 | $1,844 | 24 |
| Washington | $6,538 | 26 | $4,311 | 24 | $1,595 | 28 |
| West Virginia | $6,507 | 27 | $3,931 | 29 | $1,884 | 21 |
| Wisconsin | $6,697 | 25 | $4,454 | 23 | $1,875 | 22 |
| Wyoming | $9,750 | 5 | $6,200 | 6 | $2,729 | 11 |

*Source*: U.S. Census Bureau, Annual Survey of School System Finance 2015-16, Table 8

Of particular concern for the State of Indiana is the fact that its position relative to other states in terms of spending on instruction, salaries, and benefits has been falling over time. This trend is shown in Table 8, which illustrates Indiana's national ranking on these metrics in selected years. It can be seen that in all categories, Indiana's ranking has fallen over the past fifteen years. The state also compared less favorably to other states in terms of spending on salaries and wages. Even though Indiana compared better to other states with regard to employee benefits, its relative position has declined substantially as well.

**Table 8: Indiana's National Ranking on Public Education Expenditures – Selected Years**

| Level | Category | 2001-02 | 2005-06 | 2010-11 | 2015-16 |
|---|---|---|---|---|---|
| | | | | | |
| Total | All | 21 | 22 | 31 | 34 |
| | Salaries | 27 | 35 | 39 | 41 |
| | Benefits | 7 | 12 | 18 | 21 |
| | | | | | |
| Instructional | All | 24 | 25 | 33 | 34 |
| | Salaries | 26 | 32 | 40 | 42 |
| | Benefits | 7 | 10 | 18 | 23 |

*Source*: U.S. Census Bureau, Annual Surveys of School System Finance 2001-02 to 2015-16, Table 8 (calculations by author)

## Teacher Compensation

The next section of this report focuses on teacher compensation. A workforce that is adequately compensated is key to most any organization's ability to achieve its goals and successfully compete with other organizations. The same is true for states and public education; teachers comprise a large share of employees in public schools, and are directly responsible for providing education services to students and their families. As noted in the previous section, teacher compensation can be divided into salary and benefits. Both salary and benefits are important for states to consider when trying to attract and retain high-quality teachers to work in Indiana's public schools.

To examine teacher compensation, data on average teacher salaries by state were obtained from the National Education Association (NEA). The NEA is generally recognized as the most reliable and consistent source of data on teacher compensation and how it varies by state.[5] The NEA collects data each year on average salary for all teachers, as well as average starting salaries for new teachers. The NEA supplied data for this study on average teacher

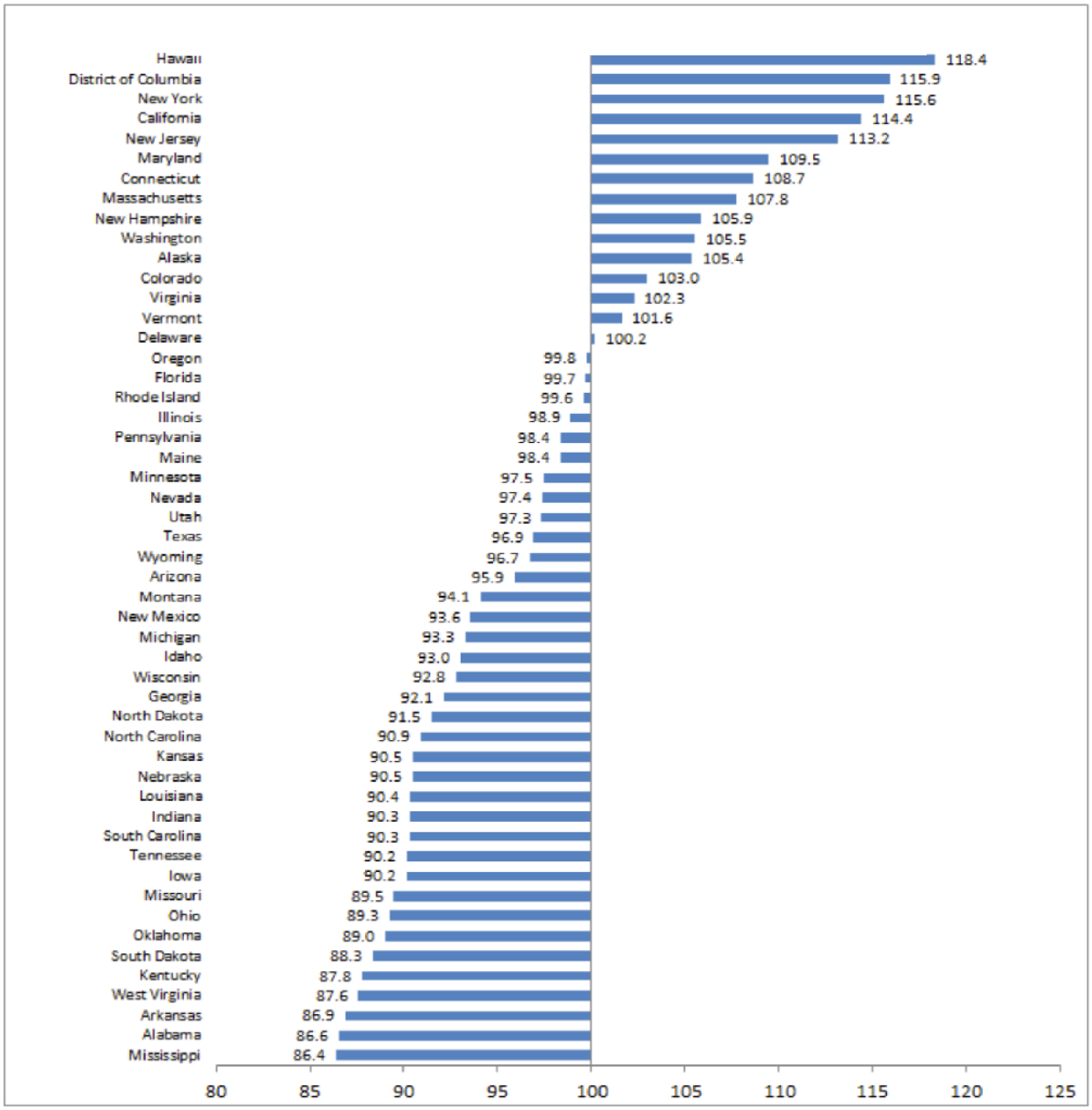
salaries for the last five years (2011-12 through 2016-17), and average salaries for new (starting) teachers for the years 2012-13 through 2016-17. [6]

## Teacher Salaries

In most every state, salaries for public school teachers are determined by a salary schedule. The salary schedule shows the salaries that are paid to teachers based on their years of experience and educational attainment. In states such as Indiana, each school corporation sets its own salary schedule, while other states such as Georgia have a statewide salary schedule for teachers. Salary schedules are updated annually to take into account changing economic conditions, the age distributions of teachers, and the state's capacity and willingness to fund teacher salaries.

In comparing teacher salaries across states, it is also important to take into account differences in the cost-of-living by state. A $50,000 teacher salary in higher cost-of-living states such as California and New York would be less lucrative than the same salary in a lower cost-of-living state such as West Virginia or Mississippi. This report relied on data from the Bureau of Economic Analysis (BEA) to measure regional cost-of-living differences by state in 2016, as shown in Table 9:

**Table 9: Regional Cost-of-Living Index Values by State (US = 100), 2016**




*Source*: U.S. Bureau of Economic Analysis (https://www.bea.gov/news/2018/real-personal-income-states-and-metropolitan-areas-2016)

Not surprisingly, states such as Hawaii, New York and California are identified by the BEA as being states with a relatively high cost of living. For example, the index value for New York suggests that the cost of living in New York is 15.6% higher than the average cost-of-living in the U.S. in the year 2016. Likewise, states such as Mississippi, Alabama, and Arkansas are relatively low cost-of-living states. According to the BEA index, Indiana is a below-average cost-of-living state that ranks 38$^{th}$ in the nation. The index value for Indiana of 90.3 indicates that the cost of living in Indiana is 90.3% of the US average, or about 10% lower than the national average. Accordingly, cost-of-living adjustments for teacher salaries in Indiana would lead to improvements in the state's relative ranking.

Table 10 shows the average teacher salaries in the U.S. by year for 2011-12 through 2016-17. The first column contains average salaries prior to adjusting for inflation. The second column adjusts average salaries for inflation (base year = 2017) but not state-specific cost-of-living differences. Finally, the last column adjusts for both inflation and state-specific cost-of-living. It can be seen that although nominal average teacher salaries grew by almost $3,500 (+6.5%) over this five-year period, the gain was offset by inflation. Thus teacher salaries for the nation as a whole kept pace with, but did not exceed, inflation during this period.

**Table 10: Average Teacher Salaries in the U.S., 2011-12 to 2016-17**

| Year | No Adjustment for Inflation or COL | Adjusted for Inflation (base year = 2016-17) | Adjusted for Inflation and COL |
|---|---|---|---|
| | | | |
| 2011-12 | $53,064 | $56,832 | $58,188 |
| 2012-13 | $53,656 | $56,569 | $57,898 |
| 2013-14 | $54,172 | $56,233 | $57,529 |
| 2014-15 | $54,823 | $56,958 | $58,269 |
| 2015-16 | $55,513 | $56,896 | $58,194 |
| 2016-17 | $56,535 | $56,535 | $57,828 |
| | | | |
| Change | $3,471 | -$298 | -$360 |
| Pct Change | 6.5% | -0.5% | -0.6% |

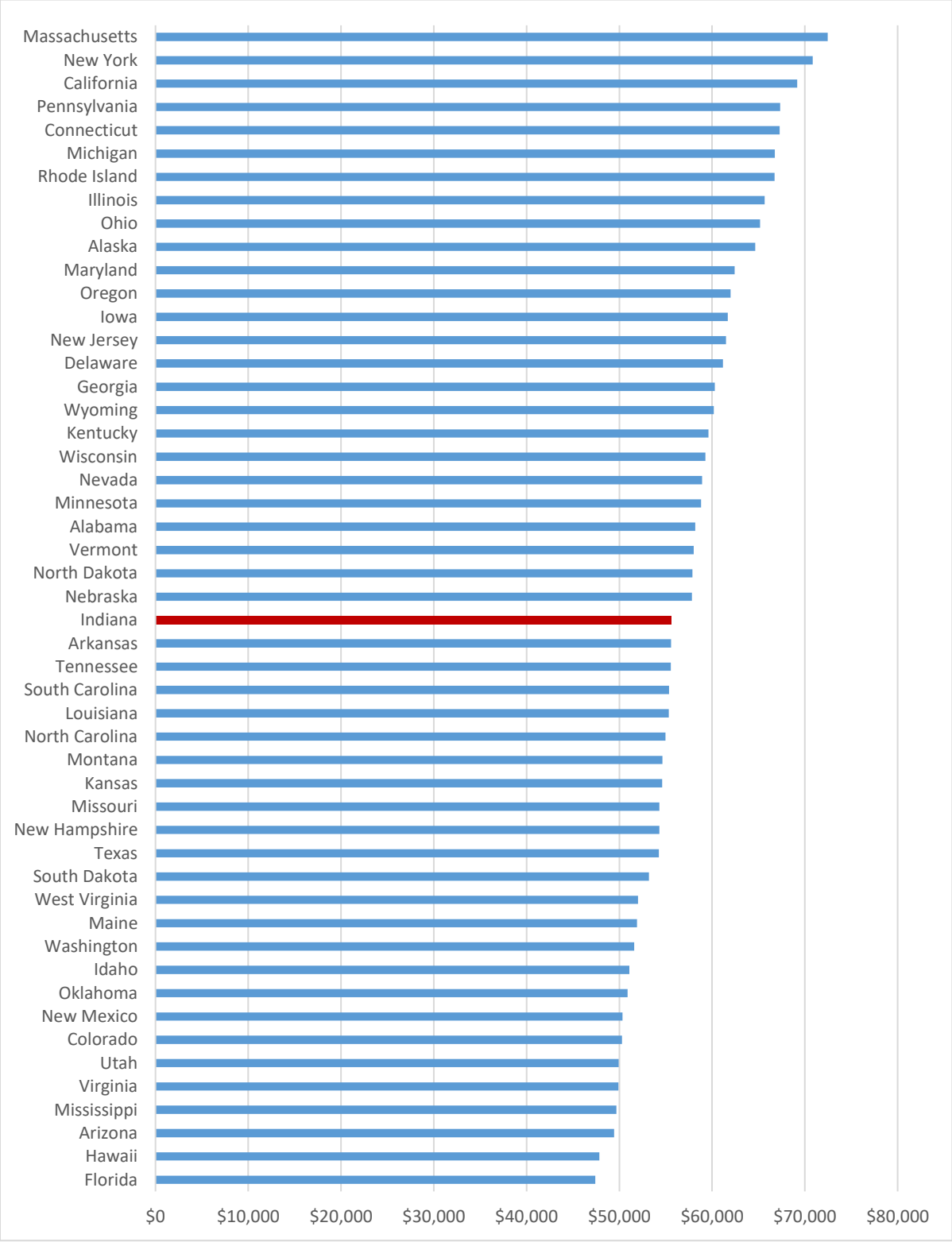
*Source*: National Education Association. Cost of living adjustments were obtained from the U.S. Bureau of Economic Analysis.

The following chart (Figure 8) shows the average teacher salary by state for the year 2016-17. All figures have been adjusted for cost-of-living differences as derived by the BEA. According to this metric, in 2016-17 Indiana ranked near the middle (26$^{th}$) in the U.S. in terms of average teacher salaries adjusted for cost-of-living differences across states. Of particular note is that even after making cost-of-living adjustments, average teacher salaries in Indiana were lower than all of its neighboring states, as summarized in Table 11:

**Table 11: Average Teacher Salary Ranking for Indiana and Neighboring States, 2016-17**

| State | Ranking |
|---|---|
| Michigan | 6$^{th}$ |
| Illinois | 8$^{th}$ |
| Ohio | 9$^{th}$ |
| Kentucky | 18$^{th}$ |
| Wisconsin | 19$^{th}$ |
| Indiana | 26th |

**Figure 8: Average Cost-of-Living Adjusted Teacher Salary by State, 2016-17**




*Sources*: National Education Association and U.S. Bureau of Economic Analysis

Table 12 focuses on Indiana and shows how average teacher salaries, and the state's national rankings, changed between 2011-12 and 2016-17. The first column shows average teacher salaries in each year after adjusting for inflation but prior to making cost-of-living adjustments for states. The next to last column reports the same average teacher salaries after making state-specific cost-of-living adjustments.

**Table 12: Trends in Average Teacher Salaries in Indiana, 2011-12 to 2016-17**

| Year | Before COL Adjustment | | After COL Adjustment | |
|---|---|---|---|---|
| | Average Inflation-Adjusted Salary | Rank | Average Inflation-Adjusted Salary | Rank |
| | | | | |
| 2011-12 | $54,469 | 24 | $60,320 | 19 |
| 2012-13 | $53,293 | 25 | $59,017 | 22 |
| 2013-14 | $51,960 | 26 | $57,541 | 23 |
| 2014-15 | $51,570 | 32 | $57,109 | 26 |
| 2015-16 | $51,037 | 32 | $56,520 | 27 |
| 2016-17 | $50,218 | 34 | $55,612 | 26 |
| | | | | |
| Change: 2012 to 2017 | -$4,251 | -10 | -$4,707 | -7 |
| Pct Change | -7.8% | | -7.8% | |

*Sources*: National Education Association and U.S. Bureau of Economic Analysis

The data show that in real (inflation-adjusted) dollars, average teacher salaries in Indiana fell by more than $4,200 (or almost eight percent) over this five-year period. As a result, Indiana's ranking relative to other states also fell considerably. Indiana lost ten places in terms of average salaries without cost-of-living adjustments, and seven places after taking into account differences in cost of living across states.

A similar analysis was conducted on average starting teacher salaries. The focus on salaries for new teachers is important because in contrast to many other labor markets a large

portion of teachers are hired after graduation from college with little or no prior teaching experience. College graduates may look to starting salaries (and benefits) when deciding whether to work as a teacher or in another occupation. Among those who choose to go into teaching, they must decide where to teach, and salary/benefits can vary notably across states.

Table 13 shows how average starting teacher salaries for the U.S. as a whole changed between 2012-13 and 2016-17. All of the data shown are for average teacher salaries with no prior teaching experience and a bachelor's degree. Overall, the trend for the U.S. is similar to that for average teacher salaries, except that average starting teacher salaries grew at a rate slightly faster than inflation (+1.4% for four years).

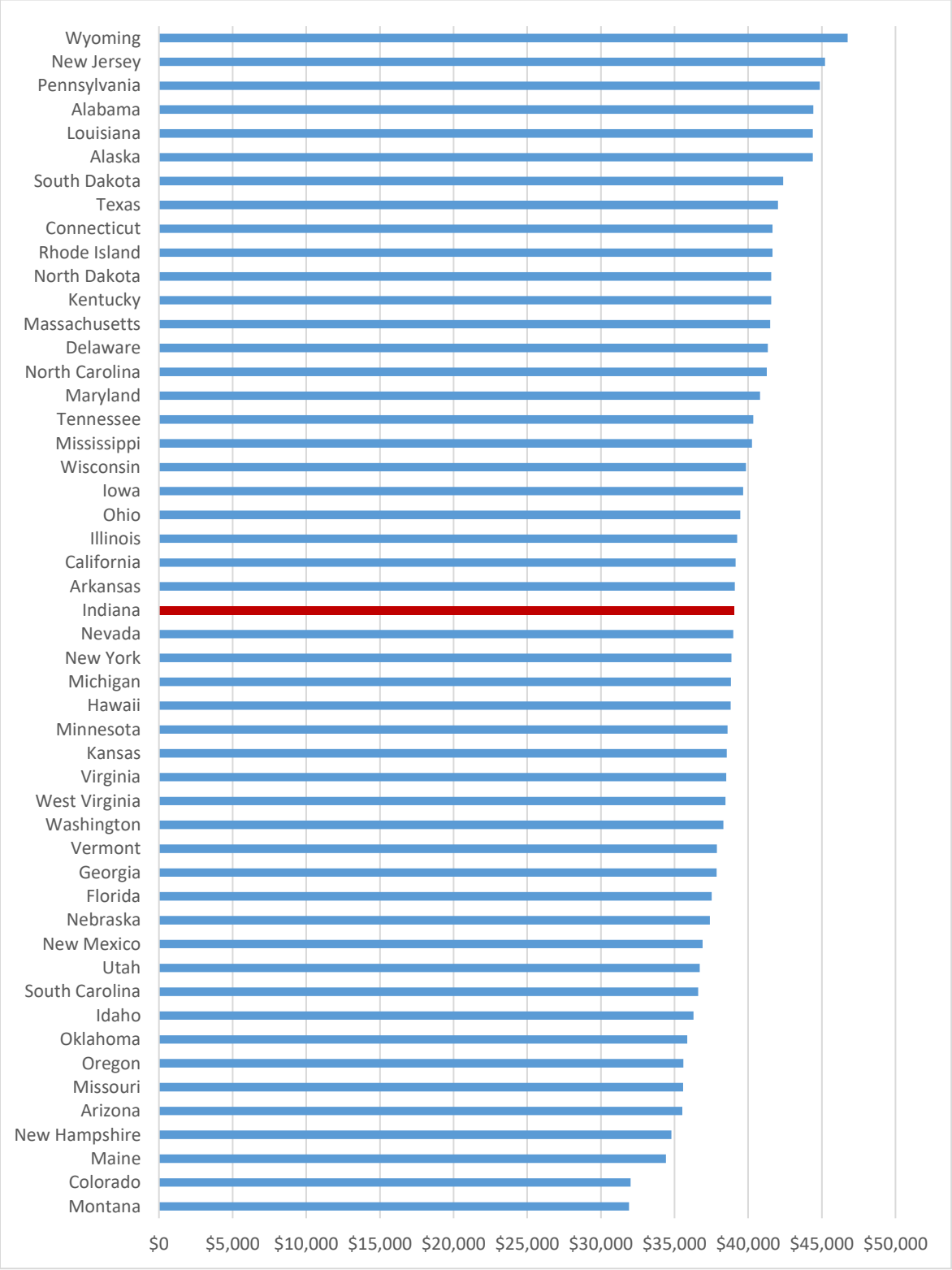
**Table 13: Average Salaries for New Teachers for the U.S., 2012-13 to 2016-17**

| Year | No Adjustments for Inflation or COL | Adjusted for Inflation | Adjusted for Inflation and COL |
|---|---|---|---|
| | | | |
| 2012-13 | $35,641 | $37,575 | $38,693 |
| 2013-14 | $36,111 | $37,485 | $38,585 |
| 2014-15 | $36,706 | $38,135 | $39,266 |
| 2015-16 | $37,406 | $38,338 | $39,481 |
| 2016-17 | $38,112 | $38,112 | $39,255 |
| | | | |
| Change | $2,471 | $537 | $561 |
| Pct Change | 6.9% | 1.4% | 1.5% |

*Sources*: National Education Association and U.S. Bureau of Economic Analysis

The following chart (Figure 9) shows how states across the US compare to each other in terms of average starting teacher salaries. The figures have all been adjusted for cost-of-living differences across states:

**Figure 9: Average Cost-of-Living Adjusted Salaries for New Teachers by State, 2016-17**




*Sources*: National Education Association and U.S. Bureau of Economic Analysis

From this figure, it can be seen that in 2016-17 the average starting teacher salary in Indiana was $39,027 after adjusting for cost-of-living. The state ranked 25th in the US based on this metric, and exceeded only Michigan among its neighboring states. Prior to making cost-of-living adjustments, the average starting teacher salary in Indiana was $35,241, which resulted in a national ranking of 35th.

Table 14 shows how average starting teacher salaries in Indiana have changed over the five-year period from 2012-13 to 2016-17. The data show that after adjusting for inflation (and state-specific cost-of-living), average starting salaries for teachers in Indiana have fallen over this five-year period by almost four percent. The decline in average starting teacher pay has likewise led to a sizable decline in Indiana's national ranking on this metric, with the state falling eleven places in only five years.

**Table 14: Average Salaries for New Teachers in Indiana, 2012-13 to 2016-17**

| Year | Before COL Adjustment | | After COL Adjustment | |
|---|---|---|---|---|
| | Average Inflation-Adjusted Starting Salary | Rank | Average Inflation-Adjusted Starting Salary | Rank |
| | | | | |
| 2012-13 | $36,579 | 24 | $40,509 | 14 |
| 2013-14 | $33,257 | 41 | $36,830 | 37 |
| 2014-15 | $35,525 | 31 | $39,342 | 26 |
| 2015-16 | $35,646 | 33 | $39,475 | 24 |
| 2016-17 | $35,241 | 35 | $39,027 | 25 |
| | | | | |
| Change | -$1,338 | -11 | -$1,482 | -11 |
| Pct Change | -3.7% | | -3.7% | |

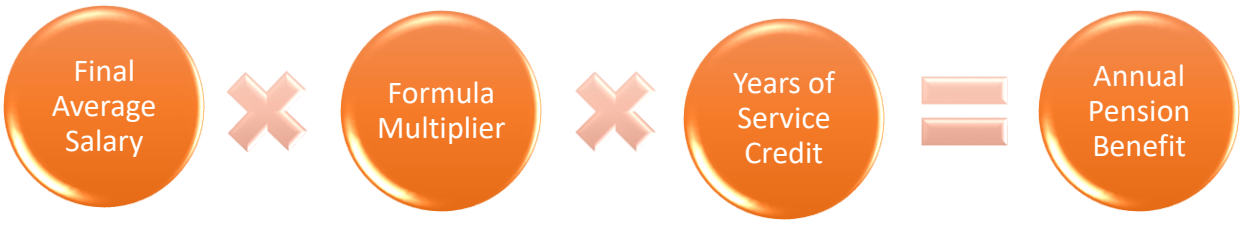
*Sources*: National Education Association and U.S. Bureau of Economic Analysis

## Teacher Benefits

The final section of this report examines teacher benefits in Indiana and the U.S. As shown in the data from the US Census Bureau, roughly one-third of instructional expenditures in public K-12 schools are allocated for employee benefits. Benefits in general can be grouped into two categories: (1) non-salary compensation and (2) deferred compensation. Non-salary compensation is primarily in the form of medical and dental benefits, and may include other financial payments or discounts that are given in lieu of salary. Unfortunately, it is difficult to compare states on the basis of non-salary benefits due to limited data.

Deferred compensation for teachers is primarily given in the form of retirement benefits. Public employees such as K-12 teachers have long relied on state-run pension (or defined benefit) plans as the means for financing their retirement. In a typical pension plan, upon retirement a teacher would receive an annual payout based on a formula with three main components as shown in Figure 10:

**Figure 10: Depiction of Typical Teacher Pension Plan**




The final average salary is based on the teacher's average salary for his or her last X number of years of employment. The formula multiplier is the percentage of final average salary that the

teacher would receive for each year of employment, and the years of service credit are the number of years employed that count towards the pension.

Even though most state pension plans follow this general structure, they can vary substantially across states in how these values are determined and hence the annual pension benefit received by teachers. The final average salary can be based on anywhere from the last two to five years of employment, and as this number increases it tends to bring down the annual pension. Arguably the most important parameter in this calculation is the formula multiplier set by each state. An earlier study of national teacher pension plans found that Indiana had the lowest formula multiplier (1.1%) in the nation as of 2010. Pension plans can also differ in a number of additional ways that can ultimately affect the amount of deferred compensation that teachers receive in their retirement. Some states place limits on the number of years of service that can be used to determine the annual pension, or limit the annual pension to be a maximum percentage of the person's final average salary. States may decide that pension benefits are subject to or exempt from state income taxes. There may also be different age restrictions placed on when teachers can begin drawing retirement benefits, and different vesting requirements to qualify for the state's pension.

In a 2011 study, researchers at Indiana University conducted a study to evaluate the net benefits from teacher pension plans across the US (Toutkoushian, Bathon, & McCarthy, 2011). The following table is taken from this study, and shows how Indiana compared to the other states in terms of the parameters used to calculate annual pensions. Indiana compared less favorably to other states in terms of having the lowest formula multiplier, a high number of years to determine final average salary, and the pension is subject to state income tax.

*Table 1.* Overview of Parameters in State Pension Plans for Educators

| State | Educator Contribution Rate to Pension | Formula Multiplier (FM)[1] | Does Educator Retain Social Security? | Number of Years Used for Final Average Salary (FAS) | Is There a Cap on First-Year Pension? | Are Pensions Taxable?[2] | Pension Income Exempt from State Taxes[3] |
|---|---|---|---|---|---|---|---|
| AL | 5.00% | 2.01% | Yes | 3 | None | 0.0% | $0 |
| AR | 6.00% | 2.15% | Yes | 3 | None | mixed | $6,000 |
| AZ | 9.00% | multiple | Yes | 3 | 80% of *FAS* | mixed | $2,500 |
| CA | 8.00% | 2.40% | No | 1 | 100% of *FAS* | mixed | $0 |
| CO | 8.00% | 2.50% | No | 3 | 100% of *FAS* | 4.6% | $20,000 |
| CT | 6.00% | 2.00% | No | 3 | 75% of *FAS* | mixed | $0 |
| DE | 3.00% | 1.85% | Yes | 3 | None | mixed | $12,500 |
| FL | 0.00% | 1.60% | Yes | 5 | 100% of *FAS* | 0.0% | $0 |
| GA | 5.00% | 2.00% | Yes | 2 | Max 40 *YOS* | mixed | $35,000 |
| HI | 7.80% | 2.00% | Yes | 3 | None | 0.0% | $0 |
| IA | 4.10% | 2.00% | Yes | 3 | 65% of *FAS* | mixed | $6,000 |
| ID | 6.23% | 2.00% | Yes | 3.5 | 100% of *FAS* | mixed | $0 |
| IL | 9.40% | 2.20% | No | 4 | 75% of *FAS* | 0.0% | $0 |
| IN | 0.00% | 1.10% | Yes | 5 | None | 3.4% | $0 |
| KS | 4.00% | 1.75% | Yes | 3 | None | 0.0% | $0 |
| KY | 9.86% | 2.50% | No | 5 | 100% of *FAS* | mixed | $41,110 |
| LA | 8.00% | 2.50% | No | 3 | 100% of *FAS* | 0.0% | $0 |
| MA | 11.00% | multiple | No | 3 | 80% of *FAS* | 0.0% | $0 |
| MD | 4.00% | 1.40% | Yes | 3 | 100% of *FAS* | mixed | $23,000 |
| ME | 7.65% | 2.00% | No | 3 | None | mixed | $6,000 |
| MI | Mixed | 1.50% | Yes | 3 | None | 0.0% | $0 |
| MN | 5.50% | 1.70% | Yes | 5 | None | mixed | $0 |
| MO | 13.00% | 2.55% | No | 3 | 100% of *FAS* | mixed | $6,000 |
| MS | 7.25% | multiple | Yes | 4 | 100% of *FAS* | 0.0% | $0 |
| MT | 7.15% | 1.67% | Yes | 3 | None | mixed | $3,600 |
| NC | 6.00% | 1.82% | Yes | 4 | None | mixed | $4,000 |
| ND | 7.75% | 2.00% | Yes | 5 | None | mixed | $0 |
| NE | 7.83% | 2.00% | Yes | 3 | None | mixed | $0 |
| NH | 5.00% | 1.67% | Yes | 3 | 100% of *FAS* | 0.0% | $0 |
| NJ | 5.50% | 1.82% | Yes | 3 | None | mixed | $15,000 |
| NM | 7.90% | 2.35% | Yes | 5 | None | mixed | $0 |
| NV | 0.00% | 2.50% | No | 3 | 75% of *FAS* | 0.0% | $0 |
| NY | 3.00% | multiple | Yes | 3 | None | 0.0% | $0 |
| OH | 10.00% | multiple | No | 3 | 100% of *FAS* | mixed | $0 |
| OK | 7.00% | 2.00% | Yes | 5 | None | mixed | $10,000 |
| OR | 0.00% | 1.67% | Yes | 3 | None | mixed | $0 |
| PA | 7.50% | 2.50% | Yes | 3 | None | 0.0% | $0 |
| RI | 9.50% | multiple | Yes | 3 | 80% of *FAS* | mixed | $0 |
| SC | 6.50% | 1.82% | Yes | 3 | None | mixed | $15,000 |
| SD | 6.00% | 1.70% | Yes | 3 | None | 0.0% | $0 |
| TN | 5.00% | 1.75% | Yes | 5 | 94.5% of *FAS* | 0.0% | $0 |
| TX | 6.40% | 2.30% | No | 5 | None | 0.0% | $0 |
| UT | 0.00% | 2.00% | Yes | 3 | None | 5.0% | $7,500 |
| VA | 0.00% | 1.70% | Yes | 3 | 100% of *FAS* | mixed | $12,000 |
| VT | 3.40% | 1.67% | Yes | 3 | 50% of *FAS* | mixed | $0 |
| WA | 6.00% | 2.00% | Yes | 5 | None | 0.0% | $0 |
| WI | 5.00% | 1.67% | Yes | 3 | 70% of *FAS* | 0.0% | $0 |
| WV | 6.00% | 2.00% | Yes | 5 | None | mixed | $2,000 |
| WY | 5.68% | multiple | Yes | 3 | None | 0.0% | $0 |

[1]States vary the multiplier by the number of years of service. In Arizona, the formula multipliers were 2.1% for years 1–20, 2.15% for years 21–25, 2.2% for years 26–30, and 2.3% for all years over 30. In Massachusetts, the formula multipliers were 2.5% per year of service for an educator who retires at age 65, plus 2% per year of service for those with 30 or more years of service in the state who elect to take part in the RetirementPlus program. In Mississippi, the formula multipliers were 2.0% for years 1–25 and 2.5% for years over 25. In New York, the formula multipliers were 1.67% for years 1–20, 2.0% for years 21–30, and 3.5% for years over 30. In Ohio, the formula multipliers were 2.2% for years 1–35 and 2.%% for years over 35. In Rhode Island, the formula multipliers were 1.7% for years 1–10, 1.9% for years 11–20, 3% for years 21–34, and 2.0% for years over 34. In Wyoming, the formula multipliers were 2.125% for years 1–15 and 2.25% for years over 15.

[2]States use different tax rates for income levels.

[3]Exemption level is for a single taxpayer.

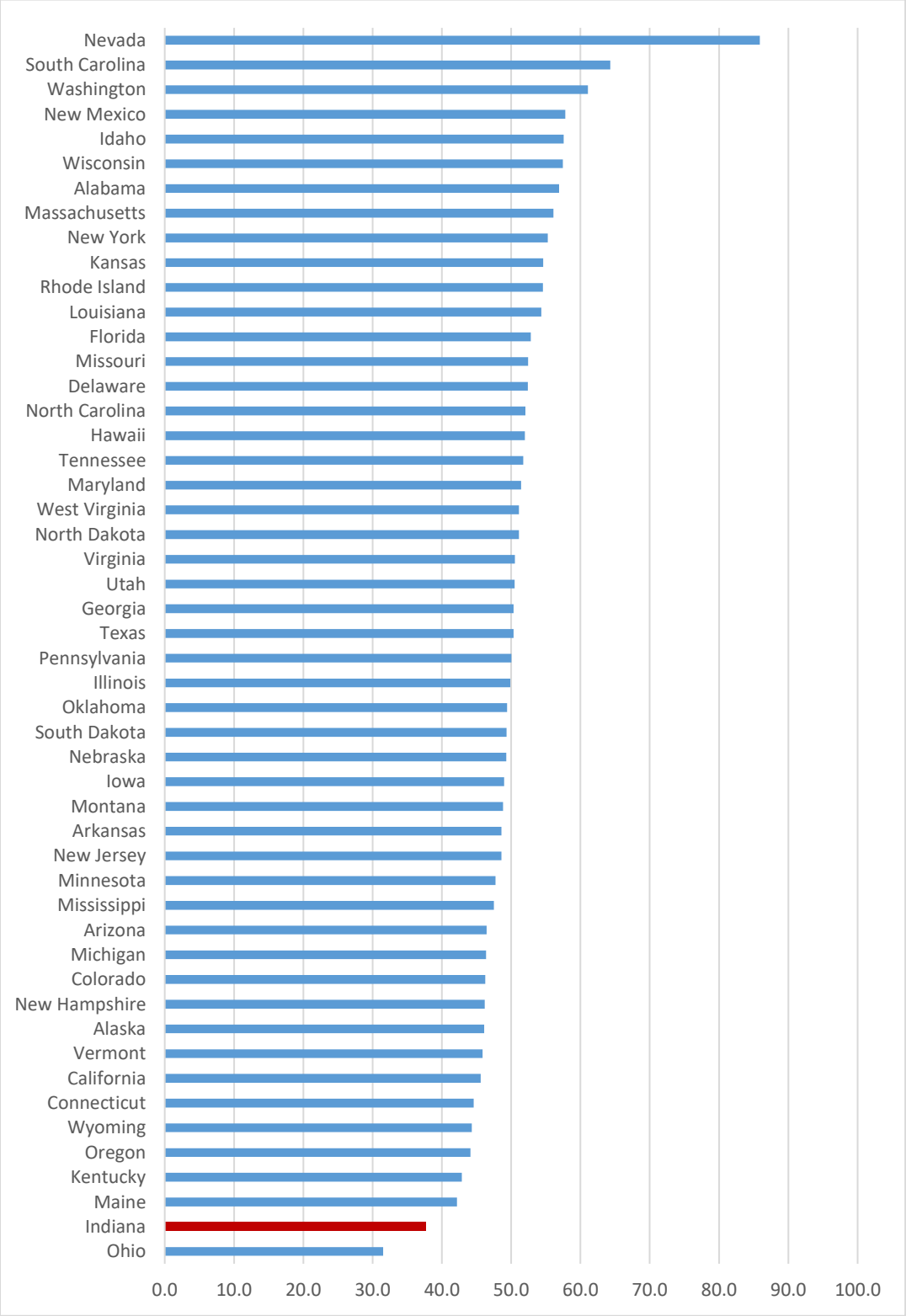
*Source*: Toutkoushian, R., Bathon, J, & McCarthy, M. (2011). A national study of the net benefits of state pension plans for educators. *Journal of Education Finance, 37, 24-51*.

The study provided simulations of the gross and net lifetime benefits for a hypothetical teacher who was assumed to progress through the administrative ranks and retire in each state. According to the calculations of the authors, Indiana ranked near the bottom (45th) in terms of the annual pension provided to educators in retirement. The study further showed that Indiana ranked more favorably (34th) after taking into account the level of teacher contributions for the pension plans, but was still notably below average in terms of net financial benefits.

## Education Staffing

A final contributing factor to the below-average teacher compensation in Indiana is that the state relies more heavily on non-teaching staff than do most every other state in the U.S. On average, in 2015-16 49.4 of all staff in public K-12 schools were teachers. However, in Indiana only 37 percent of school staffing is comprised of teachers, as shown in Figure 11. The data suggest that there are potential cost savings for the state by reallocating staffing towards the national average, or opportunities to improve teacher compensation and employment with existing education resources.

**Figure 11: Teachers as a Percent of K-12 Education Staff, 2015-16**




*Source*: National Center for Education Statistics, Digest of Education Statistics 2017, Table 213.40

The relatively heavy reliance in Indiana on non-teaching staff has implications for teacher workloads. Table 15 combines data on number of teaching and non-teaching staff from NCES with data on public K-12 enrollments from the Census Bureau to approximate the ratios of students to staffing by state for 2015-16. Nationally, in this year the ratio of students to teachers was 15.4 and the ratio of students to non-teaching staff was 15.0. The table shows that Indiana ranks relatively high in terms of the ratio of students to teachers, and ranks very low in terms of the ratio of students to non-teaching staffing:

**Table 15: Ratios of Students to Staffing by State, 2015-16**

| | Ratio: Students to Teachers | | Ratio: Students to Non-Teachers | |
|---|---|---|---|---|
| State | Ratio | Rank | Ratio | Rank |
| Alabama | 18.0 | 7 | 23.8 | 5 |
| Alaska | 16.9 | 11 | 14.5 | 30 |
| Arizona | 19.6 | 4 | 17.0 | 11 |
| Arkansas | 13.4 | 36 | 12.7 | 40 |
| California | 23.6 | 1 | 19.8 | 9 |
| Colorado | 17.0 | 10 | 14.6 | 27 |
| Connecticut | 11.4 | 48 | 9.2 | 47 |
| Delaware | 13.5 | 35 | 14.9 | 24 |
| Florida | 15.2 | 19 | 17.0 | 10 |
| Georgia | 15.3 | 18 | 15.5 | 20 |
| Hawaii | 15.5 | 17 | 16.8 | 12 |
| Idaho | 17.6 | 8 | 23.8 | 4 |
| Illinois | 15.6 | 16 | 15.6 | 18 |
| Indiana | 17.4 | 9 | 10.5 | 44 |
| Iowa | 14.2 | 29 | 13.7 | 33 |
| Kansas | 12.4 | 42 | 14.9 | 23 |
| Kentucky | 16.4 | 12 | 12.3 | 42 |
| Louisiana | 11.3 | 49 | 13.4 | 35 |
| Maine | 12.1 | 45 | 8.8 | 49 |
| Maryland | 14.8 | 22 | 15.7 | 16 |
| Massachusetts | 12.8 | 39 | 16.4 | 13 |
| Michigan | 15.9 | 13 | 13.7 | 31 |
| Minnesota | 14.5 | 28 | 13.2 | 37 |
| Mississippi | 15.1 | 20 | 13.7 | 32 |
| Missouri | 13.2 | 37 | 14.5 | 28 |
| Montana | 13.9 | 32 | 13.3 | 36 |

| | Ratio: Students to Teachers | | Ratio: Students to Non-Teachers | |
|---|---|---|---|---|
| State | Ratio | Rank | Ratio | Rank |
| Nebraska | 13.5 | 34 | 13.2 | 38 |
| Nevada | 19.5 | 5 | 118.5 | 1 |
| New Hampshire | 12.2 | 44 | 10.4 | 45 |
| New Jersey | 11.9 | 46 | 11.2 | 43 |
| New Mexico | 14.7 | 25 | 20.2 | 7 |
| New York | 12.6 | 41 | 15.6 | 19 |
| North Carolina | 14.7 | 26 | 16.0 | 15 |
| North Dakota | 11.8 | 47 | 12.3 | 41 |
| Ohio | 15.7 | 15 | 7.2 | 50 |
| Oklahoma | 15.8 | 14 | 15.5 | 21 |
| Oregon | 19.7 | 3 | 15.6 | 17 |
| Pennsylvania | 13.0 | 38 | 13.0 | 39 |
| Rhode Island | 12.6 | 40 | 15.1 | 22 |
| South Carolina | 14.8 | 23 | 26.7 | 3 |
| South Dakota | 13.9 | 33 | 13.5 | 34 |
| Tennessee | 15.0 | 21 | 16.1 | 14 |
| Texas | 14.5 | 27 | 14.7 | 25 |
| Utah | 20.5 | 2 | 20.9 | 6 |
| Vermont | 10.6 | 50 | 8.9 | 48 |
| Virginia | 14.2 | 30 | 14.5 | 29 |
| Washington | 18.7 | 6 | 29.3 | 2 |
| West Virginia | 14.1 | 31 | 14.7 | 26 |
| Wisconsin | 14.7 | 24 | 19.9 | 8 |
| Wyoming | 12.3 | 43 | 9.8 | 46 |

*Sources*: National Center for Education Statistics and U.S. Census Bureau (calculations by author)

## Summary and Recommendations

This report focused on the level of financial support provided by the State of Indiana to its public K-12 education system, and in turn the teachers who provide education services for its citizens. Based on the available data, several clear results emerge:

- Indiana ranks near the middle or below average in terms of funding for public education
- Indiana's efforts at funding public schools is lower than that found for neighboring states with whom it competes for teachers and students
- Indiana allocates a relatively low share of positions in education to teachers, and as a result the state has a higher-than-average ratio of students to teachers
- Teacher salaries in Indiana are below average for the nation and lower than that found in most neighboring states. This holds for all teachers as well as beginning teachers.
- Indiana has lost substantial ground in comparison to other states over the last 10-15 years in terms of education funding and teacher pay
- The teacher pension plan in Indiana is below average in terms of the expected annual payouts to teachers when they retire

It is clear that improving the state's dire situation will require a greater financial commitment on the part of the state and/or local communities to fund public education. There are many different policy scenarios that could be considered by the state. This report considers two goals that are both realistic and consistent with past behavior of the state and others in its region:

Goal 1: Increase public K-12 funding to the average funding for bordering states

Goal 2: Increase public K-12 funding to the state's national rank as of 2009-10

Under Goal 1, Indiana would provide funding at a level equal to the mean funding level for its five bordering states (Illinois, Kentucky, Michigan, Ohio, Wisconsin). In 2015-16, the mean per-student funding level for these five states was $13,699. This comparison group is useful because Indiana competes regionally for educators and students. Under the second goal, Indiana would fund public education at a level equal to its ranking in 2009-10, which was prior to the substantial downturn in funding in the state. In 2009-10, Indiana was ranked 16th in the nation for total revenue per student. By 2015-16, however, Indiana's ranking on this metric had dropped to 28th in the nation. The state with the 16th highest revenue per-student in 2015-16 was Maine, with a value of $15,392.

Table 16 provides simulations of the total cost to the state of Indiana of achieving each of these goals. The year 2015-16 was used as the starting place for the simulations because it is the most current year in which financial data was reported by the U.S. Census Bureau's annual school finance survey. The values for all subsequent years are not actuals but rather estimates based on the following assumptions: (1) Enrollments in Indiana were held constant at the levels in 2015-16, and (2) Revenues for Indiana and the comparison groups grew by 2.1% in 2016-17, 1.8% in 2017-18, and 2% in 2018-19 and 2019-20. The assumed revenue growth rates for 2016-17 and 2017-18 correspond to the actual increases in state tuition support in Indiana for these years as reported by the Indiana Department of Education. Therefore, by applying the same growth rates to the comparison groups, the percentage gaps in per-student funding were held constant at their levels in 2015-16.

For each goal, the first row shows the corresponding per-student total revenue by year. The second row contains the gap between the revenue per student needed for the goal and the current value for Indiana. The third row provides estimates of the total revenue that would be

needed to fund Indiana schools at the designated level, and the fourth row shows the total dollars needed to reach each goal. The last three rows for each option provide a breakdown of Indiana revenues by source (federal, state, local). It was assumed that federal, state and local revenues increase by the assumed percentages described earlier. The results show that for the first goal, the estimated shortfall in funding in Indiana in 2018-19 is about $1.33 billion, or $1,321/student. Likewise, the estimated funding shortfall for reaching the second goal as of 2018-19 is $3.16 billion, or $3,152/student.

**Table 14: Simulated Goals to Improve Indiana Education Funding Competitiveness**

| Category | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
|---|---|---|---|---|---|
| IN: Rev/Student | $12,477 | $12,739 | $12,968 | $13,228 | $13,492 |
| IN: Enrollment | 1,002,696 | 1,002,696 | 1,002,696 | 1,002,696 | 1,002,696 |
| IN: Total Revenue | $12,510,738,262 | $12,773,463,765 | $13,003,386,113 | $13,263,453,835 | $13,528,722,912 |
| **Goal 1: Fund Indiana's Schools at Median of Border States** | | | | | |
| Goal 1: Rev/Student | $13,699 | $13,987 | $14,238 | $14,523 | $14,814 |
| Deficiency / Student | $1,222 | $1,248 | $1,270 | $1,295 | $1,321 |
| Total Revenue Needed | $13,735,932,504 | $14,024,387,087 | $14,276,826,054 | $14,562,362,575 | $14,853,609,827 |
| Goal 1: Deficiency | $1,225,194,242 | $1,250,923,321 | $1,273,439,941 | $1,298,908,740 | $1,324,886,915 |
| IN Rev: Federal | $954,837,000 | $974,888,577 | $992,436,571 | $1,012,285,303 | $1,032,531,009 |
| IN Rev: State | $7,780,711,000 | $7,944,105,931 | $8,087,099,838 | $8,248,841,835 | $8,413,818,671 |
| IN Rev: Local | $3,775,190,000 | $3,854,468,990 | $3,923,849,432 | $4,002,326,420 | $4,082,372,949 |
| **Goal 2: Fund Indiana's Schools at the State's National Ranking in 2009-10** | | | | | |
| Goal 2: Rev/Student | $15,392 | $15,715 | $15,998 | $16,318 | $16,644 |
| Deficiency / Student | $2,915 | $2,976 | $3,030 | $3,090 | $3,152 |
| Total Revenue Needed | $15,433,496,832 | $15,757,600,265 | $16,041,237,070 | $16,362,061,812 | $16,689,303,048 |
| Goal 2: Deficiency | $2,922,758,570 | $2,984,136,500 | $3,037,850,957 | $3,098,607,977 | $3,160,580,136 |
| IN Rev: Federal | $954,837,000 | $974,888,577 | $992,436,571 | $1,012,285,303 | $1,032,531,009 |
| IN Rev: State | $7,780,711,000 | $7,944,105,931 | $8,087,099,838 | $8,248,841,835 | $8,413,818,671 |
| IN Rev: Local | $3,775,190,000 | $3,854,468,990 | $3,923,849,432 | $4,002,326,420 | $4,082,372,949 |

*Notes*: Actuals for 2015-16 were taken from U.S. Census Bureau's annual survey of school finances. Enrollments in Indiana were held constant through 2019-20. Assumed revenues increased by 2.1% for 2016-17, 1.8% for 2017-18, and 2% for 2018-20.

Table 17 provides estimates of the increases in state funding that would be needed in Indiana to reach these goals. The first row shows the level of state funding that would be needed to reach the total revenue goals shown in the previous table. The second row is calculated as the difference between the estimated state funding level in 2018-19 and each goal. Finally, the changes in state funding are expressed on a percentage basis in the last row.

**Table 17: Increases in State Funding Needed to Reach Goals for Indiana, 2019-20**

| Metric | Goal 1: Fund at the Median of Border States | Goal 2: Fund at Indiana's National Ranking in 2009-10 |
|---|---|---|
| State Funding Needed to Reach Goal | $9,738,705,869 | $11,574,399,090 |
| Increase in State Funding from 2018-19 ($) | $1,489,864,034 | $3,325,557,256 |
| Increase in State Funding from 2018-19 (%) | +17.7% | +39.5% |

Table 17 illustrates that the effort needed to reach even these modest goals is substantial and much larger than recent increases in state education funding in Indiana. If the state were to enact funding increases in 2019-20 that either matched the expected rate of inflation (~2.3%) or was slightly higher (such as the recently-proposed 3% increase), it can be seen that these increases would still leave very large deficiencies in education funding in the state for achieving these goals.

There are different ways that the State of Indiana could work to fund the necessary increases in state funding shown in Table 17. The most straightforward way to implement the change would be to increase the per-student Foundation Amount in the state's foundation program to generate the needed increases in state funding for education. According to the simulations in Table 16, the estimated per-student foundation amount in 2018-19 would have to

increase by $1,321 to reach the first goal and $3,152 to reach the second goal (for comparison, the Foundation Amount per student in Indiana's funding formula in 2017-18 was $5,273). Rather than focus solely on increasing the per-student foundation amount, the state could choose to distribute the necessary increase among the five grant components. For example, one option would be to increase the per-student foundation level by $1,000 and increase the Complexity Grant and/or other grants in State Tuition Support by an amount needed to fund the remainder.

If financial and/or political concerns would prohibit increases of this magnitude in public funding in a one-year period, the increases could be phased in over several years. The state has used "transitional funding" in the past when changes in the funding formula led to notable changes in revenues for public school corporations.

Regardless of the timing of the funding changes, Indiana would also have to address how to finance these increases in public school funding. If the change were enacted through the foundation program as described, then the additional cost would be borne by all taxpayers at the state level because the monies would come from the general coffers of the state. Accordingly, individuals across the state would pay for the increase through sales and income taxes and other miscellaneous taxes.

Alternatively, some or all of the needed funding could be achieved through reallocating state spending between competing demands. The state budget for Indiana in FY2018 was approximately $33.6 billion. Reallocating some portion of state spending towards public education would help alleviate the need to raise taxes to finance the revenue increase for public schools. For example, the $1.49 billion needed to reach Goal 1 represents 4.4% of the annual state budget.

Another option for the state to consider is that the funding formula could be modified to allow some or all of the increase to be paid for through property taxes for education. Because the mechanism is already in place to tax property for education, it would require finding the increase in property tax rates needed to raise the additional revenue for public schools, and earmarking the additional dollars for general school operations.

Finally, the state should examine cuts in other expenditures and reallocations of staffing to better align Indiana's education labor force with the norm in other states and help improve its financial position with regard to teachers. The data presented here clearly show that as a state, Indiana has a relatively high share of non-teaching staff and consequently fewer teachers to meet the needs of students. This has led to a situation where teachers in Indiana face high student-to-teacher ratios, which is making it more difficult for the state to achieve its education goals. In combination with this, teacher pay in Indiana is relatively low and the data show that the state is becoming less competitive with other states as a result.

Achieving the funding goals described here would certainly help towards enabling the state to hire more teachers and increase teacher salaries and benefits. In addition, there are clear opportunities to use cost savings by reducing positions for non-teaching staff to better align the ratio of students to non-teaching staff with the national or regional average. The cost savings could then be used to either increase teacher employment, improve salaries and benefits, or both.

The funding and staffing deficiencies discussed in this report represent a major policy issue for the State of Indiana to address in the coming years. Sufficient and competitive funding and teacher compensation are key to improving the lives of citizens of the state. These goals can be reached with the commitment of policy makers, educators, and citizens.

## About the Author

Robert K. Toutkoushian is a professor of higher education in the Institute of Higher Education at the University of Georgia. He has a Ph.D. in economics from Indiana University, and he specialized in the study of education finance and economic issues. He is the editor-in-chief of the journal *Research in Higher Education*. Dr. Toutkoushian has published more than 60 studies in peer-reviewed academic journals and edited books.

Prior to his current academic appointment, Dr. Toutkoushian served as a professor in the Educational Leadership and Policy Studies department at Indiana University. In this capacity, he conducted research on K-12 education funding and developed new metrics for measuring equity in public K-12 funding, and taught courses on K-12 education finance in the Educational Leadership program. In addition, through the Center for Evaluation and Education Policy (CEEP) at Indiana University Dr. Toutkoushian worked with representatives from the four caucuses in the Indiana legislature from 2003 to 2009 to examine the state's Foundation Program and evaluate the impacts of proposed changes in the funding formula.

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## Notes

[1] For more information on Indiana's Foundation Program, see the reports from Toutkoushian and Michael (2004) and Toutkoushian (2013).

[2] The total revenue figures in this section were obtained from Table 1 in the annual reports produced by the Census Bureau. The data from the U.S. Census Bureau's Annual Survey of School System Finances represent financial data for public independent and dependent school systems. It includes state payments made on behalf of public school systems and excludes financial transactions of public nonschool entities. Annual Survey of School System Finances statistics include the finances of charter schools whose charters are held directly by a government or a government agency. Charter schools whose charters are held by nongovernmental entities are deemed to be out of scope for the Annual Survey of School System Finances.

[3] The data for enrollments, population, and personal income by state were obtained from the Census Bureau and reported in Tables 18 and 19 in their annual reports.

[4] Total expenditures reported here represent "current spending" and exclude expenditures for capital outlay, payments to state and local governments, and interest on school system indebtedness. The per-pupil comparisons of current spending were taken from Table 8 of the annual Census Bureau reports. These figures exclude expenditures for adult education, community services, and other non-educational programs.

[5] Interested readers should also see the NEA Research study (2018) on recent trends in public education.

[6] I am grateful to Amlan Banerjee, Andy Jewell, Stacey Pelika, and Dale Templeton at the National Education Association for supplying data on average teacher salaries by state for this study.