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ANDERSON ECONOMIC GROUP

# *Benchmarking for Success: Education Performance among the American States*

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Prepared by:

Anderson Economic Group LLC

Scott D. Watkins, Consultant
Caroline M. Sallee, Senior Analyst
Patrick L. Anderson, Principal

**Anderson Economic Group, LLC**
1555 Watertower Place, Suite 100
East Lansing, Michigan 48823
Tel: (517) 333-6984
Fax: (517) 333-7058

http://www.AndersonEconomicGroup.com

# *I.Executive Summary*

## PURPOSE OF REPORT

The purpose of this report is to provide policymakers with a comprehensive review of how education performance in Michigan compares with the rest of the nation. Although the focus of this report is Michigan, it also presents a reliable picture of education in all 50 states, using comparable data from reliable sources.

This report presents data in three focus areas: 1) education participation and attainment, 2) school demographics and finance, and 3) student performance. The student performance data is used to explicitly measure the performance gap between Michigan and the top states. The participation and attainment data, while not a measure of the state's education system, is presented as background information on the overall level of education of the state's population. The school demographics and finance data is also not an indication of performance, and is presented only as background material.

## OUR SYSTEM OF EDUCATION

Throughout the colonial period and its early years of independence, the United States relied largely on families, churches, and other private groups to provide education. Still, there was precedence for the government to encourage education early on, beginning with the Land Ordinance of 1785. Enacted to avoid property disputes in western territories, the Land Ordinance addressed the issue of education by requiring that the 16th section of land in every township be reserved for the benefit of public education. A further encouragement for education came in 1787 with the Northwest Ordinance.[1] There is, however, no mention of education in the U.S. Constitution, and it was not until 1821 that the first public high school was opened by the city of Boston.

There remained little federal involvement in public education until the passage of National Defense Education Act of 1958, which aimed to improve science and mathematics education after the launch of the Russian satellite, Sputnik. The federal government expanded its role in 1965 with the Elementary and Secondary School Act (ESEA) and Title I, which provides funding for schools with pupils from low-income households. Further federal attention for education followed the 1983 *A Nation at Risk,* by President Reagan's National Commission on Excellence in Education. More recently, the No Child Left Behind Act (a reauthorization of ESEA, including Title I) was passed in 2001 with an aim for increasing school accountability.

1. The Northwest Ordinance outlined the means by which new states would be created, and then admitted to the Union, out of the western territories.

*Education in Michigan Today*

In Michigan, primary and secondary public education is mandated in Article VIII of the state constitution, which states: "Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall be forever encouraged." This exact language was also used in the Northwest Ordinance.

Today, Michigan's public school system consists of 552 Local Education Authorities (LEAs, or local districts) and 57 Intermediate School Districts (ISDs). There are also 961 non-public schools in Michigan serving 10 percent of the K-12 student population. The Michigan Department of Education sets curriculum and teacher standards, and controls standardized testing for Michigan's K-12 public school system.

Michigan is also home to a number of colleges and universities. Michigan has 15 public, 4-year college and university campuses, and 43 private 4-year colleges and universities, as well as 33 two-year colleges.[2] In all, these schools offer vast opportunities, with programs ranging from the culinary arts to alternative energy technology.

## BACKGROUND EDUCATION DATA

Before benchmarking student performance, we first review data on education participation and attainment, as well as school demographics and finance. This data does not indicate education performance, but is helpful in illustrating the overall education environment in each state.

**Participation and Attainment Data.** We collected data that measures the portion of a state's population participating in education. We intentionally focus on age groups that do not face compulsory school attendance as an indicator of a state's success in promoting education beyond what is minimally required by law.[3] This includes early childhood education (ages 3-5), late-teens (ages 16-19), young adults (18-25), and lastly adults (age 25+).

Participation data alone fails to measure the level of education already attained by a state's population. To measure this we focused on the percentage of adults (age 25+) holding a high school diploma or equivalent, a bachelors degree, or an advanced degree.

**School Demographics and Finance.** The school demographic data that we present focuses on the people involved in the education process—mainly the students and the teachers at the PreK-12 level. We looked at the proportion of

2. Source: The College Board, College MatchMaker database. http://www.collegeboard.com
3. For example, Michigan law requires parents to send children of age 6 to 16 to school (MCL 380.1561).

student age population attending public schools v. private schools. We also looked at student race and economic status, as well as the ratio of teachers to students.

The revenues and expenditures related to public education is another factor to be mindful of when benchmarking education. To illustrate how these factors vary among the states we present both per pupil revenue and per pupil expenditure data.

## EDUCATION PERFORMANCE DATA

Central to the mission of education is imparting knowledge to students so that they can apply it in productive and meaningful ways. Testing is used to assess how well both students and educators are performing. The tests used vary from state to state. However, some nationwide tests do provide comparable data. These include the National Assessment of Education Progress (NAEP), the ACT and SAT college entrance exams, and the Advanced Placement (AP) tests for upper-level high school students.

The NAEP has been administered on the national level since 1969, though it was not until 1990 that state-level results were reported. Still, not all states participated until recently; the 2001 No Child Left Behind act requires states to participate in the fourth- and eighth-grade tests of reading and mathematics. Science and writing has also been tested recently, though participation is not required so results are not available for all 50 states.

The ACT and SAT tests are used to measure a high school student's preparedness for college. Student performance on these tests is reported on an aggregate level, by state. High school students can also take Advanced Placement (AP) tests. These measure how qualified a student is to receive college credit in the tested subject area. Scores range from 1-5, with a score of three or better being necessary for college credit consideration.

## CHALLENGES TO BENCHMARKING EDUCATION PERFORMANCE

Benchmarking education performance is challenging in a number of ways. First, state and local governments have developed their own approaches to meet the educational demand in their area. As a result, curriculums and the tests used to measure student performance vary by state.

Another challenge is determining what the desired outcome of a system of education is. Is it fair to say that one high school outperforms another simply because its students score higher on a college entrance exam? To do so implies that the purpose of high school is to make students college ready. What about students who desire jobs that do not require a university diploma, such as carpentry, culinary arts, or automotive repair?

## BENCHMARKING APPROACH AND FINDINGS

To directly address the question of how education performance in Michigan compares to others, we choose to focus only on one measure—8th grade NAEP results—as the standard to benchmark. This data is available for all 50 states, and is collected using a sound methodology. Additionally, while it may not be reasonable to expect every high school graduate to be prepared for college (which is what ACT, SAT, and AP test results best indicate), it is reasonable to expect students to be well prepared for high school, regardless of what post secondary options they choose. As a result, we felt the eighth grade NAEP provided the best measure of education performance.

### *Michigan's Education Performance Gap*

Eighth grade NAEP scores show that the education performance by public schools in Michigan is at best average. 28.5 percent of all students were at or above proficient on the reading test, which ranked 31st in the nation (a rank of one is best). The state ranked 30th in mathematics, with 29.3 percent of students receiving proficient or above status. Additionally, the state ranked 27th on the 2002 writing test, and 13th on the 2005 science test.[4]

Using the 8th Grade NAEP, we set the average of the top-ten states as the target level of performance, and the difference between this target and Michigan's score as the education performance gap faced by Michigan. The gap, by subject area, is shown in Table 1 below.

**TABLE 1. Michigan's Performance Gap by Subject Area**

| | Percentage of Students "At or Above Proficient" on NAEP Tests[a] | | | |
|---|---|---|---|---|
| | **Mathematics** | **Reading** | **Science** | **Writing** |
| Top-10 State Average | 37.4% | 37.7% | 39.8% | 37.2% |
| Michigan | 29.3% | 28.5% | 34.8% | 24.4% |
| *Performance Gap* | *8.1%* | *9.2%* | *5.0%* | *12.8%* |
| *Number of Students Requiring Improvement* | *138,746* | *157,282* | *85,479* | *218,823* |

*Source: Anderson Economic Group, LLC*
*Note: Number of students calculation based on 2004-2005 total k-12 enrollment figure of 1,709,583 provided by the Michigan Center for Educational Performance & Information (CEPI).*

a. Based in eighth grade tests from 2005 for mathematics, reading, and science, and from 2002 for writing.

4. Nine states did not participate in the 2002 writing test, and six states plus the District of Columbia did not participate in the 2005 science test.

Student performance in Michigan clearly lags the top performing states in the country. As shown in Table 1, this gap ranges from five percentage points in science (the equivalent of 85,479 K-12 students), to 12.8 percentage points in writing (218,823 students).

This performance gap should not come as a surprise. The core finding—that Michigan's public schools are performing, at best, at average levels—is widely supported. In early 2001, our firm released "Failing Schools in Michigan: The Surprising Scale," which found that less than 1 in 10 of the state's school districts had at least 75% of high-school juniors achieving state standards on the math, reading, writing and science sections of the MEAP test. In December of 2004 the "Cherry Commission" released its report finding that "only 30 percent of students who graduate from high school [in Michigan] take a course of study rigorous enough to prepare then for postsecondary education." Most recently, on August 24, 2006, the Michigan Department of Education released its annual report on each school's Adequate Yearly Progress—544 schools did not make AYP, up from 436 in the previous year.[5]

**The International Gap.** International testing of mathematics and science is conducted via the Trends in International Mathematics and Science Study (TIMSS). This test provides the best measure of how America's schools compete with other nations' mathematics and science scores.[6]

Unfortunately, the data shows that in 2003 the U.S. trailed 14 nations in eighth grade mathematics, and eight nations in eighth grade science. Thus, the education performance gap for Michigan and the United States on a whole, is another area of concern. To truly be competitive, Michigan needs to set its sites not only on being a top performing state, but also on offering an education on par with the best in the world. See "The Wider International Gap" on page 34 for more discussion on this topic.

## ADDITIONAL FINDINGS

While we chose the 8th-grade NAEP results for all students as the primary benchmark of student performance, we reviewed education data on several other relevant topics. Below are our observations.

### *Student Performance*

- At the fourth grade level of NAEP testing, Michigan ranked 24th in mathematics, 27th in reading, 19th in science, and 33rd in writing.[7]

5. "Failing Schools in Michigan: The Surprising Scale" is available from www.AndersonEconomicGroup.com. Information on the Cherry Commission can be found at www.cherrycommission.org. Information on Michigan schools and adequate yearly status (AYP) is available from www.michigan.gov/mde.
6. Further information on the TIMSS is available at http://nces.ed.gov/timss

- Michigan ranks behind the top-ten performing states for student performance on college entrance exams. The state is also behind the top-ten states for student performance on Advanced Placement Exams.

See "National Assessment of Education Progress" on page 24, as well as the tables in the data appendix, for additional NAEP test result information. For more on the SAT, ACT, and AP data, please see page 29 and page 30.

### *Participation and Attainment*

- The data shows that Michigan ranked 40th in the percentage of three- to five-year olds who regularly attended an early childhood education program.
- Michigan ranks 24th (with one being best) in the percentage of young adults (16-19) who are not enrolled in school and not high school graduates. However, with 37.7 percent of young adults (ages 18-24) enrolled in college or graduate school, the state ranked 9th in 2004.
- Michigan was 23rd in adults (age 25+) holding at least a high school credential (87 percent), 32nd in adults holding at least a bachelor's degree (25 percent), and 19th in adults with advanced degrees (10 percent).

See "Education Participation and Attainment" on page 10 for more information.

### *School Demographics and Finance*

- For 2003-04 Michigan had the 9th largest student-aged population (2.1 million) in the country. We consider children from 3 to 17 years old to be school age.
- Public school v. private school enrollment data shows very minimal deviations from the national average among the states. In Michigan, 10.2 percent of the school age population is enrolled in a private school. The national average is 11.0 percent.
- The portion of students receiving free or reduced lunches (an indication of low economic status) was 32.5 percent in Michigan. Across the country, nearly 40 percent of students received free or reduced-price school lunches.
- Total expenditures per pupil in Michigan were $10,431 in 2002, which was 10th highest in the country, and highest among midwestern states.

See "School Demographics and Finance" on page 17 for further information.

7. Eleven states and the District of Columbia did not participate in the 2005 science test, and seven states did not participate in the 2002 writing test.

# *II.Our System of Education*

## A HISTORICAL PERSPECTIVE

The United States, throughout the colonial period and its early years of independence, saw education take place largely in the private arena—sponsored by families, groups within the community, churches, or other private groups. Notably, public education is not called for in the U.S. Constitution, which leaves education and all other matters not mentioned in the Constitution, "to the States…or to the people."[8] As a result, public systems of education, when formed, were rooted at state or local levels. This holds true today, with the federal government still playing a relatively small role in matters of education.

This minimal role of federal involvement, though not called for in the Constitution, is not without precedent. The first federal policy suggesting that public education be required in new territories was the Land Ordinance of 1785. Enacted to avoid property disputes in western territories, this law addressed education by requiring that the 16th section land in every township be reserved for the benefit of public education. A further encouragement of public education came in 1787 with the passage of the Northwest Ordinance, which outlined the means by which new states would be created, and then admitted to the Union. Included in the language of the ordinance is "Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall be forever encouraged." This statement appears today in Article VIII, Section 1 of the Michigan Constitution.

Despite these federal requirements and encouragement, formal schooling remained a private matter for decades, with the land set aside for education commonly used as the site for a private or church sponsored school. This remained the case until 1821, when the City of Boston founded the first free public high school. By 1827, the State of Massachusetts had required that all towns of 500 or more people provide public high schools. Other local and state governing bodies followed Massachusetts' lead, each developing its own education system with very little interference or influence by the federal government.

The first notable federal K-12 education initiative did not arise until 1958, when Congress passed the National Defense Education Act (NDEA). This wide-ranging federal education aid program, meant to improve education in science, mathematics, and modern foreign languages, was passed in response to Russia's launch of the satellite Sputnik. Further federal education funding came as part of president Lyndon B. Johnson's "War on Poverty." The 1965 Elementary and Secondary School Act (ESEA), with Title I, provided additional funding for schools charged with educating children from low-income homes. In 1983,

8. The 10th amendment states "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people."

President Ronald Reagan's National Commission on Excellence in Education sparked widespread awareness and scrutiny of public education when it published *A Nation at Risk: The Imperative for Educational Reform*. In response, greater emphasis was placed on measurable standards of academic performance and the requirements for entry into the teaching profession.

The most significant federal education policy of late came in 2001 when President Johnson's Title I program was reauthorized, and came to be known as the No Child Left Behind Act (NCLB). In addition to renewing funding to districts educating at-risk children, NCLB placed greater emphasis on school accountability and performance. The act requires, among other things, that states assess public school performance using standardized tests (either of their own design, or using the National Assessment of Educational Progress), and report the results to the public.

## EDUCATION IN MICHIGAN TODAY

Unlike the United States Constitution, Michigan's Constitution provides a clear mandate for the free provision of public primary and secondary education. Article VIII, Section 2 of the Michigan Constitution reads:

> "The legislature shall maintain and support a system of free public elementary and secondary schools as defined by law. Every school district shall provide for the education of its pupils without discrimination as to religion, creed, race, color or national origin."

### *Primary and Secondary Schooling*

A system of "free public elementary and secondary schools" has formed in Michigan that today includes 552 Local Education Agencies (LEAs), 57 Intermediate School Districts (ISDs), and 219 Public School Academies (commonly referred to as charter schools). Each of these operate under the guidance of the Michigan Department of Education, which sets curriculum and teaching standards, controls standardized testing, performs required audits, and supervises the overall system of public education in Michigan.

In addition to the above system of public schooling, there are 961 non-public schools and 989 home schools providing primary or secondary education for students in Michigan.[9]

The constitution prescribes how public education in Michigan is to be funded. This occurs in Article IX, Section 11, which was passed as "Proposal A" in 1994. This established the school aid fund (SAF) from which education expenditures are primarily made. The majority of the dollars in the SAF are allocated to school districts, including charter schools, through a foundation allowance,

9. Data on the number of schools is from the Michigan Department of Education, 2003-04.

which is in place to guarantee that all school districts receive a basic level of per-pupil funding for operating purposes.

### *Colleges and Universities*

Post-secondary education is also included in the Michigan Constitution. Article VIII, in sections 4 through 7, addresses the funding and control for public institutions of higher education, including community and junior colleges. Specifically, Article 4 requires that the legislature appropriate funds for: the University of Michigan, Michigan State University, Wayne State University, Eastern Michigan University, Michigan Technological University, Central Michigan University, Northern Michigan University, Western Michigan University, Ferris State University, and Grand Valley University

In all, Michigan has 15 public, 4-year college and university campuses, and 43 private 4-year colleges and universities, as well as 33 two-year colleges.[10] Together, these schools offer vast opportunity, with programs ranging from the culinary arts to alternative energy technology.

10. Source: The College Board, College MatchMaker database. http://www.collegeboard.com.

# *III.Education Participation and Attainment*

Data on education participation and attainment is useful in evaluating the overall education of a state, and is often referenced by businesses deciding where to locate an office, factory, or store. To some extent, the data also infers the value that society places on education, and the availability of affordable and attractive education opportunities within the state.

In reviewing participation data, we intentionally focus on age groups that do not face compulsory school attendance.[11] We first focus on early childhood education (ages 3-5), followed by participation in secondary education by those in their late-teens (ages 16-19). We next look at post-secondary education participation by young adults (ages 18-25), followed by school enrollment of the adult population (age 25+).

Participation data alone, while a good indicator, fails to measure the level of education already attained by a state's population. To gauge this, we consider the level of education attained by a state's adult population (age 25+).

## EARLY CHILDHOOD PARTICIPATION

Though not mandatory under most state laws, early childhood education is felt to play an important part in the education process. Researchers agree that most of the brain's functioning capacity is developed during the first few years of life, and most educators and researchers agree that the social interaction and learning provided by early childhood programs helps prepare young children for elementary school.[12]

Though many states do not require parents to send children to school before kindergarten, many children do benefit from attending preschool programs. Organizing this, the U.S. government created the Head Start program in 1965. Head Start provides opportunities for three- and four-year old children from low-income families to attend early childhood education programs.

To measure early childhood education participation, we look at the percentage of children ages three to five who regularly attended an education program. This data, as shown in Table 2, comes from the 2003 National Survey of Children's Health (NSCH). The survey contains data from 102,353 telephone interviews of randomly telephoned households with one or more children. In each household,

11. For example, Michigan law requires parents to send children of age 6 to 16 to school (MCL 380.1561).

12. A summary article of the research on early childhood development can be found in "Children's Early Education and Care," *Michigan in Brief*, April 1, 2002, available at: http://www.michiganinbrief.org/edition07/Chapter5/ChildEarlyEd.htm.

one child was randomly selected to be the subject of the interview, and the adult in the household who knew the most about the child was interviewed.[13]

**Findings.** In 2003, 60.7 percent of United States' children ages three to five regularly attended a pre-kindergarten program. The District of Columbia had the highest enrollment of this population, with 77 percent attending a preschool program regularly. Nevada, with 41.2 percent, had the lowest participation. Michigan had one of the lowest levels of participation, with only 56.5 percent attending a pre-school program regularly. See Table 2 below.

**TABLE 2. Percent of Children Ages 3-5 Who Regularly Attended Nursery School, Preschool, Kindergarten, Head Start, or Early Start, 2003**

| Rank | State | % Participating |
|---|---|---|
| 1 | District of Columbia | 77.0% |
| 2 | Connecticut | 75.3% |
| 3 | New Jersey | 72.3% |
| 4 | New York | 70.1% |
| 5 | Delaware | 69.3% |
| 5 | Maryland | 67.2% |
| 7 | New Hampshire | 67.2% |
| 8 | Massachusetts | 66.9% |
| 9 | Rhode Island | 66.4% |
| 10 | Georgia | 66.0% |
| **40** | **Michigan** | **56.5%** |
| *memo:* | *United States Average* | *60.7%* |

Source: 2003 National Survey of Children's Health. http://www.nschdata.org.

## EDUCATION PARTICIPATION BY YOUNG ADULTS & ADULTS

To further measure non-compulsory school participation, we look at enrollment of young adults (both at the 16-19 years old range and the 18-24 years old range) and adults (age 25+). The first measure—the percentage of 16 to 19 year olds not in school or a high school graduate—provides an indication of the number of high school non-completers. The second measure—the percentage of 18 to 24 year olds enrolled in college or graduate school—provides information on the post-secondary education participation by young adults. The final enrollment measure—percentage of adult population (25+) enrolled in school—provides a measure of those continuing with their education during their adult life.

13. The National Survey of Children's Health data is available at http://www.nschdata.org.

The data on young adult education participation is from the U.S. Census Bureau's American Community Survey (ACS). The ACS collects information annually about school enrollment and educational attainment. The ACS classifies people as enrolled in school if they were attending a "regular" public or private school or college at any time during the three months prior to the time of interview. A "regular" school is defined as one that advances a student towards an elementary school certificate, a high school diploma, or a college, university, or professional school degree.

A person who is living at a sampled housing unit (e.g. an apartment or home) is considered a resident of that unit, and the state in which that unit resides, if the person has or intends to stay in the residence for more than two months. A person living in a group quarter facility (such as a dormitory) is determined to be a residence there regardless of how long he or she has lived or intends to live in the group quarters setting. As such, college students are considered residents of the state in which they attend school.

**Findings: High School Completers.** In 2004, 7.6 percent of the U.S. population ages 16 to 19 years was either not in school or not a high school graduate. The lowest percentage of high school non-completers is in North Dakota (2.9 percent) while the state with the highest percentage is Indiana (12.6 percent). Michigan falls in the middle, a rank of 24, with 6.9 percent of young adults not completing high school. See Table 3 below.

**TABLE 3. % of 16-19 Year Olds Not in School or a High School Graduate, 2004**

| Rank | State | % of 16-19 Year Olds | Percentage Point Change, 2000-2004 |
|---|---|---|---|
| 1 | North Dakota | 2.9% | -1.9 |
| 2 | Iowa | 3.3% | -2.6 |
| 3 | Hawaii | 3.5% | -2.4 |
| 4 | South Dakota | 3.7% | -4.2 |
| 5 | Vermont | 4.0% | -1.9 |
| 6 | Connecticut | 4.4% | -1.5 |
| 7 | Maine | 4.6% | -1.6 |
| 8 | Minnesota | 4.6% | -1.3 |
| 9 | Alaska | 4.9% | -3.9 |
| 10 | New Jersey | 5.1% | -2.1 |
| **24** | **Michigan** | **6.9%** | **-1.8** |
| *memo:* | *United States Average* | *7.6%* | *-2.2* |

Source: U.S. Census Bureau

**Findings: Young Adult Post-Secondary Enrollment.** In 2004, Michigan was one of the ten states with the highest percentage of 18 to 24 year olds enrolled in school. Rhode Island had the highest percentage of young adults in college or graduate school with 40.3 percent of its 18 to 24 year old population enrolled in school. At 37.7 percent, Michigan ranked ninth and is above the national average of 34.2 percent.

**TABLE 4. % of 18-24 Year Olds Enrolled in College or Graduate School, 2004**

| Rank | State | % of 18-24 Year Olds | Percentage Point Change, 2000-2004 |
|---|---|---|---|
| 1 | Rhode Island | 40.3% | -7.4 |
| 2 | North Dakota | 40.0% | -4.1 |
| 3 | Kansas | 39.9% | 3.4 |
| 4 | Nebraska | 39.3% | 0.8 |
| 5 | New Jersey | 39.1% | 4.0 |
| 6 | Connecticut | 36.8% | -1.5 |
| 7 | California | 38.8% | 3.4 |
| 8 | Utah | 38.7% | 2.1 |
| **9** | **Michigan** | **37.7%** | **1.0** |
| 10 | Illinois | 37.0% | 2.2 |
| *memo:* | *United States Average* | *34.2%* | *0.2* |

Source: U.S. Census Bureau, American Community Survey

**Findings: Adult Participation.** Today's economy is ever-changing and many people return to school for some education after they turn 25. This schooling may include one class or the completion of a high school, college, or graduate degree.

Table 5 presents the percentage of the adult population (25+) who were enrolled in school in each state in 2004. The District of Columbia had the highest percentage of this age group enrolled in school with 8.3 percent. Michigan ranked 18th, with 5.1 percent of its 25 years and older population attending school. This was just above the U.S. average of 5.0 percent.

**TABLE 5. % of 25 and Older Population Enrolled in School, 2004**

| Rank | State | % of 25+ Population Enrolled in School |
|---|---|---|
| 1 | District of Columbia | 8.3% |
| 2 | Utah | 7.2% |
| 3 | New Mexico | 7.2% |
| 4 | Alaska | 7.1% |
| 5 | California | 6.4% |
| 6 | Maryland | 6.3% |
| 7 | Arizona | 5.9% |
| 8 | Delaware | 5.5% |
| 9 | Hawaii | 5.4% |
| 10 | Washington | 5.4% |
| **18** | **Michigan** | **5.1%** |
| *memo:* | *United States Average* | *5.0%* |

Source: U.S. Census Bureau

## EDUCATIONAL ATTAINMENT OF ADULT POPULATION

Today's labor market rewards the highly skilled and highly educated worker. Those with higher levels of education earn more and have more career opportunities available to them than their less-educated counterparts. The educational attainment of a state's population is a general indicator of the types of jobs available in a state and how well those jobs pay.

To measure the educational attainment of the adult population, we looked at the percentage of the population 25 years and older in each state that had received a high school diploma, bachelor's degree, and advanced degree.

Data on educational attainment comes from the Census Bureau's American Community Survey. Survey respondents who received a high school diploma or the equivalent, but did not attend college, are classified as having attained a "high school diploma or equivalency." Attainment of an associates degree generally indicates that the person completed two years of college level work. Persons who have completed master's degrees, professional degrees (i.e. in medicine, law, pharmacy, veterinary medicine), and doctoral degrees are classified as having attained an "advanced" degree. Those with some graduate coursework, but who did not complete the degree, would be classified as having attained a bachelor's degree.

The ACS data reports the educational attainment of the adult population surveyed at the time of the interview. This data does not tell us anything about

whether the population completed their degrees in the state where they are currently living, or rigor of the degree. The data also does not reflect the impact of the age distribution in each state. States with older populations can be expected to have fewer residents with high school, college, and graduate degrees, as older generations were less likely to need such degrees for the workplace.

**Findings.** In the United States, most adults (83.9 percent) over the age of 25 have attained a high school diploma or an equivalent degree. The states with the highest percentage of adults with a high school diploma include Alaska (91.4 percent), Minnesota (90.7 percent), and Wyoming (90.7 percent), while the states with the lowest percentage include Mississippi (77.3 percent), Kentucky (77.6 percent), and Texas (78.7 percent). In Michigan, 86.9 percent of adults have attained a high school credential.[14]

States that have a higher percentage of their adult population with a college degree also have a higher percentage with advanced degrees. The District of Columbia ranks first for both attainment categories by having the highest percentage of adults with bachelor's degrees (47.7 percent) and advanced degrees (26.0 percent). Michigan ranks 32nd in adults with bachelor's degrees, but 19th in percentage of population with advanced degrees.

See "High School and Post-Secondary Education Attainment by State, 2004" on page 16 for additional data pertaining to this section.

14. This includes high school diplomas and General Equivalency Diplomas (GEDs).

**Table 6. High School and Post-Secondary Education Attainment by State, 2004**

| State | with HS Diploma or Equivalency | Rank | with Bachlor's Degree | Rank | with Advanced Degree | Rank |
|---|---|---|---|---|---|---|
| U.S | 83.9% | | 27.0% | | 9.9% | |
| Alabama | 79.5% | 47 | 21.9% | 45 | 8.1% | 33 |
| Alaska | 91.4% | 1 | 27.2% | 22 | 9.2% | 21 |
| Arizona | 83.7% | 35 | 24.7% | 30 | 9.2% | 21 |
| Arkansas | 80.2% | 45 | 18.1% | 51 | 6.1% | 49 |
| California | 80.4% | 43 | 29.4% | 13 | 10.4% | 15 |
| Colorado | 87.4% | 17 | 33.7% | 5 | 11.9% | 9 |
| Connecticut | 89.0% | 12 | 34.6% | 4 | 14.6% | 4 |
| Delaware | 85.6% | 28 | 28.1% | 17 | 10.7% | 14 |
| District of Columbia | 84.4% | 32 | 47.7% | 1 | 26.0% | 1 |
| Florida | 84.5% | 31 | 25.4% | 28 | 9.1% | 23 |
| Georgia | 81.0% | 40 | 25.6% | 26 | 8.6% | 26 |
| Hawaii | 87.2% | 19 | 29.1% | 14 | 9.6% | 18 |
| Idaho | 87.3% | 18 | 23.8% | 39 | 7.8% | 38 |
| Illinois | 85.2% | 29 | 29.1% | 14 | 11.2% | 11 |
| Indiana | 84.4% | 32 | 21.5% | 46 | 7.9% | 34 |
| Iowa | 89.5% | 5 | 23.9% | 38 | 7.2% | 43 |
| Kansas | 89.4% | 6 | 28.3% | 16 | 9.4% | 20 |
| Kentucky | 77.6% | 50 | 19.0% | 49 | 7.9% | 34 |
| Louisiana | 79.9% | 46 | 21.5% | 46 | 7.2% | 43 |
| Maine | 88.3% | 13 | 26.1% | 25 | 8.2% | 31 |
| Maryland | 87.1% | 21 | 34.8% | 3 | 15.5% | 3 |
| Massachusetts | 88.2% | 15 | 37.4% | 2 | 15.6% | 2 |
| Michigan | 86.9% | 23 | 24.6% | 32 | 9.5% | 19 |
| Minnesota | 90.7% | 2 | 29.7% | 12 | 8.6% | 26 |
| Mississippi | 77.3% | 51 | 18.9% | 50 | 6.4% | 47 |
| Missouri | 86.3% | 25 | 24.3% | 35 | 9.0% | 25 |
| Montana | 89.9% | 4 | 27.5% | 21 | 7.8% | 38 |
| Nebraska | 89.4% | 6 | 26.6% | 24 | 8.3% | 30 |
| Nevada | 83.0% | 37 | 19.3% | 48 | 7.0% | 45 |
| New Hampshire | 88.3% | 13 | 32.1% | 8 | 11.6% | 10 |
| New Jersey | 86.2% | 26 | 33.3% | 6 | 12.4% | 7 |
| New Mexico | 80.3% | 44 | 23.6% | 40 | 9.9% | 17 |
| New York | 83.9% | 34 | 30.5% | 11 | 13.2% | 5 |
| North Carolina | 81.0% | 40 | 24.6% | 32 | 7.7% | 40 |
| North Dakota | 87.9% | 16 | 24.0% | 37 | 6.2% | 48 |
| Ohio | 86.6% | 24 | 23.3% | 41 | 8.4% | 29 |
| Oklahoma | 83.4% | 36 | 22.2% | 43 | 7.0% | 45 |
| Oregon | 87.2% | 19 | 27.7% | 20 | 10.0% | 16 |
| Pennsylvania | 85.8% | 27 | 24.7% | 30 | 9.1% | 23 |
| Rhode Island | 82.8% | 38 | 28.1% | 17 | 11.2% | 11 |
| South Carolina | 81.4% | 39 | 24.6% | 32 | 7.9% | 34 |
| South Dakota | 89.4% | 6 | 23.2% | 42 | 5.9% | 51 |
| Tennessee | 80.7% | 42 | 22.2% | 43 | 7.9% | 34 |
| Texas | 78.7% | 49 | 25.6% | 26 | 8.2% | 31 |
| Utah | 89.2% | 10 | 28.0% | 19 | 8.6% | 26 |
| Vermont | 89.2% | 10 | 32.0% | 9 | 12.3% | 8 |
| Virginia | 84.9% | 30 | 32.7% | 7 | 13.2% | 5 |
| Washington | 89.4% | 6 | 31.3% | 10 | 10.9% | 13 |
| West Virginia | 79.4% | 48 | 16.3% | 52 | 6.1% | 49 |
| Wisconsin | 87.1% | 21 | 24.1% | 36 | 7.7% | 40 |
| Wyoming | 90.7% | 2 | 24.8% | 29 | 7.6% | 42 |

Source: U.S. Census Bureau, American Community Survey, 2004.
Analysis: Anderson Economic Group

# *IV.School Demographics and Finance*

We present below several variables to portray the educational environment on a state by state basis. This includes school enrollment information, student to teacher ratios, and K-12 public education revenue and expenditure data.

The data is provided for informative purposes, and it is not intended for use as a benchmark of performance. We urge caution in drawing conclusions about education performance from this information. We feel it irresponsible to assume that because one state has higher minority enrollment, lower student performance is excusable, and that higher spending states may have a higher performing education system solely as a result of more funding.

## SCHOOL ENROLLMENT

### *Public v. Private School Enrollment*

The first set of school demographic data is on the type of school (public or private) that a state's student age population attends. The data also illustrates what portion of the student age population is not enrolled in school.

The data on public and private school enrollment comes from the U.S. Census Bureau's 2004 American Community Survey. Private enrollment includes students who are homeschooled. Note that there are a number of factors that should be considered when reaching conclusions about this data, including a state's level of private school affordability, access to different types of schools, and the quality of public schools in a state.

**Findings.** As shown in Table 7 on page 18, Michigan is just slightly above the national average in terms of student age population attending public schools (86.7 percent in Michigan and 85.2 percent across the country). Predictably, Michigan also has a slightly lower percentage of student age population attending private schools (10.2 percent v. 11.0 percent nationally).

Considering all of the states, there are very few examples of significant deviation of the national averages. The most notable deviations occur in Delaware, Hawaii, and Washington D.C., where 19.5 percent, 19.4 percent, and 18.5 percent of the student age populations, respectively, attend private schools. In Nevada and Wyoming 5.2 percent of the student age population attends private schools. Montana (8.0 percent) had the highest level of non-enrollment.

**Table 7. Total Number of Students & Enrollment by State, 2004**

| State | Total School Age Population (3-17 years) | % of School-Age Children Enrolled in Public Schools | % of School-Age Children Enrolled in Private Schools | % of School-Age Children Not Enrolled in School |
|---|---|---|---|---|
| United States | 61,227,138 | 85.2% | 11.0% | 3.8% |
| Alabama | 919,901 | 86.0% | 9.8% | 4.1% |
| Alaska | 159,655 | 89.0% | 7.0% | 4.0% |
| Arizona | 1,278,297 | 87.2% | 7.8% | 5.0% |
| Arkansas | 559,737 | 87.6% | 8.5% | 3.9% |
| California | 8,017,138 | 87.2% | 10.0% | 2.8% |
| Colorado | 971,608 | 86.9% | 8.6% | 4.5% |
| Connecticut | 705,990 | 85.3% | 11.3% | 3.3% |
| Delaware | 163,073 | 75.5% | 19.5% | 5.1% |
| District of Columbia | 89,394 | 77.8% | 18.5% | 3.7% |
| Florida | 3,346,138 | 84.5% | 11.5% | 4.0% |
| Georgia | 1,907,731 | 87.9% | 8.6% | 3.5% |
| Hawaii | 245,043 | 78.0% | 19.4% | 2.6% |
| Idaho | 308,556 | 88.0% | 7.6% | 4.4% |
| Illinois | 2,714,329 | 83.8% | 12.9% | 3.4% |
| Indiana | 1,345,260 | 80.4% | 13.7% | 5.9% |
| Iowa | 573,840 | 87.0% | 9.4% | 3.6% |
| Kansas | 568,937 | 83.5% | 12.5% | 4.0% |
| Kentucky | 819,256 | 85.3% | 10.9% | 3.9% |
| Louisiana | 974,392 | 79.5% | 16.8% | 3.7% |
| Maine | 241,533 | 87.9% | 9.1% | 3.0% |
| Maryland | 1,177,075 | 80.4% | 15.6% | 4.0% |
| Massachusetts | 1,222,638 | 84.4% | 12.5% | 3.1% |
| Michigan | 2,137,920 | 86.7% | 10.2% | 3.1% |
| Minnesota | 1,033,437 | 84.3% | 12.2% | 3.5% |
| Mississippi | 621,803 | 85.7% | 10.5% | 3.8% |
| Missouri | 1,155,341 | 80.7% | 14.6% | 4.7% |
| Montana | 176,246 | 85.1% | 6.9% | 8.0% |
| Nebraska | 357,609 | 83.5% | 13.0% | 3.4% |
| Nevada | 502,490 | 89.0% | 5.2% | 5.9% |
| New Hampshire | 261,450 | 84.0% | 11.1% | 4.9% |
| New Jersey | 1,830,511 | 82.5% | 14.1% | 3.4% |
| New Mexico | 412,931 | 85.9% | 9.1% | 5.0% |
| New York | 3,807,967 | 82.6% | 14.0% | 3.4% |
| North Carolina | 1,764,416 | 89.4% | 7.1% | 3.5% |
| North Dakota | 116,037 | 89.1% | 6.0% | 5.0% |
| Ohio | 2,345,088 | 81.4% | 14.7% | 3.9% |
| Oklahoma | 719,412 | 87.3% | 7.8% | 4.9% |
| Oregon | 718,833 | 83.3% | 10.4% | 6.3% |
| Pennsylvania | 2,405,055 | 80.2% | 15.8% | 3.9% |
| Rhode Island | 206,657 | 84.8% | 12.4% | 2.7% |
| South Carolina | 863,231 | 86.6% | 9.2% | 4.2% |
| South Dakota | 157,543 | 85.5% | 9.5% | 5.0% |
| Tennessee | 1,151,666 | 84.1% | 10.6% | 5.3% |
| Texas | 5,175,099 | 89.6% | 7.1% | 3.4% |
| Utah | 590,080 | 90.4% | 6.0% | 3.6% |
| Vermont | 116,300 | 86.1% | 10.2% | 3.6% |
| Virginia | 1,510,007 | 85.8% | 10.5% | 3.7% |
| Washington | 1,253,192 | 85.3% | 9.4% | 5.3% |
| West Virginia | 324,134 | 90.9% | 4.8% | 4.4% |
| Wisconsin | 1,105,876 | 84.1% | 12.6% | 3.2% |
| Wyoming | 97,286 | 91.1% | 5.2% | 3.7% |

Source: U.S. Census Bureau's American Community Survey, 2004.
Analysis: Anderson Economic Group, LLC

## STUDENT DEMOGRAPHICS: ECONOMIC STATUS AND RACE

We also present information on the economic status and racial background of students participating in each state's public schools. This is provided in Table 8 on page 20.

The economic status data (free and reduced-price lunch eligibility) comes from the NCES-CCD series. This data series does not include the number of students eligible for subsidized lunches for Kentucky, New York, or Tennessee. We rely on eligibility for free or reduced price lunch as an indicator of economic status, as eligible students come from a family that falls below a federally determined income level.[15]

The data on the student population's race and ethnicity comes from the NCES-CCD series. This data series does not include a detailed race and ethnicity breakdown for Washington, D.C. Therefore, the result listed for the United States as a whole does not include students from Washington, D.C., nor is this area included in the rankings. Note that this is state level data, and fails to illustrate the diverse range of actual classroom demographics that are found within a state's districts.

**Findings.** The data on free or reduced price lunches shows that Michigan has a lower portion of students from low income families than does the nation as a whole. The portion of students receiving free or reduced lunches was 32.5 percent in Michigan. Across the country, nearly 40 percent of students receive free or reduced-price school lunches.

In terms of ethnicity, 72.6 percent of Michigan's student aged population is white, 20.0 percent are black, and 4.1 percent are hispanic. This is overall less diverse than the nation as a whole, where 58.3 percent of the student age population is white, 17 percent is black, and 18.4 percent is hispanic.

15. Eligibility guidelines and complete program details are available on the National School Lunch Program web site (http://www.fns.usda.gov/cnd/lunch/).

**Table 8. Demographic and Socio-Economic Characteristics of School-Age Children, 2003-2004**

| State | Total School Age Population (3-17 years) | Students Eligible for Free or Reduced-Price Lunch | White | Black | American Indian or Alaska Native | Asian or Pacific Islander | Hispanic |
|---|---|---|---|---|---|---|---|
| United States | 61,227,138 | 39.8% | 58.3% | 17.0% | 1.2% | 4.4% | 18.4% |
| Alabama | 919,901 | 27.3% | 58.9% | 4.7% | 26.0% | 6.5% | 3.9% |
| Alaska | 159,655 | 50.5% | 59.7% | 36.3% | 0.8% | 0.9% | 2.1% |
| Arizona | 1,278,297 | 49.8% | 69.9% | 23.1% | 0.6% | 1.1% | 5.3% |
| Arkansas | 559,737 | 45.1% | 49.2% | 4.8% | 6.6% | 2.2% | 37.2% |
| California | 8,017,138 | 47.9% | 31.9% | 8.0% | 0.8% | 11.0% | 45.2% |
| Colorado | 971,608 | 30.2% | 64.5% | 5.8% | 1.2% | 3.1% | 25.3% |
| Connecticut | 705,990 | 25.4% | 67.9% | 13.6% | 0.3% | 3.2% | 14.5% |
| Delaware | 163,073 | 51.4% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| District of Columbia | 89,394 | 33.8% | 57.3% | 31.9% | 0.3% | 2.6% | 7.9% |
| Florida | 3,346,138 | 46.0% | 51.3% | 24.3% | 0.3% | 2.0% | 22.1% |
| Georgia | 1,907,731 | 46.4% | 52.1% | 38.3% | 0.2% | 2.5% | 6.9% |
| Hawaii | 245,043 | 42.5% | 20.2% | 2.4% | 0.5% | 72.4% | 4.5% |
| Idaho | 308,556 | 30.0% | 88.2% | 4.5% | 0.6% | 1.8% | 4.9% |
| Illinois | 2,714,329 | 37.0% | 84.0% | 0.9% | 1.6% | 1.5% | 12.0% |
| Indiana | 1,345,260 | 36.9% | 57.4% | 21.1% | 0.2% | 3.6% | 17.7% |
| Iowa | 573,840 | 34.4% | 81.5% | 12.4% | 0.2% | 1.1% | 4.8% |
| Kansas | 568,937 | 37.4% | 75.3% | 8.7% | 1.4% | 2.3% | 10.8% |
| Kentucky | 819,256 | n/a | 82.8% | 9.9% | 0.2% | 0.8% | 1.5% |
| Louisiana | 974,392 | 61.4% | 48.5% | 47.7% | 0.7% | 1.3% | 1.8% |
| Maine | 241,533 | 27.2% | 74.6% | 8.8% | 0.3% | 4.7% | 11.5% |
| Maryland | 1,177,075 | 31.4% | 50.4% | 37.9% | 0.4% | 4.9% | 6.4% |
| Massachusetts | 1,222,638 | 30.1% | 95.6% | 1.7% | 0.5% | 1.2% | 0.8% |
| Michigan | 2,137,920 | 32.5% | 72.6% | 20.0% | 1.0% | 2.2% | 4.1% |
| Minnesota | 1,033,437 | 28.2% | 80.2% | 7.8% | 2.1% | 5.4% | 4.6% |
| Mississippi | 621,803 | 38.0% | 77.7% | 18.0% | 0.4% | 1.4% | 2.6% |
| Missouri | 1,155,341 | 64.3% | 47.3% | 50.7% | 0.2% | 0.7% | 1.1% |
| Montana | 176,246 | 33.7% | 85.1% | 0.7% | 11.0% | 1.0% | 2.1% |
| Nebraska | 357,609 | 44.5% | 58.3% | 31.6% | 1.5% | 2.0% | 6.7% |
| Nevada | 502,490 | 28.3% | 88.0% | 1.2% | 8.5% | 0.8% | 1.4% |
| New Hampshire | 261,450 | 33.9% | 79.5% | 7.1% | 1.6% | 1.7% | 10.1% |
| New Jersey | 1,830,511 | 16.3% | 94.2% | 1.4% | 0.3% | 1.7% | 2.4% |
| New Mexico | 412,931 | 26.9% | 57.9% | 17.7% | 0.2% | 7.0% | 17.2% |
| New York | 3,807,967 | 58.2% | 32.8% | 2.4% | 11.2% | 1.2% | 52.5% |
| North Carolina | 1,764,416 | 33.7% | 50.8% | 10.7% | 1.7% | 6.7% | 30.2% |
| North Dakota | 116,037 | n/a | 53.9% | 19.7% | 0.5% | 6.6% | 19.4% |
| Ohio | 2,345,088 | 29.5% | 77.8% | 16.7% | 0.1% | 1.3% | 2.1% |
| Oklahoma | 719,412 | 53.0% | 61.5% | 10.9% | 18.5% | 1.5% | 7.6% |
| Oregon | 718,833 | 40.1% | 75.0% | 3.0% | 2.3% | 4.4% | 13.3% |
| Pennsylvania | 2,405,055 | 28.1% | 76.3% | 15.8% | 0.1% | 2.3% | 5.5% |
| Rhode Island | 206,657 | 35.0% | 70.7% | 8.5% | 0.6% | 3.2% | 16.3% |
| South Carolina | 863,231 | 51.0% | 53.9% | 41.1% | 0.3% | 1.1% | 3.1% |
| South Dakota | 157,543 | 31.4% | 84.9% | 1.5% | 10.7% | 1.0% | 1.8% |
| Tennessee | 1,151,666 | n/a | 69.4% | 24.6% | 0.2% | 1.3% | 2.8% |
| Texas | 5,175,099 | 46.7% | 38.7% | 14.3% | 0.3% | 2.9% | 43.8% |
| Utah | 590,080 | 32.1% | 83.2% | 1.1% | 1.5% | 2.9% | 11.0% |
| Vermont | 116,300 | 30.2% | 60.4% | 26.4% | 0.5% | 4.7% | 6.5% |
| Virginia | 1,510,007 | 27.4% | 95.4% | 1.2% | 0.6% | 1.5% | 0.8% |
| Washington | 1,253,192 | 35.5% | 71.5% | 5.7% | 2.7% | 7.9% | 12.3% |
| West Virginia | 324,134 | 27.7% | 78.8% | 10.5% | 1.4% | 3.4% | 5.8% |
| Wisconsin | 1,105,876 | 49.3% | 94.1% | 4.6% | 0.1% | 0.6% | 0.5% |
| Wyoming | 97,286 | 30.6% | 86.0% | 1.4% | 3.5% | 1.0% | 8.2% |
| *MI Rank* | *9* | *30* | *23* | *14* | *21* | *26* | *35* |

Source: National Center for Education Statistics - Common Core of Data.

Analysis: Anderson Economic Group, LLC

## PUPIL-TEACHER RATIO

We present Michigan's pupil-teacher ratio, along with the top ten states and the national average, in Table 9 on page 21. This ratio is calculated by dividing the total number of students at a school by the total number of full-time equivalent teachers (defined as staff members who instruct students for at least part of the school day, and take attendance) across all grade levels. The data on the pupil-teacher ratio comes from the NCES-CCD series.

Vermont, Maine, Alabama, and New Jersey had the lowest pupil-teacher ratios in the 2003-2004 school year with under 13 pupils per full time equivalent teacher. Utah, Arizona, California, and Oregon had the highest pupil-teacher ratio, each with over 20 pupils per full time equivalent teacher. Michigan, at 18.1 pupils per full time equivalent teacher, is well above the national average of 15.9.

**TABLE 9. Pupil-Teacher Ratio**

| Rank | State | Total Pupil-Teacher Ratio |
|---|---|---|
| 1 | Vermont | 11.3 |
| 2 | Maine | 11.5 |
| 3 | Alabama | 12.6 |
| 4 | New Jersey | 12.7 |
| 5 | North Dakota | 12.7 |
| 6 | Virginia | 13.2 |
| 7 | New York | 13.3 |
| 8 | Wyoming | 13.3 |
| 9 | Rhode Island | 13.4 |
| 10 | South Dakota | 13.6 |
| **45** | **Michigan** | **18.1** |
| *memo:* | *United States* | *15.9* |

Source: NCES-CCD

## PER-PUPIL ANNUAL EXPENDITURES

We present several categories of education expenditure data that characterize different types of activities. These data are somewhat useful for characterizing the level of investment in a state's education system. However, we caution against using this data alone when evaluating state education systems. There are many factors other than finances—more than can be accounted for in any one study—that influence education performance. There are also factors that influence how much funding is needed to provide a similar quality of education in different areas. For example, it is certainty more costly to buy property for a school in New York City than it is in East Lansing, Michigan.

The data on revenues and expenditures are from 2002, and come from the NCES-CCD series. Only financial information from PreK-12 public school systems is included.

**Findings.** Table 10, "Per-Pupil Total Annual Education Expenditure, 2002," presents total per-pupil education expenditure, which includes all operating expenditures, plus spending by school districts on school construction, equipment and property, community colleges, private schools, adult education, and spending on behalf of Local Education Authorities (LEAs).

Washington, D.C., New Jersey, and New York far outpaced other states in total per-pupil expenditure at over $13,500. Michigan ranked 10th with $10,431 in expenditures per pupil, up 37.6 percent from the 1995 per pupil expenditure level. Idaho, Kentucky, Mississippi, Oklahoma, Tennessee, and Utah had the lowest per-pupil expenditure, each spending under $7,000 per pupil.

Fore more detailed education expenditure data please see "Education Finance" on page A-14 of Appendix A. In additional to data on each state, plus the District of Columbia, the table shows the current (operating) expenditures per pupil in each state, and the portion of current expenditures spent on instructional, administrative, and other categories.

**TABLE 10. Per-Pupil Total Annual Education Expenditure, 2002**

| Rank | State | Annual Per Pupil Education Expenditure | Increase Since 1995 |
|---|---|---|---|
| 1 | Washington, D.C. | $14,542 | 63.6% |
| 2 | New Jersey | $13,807 | 36.9% |
| 3 | New York | $13,561 | 44.8% |
| 4 | Connecticut | $12,583 | 43.6% |
| 5 | Alaska | $11,795 | 22.4% |
| 6 | Delaware | $11,356 | 51.8% |
| 7 | Vermont | $10,958 | 52.9% |
| 8 | Massachusetts | $10,898 | 52.9% |
| 9 | Rhode Island | $10,784 | 43.5% |
| **10** | **Michigan** | **$10,431** | **37.6%** |
| *memo:* | *United States* | *9,198* | *43.6%* |

Source: NCES-CCD
Note: Inflation, as measured by GDP, was 13% from 1995 to 2002.

## REVENUES AND SOURCES

We also present education revenue data by source for each state. Table 14 on page 15 lists total per-pupil revenue, and the percentage coming from state,

local, intermediate, and federal sources.[16] We have combined the state, local, and intermediate sources into one category as there is significant variation across states in the amount of funding supplied by these sources. For example, some states, like Michigan, provide the majority of public school funding, but in other states most revenue for education is raised at local levels.

**Findings.** Table 11, "Total Per-Pupil Education Revenue, 2002," presents total per-pupil education revenue, and the percentage coming from federal and non-federal sources, for the ten highest-revenue states (including Washington, D.C.).

Washington, D.C., New Jersey, and New York have the highest total per-pupil revenue at over $13,000. Michigan ranked 14th highest in the nation, and first among states in the midwest, with $10,058 in total per pupil revenue. Alabama, Idaho, Mississippi, Oklahoma, Tennessee, and Utah had the lowest per-pupil revenue, each collecting or receiving under $7,000 per pupil.

See also Table 14, "Per-Pupil Education Revenue by State" in Appendix A for a listing of per-pupil revenues in each state.

**TABLE 11. Total Per-Pupil Education Revenue, 2002**

| Rank | State | Total Per Pupil Revenue | State, Local, and Intermediate Sources | Federal Sources |
|---|---|---|---|---|
| 1 | Washington, D.C. | $14,626 | 82.6% | 13.8% |
| 2 | New Jersey | $13,825 | 95.7% | 4.3% |
| 3 | New York | $13,120 | 93.0% | 7.0% |
| 4 | Connecticut | $12,433 | 94.8% | 5.2% |
| 5 | Massachusetts | $12,006 | 94.0% | 6.0% |
| 6 | Vermont | $11,502 | 93.0% | 7.0% |
| 7 | Hawaii | $11,309 | 91.8% | 8.2% |
| 8 | Rhode Island | $10,960 | 93.5% | 6.5% |
| 9 | Alaska | $10,928 | 82.3% | 17.7% |
| 10 | Wyoming | $10,909 | 91.2% | 8.8% |
| **14** | **Michigan** | **$10,058** | **92.2%** | **7.8%** |
| *memo:* | *United States* | *$9,135* | *91.5%* | *8.5%* |

Source: NCES-CCD

16. .Not included are revenues from bond principal and premiums, sale of school property, or compensation from loss of fixed assets. This accounts for some of the difference in revenue and total expenditure values.

# *V.Student Performance*

The most obvious and fundamental means of measuring education performance is through testing student knowledge. Under *No Child Left Behind*, states are required to test children in reading and math in third through eighth grade, and at least once during grades 10-12. By 2007-08 each state must also test science at least once during grades 3-5; grades 6-9; and again in grades 10-12. States are free to administer their own tests, such as the MEAP in Michigan, and most do so, making it difficult to use these tests to compare performance.

There is, however, a provision under the 2001 No Child Left Behind act requiring states, as a provision for receiving federal funding, to participate in the fourth and eighth grade National Assessment of Educational Progress (NAEP). Because the NAEP is administered to a cross sample of all students, it provides the best comparable measure of education performance.

In addition to the NAEP tests, many students preparing for college take the ACT or SAT tests, as well as some Advanced Placements tests. Data showing overall student performance on these tests is made available on a state by state level, and is further discussed on page 29.

## NATIONAL ASSESSMENT OF EDUCATION PROGRESS

The NAEP has been administered on the national level since 1969, periodically testing the subjects of reading, mathematics, science, writing, U.S. history, civics, geography, and the arts. It was not until 1990 that state-level results were reported for participating states. Still, not all states participated until just recently, as the 2001 No Child Left Behind act requires states, as a provision for receiving federal funding, to participate in the fourth and eighth grade tests of reading and writing. Results from these subjects are now available for 2003 and 2005. Science and writing have also been tested recently, but participation was not required, so results are not available for all 50 states.

Scores from the NAEP provide a good comparison of student performance at a state-by-state level. The NAEP data is also broken down by race and ethnic group, and by economic status, allowing a more complete look at a state's performance.

We have collected, and present below, the 2005 NAEP scores for fourth and eighth grade students in the subject areas of mathematics, reading, science, and writing. We rank order the data (from highest to lowest) based on the percentage of eighth-grade students performing at or above proficient levels. The ranking is done at the eighth grade level as this is what we use later to measure Michigan's education performance gap.

## *Mathematics*

For the 2005 NAEP mathematics exam, Massachusetts was the highest performing state, with 43.3 percent of the eighth grade exam participants scoring in the at or above proficient level. Minnesota, the second highest performing state, had 42.7 percent of eighth grade exam participants scoring in the at or above proficient level.

Michigan's eighth grade students ranked 30th in the nation—29.3 percent were at or above proficient. 37.7 percent of Michigan fourth graders were at or above proficient in 2005.

For fourth and eighth grade scores from the top-ten states (ranked by eighth grade scores), see Table 12, "2005 NAEP Student Achievement, Mathematics, All Students," on page 25. NAEP mathematics results at the fourth and eighth grade levels for each state, including performance by race and economic status, are provided in Appendix A: Data Tables.

**TABLE 12. 2005 NAEP Student Achievement, Mathematics, All Students**

| Rank (by eighth grade) | State | % of Eighth Grade Students at or Above Proficient | % of Fourth Grade Students at or Above Proficient |
|---|---|---|---|
| 1 | Massachusetts | 43.3% | 48.8% |
| 2 | Minnesota | 42.7% | 47.3% |
| 3 | Vermont | 37.8% | 43.5% |
| 4 | South Dakota | 36.5% | 40.6% |
| 5 | Montana | 36.0% | 38.3% |
| 6 | Washington | 36.0% | 41.6% |
| 7 | New Jersey | 35.9% | 45.4% |
| 8 | Wisconsin | 35.8% | 40.3% |
| 9 | Nebraska | 34.9% | 36.1% |
| 10 | North Dakota | 34.6% | 40.4% |
| **30** | **Michigan** | **29.3%** | **37.7%** |
| *memo:* | *National Public* | *28.5%* | *35.3%* |

Source: Anderson Economic Group LLC.
Data: National Center for Education Statistics, *The Nation's Report Card*.

*Reading*

On the NAEP reading exam, Massachusetts was again the highest performing state at the eighth grade level, with 44.0 percent of students scoring in the "at or above proficient level." This was 6.0 percent points higher than the second highest performing state, Maine, where 38.0 percent of students obtained a proficient score. Michigan's eighth grade students ranked 31st in the nation, and performed below the national average. 28.5 percent of eighth grade exam participants in Michigan achieved a proficient or better score, while the national average was 28.9 percent. At the fourth grade level, 31.7 percent of Michigan students were at or above proficient, just above the national average of 29.8 percent.

For scores from the top-ten states, see Table 13, "2005 NAEP Student Achievement, Reading, All Students," on page 26. NAEP reading results at the fourth and eighth grade levels for each state, including performance by race and economic status, are provided in Appendix A: Data Tables.

**TABLE 13. 2005 NAEP Student Achievement, Reading, All Students**

| Rank (by eighth grade) | State | % of Eighth Grade Students at or Above Proficient | % of Fourth Grade Students at or Above Proficient |
|---|---|---|---|
| 1 | Massachusetts | 44.0% | 43.7% |
| 2 | Maine | 38.0% | 35.2% |
| 3 | New Hampshire | 37.9% | 38.6% |
| 4 | New Jersey | 37.7% | 37.2% |
| 5 | Vermont | 37.4% | 38.5% |
| 6 | Minnesota | 37.2% | 38.0% |
| 7 | Montana | 36.7% | 35.6% |
| 8 | North Dakota | 36.5% | 35.5% |
| 9 | Pennsylvania | 36.0% | 35.9% |
| 10 | Virginia | 35.7% | 36.9% |
| **31** | **Michigan** | **28.5%** | **31.7%** |
| *memo:* | *National Public* | *28.9%* | *29.8%* |

Source: Anderson Economic Group LLC.
Data: National Center for Education Statistics, *The Nation's Report Card*.

### *Science*

On the NAEP science exam, North Dakota was the highest performing state with 43.0 percent of the eighth grade exam participants scoring in the "at or above proficient level." Michigan students ranked 13th in the nation on the science portion of the NAEP exam. Of the four NAEP exams we analyzed, Michigan eighth graders performed best in science, with 34.8 percent of eighth grade exam participants scoring in the "at or above proficient" level. The national average was 27.3 percent. Michigan students also performed better than the national average at the fourth grade level. However, it should be noted that six states and the District of Columbia did not participate in the 2005 NAEP science exam.

For scores from the top-ten states, see Table 14, "2005 NAEP Student Achievement, Science, All Students," on page 27. Results by grade for each state are provided in Appendix A: Data Tables.

**TABLE 14. 2005 NAEP Student Achievement, Science, All Students**

| Rank (by eighth grade) | State | % of Eighth Grade Students at or Above Proficient | % of Fourth Grade Students at or Above Proficient |
|---|---|---|---|
| 1 | North Dakota | 43.0% | 36.4% |
| 2 | Montana | 41.6% | 36.8% |
| 3 | South Dakota | 40.8% | 34.7% |
| 4 | Vermont | 40.6% | 37.7% |
| 5 | Massachusetts | 40.6% | 38.2% |
| 6 | New Hampshire | 40.5% | 37.2% |
| 7 | Minnesota | 39.3% | 33.4% |
| 8 | Wisconsin | 38.5% | 35.3% |
| 9 | Wyoming | 36.6% | 32.3% |
| 10 | Idaho | 36.5% | 29.3% |
| **13** | **Michigan** | **34.8%** | **30.0%** |
| *memo:* | *National Public* | *27.3%* | *27.0%* |

Source: Anderson Economic Group LLC.
Data: National Center for Education Statistics, *The Nation's Report Card*.
Note: Six states and the District of Columbia did not participate in the 2005 NAEP science exam.

### *Writing*

2002 is the most recent year from which performance data for the NAEP Writing exam is available. This data shows that Connecticut was the highest performing state, with 44.8 percent of the eighth grade exam participants scoring in the "at or above proficient level." Second was Massachusetts, where 41.8 percent of students achieved a proficient score.

Of the four subject areas tested by NAEP in recent years, Michigan students scored the lowest on writing. 24.4 percent of eighth grade exam participants in Michigan achieved a proficient score, while the national average was 29.7 percent. Fourth grade performance in Michigan was no better, with only 19.5 percent of students registering as proficient or better.

For scores from the top-ten states, see Table 15, "2002 NAEP Student Achievement, Writing, All Students," on page 28. Data for each state is provided in Appendix A: Data Tables.

**TABLE 15. 2002 NAEP Student Achievement, Writing, All Students**

| Rank (by eighth grade) | State | % of Eighth Grade Students at or Above Proficient | % of Fourth Grade Students at or Above Proficient |
|---|---|---|---|
| 1 | Connecticut | 44.8% | 49.3% |
| 2 | Massachusetts | 41.8% | 43.8% |
| 3 | Vermont | 41.2% | 31.6% |
| 4 | Ohio | 37.6% | 27.7% |
| 5 | Maine | 36.1% | 31.6% |
| 6 | Delaware | 34.8% | 35.4% |
| 7 | Maryland | 34.5% | 29.8% |
| 8 | North Carolina | 34.3% | 32.2% |
| 9 | Washington | 33.8% | 30.2% |
| 10 | Oregon | 33.1% | 22.3% |
| **27** | **Michigan** | **24.4%** | **19.5%** |
| *memo:* | *National Public* | *29.7%* | *26.5%* |

Source: Anderson Economic Group LLC.
Data: National Center for Education Statistics, *The Nation's Report Card*.
Note: Nine states did not participate in the 2005 NAEP writing exam.

## ACT AND SAT COLLEGE ENTRANCE EXAMS

ACT and SAT scores are commonly used to measure students' preparation for college. However, these tests are not typically required of all students, and there is commonly a fee associated with taking the test. As a result, there is a strong selection bias in the data, as only students planning to attend college typically take the test. Because of this, we caution against using these results as a stand alone indicator of performance.

In this analysis, we review the number of high ACT and SAT scores achieved per 1,000 high school graduates. A score was considered high if the ACT composite score was at or above 26, or the SAT combined verbal and math score was at or above 1200. These scores are approximately in the top 20th percentile for each test. The tests were combined because in some states more students take the SAT, while in other states, more students take the ACT.[17]

**Findings.** As shown in Table 16, the state with the most high scoring students per 1,000 high school graduates was Colorado, where there were 250 high scores for every 1,000 high school graduates. The national average was approximately 175 high scores per 1,000 high school graduates. Michigan test takers ranked slightly above average, and 16th in the nation, with 183 high scores for every 1,000 high school graduates.

**TABLE 16. High ACT and SAT Scores per 1,000 High School Graduates, 2003**

| Rank | State | High Scores per 1,000 Graduates[a] |
|---|---|---|
| 1 | Colorado | 250 |
| 2 | Massachusetts | 231 |
| 3 | Illinois | 227 |
| 4 | Connecticut | 214 |
| 5 | New York | 207 |
| 5 | Ohio | 205 |
| 7 | Minnesota | 201 |
| 8 | Montana | 195 |
| 9 | New Hampshire | 194 |
| 10 | Kansas | 194 |
| **16** | **Michigan** | **183** |
| *memo:* | *United States Average* | *175* |

Source: The National Center for Public Policy and Higher Education, *Measuring Up 2004: The National Report Card on Higher Education.*

17. This metric includes the scores of students from public and private schools, and does double count students who had high scores on both the ACT and the SAT.

a. A high score is defined at 26 or higher on the ACT and a 1200 or higher on the SAT

For ACT and SAT high score data on each of the 50 states please see Table 9 on page 10 of Appendix B.

## ADVANCED PLACEMENT TEST RESULTS

Advanced Placement (AP) tests are standardized tests designed to give high school students an opportunity to gain college credit in certain subjects. Students may enroll in an Advanced Placement class offered by their school in order to prepare for the AP test offered at the end of the school year. A student does not have to take an AP class to participate in an AP test, nor do all AP students have to take the test.

The AP exams are designed to measure how qualified a student is to receive college credit in their tested subject area and are graded on a scale of 1-5 (a score of one indicates "no recommendation for qualification," and a score of five is considered "extremely well qualified"). A score of three is necessary to be considered "qualified" for college credit.[18] While this data does provide some level of college readiness and the rigor of the high school curriculum, it should not be considered alone as some areas may not offer as many AP class opportunities, and others may encourage high school students to take classes at the junior college level to earn early college credits.

The table below illustrates how many scores of three or higher were achieved on AP tests. The results are reported by the number of scores of three or higher that were achieved for every 1,000 11th and 12th graders.[19] The data reports the scores as a proportion of students, but not per student. For example, a student who took more than one AP exam, would have each exam grade counted toward the average.

**Findings.** In 2005, Washington D.C. produced the most AP test scores of three or above per 1,000 11th and 12th grade students. There were 328 AP test scores of three or above for every 1,000 11th and 12th graders in the District of Columbia. This was considerably above the United States Average of 168. Michigan was below the national average and ranked 28th in the nation, with an average of 119 scores of three or above for every 1,000 11th and 12th grade students.

Table 17 below shows Advanced Placement test information from the states with the most high scores per 1,000 high school graduates, as well as for Michigan and the nation as a whole. Please also see Table A-10, "Advanced Place-

18. The College Board

19. Totals include scores from public and private schools.

ment Testing and High Scores per 1,000 11th and 12th Graders," on page A-11 of the data appendix for AP test score data from each of the 50 states.

**TABLE 17. Number of AP Tests with a Score of Three or Above For Every 1,000 11th and 12th Grade Students, 2005**

| Rank | State | Number of AP Tests with a Score of Three or Above (every 1,000 11th & 12th Grade Students) |
|---|---|---|
| 1 | Washington D.C. | 328 |
| 2 | Maryland | 313 |
| 3 | Virginia | 285 |
| 4 | New York | 245 |
| 5 | Connecticut | 236 |
| 6 | Massachusetts | 227 |
| 7 | California | 223 |
| 8 | North Carolina | 219 |
| 9 | Florida | 217 |
| 10 | Delaware | 212 |
| **28** | **Michigan** | **119** |
| *memo* | *United States Average* | *168* |

Source: Anderson Economic Group, LLC. Data: The College Board, AP Summary Reports.

# *VI.Measuring the Performance Gap*

After reviewing the data on state education attainment and participation, school demographics and finance, and student performance, we now turn our attention to measuring the education performance gap, and quantifying how much performance improvement is needed for Michigan schools to be among the nation's best. To do so in a meaningful and useful way, we decided to focus on how well students in the each perform on the National Assessment of Education Progress (NAEP), specifically at the eighth grade level.

We have benchmarked performance using eighth grade NAEP scores as they provide the best overall measure of student performance on a state by state level. Results from the fourth grade NAEP tests were also collected, but benchmarking was done using eighth grade scores as they provide a snapshot of education performance later in the education process. The eighth grade scores also give an indication of readiness for high school, where performance often determines how well a student will perform in the workplace or university.

## DEFINING THE GAP

We have defined the performance gap as the difference between Michigan's percentage of students at or above the proficient level, and the average of the same measure for the top-ten states in each subject area (mathematics, science, reading, and writing). Next we multiplied Michigan's total K-12 public school enrollment by the performance gap in each subject area. This provides an estimate of the number of public school students, by subject, that need to improve to at least the proficient level for Michigan to be a top performing state.

**TABLE 18. Michigan's Performance Gap by Subject Area**

| | Percentage of Students "At or Above Proficient" on NAEP Tests[a] | | | |
|---|---|---|---|---|
| | **Mathematics** | **Reading** | **Science** | **Writing** |
| Top-10 State Average | 37.4% | 37.7% | 39.8% | 37.2% |
| Michigan | 29.3% | 28.5% | 34.8% | 24.4% |
| *Performance Gap* | *8.1%* | *9.2%* | *5.0%* | *12.8%* |
| *Number of Students Requiring Improvement* | *138,746* | *157,282* | *85,479* | *218,827* |

*Source: Anderson Economic Group, LLC*
*Note: Number of students calculation based on 2004-2005 total K-12 enrollment figure of 1,709,583 provided by the Michigan Center for Educational Performance & Information (CEPI).*

a. Based in eighth grade tests from 2005 for mathematics, reading, and science, and from 2002 for writing.

### *The Mathematics Performance Gap*

As shown in Table 12, "2005 NAEP Student Achievement, Mathematics, All Students," on page 25, Michigan ranked 30th in terms of students scoring at or above proficient levels at the eighth grade level. Only 29.3 percent of students in Michigan scored at or above proficient in mathematics, compared to 43.3 percent in the top state, Massachusetts. The average "proficient or above" score for the top-ten states was 37.4 percent, requiring Michigan to increase the number of students at or above proficient levels in mathematics by 8.1 percentage points in order to be among the nation's best. This is the equivalent of 138,476 students across all grades in Michigan public schools who need to improve to at least the proficient level.

### *The Reading Performance Gap*

In 2005, 28.5 percent of eighth grade students in Michigan scored at or above proficient levels on the NAEP reading test. This was 31st in the nation, and well behind the top performing state, Massachusetts, where 44 percent of students scores at or above proficient. The average "at or above proficient" level of the top ten states, as shown in Table 13, "2005 NAEP Student Achievement, Reading, All Students," on page 26, was 37.7 percent. To reach this level, Michigan will need 157,282 more students to reach the at or proficient level in reading.

### *The Science Performance Gap*

Michigan performance on the eighth-grade NAEP science test in 2005 placed the state 13th in terms of the number of students scoring at or above proficient levels.[20] The top state, North Dakota, has 43 percent of its students score at or above proficient levels, while the average "at or above proficient" level in the top-ten states was 39.8 percent, leaving Michigan with a five percentage point performance gap. This represents 85,479 students needing improvement in science. NAEP science scores for the top-ten states and Michigan are shown in Table 14, "2005 NAEP Student Achievement, Science, All Students," on page 27.

### *The Writing Performance Gap*

As shown in Table 15, "2002 NAEP Student Achievement, Writing, All Students," on page 28, Michigan ranked 27th in terms of students scoring at or above proficient levels at the eighth grade level.[21] Only 24.4 percent of student in Michigan scored at or above proficient, compared to 44.8 percent in the top

20. Note: Six states and the District of Columbia did not participate in the 2005 NAEP Science exam.

21. Note: Nine states did not participate in the 2002 NAEP Writing exam

state, Connecticut. The average "proficient or above" score for the top-ten states was 37.2 percent. To reach this level, Michigan needs to increase the number of students at or above proficient levels in writing by 12.8 percentage points. This will require getting 218,827 more students to reach or exceed the proficient level in reading.

## THE WIDER INTERNATIONAL GAP

In today's global economy, it is important not only for Michigan to provide public education that competes with the best in the United States, but also that the public education competes with the best that the world has to offer. This is necessary to retain and attract the knowledge-intensive jobs that provide the foundation for the new economy, both in other states and around the world.

International testing of mathematics and science is conducted and recorded in the Trends in International Mathematics and Science Study (TIMSS). This test provides the best measure of how America's schools compete with other nation's schools in terms of mathematics and science education.[22]

2003 data shows the United States was above the international average, but trailed 14 nations in eighth grade mathematics, and eight nations in eighth grade science. Among the nations leading the United State were Japan, Singapore, Hong Kong, South Korea, Taiwan (Chinese Taipei), Hungary, Estonia, and the Netherlands. Thus, the education performance gap between Michigan and top performers, on the international scale, exceeds the domestic gap identified in this report. To truly be competitive, Michigan needs to set its sites not only on being a top performing state, but also on offering an education on par with the best in the world.

Detailed eighth grade TIMSS results, by subject area, are provided in appendix tables A-11 and A-12.

22. Further information on the TIMSS is available at http://nces.ed.gov/timss

# *VII. Appendix A: Data Tables*

The following pages contain data tables for:

- 2005 NAEP performance by state for fourth and eighth grade mathematics, reading, and science
- 2002 NAEP performance by state for fourth and eighth grade writing
- ACT, SAT, and Advanced Placement exam performance by state
- 2003 TIMSS performance by state for eighth grade mathematics and science
- Per pupil public education expenditures by state
- Per pupil public education revenues by state

**Table A-1. 2005 4th Grade Math NAEP Results: % of Students at or Above Proficient**

| | *Total* | *By Race of Ethnicity* | | | | *Economic Status* | |
|---|---|---|---|---|---|---|---|
| **State** | **All Public** | **Black** | **White** | **Hispanic** | **Asian** | **Free or Reduced Lunch Eligible** | **Not Free or Reduced Lunch Eligible** |
| National Public | 35.3% | 12.8% | 46.7% | 18.9% | 54.4% | 19.2% | 49.5% |
| Alabama | 20.9% | 6.5% | 30.4% | ‡ | ‡ | 9.6% | 34.4% |
| Alaska | 33.7% | 20.2% | 43.7% | 23.3% | 36.3% | 18.0% | 43.8% |
| Arizona | 27.9% | 13.3% | 42.7% | 14.0% | 42.9% | 15.5% | 41.9% |
| Arkansas | 34.0% | 10.1% | 41.8% | 25.1% | ‡ | 21.8% | 48.6% |
| California | 28.0% | 12.3% | 45.9% | 13.9% | 50.7% | 14.6% | 45.2% |
| Colorado | 38.8% | 18.2% | 49.2% | 18.4% | 41.8% | 19.6% | 50.2% |
| Connecticut | 42.5% | 11.0% | 53.4% | 15.2% | 56.6% | 16.2% | 52.2% |
| Delaware | 36.1% | 15.2% | 49.9% | 18.3% | 69.8% | 19.1% | 47.7% |
| District of Columbia | 9.6% | 5.4% | 77.7% | 10.6% | ‡ | 4.5% | 27.2% |
| Florida | 36.6% | 15.7% | 49.3% | 27.5% | 66.4% | 22.4% | 52.7% |
| Georgia | 29.5% | 12.5% | 42.7% | 22.0% | 57.1% | 16.3% | 44.7% |
| Hawaii | 26.7% | 15.7% | 41.7% | 20.5% | 24.6% | 16.6% | 35.4% |
| Idaho | 40.4% | ‡ | 44.5% | 17.4% | ‡ | 28.1% | 49.6% |
| Illinois | 31.6% | 8.9% | 44.2% | 14.3% | 66.5% | 14.8% | 45.3% |
| Indiana | 38.2% | 13.3% | 45.1% | 20.6% | ‡ | 24.2% | 48.8% |
| Iowa | 37.3% | 14.9% | 39.8% | 16.8% | 51.7% | 24.2% | 43.7% |
| Kansas | 46.8% | 23.7% | 52.0% | 29.6% | 71.2% | 30.2% | 58.9% |
| Kentucky | 26.1% | 9.2% | 28.6% | ‡ | ‡ | 16.4% | 37.0% |
| Louisiana | 23.9% | 9.2% | 37.8% | ‡ | ‡ | 15.3% | 41.3% |
| Maine | 38.8% | ‡ | 38.9% | ‡ | ‡ | 24.8% | 45.2% |
| Maryland | 38.0% | 14.3% | 53.4% | 26.3% | 59.5% | 15.9% | 49.3% |
| Massachusetts | 48.8% | 18.4% | 56.6% | 13.9% | 63.6% | 22.3% | 59.5% |
| Michigan | 37.7% | 7.7% | 46.4% | 18.3% | 55.6% | 19.2% | 47.9% |
| Minnesota | 47.3% | 15.2% | 54.0% | 15.1% | 39.7% | 26.7% | 55.8% |
| Mississippi | 19.4% | 6.7% | 32.4% | ‡ | ‡ | 12.3% | 36.4% |
| Missouri | 31.1% | 8.9% | 36.7% | 10.2% | ‡ | 17.2% | 42.0% |
| Montana | 38.3% | ‡ | 41.4% | 29.9% | ‡ | 25.3% | 46.7% |
| Nebraska | 36.1% | 7.5% | 44.1% | 10.1% | ‡ | 18.1% | 48.1% |
| Nevada | 26.1% | 9.6% | 37.5% | 13.4% | 41.7% | 14.0% | 36.3% |
| New Hampshire | 46.9% | ‡ | 47.7% | 17.2% | ‡ | 25.0% | 52.8% |
| New Jersey | 45.4% | 17.4% | 54.8% | 24.8% | 74.1% | 23.0% | 55.8% |
| New Mexico | 19.0% | 6.0% | 34.3% | 13.0% | ‡ | 11.5% | 34.7% |
| New York | 36.1% | 13.2% | 48.9% | 17.2% | 60.7% | 21.0% | 50.0% |
| North Carolina | 39.9% | 16.6% | 52.5% | 26.5% | 63.3% | 22.5% | 54.5% |
| North Dakota | 40.4% | ‡ | 43.3% | ‡ | ‡ | 27.7% | 46.4% |
| Ohio | 42.5% | 15.8% | 50.9% | 20.8% | ‡ | 21.2% | 55.9% |
| Oklahoma | 28.6% | 10.8% | 36.1% | 15.6% | ‡ | 18.7% | 41.4% |
| Oregon | 37.0% | 11.9% | 42.4% | 13.9% | 53.9% | 24.8% | 45.0% |
| Pennsylvania | 41.5% | 13.1% | 49.7% | 16.0% | 63.9% | 20.8% | 53.6% |
| Rhode Island | 30.5% | 9.0% | 37.5% | 9.0% | 38.5% | 12.9% | 41.4% |
| South Carolina | 35.9% | 13.5% | 52.8% | 30.4% | ‡ | 19.4% | 54.1% |
| South Dakota | 40.6% | ‡ | 45.1% | ‡ | ‡ | 25.6% | 51.2% |
| Tennessee | 27.7% | 8.6% | 34.5% | 26.5% | ‡ | 13.8% | 39.8% |
| Texas | 40.0% | 17.7% | 60.0% | 27.9% | 72.4% | 25.6% | 59.2% |
| Utah | 36.8% | ‡ | 41.3% | 13.0% | 33.1% | 23.1% | 44.7% |
| Vermont | 43.5% | ‡ | 43.9% | ‡ | ‡ | 23.1% | 52.8% |
| Virginia | 39.3% | 13.8% | 49.6% | 21.6% | 63.6% | 15.7% | 51.6% |
| Washington | 41.6% | 25.8% | 48.1% | 17.1% | 46.5% | 26.2% | 53.0% |
| West Virginia | 25.1% | 16.9% | 25.3% | ‡ | ‡ | 18.2% | 33.9% |
| Wisconsin | 40.3% | 6.8% | 48.1% | 16.1% | 29.0% | 19.3% | 51.3% |
| Wyoming | 42.6% | ‡ | 44.8% | 30.8% | ‡ | 31.8% | 48.6% |
| *Michigan Rank* | *24* | *36* | *21* | *20* | *15* | *28* | *26* |

Source: National Center for Education Statistics, The Nation's Report Card.

‡ indicates that reporting standards were not met.

**Table A-2. 2005 8th Grade Math NAEP Results: % of Students at or Above Proficient**

| | *Total* | *By Race or Ethnicity* | | | | *Economic Status* | |
|---|---|---|---|---|---|---|---|
| **State** | **All Students** | **Black** | **White** | **Hispanic** | **Asian** | **Free or Reduced Lunch Eligible** | **Not Free or Reduced Lunch Eligible** |
| National Public | 28.5% | 8.3% | 37.3% | 12.9% | 46.5% | 13.3% | 38.5% |
| Alabama | 15.2% | 3.4% | 22.4% | ‡ | ‡ | 5.2% | 23.9% |
| Alaska | 28.7% | 18.8% | 38.0% | 20.5% | 18.7% | 13.8% | 36.5% |
| Arizona | 25.7% | 15.3% | 37.7% | 12.7% | ‡ | 12.4% | 35.2% |
| Arkansas | 22.0% | 4.2% | 28.0% | 14.9% | ‡ | 13.1% | 30.0% |
| California | 21.8% | 6.7% | 33.8% | 8.9% | 44.8% | 9.6% | 33.3% |
| Colorado | 32.0% | 10.6% | 42.8% | 10.1% | ‡ | 13.3% | 40.8% |
| Connecticut | 34.6% | 6.1% | 45.6% | 10.1% | 45.5% | 9.9% | 44.5% |
| Delaware | 29.7% | 12.6% | 40.3% | 15.9% | 58.5% | 13.4% | 36.3% |
| District of Columbia | 6.9% | 3.7% | 69.3% | 8.9% | ‡ | 3.9% | 16.1% |
| Florida | 25.6% | 7.9% | 35.8% | 16.1% | 51.3% | 12.7% | 36.1% |
| Georgia | 23.2% | 7.8% | 33.9% | 11.7% | 52.2% | 9.5% | 34.6% |
| Hawaii | 18.2% | ‡ | 25.4% | 9.0% | 17.2% | 7.4% | 25.9% |
| Idaho | 30.0% | ‡ | 32.7% | 11.2% | ‡ | 19.6% | 35.7% |
| Illinois | 28.6% | 5.9% | 38.6% | 13.3% | 50.2% | 9.9% | 40.2% |
| Indiana | 30.4% | 8.7% | 34.4% | 13.6% | ‡ | 16.3% | 38.9% |
| Iowa | 33.7% | 8.2% | 36.3% | 8.9% | ‡ | 17.0% | 40.4% |
| Kansas | 34.2% | 12.4% | 39.4% | 13.5% | ‡ | 18.7% | 43.3% |
| Kentucky | 22.5% | 8.6% | 24.1% | ‡ | ‡ | 13.5% | 30.6% |
| Louisiana | 16.1% | 5.1% | 25.1% | ‡ | ‡ | 7.5% | 26.7% |
| Maine | 29.9% | ‡ | 30.2% | ‡ | ‡ | 18.2% | 35.0% |
| Maryland | 29.6% | 10.8% | 42.9% | 19.3% | 54.8% | 9.6% | 38.5% |
| Massachusetts | 43.3% | 15.0% | 48.8% | 14.6% | 68.1% | 22.5% | 51.7% |
| Michigan | 29.3% | 6.1% | 35.8% | 16.0% | ‡ | 13.0% | 35.6% |
| Minnesota | 42.7% | 9.0% | 48.9% | 10.4% | 34.5% | 22.1% | 50.4% |
| Mississippi | 13.5% | 3.9% | 23.9% | ‡ | ‡ | 6.7% | 25.1% |
| Missouri | 26.0% | 3.7% | 31.8% | ‡ | ‡ | 12.6% | 35.1% |
| Montana | 36.0% | ‡ | 39.0% | ‡ | ‡ | 20.8% | 43.0% |
| Nebraska | 34.9% | 1.6% | 39.9% | 9.9% | ‡ | 17.4% | 42.9% |
| Nevada | 21.3% | 6.6% | 29.4% | 9.6% | 30.4% | 9.7% | 26.9% |
| New Hampshire | 34.6% | ‡ | 34.8% | ‡ | ‡ | 16.5% | 37.9% |
| New Jersey | 35.9% | 11.3% | 46.8% | 14.8% | 63.0% | 13.7% | 44.1% |
| New Mexico | 14.0% | 13.3% | 26.4% | 7.9% | ‡ | 7.3% | 24.6% |
| New York | 30.8% | 11.2% | 40.5% | 14.2% | 50.5% | 19.4% | 41.5% |
| North Carolina | 31.9% | 12.4% | 42.3% | 15.8% | 52.6% | 15.1% | 43.2% |
| North Dakota | 34.6% | ‡ | 37.4% | ‡ | ‡ | 20.3% | 40.1% |
| Ohio | 33.1% | 7.1% | 38.2% | 11.0% | ‡ | 15.5% | 39.3% |
| Oklahoma | 20.6% | 3.7% | 25.8% | 10.7% | ‡ | 10.4% | 30.9% |
| Oregon | 33.7% | 8.8% | 37.9% | 10.1% | 49.8% | 20.4% | 40.9% |
| Pennsylvania | 30.9% | 6.5% | 36.0% | 13.4% | 48.8% | 12.4% | 39.4% |
| Rhode Island | 23.5% | 5.2% | 29.5% | 4.2% | 26.1% | 7.4% | 30.9% |
| South Carolina | 29.9% | 9.6% | 43.8% | 19.1% | ‡ | 14.7% | 43.4% |
| South Dakota | 36.5% | ‡ | 40.1% | ‡ | ‡ | 23.6% | 43.6% |
| Tennessee | 20.6% | 3.5% | 25.9% | ‡ | ‡ | 9.2% | 29.7% |
| Texas | 30.7% | 13.0% | 46.2% | 18.6% | 60.9% | 16.5% | 43.2% |
| Utah | 29.5% | ‡ | 32.7% | 9.3% | 26.2% | 20.0% | 33.9% |
| Vermont | 37.8% | ‡ | 38.6% | ‡ | ‡ | 21.1% | 44.2% |
| Virginia | 33.4% | 9.0% | 42.7% | 19.7% | 53.2% | 11.2% | 41.4% |
| Washington | 36.0% | 15.1% | 39.4% | 15.4% | 44.8% | 19.7% | 44.5% |
| West Virginia | 17.9% | 5.7% | 18.1% | ‡ | ‡ | 10.0% | 25.3% |
| Wisconsin | 35.8% | 5.3% | 41.8% | 16.3% | 31.6% | 15.0% | 43.4% |
| Wyoming | 29.0% | ‡ | 31.5% | 11.2% | ‡ | 17.2% | 34.2% |
| *Michigan Rank* | *30* | *27* | *30* | *8* | ‡ | *30* | *31* |

Source: National Center for Education Statistics, The Nation's Report Card.

‡ indicates that reporting standards were not met.

**Table A-3. 2005 4th Grade Reading NAEP Results: % of Students at or Above Proficient**

| | *Total* | *By Race or Ethnicity* | | | | *Economic Status* | |
|---|---|---|---|---|---|---|---|
| **State** | **All Public** | **Black** | **White** | **Hispanic** | **Asian** | **Free or Reduced Lunch Eligible** | **Not Free or Reduced Lunch Eligible** |
| National Public | 29.8% | 13.0% | 36.7% | 14.9% | 41.6% | 15.5% | 41.8% |
| Alabama | 22.3% | 8.2% | 32.2% | ‡ | ‡ | 12.3% | 34.3% |
| Alaska | 26.7% | ‡ | ‡ | 18.8% | ‡ | 13.8% | 34.8% |
| Arizona | 23.6% | 9.8% | 30.5% | 11.0% | 30.7% | 12.2% | 36.1% |
| Arkansas | 29.7% | 10.9% | 36.4% | 20.5% | ‡ | 18.9% | 42.9% |
| California | 21.4% | 9.3% | 26.9% | 10.3% | 36.8% | 10.2% | 36.0% |
| Colorado | 36.6% | 17.0% | 42.1% | 17.1% | 39.7% | 19.7% | 45.7% |
| Connecticut | 38.3% | 14.3% | 44.7% | 14.8% | 61.9% | 13.5% | 47.9% |
| Delaware | 34.2% | 15.9% | 44.3% | 22.1% | 50.9% | 18.3% | 43.5% |
| District of Columbia | 11.2% | 8.1% | 34.8% | 11.6% | ‡ | 5.8% | 29.3% |
| Florida | 30.1% | 15.1% | 37.7% | 25.3% | 38.8% | 19.2% | 42.0% |
| Georgia | 26.3% | 13.2% | 36.2% | 13.9% | 50.5% | 12.6% | 41.1% |
| Hawaii | 23.4% | 15.0% | 33.3% | 26.6% | 38.4% | 12.2% | 33.4% |
| Idaho | 32.9% | 12.6% | 37.3% | 11.4% | ‡ | 20.6% | 41.5% |
| Illinois | 29.4% | 10.0% | 37.6% | 14.0% | 46.1% | 13.2% | 41.2% |
| Indiana | 30.3% | 11.8% | 34.8% | 11.3% | ‡ | 19.0% | 38.9% |
| Iowa | 33.0% | 12.5% | 35.5% | 15.1% | 42.1% | 19.8% | 39.6% |
| Kansas | 32.5% | 12.4% | 36.3% | 13.9% | 49.7% | 19.6% | 42.4% |
| Kentucky | 30.8% | 16.0% | 33.5% | ‡ | ‡ | 22.1% | 39.5% |
| Louisiana | 20.4% | 9.0% | 32.1% | ‡ | ‡ | 12.4% | 35.9% |
| Maine | 35.2% | ‡ | 36.2% | ‡ | ‡ | 22.1% | 41.9% |
| Maryland | 32.3% | 13.7% | 43.5% | 21.3% | 57.7% | 11.0% | 42.7% |
| Massachusetts | 43.7% | 20.8% | 49.3% | 11.0% | 50.6% | 19.0% | 52.8% |
| Michigan | 31.7% | 12.1% | 38.1% | 17.6% | 40.9% | 16.1% | 40.0% |
| Minnesota | 38.0% | 11.0% | 43.1% | 18.0% | 29.7% | 21.7% | 44.5% |
| Mississippi | 18.2% | 7.0% | 31.0% | ‡ | ‡ | 10.8% | 33.7% |
| Missouri | 32.7% | 14.5% | 37.3% | 21.3% | ‡ | 20.4% | 42.3% |
| Montana | 35.6% | 23.2% | 38.7% | 35.9% | ‡ | 21.6% | 44.3% |
| Nebraska | 33.5% | 11.7% | 37.7% | 11.9% | 42.3% | 16.1% | 44.6% |
| Nevada | 20.5% | 10.3% | 25.8% | 12.0% | 26.1% | 8.8% | 29.6% |
| New Hampshire | 38.6% | 27.8% | 39.5% | ‡ | 53.0% | 21.4% | 43.1% |
| New Jersey | 37.2% | 15.6% | 43.5% | 19.2% | 62.4% | 17.1% | 45.5% |
| New Mexico | 20.5% | 14.1% | 25.9% | 13.5% | 26.0% | 13.4% | 36.3% |
| New York | 33.3% | 17.9% | 39.2% | 17.5% | 54.6% | 19.6% | 46.3% |
| North Carolina | 29.3% | 14.5% | 38.3% | 17.5% | 34.0% | 14.3% | 41.1% |
| North Dakota | 35.5% | 24.9% | 38.3% | ‡ | ‡ | 22.9% | 41.8% |
| Ohio | 34.4% | 12.9% | 40.8% | 23.6% | 31.2% | 16.7% | 45.0% |
| Oklahoma | 25.1% | 12.2% | 28.8% | 16.6% | ‡ | 17.4% | 35.2% |
| Oregon | 29.4% | 15.2% | 34.1% | 10.2% | 33.0% | 16.7% | 37.1% |
| Pennsylvania | 35.9% | 16.2% | 41.5% | 18.6% | 47.1% | 17.1% | 46.4% |
| Rhode Island | 29.7% | 16.0% | 34.5% | 11.0% | 28.2% | 13.4% | 39.5% |
| South Carolina | 25.6% | 11.0% | 36.2% | 29.2% | ‡ | 12.9% | 39.9% |
| South Dakota | 32.9% | 18.3% | 36.6% | ‡ | ‡ | 19.9% | 42.0% |
| Tennessee | 26.7% | 11.6% | 32.9% | 12.7% | ‡ | 14.2% | 37.0% |
| Texas | 29.0% | 13.8% | 36.6% | 18.5% | 38.9% | 16.7% | 43.6% |
| Utah | 34.1% | 15.4% | 37.7% | 14.3% | 44.7% | 20.5% | 41.4% |
| Vermont | 38.5% | ‡ | 39.1% | ‡ | ‡ | 20.8% | 45.9% |
| Virginia | 36.9% | 16.3% | 44.7% | 25.6% | 53.5% | 16.3% | 47.1% |
| Washington | 35.5% | 21.1% | 39.5% | 13.6% | 39.8% | 23.4% | 44.0% |
| West Virginia | 25.6% | 16.1% | 26.6% | ‡ | ‡ | 16.6% | 35.7% |
| Wisconsin | 33.1% | 12.8% | 37.9% | 20.5% | 36.6% | 15.9% | 41.7% |
| Wyoming | 34.5% | 16.1% | 37.3% | 16.0% | ‡ | 26.7% | 39.3% |
| *Michigan Rank* | *27* | *34* | *18* | *17* | *16* | *31* | *31* |

Source: National Center for Education Statistics, The Nation's Report Card.

‡ indicates that reporting standards were not met.

**Table A-4. 2005 8th Grade Reading NAEP Results: % of Students at or Above Proficient**

| State | *Total* | *By Race or Ethnicity* | | | | *Economic Status* | |
|---|---|---|---|---|---|---|---|
| | **All Students** | **Black** | **White** | **Hispanic** | **Asian** | **Free or Reduced Lunch Eligible** | **Not Free or Reduced Lunch Eligible** |
| National Public | 28.9% | 11.4% | 37.4% | 13.9% | 39.1% | 15.1% | 38.0% |
| Alabama | 21.9% | 8.7% | 30.8% | ‡ | ‡ | 10.9% | 32.0% |
| Alaska | 26.4% | 17.6% | 35.2% | 19.9% | 24.2% | 11.8% | 33.4% |
| Arizona | 23.1% | 12.4% | 34.4% | 10.8% | ‡ | 10.9% | 32.4% |
| Arkansas | 25.9% | 8.7% | 32.8% | 12.8% | ‡ | 16.2% | 35.0% |
| California | 20.5% | 11.3% | 32.3% | 10.2% | 32.7% | 10.3% | 30.1% |
| Colorado | 31.9% | 18.0% | 39.8% | 14.7% | 41.7% | 15.1% | 39.3% |
| Connecticut | 33.6% | 10.8% | 41.9% | 13.3% | 49.9% | 12.5% | 41.7% |
| Delaware | 30.3% | 12.8% | 40.8% | 16.4% | 42.2% | 16.0% | 35.6% |
| District of Columbia | 11.7% | 8.7% | 74.3% | 17.7% | ‡ | 8.4% | 20.3% |
| Florida | 25.1% | 10.5% | 32.6% | 21.0% | 46.7% | 16.5% | 32.0% |
| Georgia | 24.9% | 9.8% | 35.1% | 14.2% | 47.1% | 11.6% | 36.4% |
| Hawaii | 18.3% | ‡ | 28.9% | 15.1% | 16.0% | 11.3% | 23.5% |
| Idaho | 32.2% | ‡ | 34.4% | 14.3% | ‡ | 22.5% | 37.9% |
| Illinois | 31.0% | 12.3% | 39.4% | 18.8% | 48.6% | 14.9% | 40.8% |
| Indiana | 28.4% | 9.8% | 31.7% | 16.8% | ‡ | 17.6% | 34.6% |
| Iowa | 33.8% | 15.0% | 35.6% | 19.6% | ‡ | 22.1% | 38.6% |
| Kansas | 34.8% | 15.0% | 39.4% | 14.2% | ‡ | 20.6% | 43.4% |
| Kentucky | 30.6% | 14.8% | 32.2% | ‡ | ‡ | 21.5% | 38.3% |
| Louisiana | 19.9% | 8.6% | 29.5% | ‡ | ‡ | 12.1% | 30.3% |
| Maine | 38.0% | ‡ | 38.6% | ‡ | ‡ | 26.8% | 43.2% |
| Maryland | 29.9% | 12.0% | 41.9% | 23.0% | 58.3% | 11.7% | 38.2% |
| Massachusetts | 44.0% | 17.8% | 50.1% | 14.6% | 51.9% | 22.6% | 52.3% |
| Michigan | 28.5% | 10.0% | 34.0% | 15.6% | ‡ | 13.9% | 34.2% |
| Minnesota | 37.2% | 11.0% | 41.9% | 13.9% | 28.8% | 18.8% | 44.2% |
| Mississippi | 18.5% | 7.0% | 30.1% | ‡ | ‡ | 10.0% | 32.8% |
| Missouri | 30.9% | 8.6% | 35.9% | 23.3% | ‡ | 18.5% | 38.5% |
| Montana | 36.7% | ‡ | 39.6% | ‡ | ‡ | 24.8% | 41.8% |
| Nebraska | 34.5% | 13.4% | 38.2% | 12.1% | ‡ | 18.6% | 41.4% |
| Nevada | 22.4% | 12.2% | 29.3% | 11.3% | 32.4% | 11.8% | 27.9% |
| New Hampshire | 37.9% | ‡ | 38.4% | ‡ | ‡ | 21.1% | 41.3% |
| New Jersey | 37.7% | 14.3% | 47.9% | 14.3% | 66.1% | 16.9% | 44.6% |
| New Mexico | 19.2% | ‡ | 33.3% | 12.3% | ‡ | 12.2% | 29.9% |
| New York | 33.5% | 11.4% | 44.9% | 16.3% | 44.6% | 19.8% | 45.5% |
| North Carolina | 26.9% | 9.8% | 35.5% | 17.5% | 46.4% | 13.7% | 35.5% |
| North Dakota | 36.5% | ‡ | 38.4% | ‡ | ‡ | 24.2% | 41.1% |
| Ohio | 35.5% | 10.0% | 41.2% | 13.9% | ‡ | 18.2% | 43.3% |
| Oklahoma | 25.3% | 13.1% | 30.4% | 12.6% | ‡ | 17.8% | 32.6% |
| Oregon | 32.6% | 17.8% | 36.2% | 14.6% | 35.5% | 20.7% | 38.3% |
| Pennsylvania | 36.0% | 11.6% | 41.4% | 17.2% | 47.2% | 15.9% | 45.7% |
| Rhode Island | 29.4% | 10.6% | 35.7% | 8.7% | 25.8% | 12.1% | 36.8% |
| South Carolina | 24.7% | 10.8% | 34.0% | ‡ | ‡ | 13.3% | 35.3% |
| South Dakota | 35.1% | ‡ | 38.1% | ‡ | ‡ | 24.2% | 40.9% |
| Tennessee | 26.2% | 9.3% | 31.0% | ‡ | ‡ | 14.2% | 34.7% |
| Texas | 26.1% | 14.4% | 38.7% | 15.3% | 49.7% | 14.2% | 37.2% |
| Utah | 29.3% | ‡ | 31.9% | 12.3% | 30.5% | 22.0% | 32.7% |
| Vermont | 37.4% | ‡ | 37.7% | ‡ | ‡ | 22.3% | 43.6% |
| Virginia | 35.7% | 16.5% | 44.6% | 22.5% | 52.4% | 17.7% | 42.3% |
| Washington | 34.3% | 27.2% | 37.7% | 15.2% | 35.5% | 19.9% | 41.8% |
| West Virginia | 21.9% | 10.3% | 22.3% | ‡ | ‡ | 12.6% | 29.8% |
| Wisconsin | 34.9% | 8.9% | 39.6% | 18.0% | 27.9% | 19.2% | 40.3% |
| Wyoming | 35.7% | ‡ | 37.9% | 20.5% | ‡ | 25.6% | 39.7% |
| *Michigan Rank* | *31* | *28* | *36* | *16* | ‡ | *34* | *37* |

Source: National Center for Education Statistics, The Nation's Report Card.

‡ indicates that reporting standards were not met.

**Table A-5. 2005 4th Grade Science NAEP Results: % of Students at or Above Proficient**

| | *Total* | *By Race or Ethnicity* | | | | *Economic Status* | |
|---|---|---|---|---|---|---|---|
| **State** | **All Public** | **Black** | **White** | **Hispanic** | **Asian** | **Free or Reduced Lunch Eligible** | **Not Free or Reduced Lunch Eligible** |
| National Public | 27.0% | 13.7% | 38.5% | 16.6% | 34.0% | 11.9% | 39.9% |
| Alabama | 20.6% | 7.4% | 31.4% | ‡ | ‡ | 8.4% | 35.0% |
| Alaska | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| Arizona | 17.6% | 14.8% | 29.7% | 8.0% | 40.0% | 7.1% | 29.3% |
| Arkansas | 24.3% | 9.4% | 31.6% | 10.7% | ‡ | 13.7% | 36.7% |
| California | 17.3% | 14.5% | 33.5% | 13.5% | 32.0% | 5.8% | 31.5% |
| Colorado | 31.8% | ‡ | 41.3% | ‡ | 32.0% | 13.0% | 42.2% |
| Connecticut | 32.6% | 22.0% | 41.8% | 25.6% | 44.0% | 9.2% | 41.7% |
| Delaware | 26.7% | 21.2% | 38.3% | 19.8% | 48.0% | 13.0% | 35.2% |
| District of Columbia | ‡ | 8.4% | ‡ | 10.5% | ‡ | ‡ | ‡ |
| Florida | 25.5% | 20.1% | 37.8% | 29.8% | 35.0% | 13.1% | 38.8% |
| Georgia | 24.9% | 13.2% | 38.8% | 13.5% | 46.0% | 12.0% | 39.6% |
| Hawaii | 18.6% | 20.7% | 30.5% | 18.2% | 16.0% | 9.1% | 26.8% |
| Idaho | 29.3% | ‡ | 33.4% | 10.0% | ‡ | 17.6% | 38.0% |
| Illinois | 26.6% | ‡ | 39.3% | ‡ | 49.0% | 10.5% | 38.9% |
| Indiana | 27.3% | 11.5% | 33.1% | 16.8% | ‡ | 13.3% | 37.6% |
| Iowa | ‡ | 20.9% | ‡ | 13.2% | ‡ | ‡ | ‡ |
| Kansas | ‡ | 8.7% | ‡ | 10.5% | ‡ | ‡ | ‡ |
| Kentucky | 35.7% | 15.5% | 38.8% | ‡ | ‡ | 26.4% | 46.7% |
| Louisiana | 20.3% | 7.5% | 35.1% | ‡ | ‡ | 12.4% | 37.2% |
| Maine | 36.1% | ‡ | 36.7% | ‡ | ‡ | 22.6% | 42.6% |
| Maryland | 26.7% | 17.1% | 39.9% | 19.8% | 41.0% | 7.4% | 36.5% |
| Massachusetts | 38.2% | 21.4% | 45.4% | 14.3% | 47.0% | 13.8% | 48.5% |
| Michigan | 30.0% | 8.2% | 39.7% | 11.5% | 35.0% | 12.3% | 39.5% |
| Minnesota | 33.4% | 12.2% | 38.5% | 8.5% | 26.0% | 15.0% | 41.4% |
| Mississippi | 12.4% | 6.2% | 23.9% | ‡ | ‡ | 6.0% | 27.3% |
| Missouri | 35.8% | 11.1% | 41.9% | ‡ | ‡ | 21.2% | 47.0% |
| Montana | 36.8% | ‡ | 40.7% | ‡ | ‡ | 21.8% | 47.1% |
| Nebraska | ‡ | 15.8% | ‡ | 9.9% | ‡ | ‡ | ‡ |
| Nevada | 17.0% | 9.2% | 25.3% | 9.8% | 19.0% | 7.9% | 24.6% |
| New Hampshire | 37.2% | ‡ | 38.1% | ‡ | ‡ | 21.1% | 41.6% |
| New Jersey | 31.5% | ‡ | 42.5% | ‡ | 44.0% | 11.4% | 40.2% |
| New Mexico | 17.9% | ‡ | 37.4% | 14.8% | ‡ | 9.9% | 36.0% |
| New York | ‡ | 21.2% | ‡ | 23.2% | ‡ | ‡ | ‡ |
| North Carolina | 25.2% | 20.2% | 35.9% | 19.7% | 32.0% | 10.4% | 37.5% |
| North Dakota | 36.4% | ‡ | 39.3% | ‡ | ‡ | 22.0% | 43.4% |
| Ohio | 34.8% | 11.3% | 42.8% | ‡ | ‡ | 14.7% | 46.6% |
| Oklahoma | 25.1% | 8.5% | 32.5% | 7.0% | ‡ | 14.1% | 40.6% |
| Oregon | 26.1% | 13.5% | 31.7% | 9.0% | 30.0% | 12.6% | 35.1% |
| Pennsylvania | ‡ | 9.5% | ‡ | 8.9% | ‡ | ‡ | ‡ |
| Rhode Island | 23.1% | 13.0% | 29.6% | 8.8% | 18.0% | 8.6% | 32.1% |
| South Carolina | 25.3% | 8.9% | 38.8% | ‡ | ‡ | 11.1% | 40.6% |
| South Dakota | 34.7% | ‡ | 38.9% | ‡ | ‡ | 22.4% | 43.5% |
| Tennessee | 26.4% | 11.6% | 33.6% | 14.1% | ‡ | 12.9% | 38.1% |
| Texas | 25.2% | 16.9% | 43.5% | 20.2% | 45.0% | 12.6% | 41.3% |
| Utah | 32.7% | ‡ | 37.4% | 6.4% | 21.0% | 19.3% | 41.0% |
| Vermont | 37.7% | ‡ | 38.2% | ‡ | ‡ | 19.2% | 46.3% |
| Virginia | 39.7% | 11.8% | 52.6% | 18.2% | 50.0% | 17.3% | 51.4% |
| Washington | 28.4% | 19.2% | 34.4% | 12.4% | 29.0% | 13.6% | 38.5% |
| West Virginia | 23.7% | 17.9% | 24.3% | ‡ | ‡ | 15.1% | 34.1% |
| Wisconsin | 35.3% | ‡ | 42.3% | ‡ | 25.0% | 17.7% | 43.6% |
| Wyoming | 32.3% | ‡ | 35.1% | 16.1% | ‡ | 19.5% | 40.3% |
| *Michigan Rank* | *19* | *33* | *12* | *19* | *11* | *29* | *23* |

Source: National Center for Education Statistics, The Nation's Report Card.

Note: 6 states did not participate in the testing.

‡ indicates that reporting standards were not met.

**Table A-6. 2005 8th Grade Science NAEP Results: % of Students at or Above Proficient**

| State | *Total* | *By Race or Ethnicity* | | | | *Economic Status* | |
|---|---|---|---|---|---|---|---|
| | **All Students** | **Black** | **White** | **Hispanic** | **Asian** | **Free or Reduced Lunch Eligible** | **Not Free or Reduced Lunch Eligible** |
| National Public | 27.3% | 6.6% | 37.8% | 9.8% | 34.4% | 11.9% | 37.6% |
| Alabama | 19.4% | 3.4% | 28.8% | ‡ | ‡ | 8.4% | 29.7% |
| Alaska | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| Arizona | 20.0% | 7.0% | 32.7% | 6.0% | ‡ | 6.9% | 28.7% |
| Arkansas | 23.4% | 3.5% | 30.4% | 11.5% | ‡ | 12.5% | 34.0% |
| California | 18.1% | 5.6% | 31.8% | 6.8% | 30.5% | 7.2% | 28.1% |
| Colorado | 34.8% | 11.6% | 46.3% | 11.5% | 36.9% | 12.4% | 45.0% |
| Connecticut | 32.8% | 5.7% | 43.6% | 7.1% | 42.0% | 9.4% | 41.5% |
| Delaware | 29.3% | 10.3% | 40.4% | 15.2% | 46.9% | 11.9% | 36.5% |
| District of Columbia | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| Florida | 21.5% | 5.7% | 31.9% | 13.6% | 28.9% | 11.5% | 30.2% |
| Georgia | 25.4% | 7.8% | 38.4% | 15.2% | 49.5% | 9.7% | 38.6% |
| Hawaii | 15.2% | ‡ | 29.5% | 10.8% | 12.0% | 6.7% | 21.8% |
| Idaho | 36.5% | ‡ | 40.0% | 10.1% | ‡ | 24.4% | 43.7% |
| Illinois | 27.5% | 4.0% | 39.1% | 9.0% | 45.7% | 8.6% | 40.1% |
| Indiana | 28.9% | 4.1% | 33.9% | 10.3% | ‡ | 14.7% | 36.6% |
| Iowa | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| Kansas | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| Kentucky | 30.5% | 7.4% | 33.2% | ‡ | ‡ | 21.2% | 38.3% |
| Louisiana | 19.3% | 4.9% | 30.7% | ‡ | ‡ | 9.8% | 31.3% |
| Maine | 34.5% | ‡ | 35.0% | ‡ | ‡ | 25.2% | 38.5% |
| Maryland | 25.8% | 6.2% | 39.5% | 13.5% | 46.2% | 7.7% | 34.6% |
| Massachusetts | 40.6% | 10.5% | 48.1% | 9.4% | 45.4% | 18.4% | 49.3% |
| Michigan | 34.8% | 7.7% | 43.0% | 10.6% | ‡ | 19.4% | 40.9% |
| Minnesota | 39.3% | 5.4% | 46.6% | 13.9% | 15.0% | 20.0% | 47.1% |
| Mississippi | 14.0% | 3.1% | 25.0% | ‡ | ‡ | 5.8% | 27.8% |
| Missouri | 32.7% | 6.1% | 39.4% | 23.2% | ‡ | 18.0% | 41.3% |
| Montana | 41.6% | ‡ | 45.1% | ‡ | ‡ | 25.6% | 49.3% |
| Nebraska | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| Nevada | 19.1% | 3.7% | 28.5% | 6.2% | 28.0% | 8.0% | 25.1% |
| New Hampshire | 40.5% | ‡ | 41.4% | ‡ | ‡ | 25.7% | 43.8% |
| New Jersey | 33.1% | 10.9% | 44.6% | 12.5% | 53.1% | 10.7% | 41.9% |
| New Mexico | 18.4% | 14.4% | 36.1% | 9.3% | ‡ | 10.2% | 31.3% |
| New York | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| North Carolina | 22.2% | 5.6% | 30.6% | 13.4% | 39.7% | 10.0% | 30.5% |
| North Dakota | 43.0% | ‡ | 46.8% | ‡ | ‡ | 27.4% | 49.2% |
| Ohio | 35.2% | 7.1% | 41.1% | 24.2% | ‡ | 12.8% | 45.4% |
| Oklahoma | 25.3% | 7.1% | 32.4% | 16.4% | ‡ | 16.4% | 34.3% |
| Oregon | 32.2% | 10.3% | 37.2% | 9.4% | 35.3% | 18.8% | 39.0% |
| Pennsylvania | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| Rhode Island | 25.9% | 5.3% | 32.7% | 4.1% | 20.1% | 8.8% | 33.3% |
| South Carolina | 22.8% | 5.8% | 34.9% | 16.5% | ‡ | 9.0% | 35.4% |
| South Dakota | 40.8% | ‡ | 45.2% | ‡ | ‡ | 27.2% | 48.8% |
| Tennessee | 25.0% | 6.7% | 30.8% | ‡ | ‡ | 12.9% | 34.3% |
| Texas | 23.1% | 7.8% | 38.0% | 11.4% | 40.6% | 10.0% | 34.5% |
| Utah | 33.1% | ‡ | 36.9% | 12.2% | 18.8% | 22.0% | 38.8% |
| Vermont | 40.6% | ‡ | 41.0% | ‡ | ‡ | 25.8% | 45.6% |
| Virginia | 34.5% | 10.2% | 45.4% | 21.6% | 38.1% | 13.0% | 43.1% |
| Washington | 32.8% | 15.2% | 38.7% | 8.1% | 25.5% | 17.6% | 40.8% |
| West Virginia | 23.4% | 10.5% | 23.7% | ‡ | ‡ | 13.4% | 32.2% |
| Wisconsin | 38.5% | 6.2% | 45.0% | 13.0% | 32.9% | 17.8% | 45.6% |
| Wyoming | 36.6% | ‡ | 38.8% | 20.5% | ‡ | 21.9% | 42.8% |
| *Michigan Rank* | *13* | *12* | *11* | *20* | ‡ | *12* | *17* |

Source: National Center for Education Statistics, The Nation's Report Card.

Note: 7 states did not participate in the testing.

‡ indicates that reporting standards were not met.

**Table A-7. 2002 4th Grade Writing NAEP Results: % of Students at or Above Proficient**

| | *Total* | *By Race or Ethnicity* | | | | *Economic Status* | |
|---|---|---|---|---|---|---|---|
| **State** | **All Public** | **Black** | **White** | **Hispanic** | **Asian** | **Free or Reduced Lunch Eligible** | **Not Free or Reduced Lunch Eligible** |
| National Public | 26.5% | 13.7% | 32.4% | 16.6% | 40.2% | 15.2% | 36.1% |
| Alabama | 15.4% | 7.4% | 20.0% | ‡ | ‡ | 6.9% | 25.7% |
| Alaska | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| Arizona | 15.4% | 14.8% | 21.2% | 8.0% | ‡ | 7.4% | 22.6% |
| Arkansas | 18.8% | 9.4% | 22.5% | 10.7% | ‡ | 12.3% | 27.5% |
| California | 22.5% | 14.5% | 31.5% | 13.5% | 38.4% | 11.9% | 36.2% |
| Colorado` | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| Connecticut | 49.3% | 22.0% | 58.0% | 25.6% | 54.7% | 26.7% | 57.3% |
| Delaware | 35.4% | 21.2% | 44.3% | 19.8% | 56.1% | 19.6% | 44.8% |
| District of Columbia | 11.4% | 8.4% | 63.9% | 10.5% | ‡ | 7.1% | 26.5% |
| Florida | 32.8% | 20.1% | 39.0% | 29.8% | ‡ | 24.0% | 43.8% |
| Georgia | 23.3% | 13.2% | 30.2% | 13.5% | 41.7% | 13.7% | 33.0% |
| Hawaii | 22.1% | 20.7% | 24.1% | 18.2% | 21.7% | 14.5% | 29.0% |
| Idaho | 22.2% | ‡ | 24.1% | 10.0% | ‡ | 13.5% | 28.8% |
| Illinois | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| Indiana | 26.0% | 11.5% | 28.3% | 16.8% | ‡ | 14.0% | 31.2% |
| Iowa | 26.8% | 20.9% | 28.1% | 13.2% | ‡ | 14.1% | 32.0% |
| Kansas | 21.0% | 8.7% | 23.9% | 10.5% | ‡ | 10.7% | 28.8% |
| Kentucky | 27.3% | 15.5% | 28.8% | ‡ | ‡ | 17.4% | 37.8% |
| Louisiana | 14.0% | 7.5% | 20.8% | ‡ | ‡ | 8.5% | 25.2% |
| Maine | 31.6% | ‡ | 31.6% | ‡ | ‡ | 17.5% | 37.9% |
| Maryland | 29.8% | 17.1% | 39.1% | 19.8% | 44.0% | 18.1% | 37.3% |
| Massachusetts | 43.8% | 21.4% | 49.5% | 14.3% | 42.5% | 22.0% | 52.3% |
| Michigan | 19.5% | 8.2% | 22.9% | 11.5% | ‡ | 8.2% | 27.6% |
| Minnesota | 28.7% | 12.2% | 31.4% | 8.5% | 25.4% | 21.7% | 32.8% |
| Mississippi | 12.7% | 6.2% | 19.7% | ‡ | ‡ | 7.6% | 26.4% |
| Missouri | 21.7% | 11.1% | 23.9% | ‡ | ‡ | 11.1% | 28.9% |
| Montana | 21.6% | ‡ | 23.5% | ‡ | ‡ | 14.3% | 27.4% |
| Nebraska | 27.1% | 15.8% | 30.3% | 9.9% | ‡ | 16.8% | 34.0% |
| Nevada | 17.6% | 9.2% | 22.2% | 9.8% | 31.7% | 10.6% | 22.3% |
| New Hampshire | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| New Jersey | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| New Mexico | 17.6% | ‡ | 24.9% | 14.8% | ‡ | 12.2% | 29.7% |
| New York | 37.0% | 21.2% | 46.6% | 23.2% | 51.7% | 23.2% | 47.2% |
| North Carolina | 32.2% | 20.2% | 39.9% | 19.7% | 39.5% | 19.9% | 45.1% |
| North Dakota | 19.7% | ‡ | 20.6% | ‡ | ‡ | 13.8% | 22.4% |
| Ohio | 27.7% | 11.3% | 32.5% | ‡ | ‡ | 13.7% | 35.1% |
| Oklahoma | 16.4% | 8.5% | 20.2% | 7.0% | ‡ | 11.2% | 23.1% |
| Oregon | 22.3% | 13.5% | 23.7% | 9.0% | 39.4% | 13.2% | 30.7% |
| Pennsylvania | 28.6% | 9.5% | 33.4% | 8.9% | ‡ | 10.2% | 38.4% |
| Rhode Island | 30.3% | 13.0% | 37.0% | 8.8% | 21.5% | 13.8% | 42.2% |
| South Carolina | 17.2% | 8.9% | 23.4% | ‡ | ‡ | 9.7% | 26.2% |
| South Dakota | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| Tennessee | 22.7% | 11.6% | 26.3% | 14.1% | ‡ | 13.8% | 31.2% |
| Texas | 28.7% | 16.9% | 42.4% | 20.2% | 48.7% | 22.0% | 38.1% |
| Utah | 19.7% | ‡ | 21.5% | 6.4% | 15.0% | 13.5% | 23.3% |
| Vermont | 31.6% | ‡ | 31.7% | ‡ | ‡ | 16.0% | 36.8% |
| Virginia | 29.5% | 11.8% | 35.7% | 18.2% | 41.9% | 11.8% | 37.9% |
| Washington | 30.2% | 19.2% | 32.9% | 12.4% | 32.1% | 15.9% | 37.4% |
| West Virginia | 19.1% | 17.9% | 18.9% | ‡ | ‡ | 11.9% | 27.3% |
| Wisconsin | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| Wyoming | 22.7% | ‡ | 23.6% | 16.1% | ‡ | 17.6% | 26.2% |
| *MI Rank* | *33* | *33* | *34* | *19* | ‡ | *40* | *30* |

Source: National Center for Education Statistics, The Nation's Report Card.

Note: 7 states did not participate in the testing.

‡ indicates that reporting standards were not met.

**Table A-8. 2002 8th Grade Writing NAEP Results: % of Students at or Above Proficient**

| | *Total* | *By Race or Ethnicity* | | | | *Economic Status* | |
|---|---|---|---|---|---|---|---|
| **State** | **All Students** | **Black** | **White** | **Hispanic** | **Asian** | **Free or Reduced Lunch Eligible** | **Not Free or Reduced Lunch Eligible** |
| National Public | 29.7% | 12.8% | 36.6% | 15.3% | 38.7% | 15.3% | 38.4% |
| Alabama | 19.6% | 8.7% | 25.8% | ‡ | ‡ | 8.6% | 27.1% |
| Alaska | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| Arizona | 20.2% | 12.7% | 27.0% | 9.1% | ‡ | 9.3% | 26.1% |
| Arkansas | 18.7% | 7.8% | 22.4% | 11.6% | ‡ | 11.3% | 25.1% |
| California | 23.3% | 9.9% | 33.7% | 12.6% | 36.2% | 13.7% | 34.8% |
| Colorado | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| Connecticut | 44.8% | 14.5% | 54.9% | 17.1% | 55.2% | 23.7% | 54.0% |
| Delaware | 34.8% | 18.3% | 42.5% | 19.8% | 62.8% | 17.0% | 43.2% |
| District of Columbia | 9.7% | 7.8% | ‡ | 11.1% | ‡ | 6.5% | 16.7% |
| Florida | 32.5% | 16.6% | 40.6% | 26.2% | 46.7% | 20.5% | 41.8% |
| Georgia | 24.6% | 14.5% | 32.9% | 6.8% | 26.7% | 13.0% | 32.7% |
| Hawaii | 18.0% | 17.3% | 20.8% | ‡ | 17.5% | 9.6% | 23.7% |
| Idaho | 28.6% | ‡ | 30.5% | 11.0% | ‡ | 18.9% | 33.5% |
| Illinois | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| Indiana | 26.5% | 7.2% | 28.7% | ‡ | ‡ | 15.8% | 30.7% |
| Iowa | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| Kansas | 32.0% | 12.8% | 36.0% | 13.1% | ‡ | 17.4% | 37.6% |
| Kentucky | 25.3% | 12.4% | 26.3% | ‡ | ‡ | 15.2% | 32.7% |
| Louisiana | 18.3% | 8.0% | 26.5% | ‡ | ‡ | 10.6% | 28.9% |
| Maine | 36.1% | ‡ | 36.4% | ‡ | ‡ | 20.6% | 42.2% |
| Maryland | 34.5% | 16.7% | 45.1% | 23.8% | 54.7% | 16.5% | 41.6% |
| Massachusetts | 41.8% | 18.3% | 48.9% | 10.2% | 44.9% | 19.8% | 51.6% |
| Michigan | 24.4% | 8.9% | 28.6% | ‡ | ‡ | 16.0% | 29.6% |
| Minnesota | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| Mississippi | 13.3% | 5.7% | 19.7% | ‡ | ‡ | 7.2% | 22.7% |
| Missouri | 26.6% | 12.8% | 29.3% | ‡ | ‡ | 12.3% | 33.4% |
| Montana | 28.8% | ‡ | 31.7% | ‡ | ‡ | 13.5% | 35.5% |
| Nebraska | 31.6% | 9.5% | 35.2% | 11.0% | ‡ | 17.7% | 39.3% |
| Nevada | 16.0% | 8.3% | 19.5% | 6.9% | 27.6% | 6.9% | 19.2% |
| New Hampshire | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| New Jersey | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| New Mexico | 18.4% | ‡ | 28.7% | 12.7% | ‡ | 11.7% | 28.0% |
| New York | 29.6% | 12.3% | 41.5% | 11.6% | 33.9% | 12.9% | 42.2% |
| North Carolina | 34.3% | 17.7% | 43.2% | 16.2% | ‡ | 19.2% | 43.8% |
| North Dakota | 23.6% | ‡ | 24.8% | ‡ | ‡ | 14.8% | 27.0% |
| Ohio | 37.6% | 14.2% | 42.1% | ‡ | ‡ | 23.2% | 44.2% |
| Oklahoma | 26.7% | 13.1% | 31.2% | 13.4% | ‡ | 15.0% | 35.5% |
| Oregon | 33.1% | ‡ | 35.2% | 17.4% | 41.4% | 16.6% | 39.4% |
| Pennsylvania | 32.0% | 7.2% | 37.0% | 8.7% | 30.5% | 12.3% | 40.7% |
| Rhode Island | 29.2% | 10.2% | 35.1% | 9.1% | ‡ | 13.2% | 38.6% |
| South Carolina | 20.4% | 9.5% | 28.3% | ‡ | ‡ | 9.6% | 30.1% |
| South Dakota | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| Tennessee | 24.3% | 12.4% | 27.3% | ‡ | ‡ | 12.3% | 33.8% |
| Texas | 31.1% | 20.0% | 46.5% | 17.4% | 29.8% | 15.6% | 45.1% |
| Utah | 23.3% | ‡ | 25.3% | 9.9% | 17.0% | 10.8% | 28.2% |
| Vermont | 41.2% | ‡ | 41.7% | ‡ | ‡ | 24.8% | 45.7% |
| Virginia | 32.4% | 14.2% | 38.9% | 20.3% | 46.2% | 16.3% | 37.8% |
| Washington | 33.8% | 19.2% | 36.6% | 15.6% | 34.7% | 20.6% | 39.4% |
| West Virginia | 20.9% | 13.0% | 21.2% | ‡ | ‡ | 11.7% | 28.6% |
| Wisconsin | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| Wyoming | 27.7% | ‡ | 29.6% | 12.1% | ‡ | 17.8% | 32.8% |
| *Michigan Rank* | *27* | *25* | *28* | ‡ | ‡ | *17* | *30* |

Source: National Center for Education Statistics, The Nation's Report Card.

Note: 9 states did not participate in the testing.

‡ indicates that reporting standards were not met.

**Table A-9. ACT and SAT Scores: Number of Highscores by State (per 1,000 Students)**

| Jurisdictions | High ACT & SAT Scores Per 1,000 High School Graduates: 2003 | High ACT & SAT Scores Per 1,000 High School Graduates: 2001 | High ACT & SAT Scores Per 1,000 High School Graduates: 1999 |
|---|---|---|---|
| National Public | 175 | 161 | 148 |
| Alabama | 139 | 127 | 128 |
| Alaska | 181 | 169 | 183 |
| Arizona | 112 | 132 | 123 |
| Arkansas | 130 | 120 | 120 |
| California | 137 | 135 | 123 |
| Colorado | 250 | 209 | 204 |
| Connecticut | 214 | 189 | 175 |
| Delaware | 140 | 129 | 132 |
| Florida | 164 | 148 | 142 |
| Georgia | 144 | 117 | 104 |
| Hawaii | 152 | 135 | 126 |
| Idaho | 157 | 162 | 152 |
| Illinois | 227 | 218 | 207 |
| Indiana | 144 | 128 | 123 |
| Iowa | 173 | 169 | 176 |
| Kansas | 194 | 201 | 188 |
| Kentucky | 145 | 138 | 130 |
| Louisiana | 126 | 118 | 117 |
| Maine | 147 | 127 | 121 |
| Maryland | 184 | 166 | 154 |
| Massachusetts | 231 | 193 | 180 |
| Michigan | 183 | 178 | 175 |
| Minnesota | 201 | 192 | 189 |
| Mississippi | 97 | 89 | 88 |
| Missouri | 180 | 175 | 175 |
| Montana | 195 | 170 | 172 |
| Nebraska | 191 | 180 | 189 |
| Nevada | 171 | 133 | 131 |
| New Hampshire | 194 | 166 | 159 |
| New Jersey | 192 | 174 | 163 |
| New Mexico | 123 | 126 | 127 |
| New York | 207 | 179 | 173 |
| North Carolina | 143 | 123 | 108 |
| North Dakota | 176 | 176 | 172 |
| Ohio | 205 | 190 | 184 |
| Oklahoma | 139 | 139 | 134 |
| Oregon | 160 | 154 | 141 |
| Pennsylvania | 147 | 135 | 126 |
| Rhode Island | 143 | 136 | 131 |
| South Carolina | 132 | 106 | 89 |
| South Dakota | 157 | 151 | 139 |
| Tennessee | 193 | 158 | 148 |
| Texas | 129 | 134 | 125 |
| Utah | 153 | 152 | 148 |
| Vermont | 167 | 147 | 144 |
| Virginia | 170 | 148 | 135 |
| Washington | 168 | 164 | 159 |
| West Virginia | 124 | 112 | 114 |
| Wisconsin | 191 | 193 | 192 |
| Wyoming | 156 | 149 | 150 |
| *Michigan Rank* | *16* | *11* | *11* |

Source: Nation Center for Higher Education Management Systens Information Center, www.higheredinfo.org

Note: District of Columbia not included

**Table A-10. Advanced Placement Test Scores: Number of Scores of 3+ (per 1,000 Students)**

| State | 2003 | 2004 | 2005 |
|---|---|---|---|
| National Average | 247 | 228 | 225 |
| Alabama | 113 | 102 | 99 |
| Alaska | 175 | 157 | 154 |
| Arizona | 147 | 139 | 132 |
| Arkansas | 304 | 145 | 124 |
| California | 329 | 310 | 316 |
| Colorado | 274 | 254 | 237 |
| Connecticut | 298 | 284 | 288 |
| Delaware | 325 | 273 | 260 |
| District of Columbia | 458 | 189 | 433 |
| Florida | 363 | 348 | 346 |
| Georgia | 249 | 216 | 228 |
| Hawaii | 176 | 170 | 232 |
| Idaho | 140 | 124 | 114 |
| Illinois | 214 | 200 | 194 |
| Indiana | 173 | 146 | 140 |
| Iowa | 98 | 91 | 85 |
| Kansas | 93 | 80 | 80 |
| Kentucky | 195 | 182 | 168 |
| Louisiana | 48 | 44 | 51 |
| Maine | 214 | 194 | 184 |
| Maryland | 413 | 384 | 363 |
| Massachusetts | 293 | 276 | 280 |
| Michigan | 166 | 157 | 159 |
| Minnesota | 161 | 146 | 139 |
| Mississippi | 88 | 71 | 64 |
| Missouri | 114 | 100 | 100 |
| Montana | 127 | 115 | 104 |
| Nebraska | 71 | 62 | 56 |
| Nevada | 216 | 203 | 177 |
| New Hampshire | 145 | 140 | 151 |
| New Jersey | 273 | 267 | 281 |
| New Mexico | 176 | 165 | 152 |
| New York | 339 | 327 | 341 |
| North Carolina | 364 | 333 | 322 |
| North Dakota | 79 | 66 | 65 |
| Ohio | 164 | 142 | 135 |
| Oklahoma | 202 | 183 | 176 |
| Oregon | 134 | 114 | 102 |
| Pennsylvania | 173 | 162 | 161 |
| Rhode Island | 166 | 158 | 159 |
| South Carolina | 251 | 224 | 225 |
| South Dakota | 137 | 141 | 110 |
| Tennessee | 172 | 158 | 150 |
| Texas | 310 | 290 | 281 |
| Utah | 273 | 262 | 279 |
| Vermont | 222 | 204 | 184 |
| Virginia | 397 | 367 | 359 |
| Washington | 194 | 175 | 159 |
| West Virginia | 121 | 117 | 120 |
| Wisconsin | 202 | 188 | 173 |
| Wyoming | 92 | 82 | 90 |
| *Michigan Rank* | *32* | *30* | *26* |

Source: Collegeboard, AP Summary Reports

**Table A-11. Average Math Scale Scores of 8th Grade Students, by Country: 2003**

| Rank | Country | Average score |
|---|---|---|
| | International Average | 466 |
| | | |
| 1 | Singapore | 605 |
| 2 | Korea, Republic of | 589 |
| 3 | Hong Kong | 586 |
| 4 | Chinese Taipei | 585 |
| 5 | Japan | 570 |
| 6 | Belgium-Flemish | 537 |
| 7 | Netherlands | 536 |
| 8 | Estonia | 531 |
| 9 | Hungary | 529 |
| 10 | Malaysia | 508 |
| 10 | Latvia | 508 |
| 10 | Russian Federation | 508 |
| 10 | Slovak Republic | 508 |
| 14 | Australia | 505 |
| 15 | United States | 504 |
| 16 | Lithuania | 502 |
| 17 | Sweden | 499 |
| 18 | Scotland | 498 |
| 19 | Israel | 496 |
| 20 | New Zealand | 494 |
| 21 | Slovenia | 493 |
| 22 | Italy | 484 |
| 23 | Armenia | 478 |
| 24 | Serbia | 477 |
| 25 | Bulgaria | 476 |
| 26 | Romania | 475 |
| 27 | Norway | 461 |
| 28 | Moldova, Republic of | 460 |
| 29 | Cyprus | 459 |
| 30 | Macedonia, Republic of | 435 |
| 31 | Lebanon | 433 |
| 32 | Jordan | 424 |
| 33 | Iran, Islamic Republic of | 411 |
| 33 | Indonesia | 411 |
| 35 | Tunisia | 410 |
| 36 | Egypt | 406 |
| 37 | Bahrain | 401 |
| 38 | Palestinian National Authority | 390 |
| 39 | Chile | 387 |
| 39 | Morocco | 387 |
| 41 | Philippines | 378 |
| 42 | Botswana | 366 |
| 43 | Saudi Arabia | 332 |
| 44 | Ghana | 276 |
| 45 | South Africa | 264 |

Source:International Association for the Evaluation of Educational Achievement (IEA), 2003.

**Table A-12. Average Science Scale Scores of 8th Grade Students, by Country: 2003**

| Rank | Country | Average score |
|---|---|---|
| | International average | 473 |
| | | |
| 1 | Singapore | 578 |
| 2 | Chinese Taipei | 571 |
| 3 | Korea, Republic of | 558 |
| 4 | Hong Kong | 556 |
| 5 | Estonia | 552 |
| 5 | Japan | 552 |
| 7 | Hungary | 543 |
| 8 | Netherlands | 536 |
| 9 | United States | 527 |
| 9 | Australia | 527 |
| 11 | Sweden | 524 |
| 12 | Slovenia | 520 |
| 12 | New Zealand | 520 |
| 14 | Lithuania | 519 |
| 15 | Slovak Republic | 517 |
| 16 | Belgium-Flemish | 516 |
| 17 | Russian Federation | 514 |
| 18 | Latvia | 512 |
| 18 | Scotland | 512 |
| 20 | Malaysia | 510 |
| 21 | Norway | 494 |
| 22 | Italy | 491 |
| 23 | Israel | 488 |
| 24 | Bulgaria | 479 |
| 25 | Jordan | 475 |
| 26 | Moldova, Republic of | 472 |
| 27 | Romania | 470 |
| 28 | Serbia | 468 |
| 29 | Armenia | 461 |
| 30 | Iran, Islamic Republic of | 453 |
| 31 | Macedonia, Republic of | 449 |
| 32 | Cyprus | 441 |
| 33 | Bahrain | 438 |
| 34 | Palestinian National Authority | 435 |
| 35 | Egypt | 421 |
| 36 | Indonesia | 420 |
| 37 | Chile | 413 |
| 38 | Tunisia | 404 |
| 39 | Saudi Arabia | 398 |
| 40 | Morocco | 396 |
| 41 | Lebanon | 393 |
| 42 | Philippines | 377 |
| 43 | Botswana | 365 |
| 44 | Ghana | 255 |
| 45 | South Africa | 244 |

Source:International Association for the Evaluation of Educational Achievement (IEA), 2003.

## Table A-13. Per-Pupil Expenditures, 2002

| State | Total Expenditures | Current Expenditures (a) | | | |
|---|---|---|---|---|---|
| | | Total | Instructional (b) | Administrative (c) | Other Current (d) |
| National Public | $ 9,198 | $ 8,044 | 61% | 8% | 35% |
| Alaska | $ 11,795 | $ 9,870 | 58% | 7% | 31% |
| Alabama | $ 7,031 | $ 6,300 | 61% | 9% | 30% |
| Arkansas | $ 7,173 | $ 6,482 | 61% | 9% | 33% |
| Arizona | $ 7,235 | $ 6,282 | 60% | 7% | 31% |
| California | $ 8,811 | $ 7,552 | 61% | 8% | 34% |
| Colorado | $ 8,552 | $ 7,384 | 57% | 8% | 29% |
| Connecticut | $ 12,583 | $ 11,057 | 64% | 8% | 41% |
| District of Columbia | $ 14,542 | $ 11,847 | 52% | 7% | 32% |
| Delaware | $ 11,356 | $ 9,693 | 62% | 7% | 34% |
| Florida | $ 7,753 | $ 6,439 | 59% | 7% | 29% |
| Georgia | $ 8,960 | $ 7,774 | 63% | 7% | 33% |
| Hawaii | $ 8,722 | $ 8,100 | 60% | 7% | 32% |
| Iowa | $ 8,584 | $ 7,574 | 60% | 8% | 31% |
| Idaho | $ 6,853 | $ 6,081 | 61% | 8% | 31% |
| Illinois | $ 9,657 | $ 8,287 | 60% | 9% | 31% |
| Indiana | $ 8,959 | $ 8,057 | 61% | 7% | 31% |
| Kansas | $ 8,020 | $ 7,454 | 59% | 10% | 30% |
| Kentucky | $ 6,945 | $ 6,661 | 61% | 9% | 32% |
| Louisiana | $ 7,554 | $ 6,922 | 61% | 8% | 30% |
| Massachusetts | $ 10,898 | $ 10,460 | 64% | 6% | 30% |
| Maryland | $ 9,972 | $ 9,153 | 62% | 7% | 25% |
| Maine | $ 10,180 | $ 9,344 | 67% | 8% | 34% |
| Michigan | $ 10,431 | $ 8,781 | 57% | 9% | 29% |
| Minnesota | $ 9,875 | $ 8,109 | 64% | 6% | 30% |
| Missouri | $ 8,516 | $ 7,495 | 61% | 9% | 31% |
| Mississippi | $ 6,267 | $ 5,792 | 60% | 9% | 30% |
| Montana | $ 8,061 | $ 7,496 | 61% | 9% | 28% |
| North Carolina | $ 7,353 | $ 6,562 | 64% | 8% | 30% |
| North Dakota | $ 7,696 | $ 6,870 | 60% | 10% | 28% |
| Nebraska | $ 9,195 | $ 8,074 | 64% | 9% | 26% |
| New Hampshire | $ 9,644 | $ 8,579 | 65% | 9% | 33% |
| New Jersey | $ 13,807 | $ 12,568 | 59% | 8% | 35% |
| New Mexico | $ 8,425 | $ 7,125 | 55% | 9% | 29% |
| Nevada | $ 7,696 | $ 6,092 | 63% | 9% | 25% |
| New York | $ 13,561 | $ 11,961 | 69% | 6% | 34% |
| Ohio | $ 10,146 | $ 8,632 | 57% | 9% | 34% |
| Oklahoma | $ 6,553 | $ 6,092 | 58% | 8% | 33% |
| Oregon | $ 8,646 | $ 7,491 | 59% | 8% | 31% |
| Pennsylvania | $ 10,233 | $ 8,997 | 62% | 7% | 29% |
| Rhode Island | $ 10,784 | $ 10,349 | 65% | 7% | 33% |
| South Carolina | $ 8,406 | $ 7,040 | 60% | 7% | 33% |
| South Dakota | $ 7,510 | $ 6,547 | 59% | 9% | 28% |
| Tennessee | $ 6,854 | $ 6,118 | 64% | 7% | 33% |
| Texas | $ 8,320 | $ 7,136 | 60% | 7% | 29% |
| Utah | $ 5,933 | $ 4,838 | 64% | 7% | 31% |
| Virginia | $ 8,784 | $ 7,822 | 61% | 7% | 26% |
| Vermont | $ 10,958 | $ 10,454 | 64% | 9% | 33% |
| Washington | $ 8,478 | $ 7,252 | 60% | 7% | 30% |
| Wisconsin | $ 9,885 | $ 9,004 | 62% | 8% | 30% |
| West Virginia | $ 9,016 | $ 8,319 | 61% | 8% | 32% |
| Wyoming | $ 10,263 | $ 8,985 | 60% | 8% | 31% |
| *Michigan Rank* | *10* | *15* | *19* | *5* | *39* |

Source: National Center for Education Statistics - Common Core of Data (NCES-CCD)

Notes:

(a) Includes all operating expenditures on pre-kindergarten through 12th grade students. Other expenditures such as spending on private schools, school construction, and property are excluded from this category

(b) NCES collected per-pupil "instructional" education expenditure data in the National Public Education Financial Survey. The data include salary and benefits for teachers, supplies (excluding property), and tuition paid to any school not controlled by an LEA in the state (such as private schools).

(c) Includes administrative expenditures such as paying school boards and staff, superintendents, and legal staff.

(d) Other current expenditures includes food services expenditures and enterpirse operations.

**Table A-14. Per-Pupil Revenue, 2002**

| State | Total Revenue ($ Per Pupil) | Source | |
|---|---|---|---|
| | | State and Local | Federal |
| National Public | $ 9,135 | 91.5% | 8.5% |
| Alaska | $ 10,928 | 82.3% | 17.7% |
| Alabama | $ 6,971 | 88.4% | 11.6% |
| Arkansas | $ 7,243 | 88.3% | 11.7% |
| Arizona | $ 7,839 | 88.6% | 11.4% |
| California | $ 8,975 | 90.1% | 9.9% |
| Colorado | $ 8,379 | 93.5% | 6.5% |
| Connecticut | $ 12,433 | 94.8% | 5.2% |
| District of Columbia | $ 14,626 | 86.2% | 13.8% |
| Delaware | $ 10,293 | 91.4% | 8.6% |
| Florida | $ 7,474 | 89.5% | 10.5% |
| Georgia | $ 8,990 | 91.9% | 8.1% |
| Hawaii | $ 11,309 | 91.8% | 8.2% |
| Iowa | $ 8,796 | 92.6% | 7.4% |
| Idaho | $ 6,832 | 90.2% | 9.8% |
| Illinois | $ 9,190 | 91.5% | 8.5% |
| Indiana | $ 7,895 | 92.4% | 7.6% |
| Kansas | $ 8,646 | 90.9% | 9.1% |
| Kentucky | $ 7,210 | 89.4% | 10.6% |
| Louisiana | $ 7,597 | 86.8% | 13.2% |
| Massachusetts | $ 12,006 | 94.0% | 6.0% |
| Maryland | $ 10,001 | 93.3% | 6.7% |
| Maine | $ 10,577 | 91.1% | 8.9% |
| Michigan | $ 10,058 | 92.2% | 7.8% |
| Minnesota | $ 9,859 | 94.1% | 5.9% |
| Missouri | $ 8,453 | 92.0% | 8.0% |
| Mississippi | $ 6,625 | 84.6% | 15.4% |
| Montana | $ 8,030 | 85.5% | 14.5% |
| North Carolina | $ 7,021 | 90.4% | 9.6% |
| North Dakota | $ 7,917 | 84.7% | 15.3% |
| Nebraska | $ 8,937 | 91.1% | 8.9% |
| New Hampshire | $ 9,425 | 94.8% | 5.2% |
| New Jersey | $ 13,825 | 95.7% | 4.3% |
| New Mexico | $ 8,387 | 85.0% | 15.0% |
| Nevada | $ 7,536 | 93.0% | 7.0% |
| New York | $ 13,120 | 93.0% | 7.0% |
| Ohio | $ 9,870 | 93.6% | 6.4% |
| Oklahoma | $ 6,663 | 87.3% | 12.7% |
| Oregon | $ 8,302 | 90.9% | 9.1% |
| Pennsylvania | $ 10,321 | 92.3% | 7.7% |
| Rhode Island | $ 10,960 | 93.5% | 6.5% |
| South Carolina | $ 8,256 | 90.2% | 9.8% |
| South Dakota | $ 7,413 | 84.3% | 15.7% |
| Tennessee | $ 6,592 | 90.0% | 10.0% |
| Texas | $ 8,124 | 90.1% | 9.9% |
| Utah | $ 5,954 | 90.7% | 9.3% |
| Virginia | $ 8,735 | 93.4% | 6.6% |
| Vermont | $ 11,502 | 93.0% | 7.0% |
| Washington | $ 8,570 | 91.0% | 9.0% |
| Wisconsin | $ 10,052 | 93.9% | 6.1% |
| West Virginia | $ 9,037 | 89.4% | 10.6% |
| Wyoming | $ 10,909 | 91.2% | 8.8% |
| *MI Rank* | *14* | *18* | *35* |

Source: National Center for Education Statistics - Common Core of Data (NCES-CCD)

# *VIII.Appendix B: About the Authors*

This report was completed by Scott D. Watkins, consultant and director of marketing and administration for Anderson Economic Group. Also contributing was Caroline M. Sallee, senior analyst. Mr. Watkins managed the project under the direction of Patrick L. Anderson, principal and CEO of Anderson Economic Group.

**SCOTT D. WATKINS**

Mr. Watkins is the director of marketing and administration at Anderson Economic Group. In this role he oversees the firm's administrative staff and procedures and implements marketing strategies.

Mr. Watkins also works as a consultant on projects involving economic and policy analyses. Among the clients for whom he has worked are the Michigan Manufacturers Association, Michigan State University, Wayne State University, General Motors Corporation, Michigan Chamber of Commerce, Michigan Retailers Association, and the City of Detroit. Recent reports by Mr. Watkins include: "Automation Alley's First Annual Technology Industry Report: Driving Southeast Michigan Forward," "The Economic Benefits of Wayne State University," and "*Expanded School Sinking Fund Taxes: Infrastructure Investment, or Backtracking on Proposal A?"*

Prior to joining Anderson Economic Group, Mr. Watkins was an Analyst in the automotive market and planning group at J.D. Power and Associates, where he performed qualitative and quantitative research and analysis. Mr. Watkins also held a marketing assistantship with Foster, Swift, Collins, and Smith P.C.

Mr. Watkins is a graduate of Michigan State University with a B.A. in Marketing from Eli Broad College of Business and a B.A. in International Relations from the James Madison College.

**CAROLINE M. SALLEE**

Ms. Sallee is a senior analyst at Anderson Economic Group, working in the finance and business valuation and economic and fiscal impact practice areas. Ms. Sallee's background is in applied economics and public finance.

Prior to joining Anderson Economic Group, Ms. Sallee worked for the U.S. General Accounting Office as a member of the Education, Workforce and Income Security team. She has also worked as an analyst for Hábitus, a market research firm in Quito, Ecuador and as a legislative assistant for two U.S. Representatives.

Ms. Sallee holds a Master's degree in Public Policy from the University of Michigan and a Bachelor's degree in Economics and History from Augustana College.

**PATRICK L. ANDERSON**

Mr. Anderson founded the consulting firm of Anderson Economic Group in 1996 and serves as principal and CEO in the company. In this role he has successfully directed projects for state governments, cities, counties, nonprofit organizations, and corporations in over half of the United States.

Prior to founding Anderson Economic Group, Mr. Anderson served as the chief of staff of the Michigan Department of State, where he supervised more than 182 offices, 2,100 employees and annual tax collections in excess of $1.4 billion. He also served as a deputy director of the Michigan Department of Management and Budget, where he was involved in the largest state privatization project in U.S. history and the landmark 1994 school finance reform constitutional amendment.

Prior to his involvement in state government, Mr. Anderson was an assistant vice president of Alexander Hamilton Life Insurance—where he shared responsibility for $5 billion in invested assets—an economist for Manufacturers National Bank of Detroit, and a graduate fellow with the Central Intelligence Agency in Washington, D.C.

Mr. Anderson has written over 95 articles published in periodicals such as *The Wall Street Journal, The Detroit News, The Detroit Free Press, American Outlook, Crain's Detroit Business*; and monographs published by the Mackinac Center for Public Policy, The Economic Enterprise Foundation of Detroit, the Ethan Allen Institute in Vermont, and the Heartland Institute of Chicago. His book *Business Economics and Finance* was published by CRC Press in August 2004, and his paper on "Pocketbook Issues and the Presidency" was awarded the Edmund Mennis Award for best contributed paper in 2004 by the National Association for Business Economics.

He is a graduate of the University of Michigan, where he earned a masters degree in public policy and a bachelors degree in political science. He has been a member of the National Association for Business Economics since 1983.