

Benchmarking for Success: Education Performance among the American States

Commissioned by:
The Michigan House of Representatives

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..... 1

 Purpose of Report 1

 Our System of Education 1

 Education in Michigan Today2

 Background Education Data2

 Education Performance Data 3

 Challenges to Benchmarking Education Performance 3

 Benchmarking Approach and Findings4

 Michigan’s Education Performance Gap4

 Additional Findings5

 Student Performance5

 Participation and Attainment.....6

 School Demographics and Finance6

II. Our System of Education..... 7

 A Historical Perspective 7

 Education in Michigan Today 8

 Primary and Secondary Schooling8

 Colleges and Universities.....9

III. Education Participation and Attainment 10

 Early Childhood Participation 10

 Education Participation By Young Adults & Adults 11

 Educational Attainment of Adult Population 14

IV. School Demographics and Finance..... 17

 School Enrollment 17

 Public v. Private School Enrollment17

 Student Demographics: Economic Status and Race 19

 Pupil-Teacher Ratio 21

 Per-Pupil Annual Expenditures 21

 Revenues and Sources 22

V. Student Performance 24

 National Assessment of Education Progress 24

 Mathematics25

 Reading.....26

 Science.....27

Writing.....	28
ACT and SAT College Entrance Exams	29
Advanced Placement Test Results	30
<i>VI. Measuring the Performance Gap.....</i>	<i>32</i>
Defining the Gap	32
The Mathematics Performance Gap.....	33
The Reading Performance Gap	33
The Science Performance Gap	33
The Writing Performance Gap	33
The Wider International Gap	34
<i>VII. Appendix A: Data Tables</i>	<i>A-1</i>
2005 NAEP Results, 4th and 8th Grade Mathematics, Reading, and Science	2
2002 NAEP Results, 4th and 8th Grade Writing	8
ACT, SAT, and Advanced Placement Exam Performance by States	10
International Education Performance: TIMSS 2003	12
Education Finance	14
<i>VIII. Appendix B: About the Authors</i>	<i>B-1</i>
Scott D. Watkins	1
Caroline M. Sallee	1
Patrick L. Anderson	2

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%
<i>Performance Gap</i>	<i>8.1%</i>	<i>9.2%</i>	<i>5.0%</i>	<i>12.8%</i>
<i>Number of Students Requiring Improvement</i>	<i>138,746</i>	<i>157,282</i>	<i>85,479</i>	<i>218,823</i>

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 them 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%
<i>memo:</i>	<i>United States Average</i>	<i>60.7%</i>

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
<i>memo:</i>	<i>United States Average</i>	<i>7.6%</i>	<i>-2.2</i>

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
<i>memo:</i>	<i>United States Average</i>	<i>34.2%</i>	<i>0.2</i>

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%
<i>memo:</i>	<i>United States Average</i>	<i>5.0%</i>

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 Bachelor'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
<i>memo:</i>	<i>United States</i>	<i>15.9</i>

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 certainly 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.

For more detailed education expenditure data please see “Education Finance” on page A-14 of Appendix A. In addition 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%
<i>memo: United States</i>		<i>9,198</i>	<i>43.6%</i>

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%
<i>memo:</i>	<i>United States</i>	<i>\$9,135</i>	<i>91.5%</i>	<i>8.5%</i>

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%
<i>memo:</i>	<i>National Public</i>	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%
<i>memo:</i>	<i>National Public</i>	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%
<i>memo:</i>	<i>National Public</i>	<i>27.3%</i>	<i>27.0%</i>

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%
<i>memo:</i>	<i>National Public</i>	<i>29.7%</i>	<i>26.5%</i>

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
<i>memo:</i>	<i>United States Average</i>	<i>175</i>

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
<i>memo</i>	<i>United States Average</i>	<i>168</i>

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%
<i>Performance Gap</i>	8.1%	9.2%	5.0%	12.8%
<i>Number of Students Requiring Improvement</i>	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

State	By Race of Ethnicity					Economic Status	
	Total	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%
<i>Michigan Rank</i>	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

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	28.5%	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%
<i>Michigan Rank</i>	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

State	By Race or Ethnicity					Economic Status	
	Total	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%
<i>Michigan Rank</i>	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	By Race or Ethnicity					Economic Status	
	Total	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%
<i>Michigan Rank</i>	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

State	Total		By Race or Ethnicity			Economic Status	
	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%
<i>Michigan Rank</i>	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	By Race or Ethnicity					Economic Status	
	Total	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%
<i>Michigan Rank</i>	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

State	By Race or Ethnicity					Economic Status	
	Total	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%
<i>MI Rank</i>	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

State	By Race or Ethnicity					Economic Status	
	Total 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%
<i>Michigan Rank</i>	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
<i>Michigan Rank</i>	16	11	11

Source: Nation Center for Higher Education Management Systems 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
<i>Michigan Rank</i>	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-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%
<i>MI Rank</i>	<i>14</i>	<i>18</i>	<i>35</i>

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.