

# Utah Public Education Test Scores

## Overview

Despite the national last-place ranking in per pupil expenditures, Utah school districts and students keep pace with—and in some areas outperform—the majority of their national peers. On college entrance examinations, Utah public school students lead a major portion of the United States. Utah ranks ninth in the nation according to the most recent results of the Scholastic Assessment Test. After consideration of the group of students against whom norm reference tests are standardized, Utah scores that range from the upper 40th percentile to the 60th percentile become more impressive. A score above the 50th percentile reflects a performance that exceeded the performance of 50% of the students across the nation who took that test. The achievements of students within Utah represent the strong general commitment to educational excellence, from political stakeholders to parents.

## Background

The onset of the federally mandated No Child Left Behind, along with other recent testing requirements, has placed the issue of student achievement in the forefront of public education debates. Most notably is the desire to compare the performance of one state against that of others and the nation as a whole. Perhaps the fuel for the debate is the search for a single indicator of student performance, or conversely, school accountability. This then leads the debate into topics concerning the efficient use of scarce public dollars while maintaining or increasing student achievement.

## Measure of Efficiency

Utah maintains the most efficient school districts in the nation, according to the Hoover Institution.<sup>1</sup> Of the 50 largest school districts in the nation, Utah's Jordan School District was identified as producing high school graduates at a cost (\$59,200) of just more than half of the national average of \$108,700. Though these numbers refer to the cost of graduating high school students in 1998, data based upon the 2000 school year show that the per-graduate cost in Jordan School District decreased to \$54,200. The state average for the 2000 school year was \$59,400.

## College Bound Student Test Scores

Utah ranks 20th in the nation according to the 2001 ACT results. While nationally 40% of the students who took this college entrance exam scored 20.8, two-thirds of Utah students who took this test achieved an average composite score of 21.3. Scholastic Assessment Test results rank Utah ninth in the nation with an average composite score of 1,145. On Advanced Placement tests, 69.8% of Utah students who took the tests scored at least the minimum passing score of three, compared to 61.0% nationally.<sup>2</sup>

## National Comparisons of Norm Reference Tests

National percentile scores are standardized against a sample group of students whose demographics are 1.8% limited English proficient, 33% private school students, and 28% eligibility for Free or Reduced Lunch programs. Utah's student population includes 8.6% limited English proficient, 2.8% private school student, and 29% Free or Reduced Lunch eligibility rates. The norm reference group is constructed to perform better than half of the students. Utah students' achievement performance is consistently better than half of the students who take the tests nationwide (while it may appear that a score at the 50th percentile is a failing score, it reflects performance that is better than 50% of the students across the nation who took that test).

## Utah Student Achievement on the SAT9

The Stanford Achievement Test, ninth edition, is a nationally normed test to compare the achievement of students against their peers. The subtests include curriculum areas such as math, language, science, and social studies, among others. Generally, Utah students perform either at the 50th percentile or slightly above average. Based upon Fall 2002 results, Utah students need to improve language skills such as grammar and listening. On the language subtest, fifth graders performed at the 50th percentile while eighth and eleventh graders performed at the 47th percentile. Reading results showed Utah fifth graders performing better than 49% of their peers nationwide while eighth and eleventh graders fared at the 51st and 55th percentiles respectively. Overall, the state's students performed best on the math subtest scoring at the 49th, 56th, and 68th percentiles in the fifth, eighth, and eleventh grades.<sup>3</sup>

Given the fiscal environment of Utah schools (Utah ranked 51st in the nation, including the District of Columbia, in per pupil spending), Utah school districts and students still test at or above national averages. Per pupil expenditures are at all-time highs for the state, but still fall approximately \$700 short of Mississippi, which ranks 50th.

## Student Achievement as Compared to Median Household Income

District test scores are correlated with the median household income<sup>4</sup> of the district. If the median household income was above that of the state, one would expect that the test scores of that district are different from those of districts where median household income levels are below the state median. In fact, test scores differ by as much as eight percentage points between the school districts below the state median household income and the districts above state median household income. The students in school districts where the median household income exceeded that of the state, outperformed their peers on the complete battery score of the 2002 Stanford 9. These results are significant at the 0.05 level. Fifth, eighth, and eleventh grade students in districts with a median household income above that of the state (\$45,726), on average, scored at the 56th, 58th, and 60th percentiles. Fifth, eighth, and eleventh grade students who attended schools in districts with a median household income level below the state median performed at the 50th, 50th, and 53rd percentiles.

<sup>1</sup> Walberg, H. J. (2002). *Hold Schools Accountable for Cost of Finished Graduate*. Stanford, Hoover Institution. Walberg's efficiency index is computed by dividing the product of per pupil expenditure and 13, by the corresponding graduation rate.

<sup>2</sup> The College Board (2003) provides the national comparison of ACT results. SAT results should not be applied to the general population of students. The tests are representative of a self-selecting population of students who are generally bound for college. A small select group of students take the SAT for entrance into private universities and Eastern United States schools.

<sup>3</sup> Utah State Office of Education, 2003.

<sup>4</sup> Median household income and poverty rate measures are from the 2000 Census.

### **Student Achievement as Compared to Poverty**

The previous analysis also holds true for the measure of poverty. If a district's median household income is high, it logically follows that district has a comparatively lower rate of poverty. The same is true for the correlation between test scores. If higher median household incomes correlate with higher test scores, then higher poverty rates would correlate with lower test scores. Districts above the state's average poverty rate (6.8%) tended to have fifth and eighth graders score at the 49th percentile, while their eleventh grade peers averaged slightly higher at the 53rd percentile.

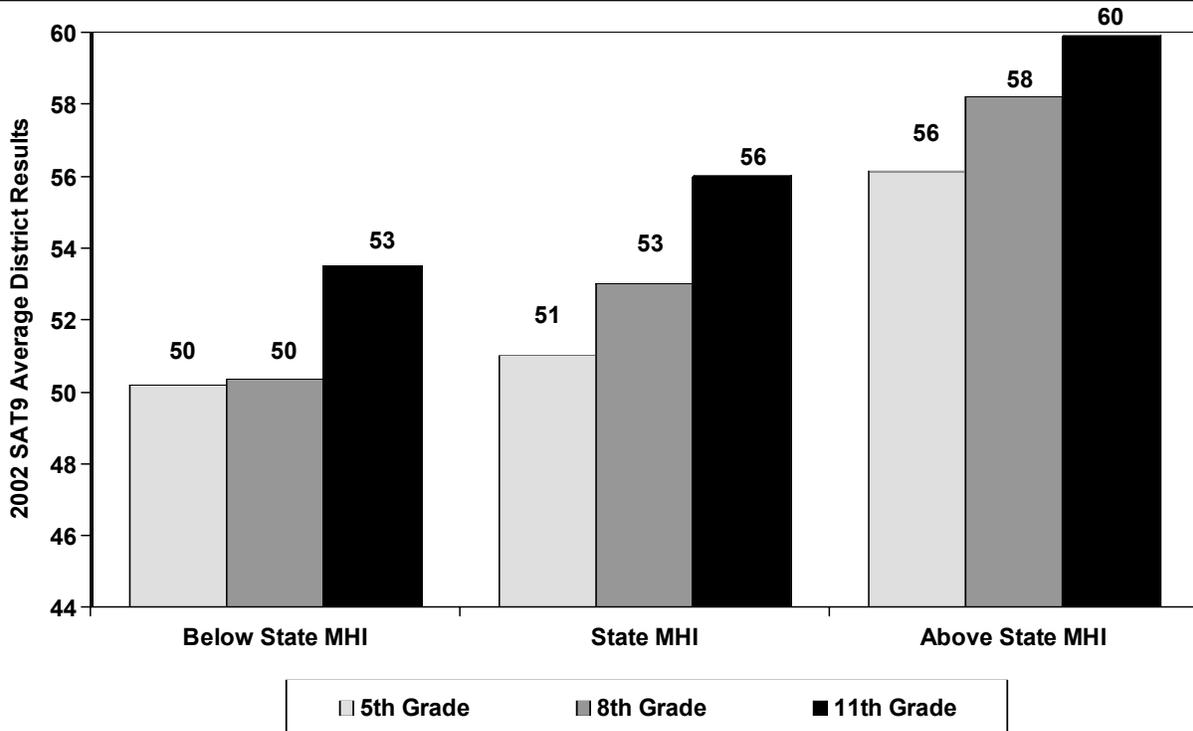
### **Student Achievement as Compared to District Per Pupil Assessed Valuation**

School districts have varying amounts of assessed valuation within defined geographical boundaries. Local assessments provide districts the ability to generate revenue in addition to the state revenue allocated to them. The state allocation system is set up to limit the impact of variations on locally assessed valuation. Comparing student achievement at differing assessed valuation across the state shows no significant difference in achievement. The state's method of distributing fiscal resources is intended to minimize the effect of local assessment variations.

### **Conclusion**

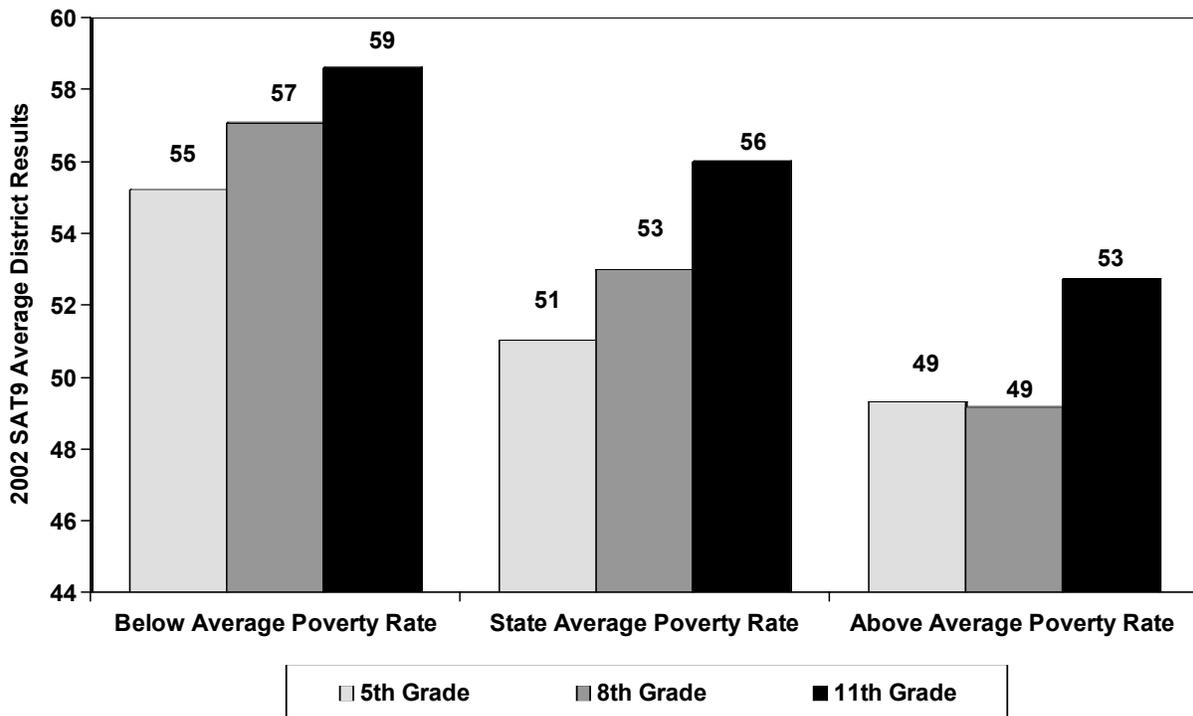
The fiscal environment in which Utah school districts operate is different than anywhere else in the nation. Notwithstanding, Utah school districts and students still keep pace with the nation in achievement. Student achievement may be affected by externalities such as district wealth; however, these effects are mitigated by the redistributive design of school funding in Utah. Districts in which there is a higher median household income tend also to have greater student achievement. Generally, test scores show that Utah students are performing at or above national standards.

**Figure 84**  
**Student Achievement as Compared to Median Household Income: Utah School Districts**



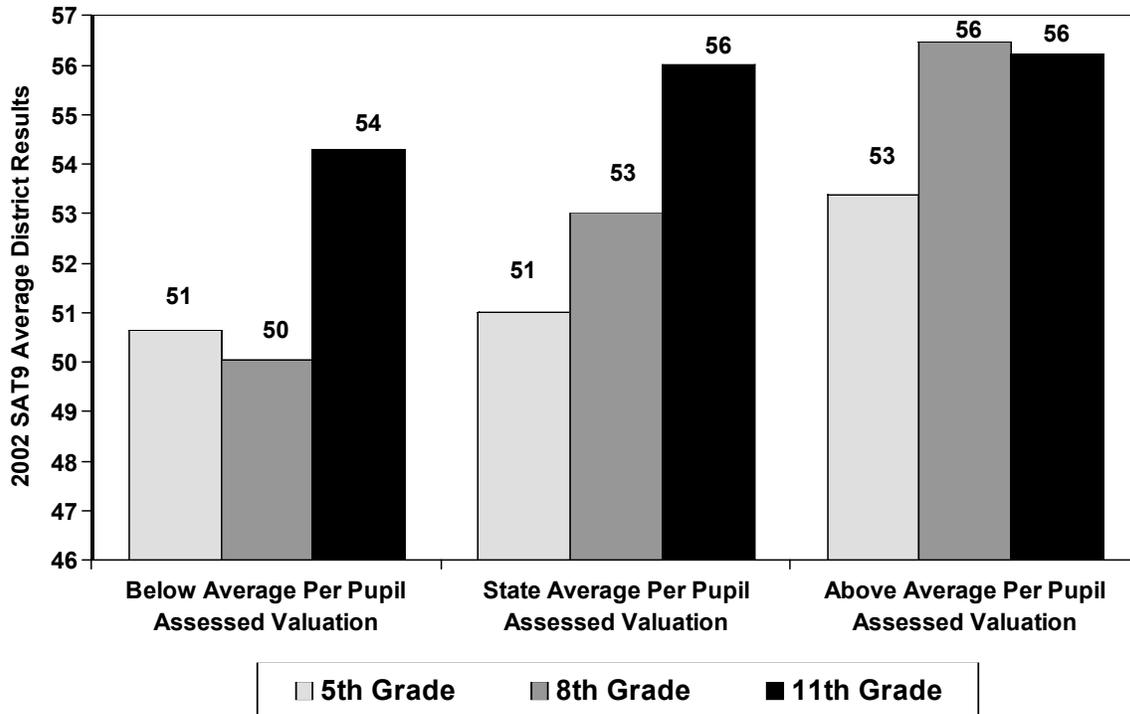
Sources: Utah State Office of Education, Utah Governor's Office of Planning and Budget, and the U.S. Census Bureau; Census 2000

**Figure 85**  
**Student Achievement as Compared to Poverty: Utah School Districts**



Sources: Utah State Office of Education, Utah Governor's Office of Planning and Budget, and the U.S. Census Bureau; Census 2000

**Figure 86**  
**Student Achievement as Compared to District Per Pupil Assessed Valuation: Utah School Districts**



Sources: Utah State Office of Education and the Governor's Office of Planning and Budget

**Table 91**  
**Standardized Test Scores**

**Stanford Achievement Test, Ninth Edition (SAT9)**

	Reading	Language	Math
3rd Grade	60	38	59
5th Grade	49	50	49
8th Grade	51	47	56
11th Grade	55	47	68

**College Entrance Examinations**

	ACT 2001	SAT 2001
Utah Average	21.3	1,145
Percent of Students Tested	67%	
National Average	20.8	1,020
Percent of Students Tested	40%	

**National Assessment of Educational Progress "The Nation's Report Card"**

	Reading (2003)	Writing (2002)	Math (2003)	Science (2000)
Utah 4th Grade	219	145	235	155
Nation's 4th Grade Avg	216	153	234	148
Utah 8th Grade	261	143	281	155
Nation's 8th Grade Avg	263	152	276	149

Sources: Utah State Office of Education; College Board, 2003; and the National Center for Education Statistics