

OREA

Offices of Research and Education Accountability

TENNESSEE COMPTROLLER OF THE TREASURY, JUSTIN P. WILSON

Return on Investment & Student Achievement: Selection of States

Prepared for the House Education Committee
Chairman Harry Brooks
by the Comptroller's Offices of Research and Education
Accountability

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Return on Investment 1

- OREA measured the gap between actual per pupil expenditures and expected per pupil expenditures needed to achieve each state's NAEP scores.

	Avg. NAEP Score (03,05,07)	Avg. Expenditure (2003-07)	Expected \$	% Below Expected \$
Utah	250.25	5,243	8,930	41.29%
Idaho	251.58	6,337	8,977	29.41%
Arizona	241.92	6,488	8,633	24.84%
Oklahoma	245.42	6,645	8,757	24.12%
Tennessee	243.67	6,713	8,695	22.79%
Mississippi	236.58	6,634	8,442	21.42%
North Carolina	250.58	7,109	8,942	20.49%
Nevada	240.08	6,858	8,567	19.95%
South Dakota	254.67	7,384	9,088	18.75%
Kentucky	247.92	7,253	8,847	18.01%

Return on Investment 2

- The U.S. Chamber of Commerce divided the percentage of students scoring at or above the proficient level on the 4th and 8th grade NAEP reading and math tests in 2003 by 2004 state expenditures.

Utah	A
North Carolina	A
Washington	A
Minnesota	A
Virginia	A
Colorado	A
Massachusetts	A
Kansas	A
Idaho	A
Florida	A

Student Achievement 1

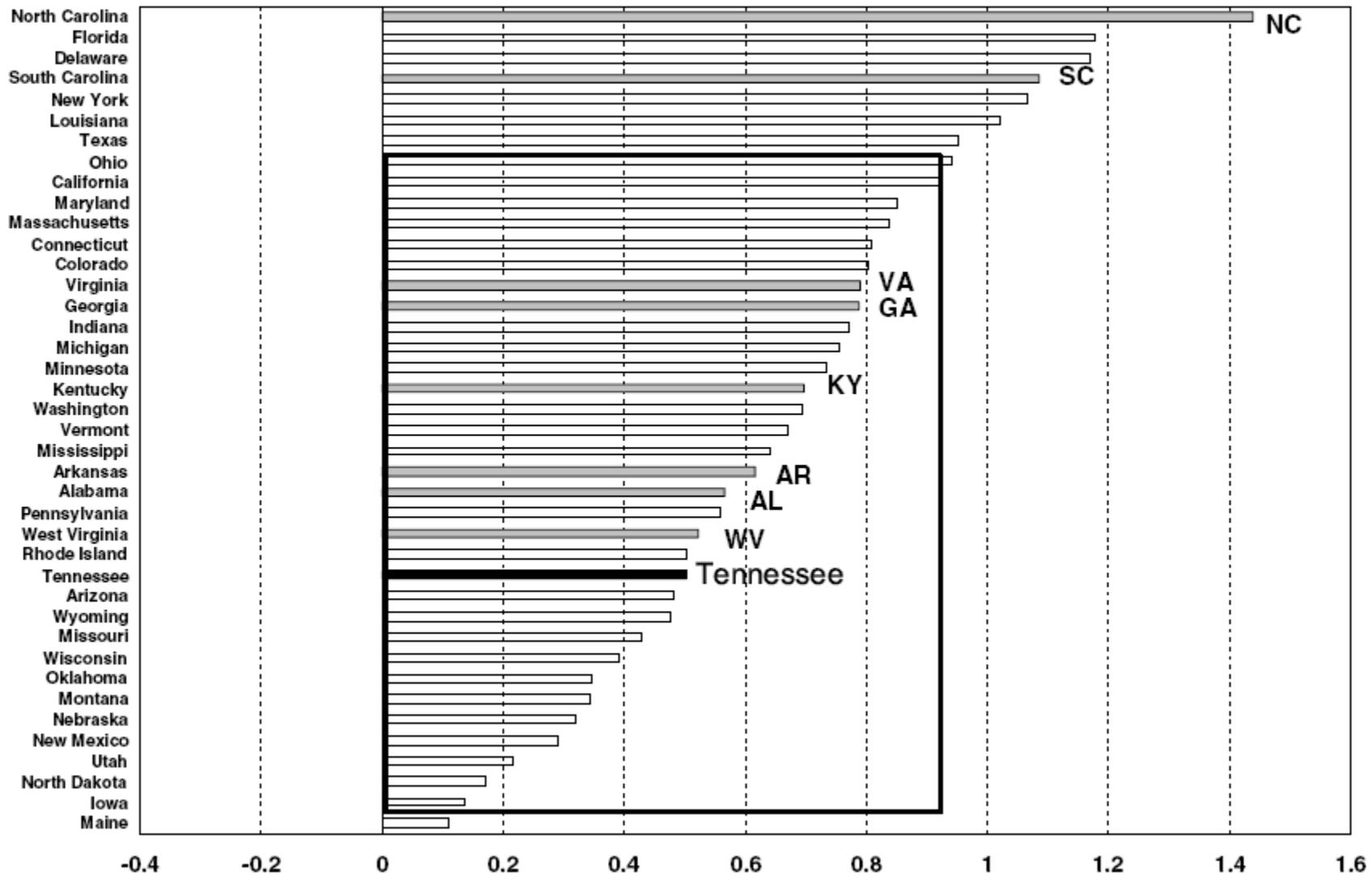
- *Leveling the Playing Field 2005: Identifying Outperforming and Underperforming States on the NAEP in Demographic Context (Standard and Poor's)*
- States that exceeded statistical expectations in 2003 and 2005:

	Tests
Florida	Grade 4 Math
Kansas	Grade 4 Math, Grade 8 Math
Minnesota	Grade 4 Math, Grade 8 Math
Montana	Grade 8 Math
New York	Grade 8 Math
North Carolina	Grade 4 Math
Oregon	Grade 8 Math
South Carolina	Grade 4 Math
South Dakota	Grade 8 Reading

Student Achievement 2

- *Improving the Achievement of Tennessee Students: Analysis of the National Assessment of Educational Progress (RAND)*
- Annual NAEP gains from 1990-2003.

Tennessee Had Annual Gains of About One-Half Percentile Point a Year, 1990–2003



Average annual gain across all tests, 1990–2003 (percentile points)

NOTE: Score gains within the box are not statistically different from Tennessee's at the 90% level of confidence.

Student Achievement 3

- OREA compared state NAEP gains (in 4th math, 4th reading, 8th math, and 8th reading from 2003 to 2005 and 2005 to 2007) to national average gains.
- OREA identified the 10 states with the consistently largest gains.

	Average Standard Gains
Massachusetts	1.114
Pennsylvania	0.960
New Jersey	0.930
District of Columbia	0.859
Maryland	0.827
Florida	0.746
Texas	0.618
Arkansas	0.550
Kansas	0.409
New Mexico	0.374

Student Achievement 4

- OREA compared state NAEP scores (in 4th math, 4th reading, 8th math, and 8th reading in 2003, 2005, and 2007) to the national average scores.
- OREA identified the 10 states with the consistently highest scores.

	Average Standard Scores
Massachusetts	1.632
New Hampshire	1.187
Vermont	1.152
Minnesota	1.075
New Jersey	0.963
North Dakota	0.946
Montana	0.865
Kansas	0.807
Virginia	0.768
South Dakota	0.759

Comparison States 1

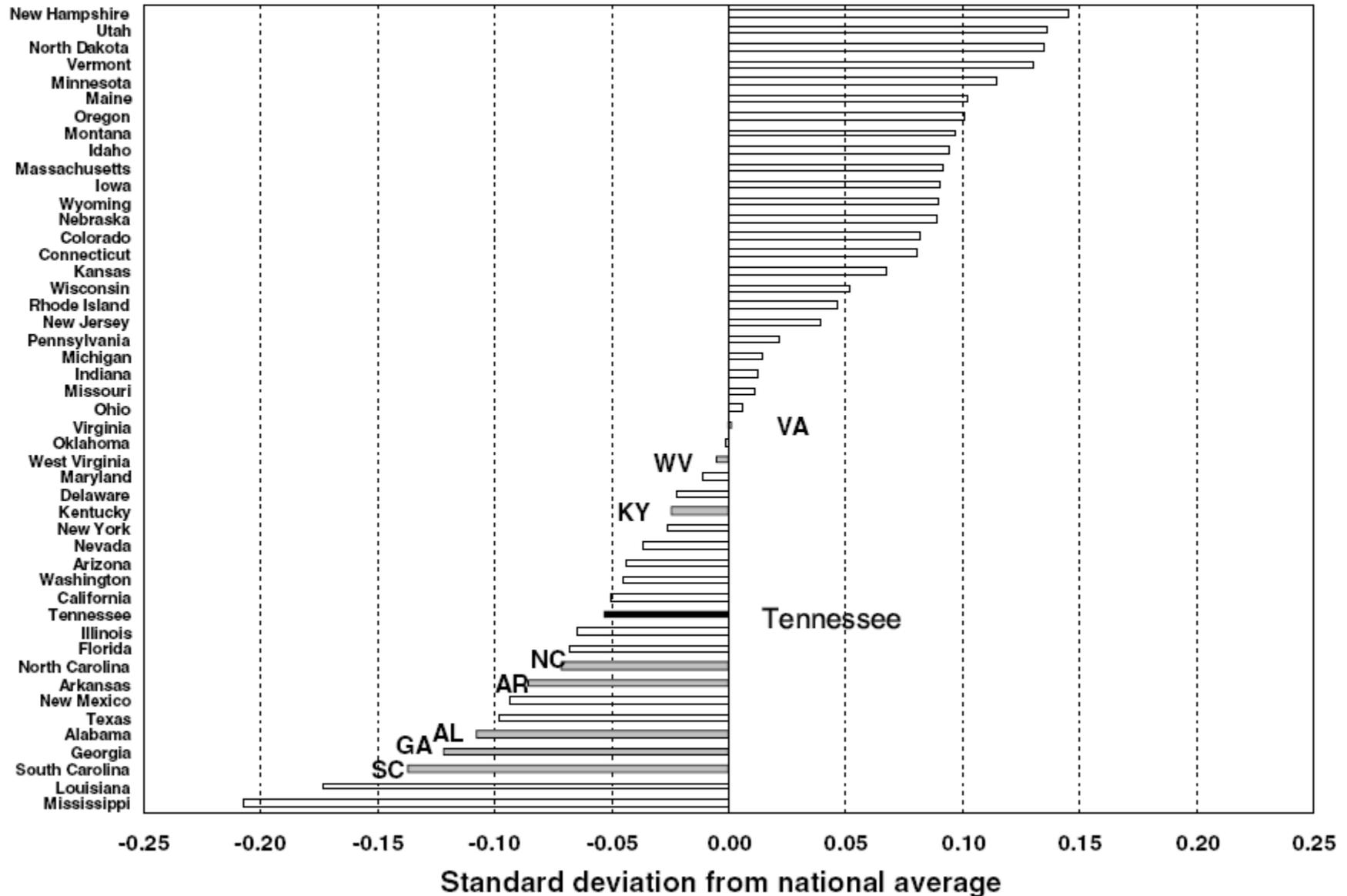
- OREA identified states within 10% of Tennessee's per-pupil expenditures, 2002-2007.

	AVERAGE 2002-2007	
Utah	5,082	
Arizona	6,191	10% Lower Limit: 5,829
Idaho	6,210	
Mississippi	6,213	
Oklahoma	6,405	
Tennessee	6,477	
Nevada	6,512	
Alabama	6,733	
North Carolina	6,833	
Florida	6,894	
Kentucky	6,970	
South Dakota	7,056	
Arkansas	7,058	10% Upper Limit: 7,125
Texas	7,157	

Comparison States 2

- OREA identified a cluster of states surrounding Tennessee in RAND's ranking of family characteristics predicting achievement.

Tennessee Ranks 36th Out of 47 on a Weighted Measure of Family Characteristics Predicting Achievement



Results

- ***High Return on Investment / High Achieving States***

	Return on Investment		Student Achievement				Comparability		Total
	OREA	Leaders and Laggards	Standard and Poor's	RAND	OREA Gains	OREA Scores	Per Pupil Expenditures	Family Characteristics	
Florida		1	1	1	1		\$	#	4 \$ #
North Carolina	1	1	1	1			\$	#	4 \$ #
Kansas		1	1		1	1			4
South Dakota	1		1			1	\$		3 \$
Massachusetts		1			1	1			3
Minnesota		1	1			1			3
Utah	1	1							2

Utah

Significant education initiatives:

- 1994—The Electronic High School (state curriculum matched; also available outside Utah)
- 1998—Utah Basic Skills Competency Test
- 2000—Utah Performance Assessment System for Students (UPASS)
- 2003—focus on core curriculum; increase graduation rates; progress in high-school challenging course; competency-based progress and graduation
- 2004—K-3 Reading Improvement Program
- 2006—increased graduation requirements

Florida

Significant education initiatives:

- Overhaul of academic standards and state accountability system
- Teacher policy reforms
- Longitudinal data system
- Focus on reading
- Florida Virtual School
- Non-traditional school options

North Carolina

Significant education initiatives:

- Overhaul of academic standards and state accountability system
- Teacher policy reforms
- Virtual Education and Dual Enrollment
- Focus on reading
- Public School Forum

Concluding Thoughts

- No single policy builds a successful education system; however, research points to a certain set of variables that are essential for success.

Recent Chicago study identified 5 key elements:

- 1. School leadership**
- 2. Parent-community ties**
- 3. Faculty and staff capacity**
- 4. Safety and order**
- 5. Strong curriculum and instructional support**

Note: schools must be strong in all of these elements for the best student outcomes

Concluding thoughts

Continuous quality improvement requires sustained focus by:

Government, business, & community leaders....,

Families (parents, students)....,

Education academic professionals (board, director, principals, teachers)....,

Education non-academic professionals (counselors, coaches, tutors, SROs, logistic support).

Contact Information

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