

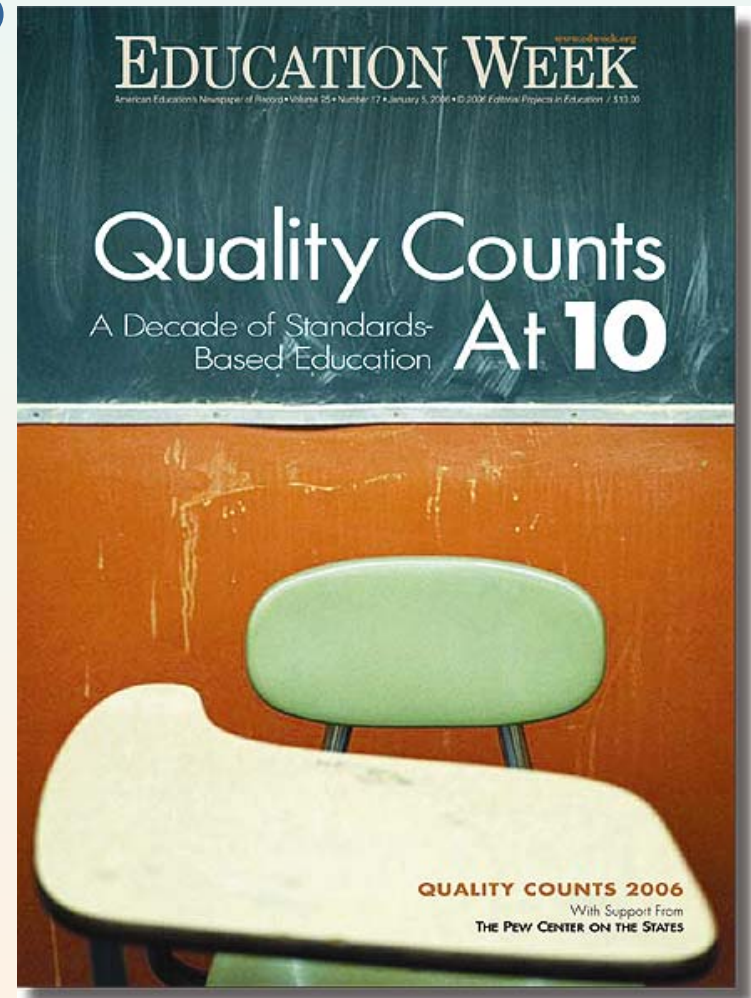
Quality Counts

A Decade of Standards-
Based Education

At 10

10 Years of Quality Counts

- Launched in 1997
- Focus on state pursuit of standards-based education
- Tracks trends in student achievement and state policy



In the 10th Edition

- Analysis of NAEP achievement trends
- EPE Research Center study of link between state policy and achievement
- State case studies
- Commentaries
- State policy report cards

NAEP Achievement Analysis

- Analysis conducted by ETS
- National and state trends 1992-2005
 - Math and Reading
 - Grades 4 and 8
- Detailed results in *Quality Counts*
 - Trends over time
 - State vs. Nation comparisons
 - Achievement gaps

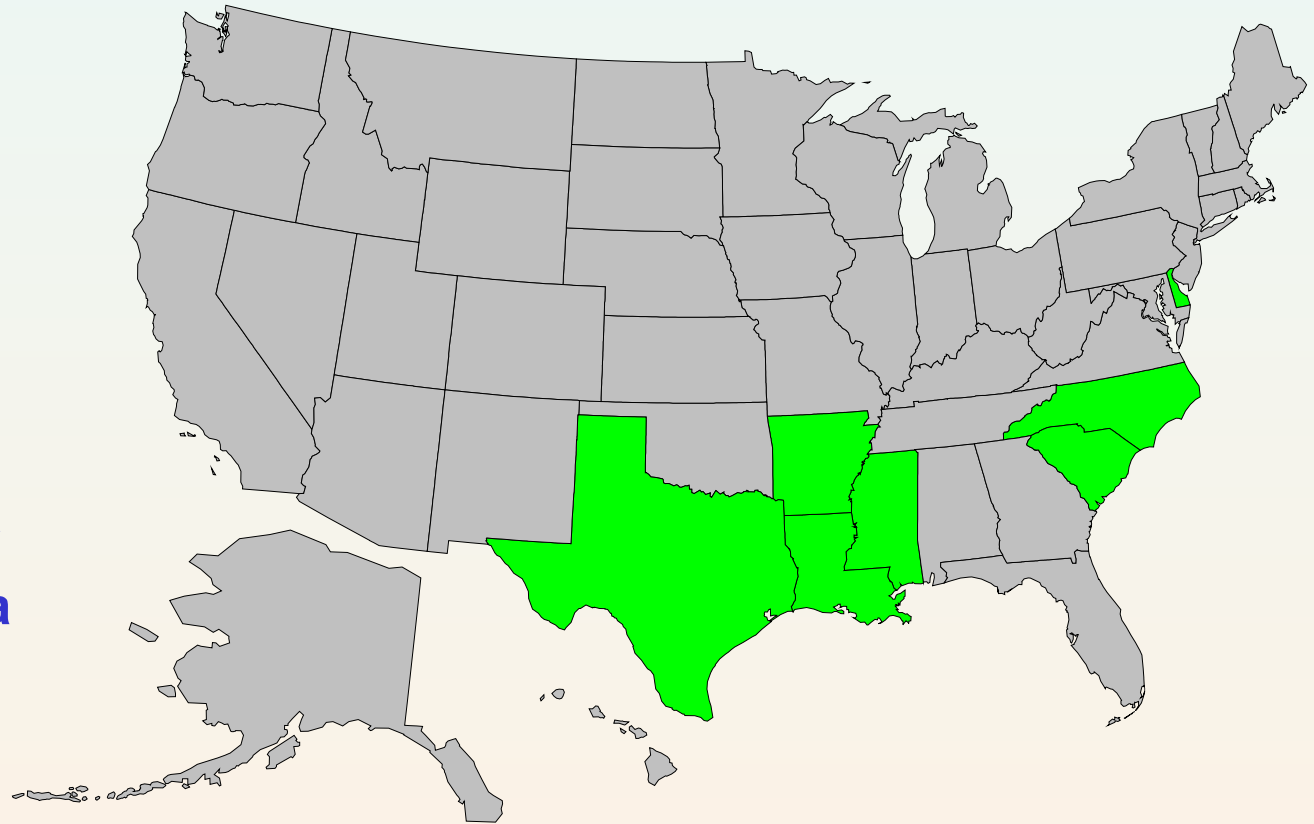
The Good News in Math

- Significant national improvement in NAEP math between 1992 and 2005
 - Increase of 18.5 points in 4th grade
 - Increase of 10.7 points in 8th grade
- Gains found across all states
- Improvements at both the “basic” and “proficient” achievement levels

State Standouts in Math

Improvements in seven states consistently outpaced the nation as a whole

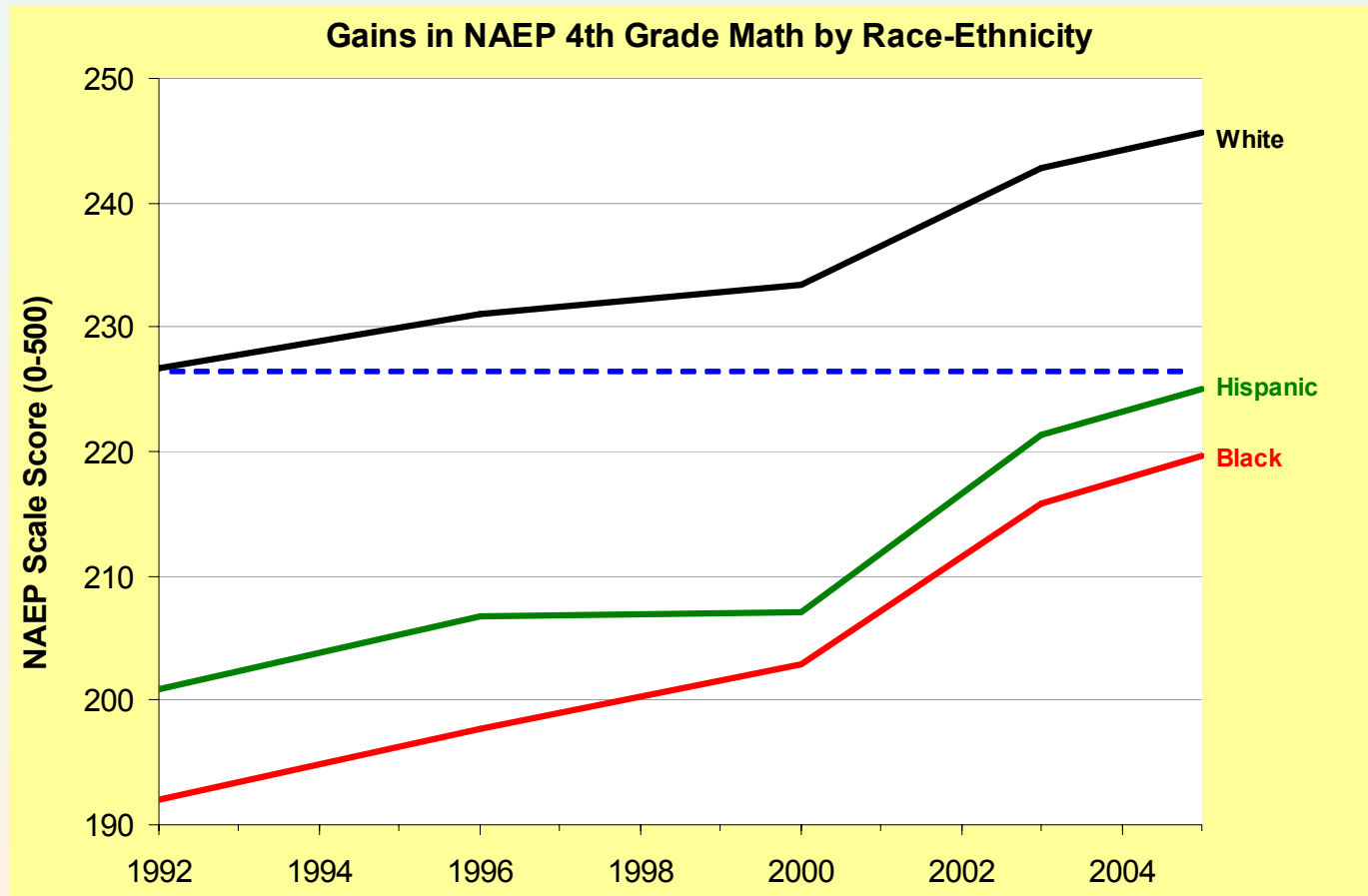
- **Arkansas**
- **Delaware**
- **Louisiana**
- **Mississippi**
- **North Carolina**
- **South Carolina**
- **Texas**



Source: ETS analysis of NAEP 1992 and 2005 Math Assessments

Gains Greatest for Low-Performing Groups

- The most dramatic improvements are found for younger students
 - 4th grade math: **Black + 27.7 points** **Hispanic + 24.2 points**



SOURCE: Editorial Projects in Education Research Center, 2006.

Less Progress in Reading

- Little improvement in NAEP reading scores nationwide since 1992:
 - +2 points at grades 4 and 8

But ...

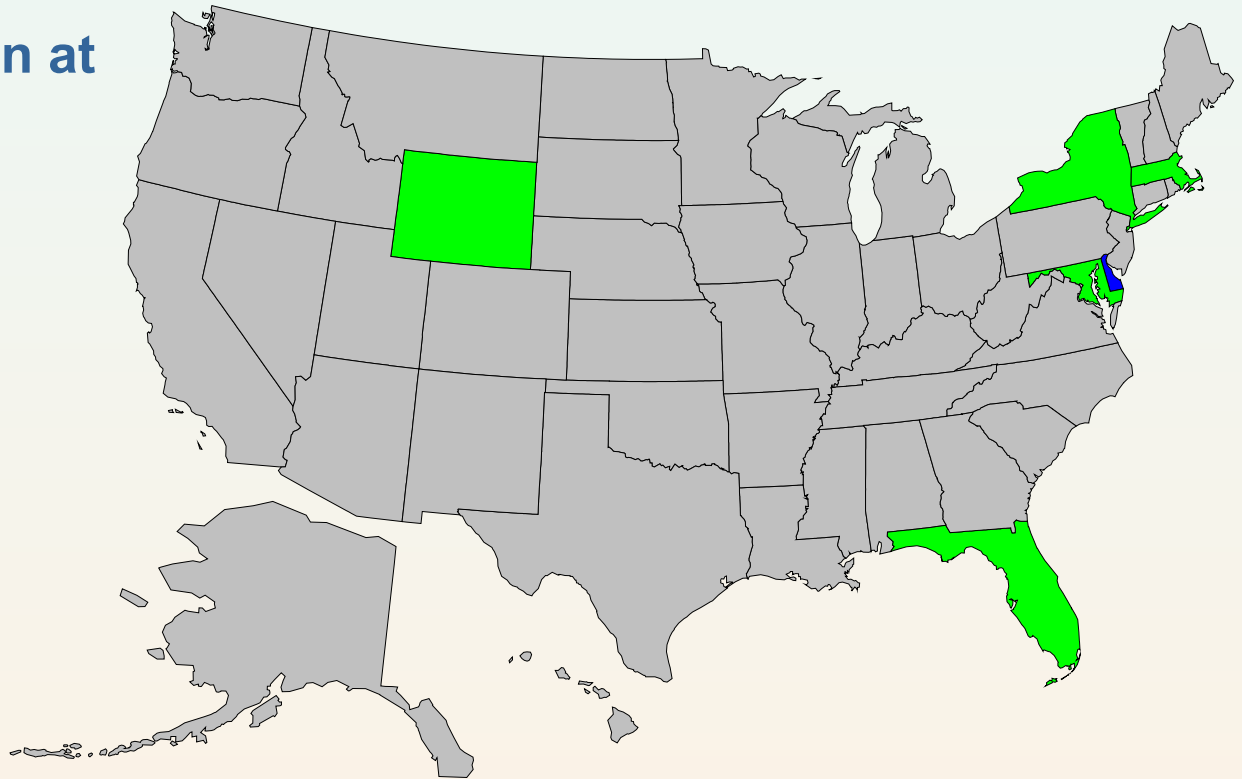
- Gains have been stronger for **black**, **Hispanic**, and **low-income** students, especially at 4th grade:
 - about 2/3 of a grade level

Standouts in Reading

While some states have outpaced the nation as a whole ...

Greater gains than nation at

- Grades 4 and 8
 - Delaware
- Grade 4 only
 - Florida
 - Maryland
 - New York
- Grade 8 only:
 - Massachusetts
 - Wyoming

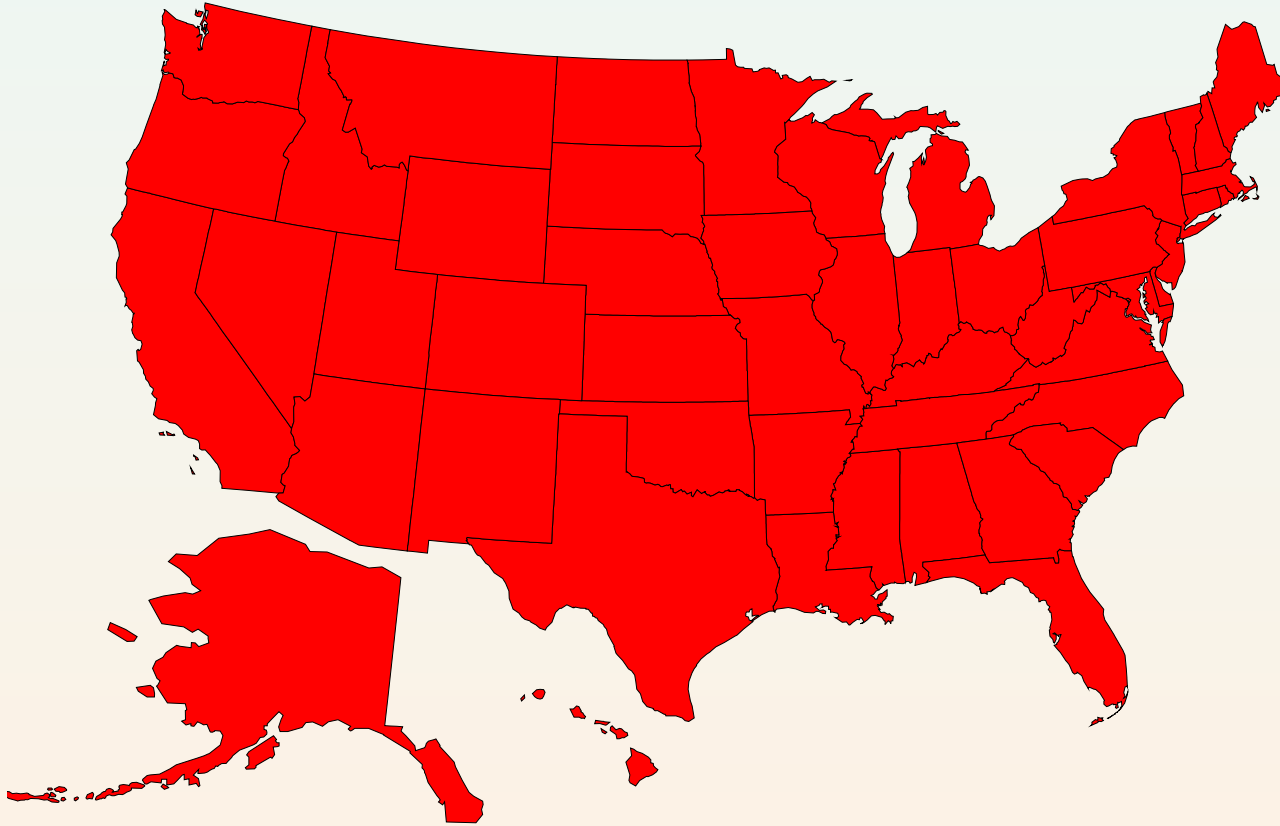


SOURCE: ETS analysis of NAEP 1992 and 2005 Reading Assessments

other states have seen significant declines in reading since 1992.

Achievement Gaps Persist

Even in 4th grade math, which has seen great progress in the past decade, significant achievement gaps existed in 2005 between poor and non-poor students in all states.



SOURCE: ETS analysis of NAEP 2005 Math Assessments

2006 State Case Studies

- *Quality Counts 2006* profiles several states that made notable progress over the past decade
- Themes from case studies
 - Reforms bring coherence
 - Early adopters that held the course
 - Gains for low-performing groups
 - Challenges persist

Making the Connection

- Special Study by the EPE Research Center
- Achievement Trends
- State Policy Trends
- Policy-Achievement Links



THREE QUESTIONS ABOUT ACHIEVEMENT AND POLICY

Education Week published the first edition of its annual *Quality Counts* reports in 1997. The annual report card on public education in the 50 states and the District of Columbia was conceived to help monitor state progress in adopting the core elements of standards-based reform, an approach to educational improvement that had started to take hold across the nation. Key levers of that strategy include establishing academic standards for what students should know and be able to do, aligning assessments to those standards, implementing accountability measures, and providing supports to improve teacher quality. In some respects, *Quality Counts* has spent the last decade focused primarily on answering one basic, but important, question: Have the states adopted policies that support standards-based education?

Over the same period, within *Quality Counts* and elsewhere, interest has grown in answering a second, equally important, question: Have the states made progress in improving the academic achievement of their students? For years, efforts to gauge state-to-state differences in performance were hindered by the lack of comparable state-representative data on student achievement. However, the advent of the National Assessment of Educational Progress (NAEP) State Assessment program in the early 1990s and its subsequent expansion have provided analysts with a rich source of reliable information on levels of student achievement across the states and over time.

It was perhaps inevitable that these two questions would converge to create a third line of inquiry investigating whether state policies have been responsible for gains in student achievement. In fact, a variety of studies have examined this issue, with high-stakes accountability policies receiving particularly intense attention in recent years. Despite such efforts, establishing a firm connection between state policy and student achievement has proven to be a rather elusive target. Different researchers have arrived at different, sometimes conflicting, findings. Studies of state-level policy effects are, unfortunately, not amenable to the kinds of more conclusive experimental methods that the education research

community increasingly has recognized as a gold standard for empirical investigations. So, a research-based consensus on the effectiveness of standards-based reform has yet to emerge.

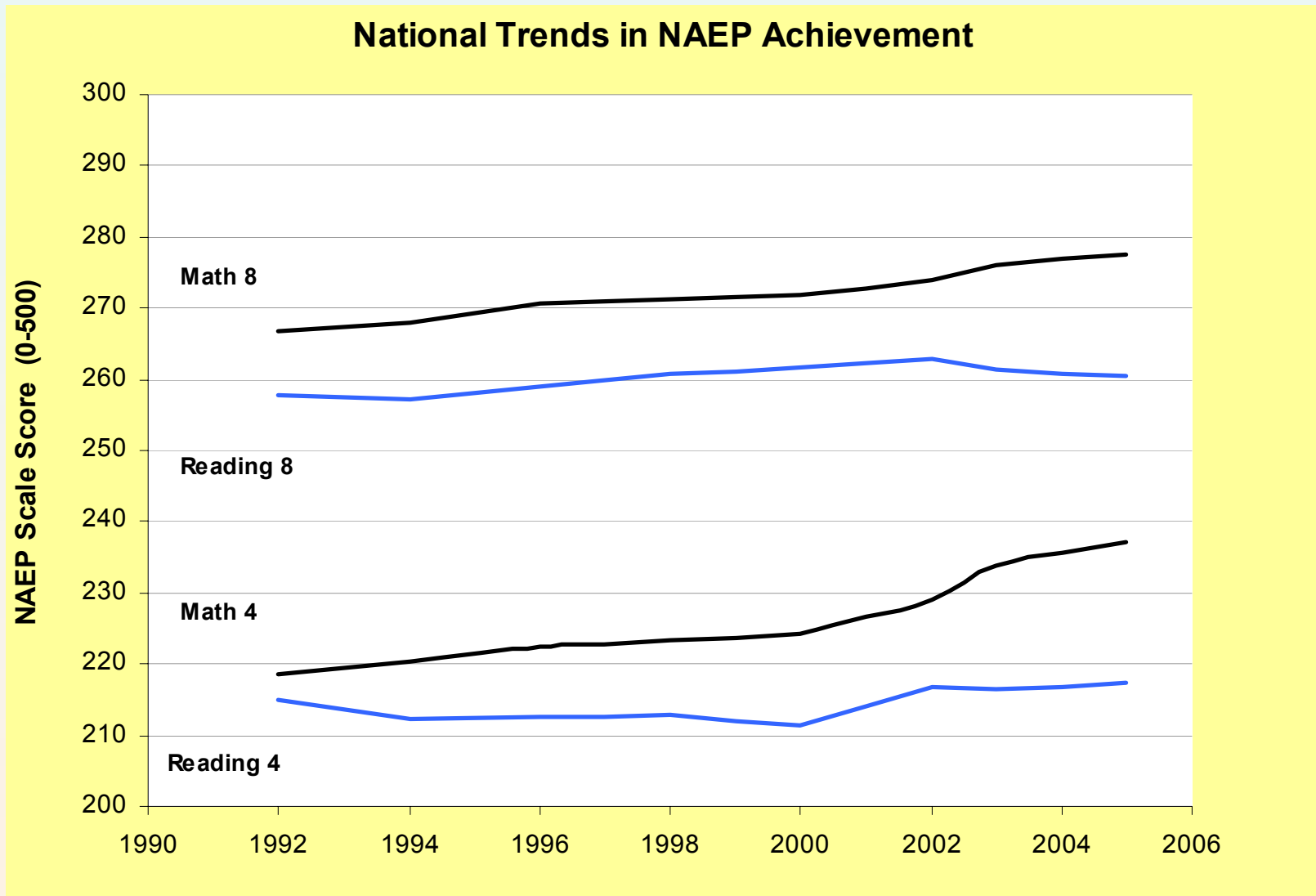
For the 10th edition of *Quality Counts*, the Editorial Projects in Education Research Center conducted a special analysis to explore this policy-achievement connection. The results of this study are highlighted in *Quality Counts 2006* and presented in more detail in the current report.

We find strong evidence that implementing a solid program of standards-based education policies has been associated with significant gains in mathematics achievement over the past decade, as measured by NAEP. Positive but less dramatic results are also found for achievement in reading. However, these benefits appear to be limited to certain elements of a standards-based approach—academic content standards, aligned assessments, and accountability. Results suggest that policies related to improving teacher quality are negatively related to achievement growth, although the reason for this relationship remains unclear.

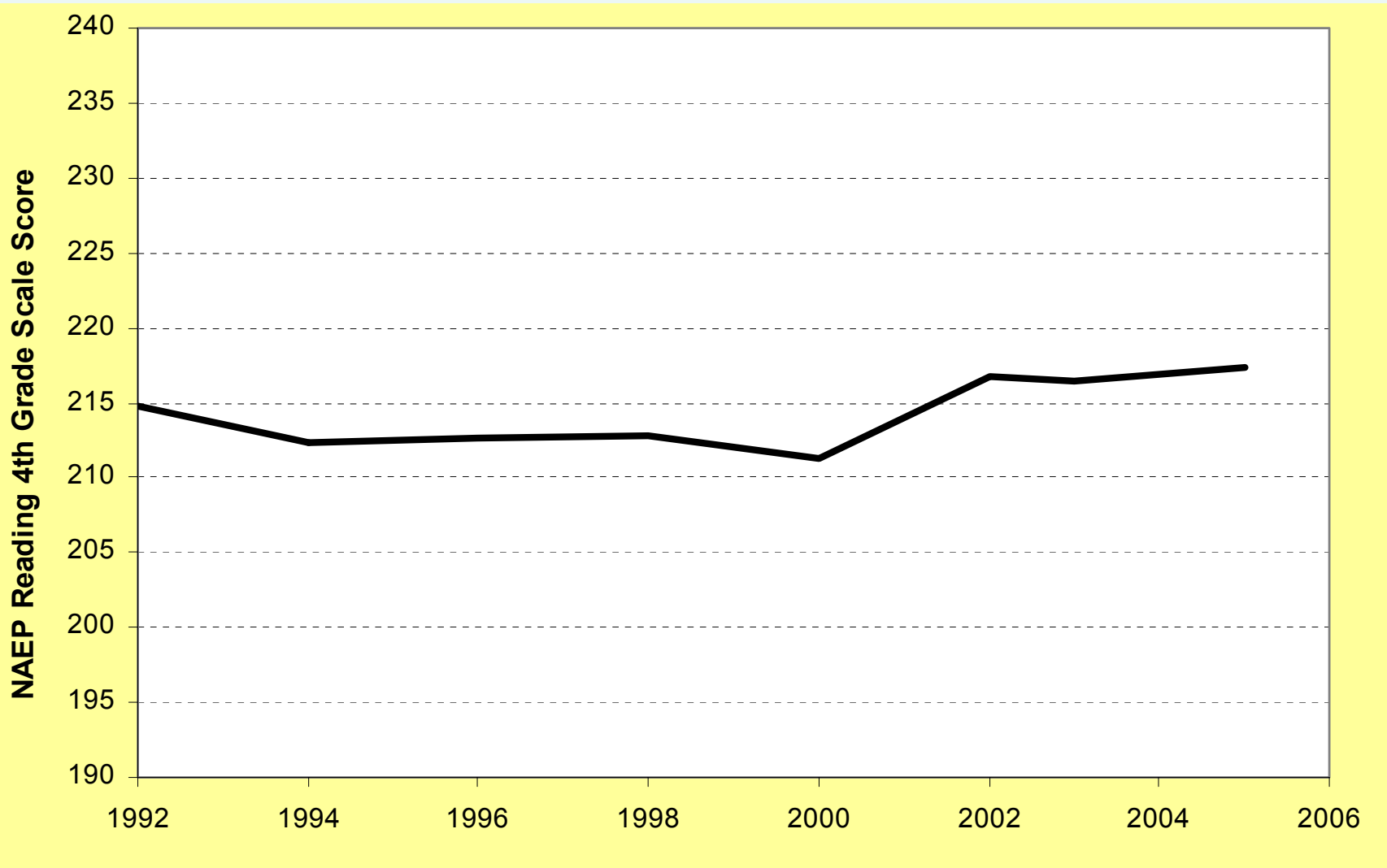
The current study, like any other, has certain strengths and limitations. So the results of this investigation are best viewed as informative rather than definitive. That said, care was taken to develop a research design that could maximize the reliability of the findings and strengthen our confidence in the results. For example, we employ a more extensive database of state policy indicators than most other studies, drawing from a decade of *Quality Counts* reports and supplementary sources. This allows us both to characterize the overall strength of standards-based-reform efforts and to delve deeper into the implementation of specific policy levers. Rather than concentrating on achievement in a single subject and grade level, this study also examines the relationship between state policies and four separate achievement outcomes. We conduct parallel analyses of achievement, using NAEP scale scores, in mathematics and reading at both the 4th and 8th grades.

In the following sections of this report, we first present descriptive information on trends in state policy and achievement over the past decade. This preliminary analysis

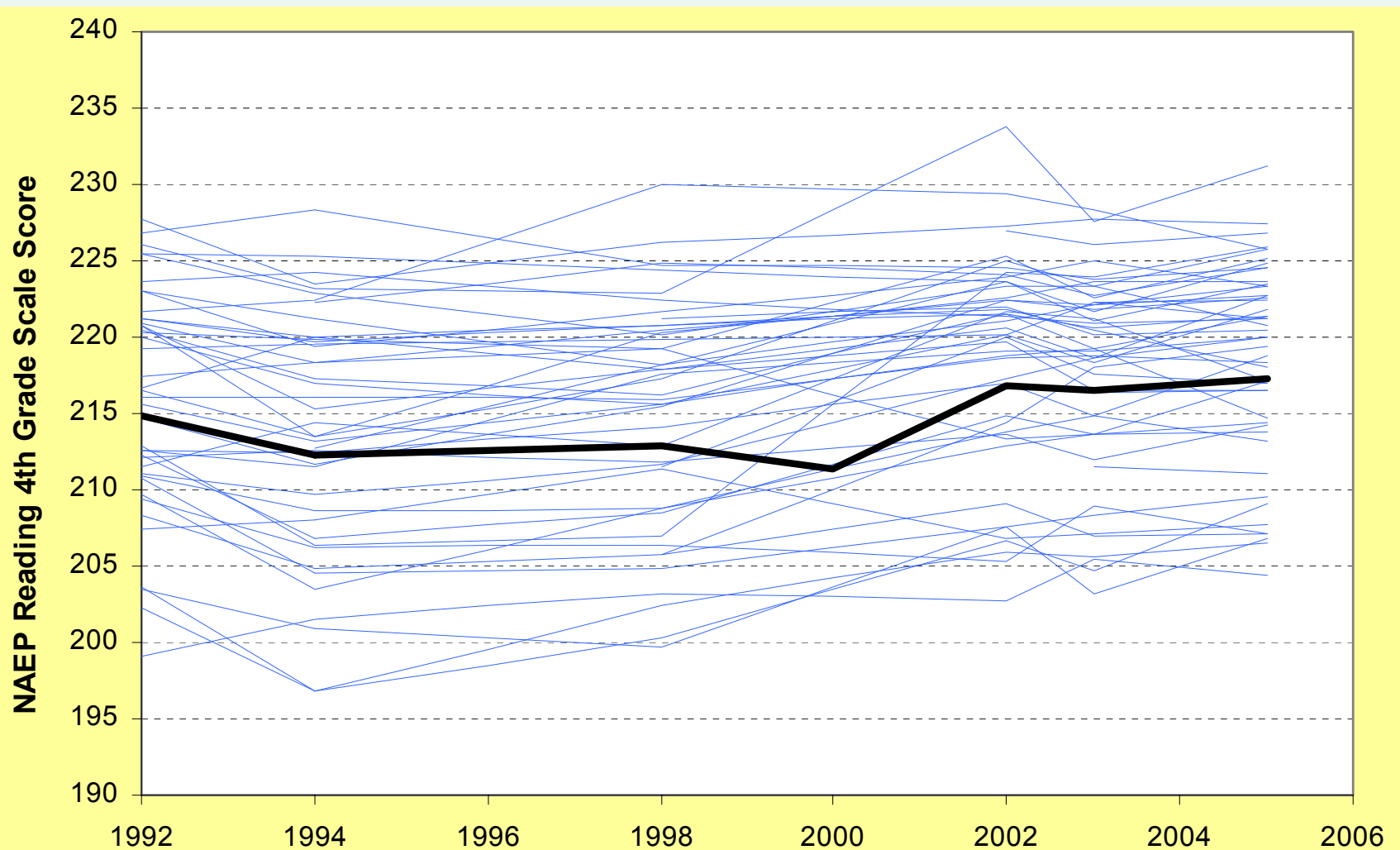
Achievement Trends



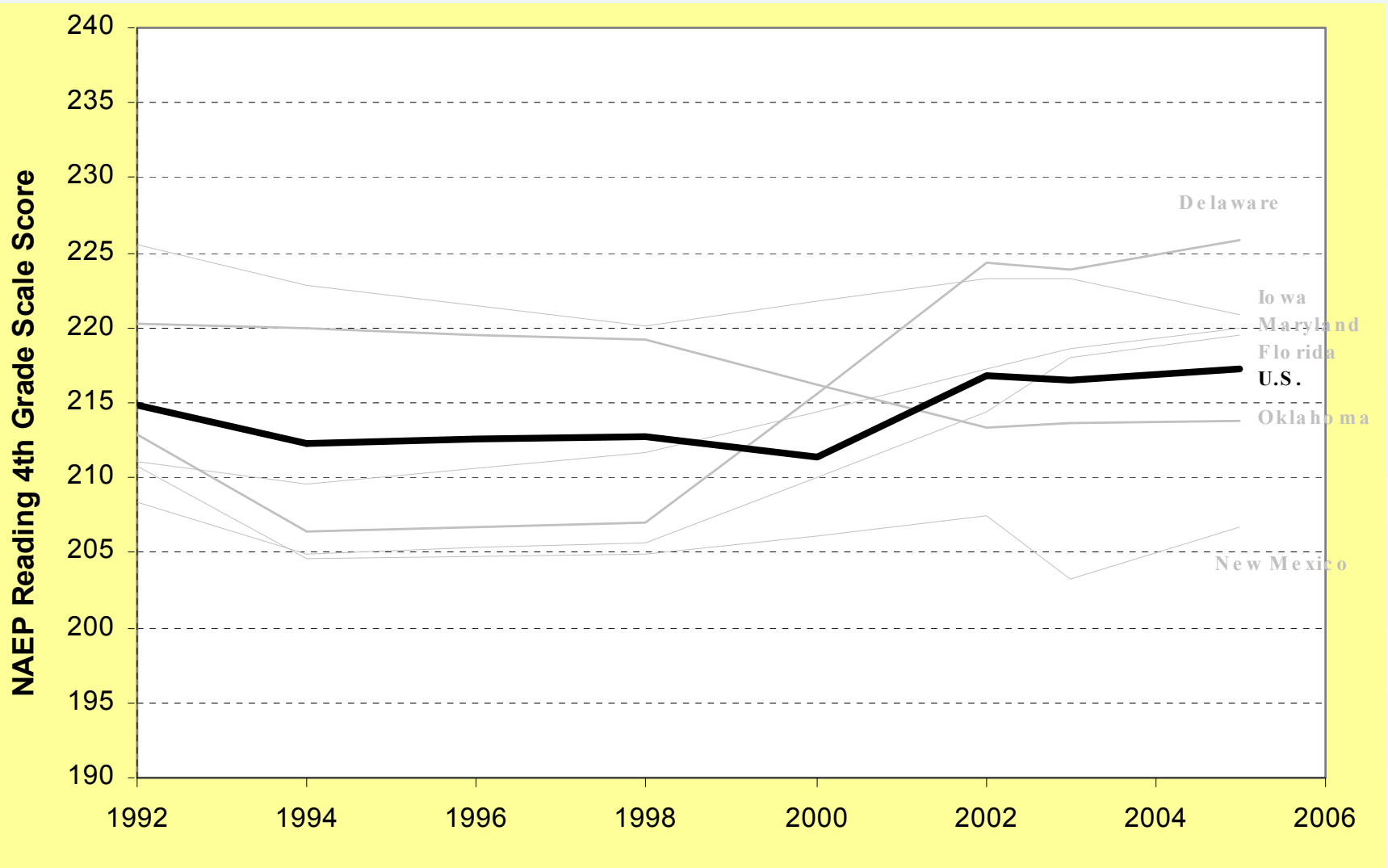
4th Grade Reading - U.S.



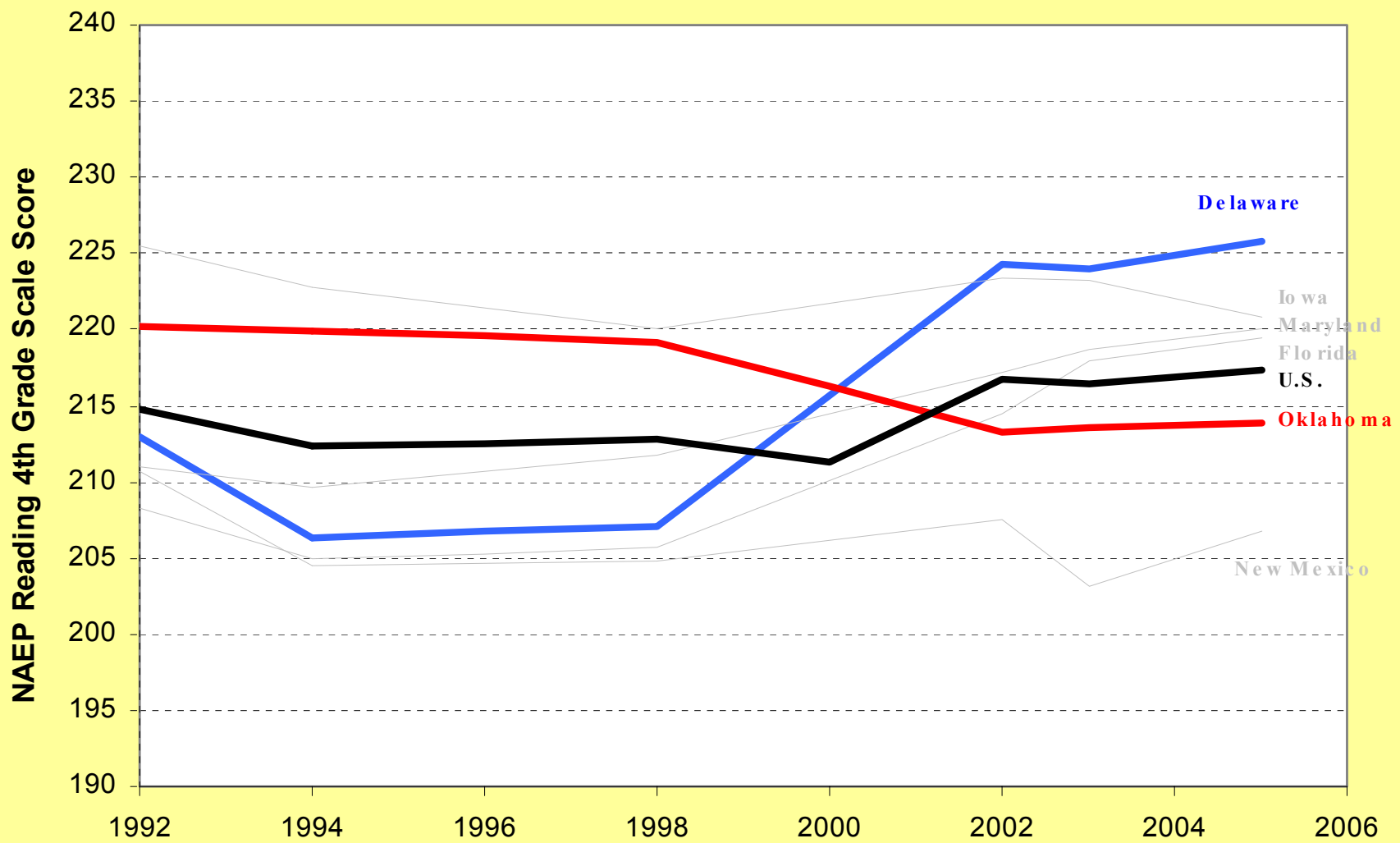
4th Grade Reading - 50 States



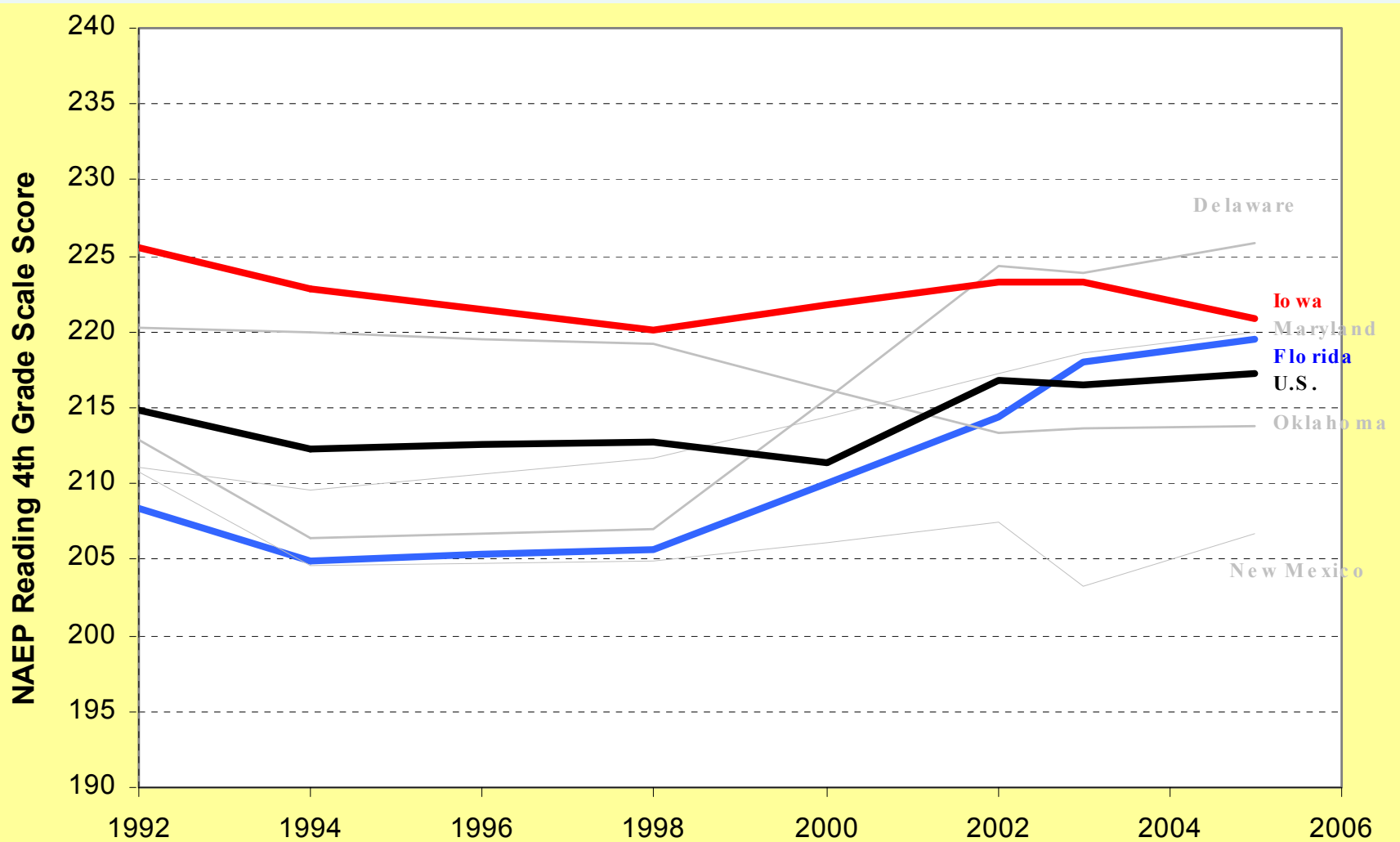
Reading 4 - State Standouts



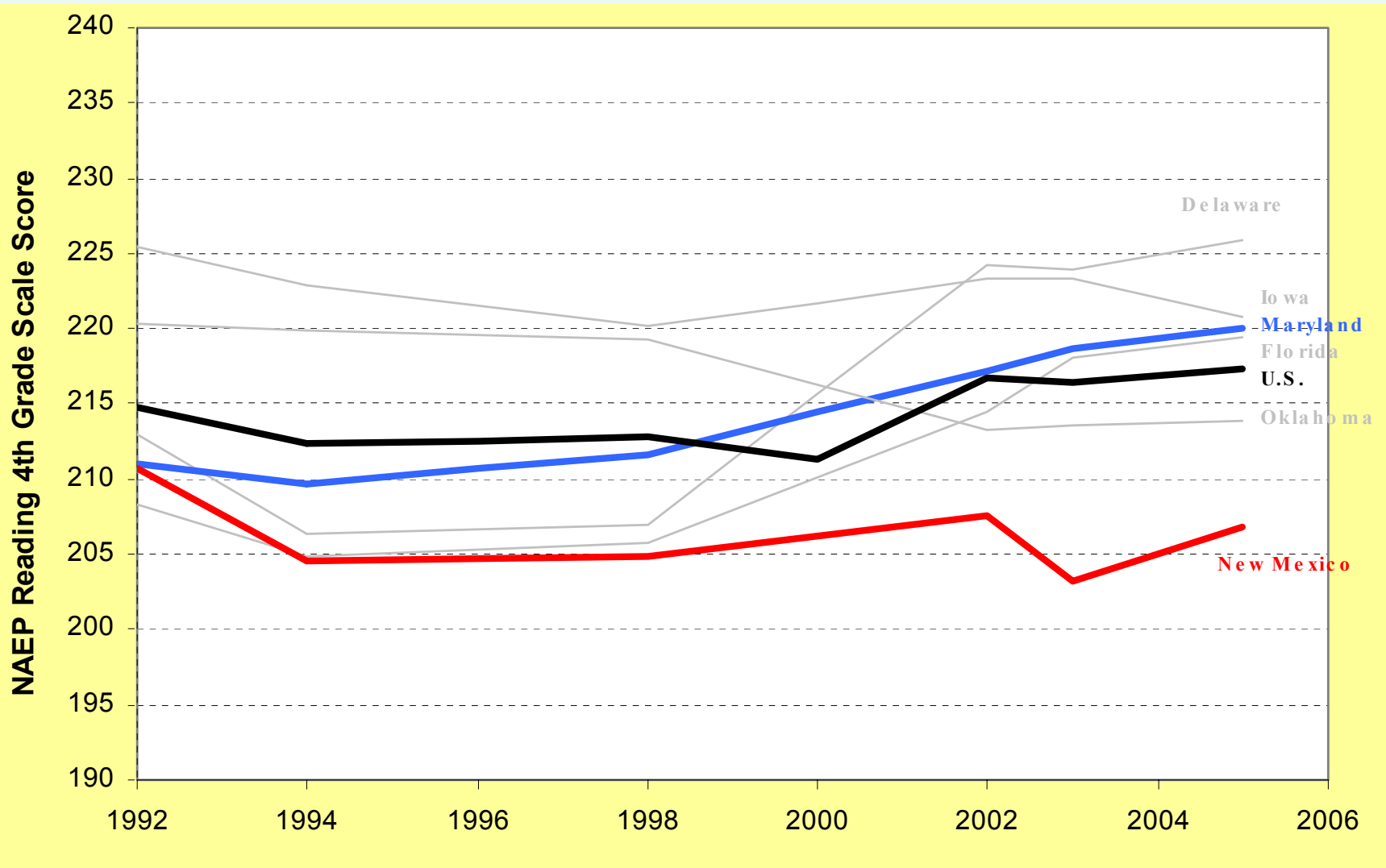
Standouts - Delaware and Oklahoma



Standouts - Florida and Iowa



Standouts - Maryland and New Mexico



Tracking State Policies

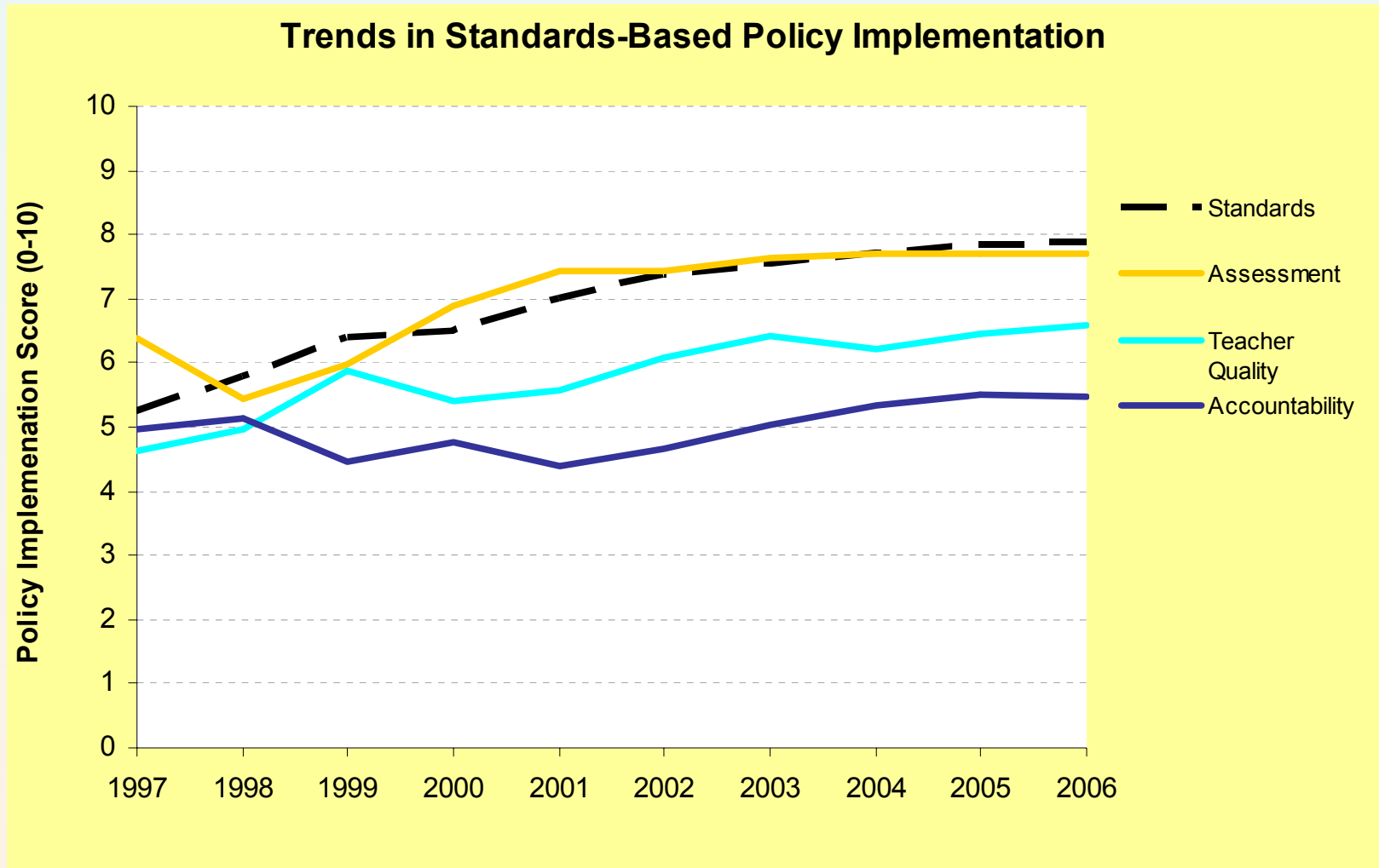
- 2 goals for tracking policies
 - Consistent indicators over time
 - Key elements of standards-based reform

- Research Center study departs from the traditional *Quality Counts* organization
 - Indicators have changed over time
 - Grading rules have also changed

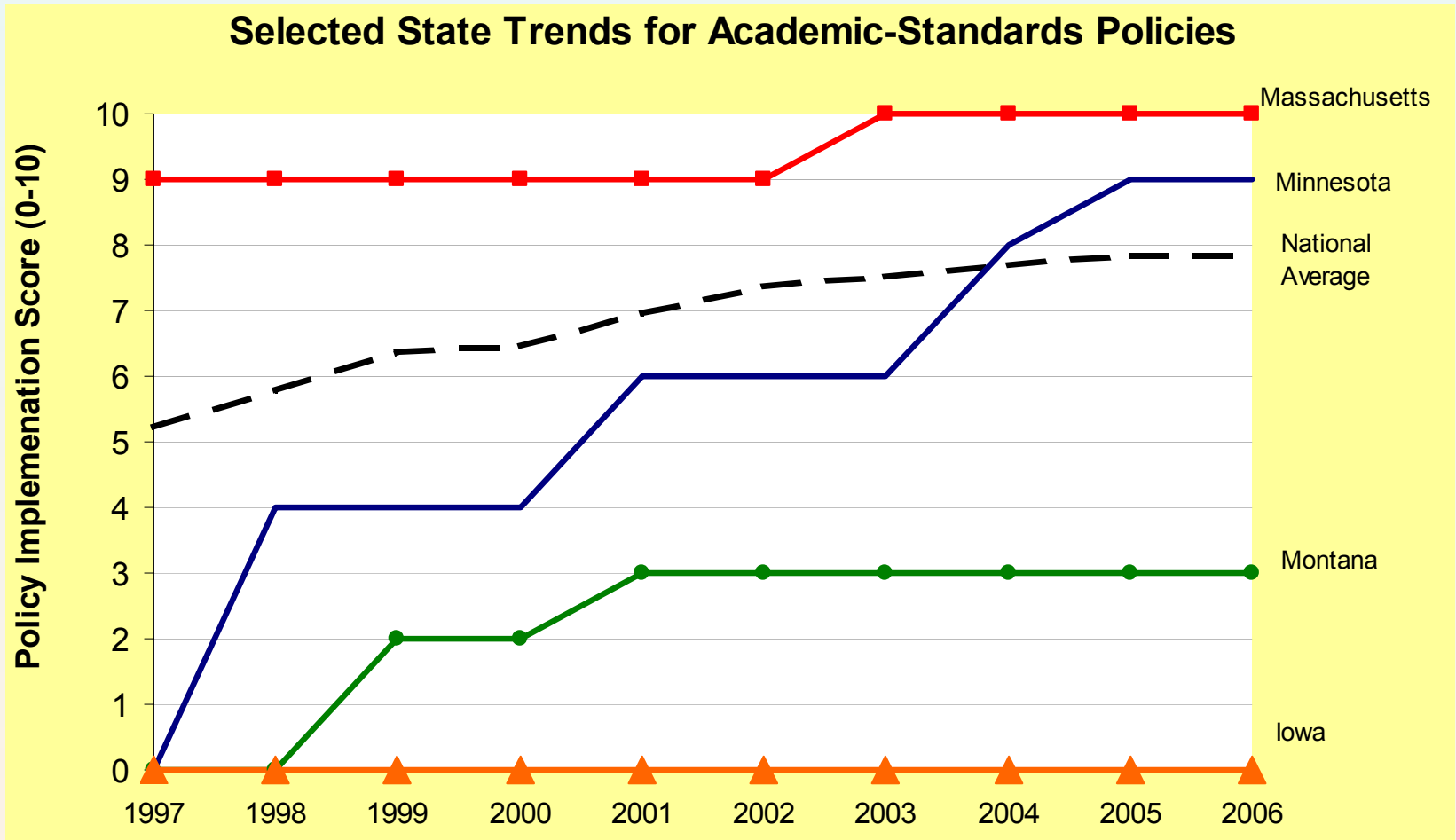
Policy Indicators

- Study tracks 24 individual indicators in 4 categories
 - Academic Content Standards
 - Assessments
 - Accountability
 - Efforts to Improve Teacher Quality
- State implementation scored on a 10-point scale
 - In each of the 4 categories
 - Averaged across categories for total score
- Source of policy data
 - *Quality Counts* report 1997-2006
 - Supplemented with reliable outside sources

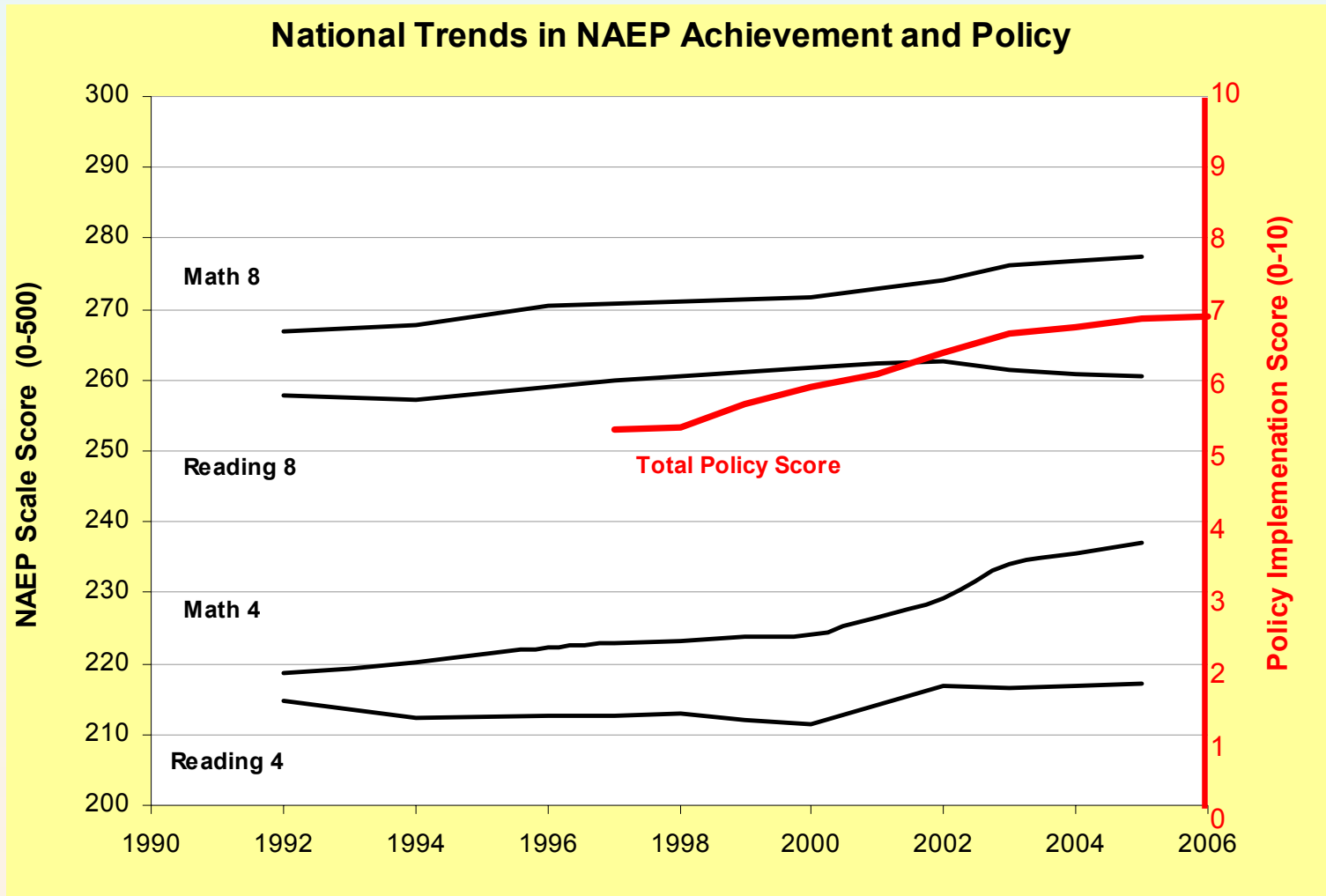
A Decade of Policymaking



States Take Different Paths

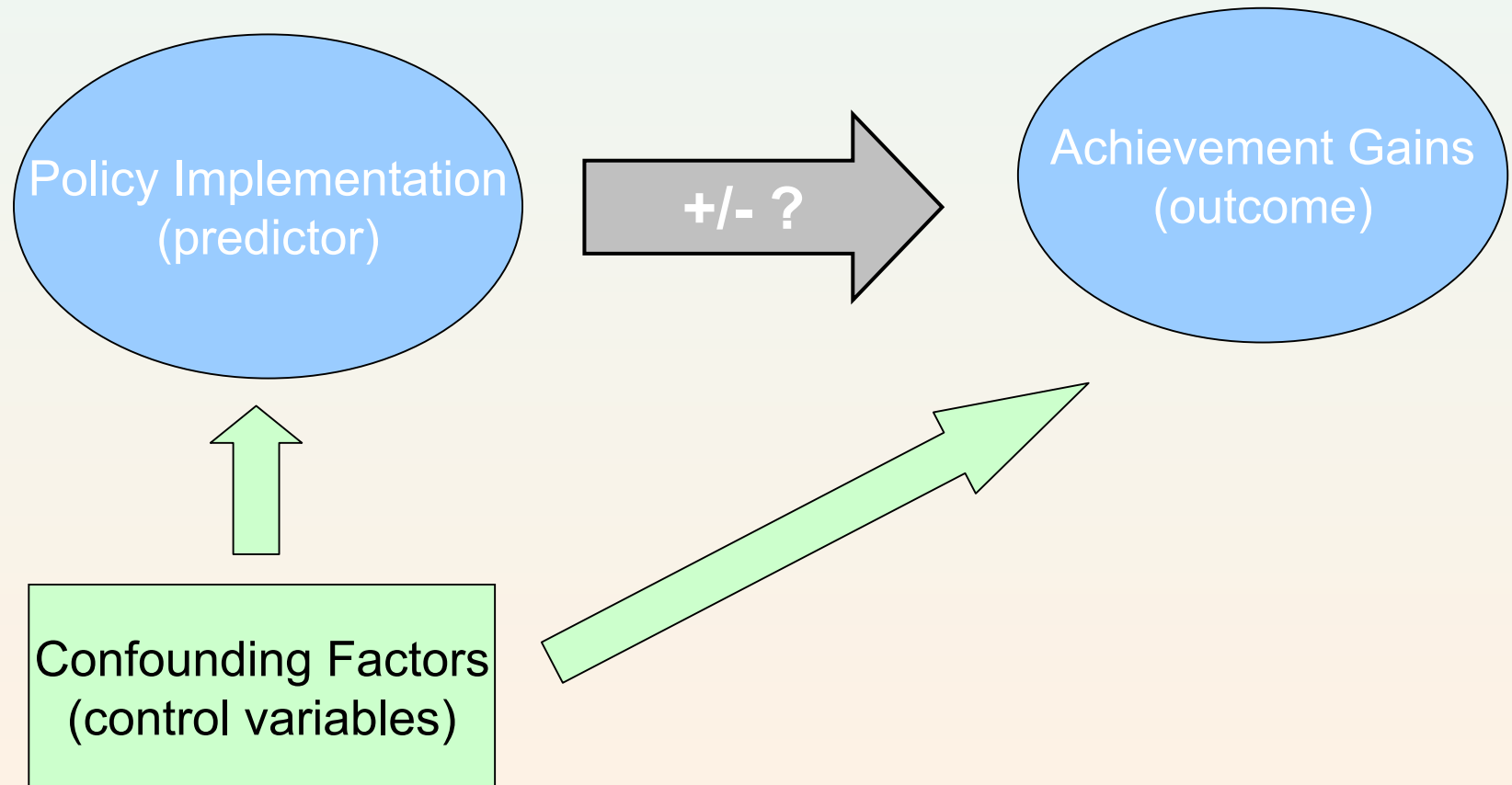


Parallel Trends?



Putting the Pieces Together

- A very brief (and non-technical) primer on regression analysis



The Regression Models

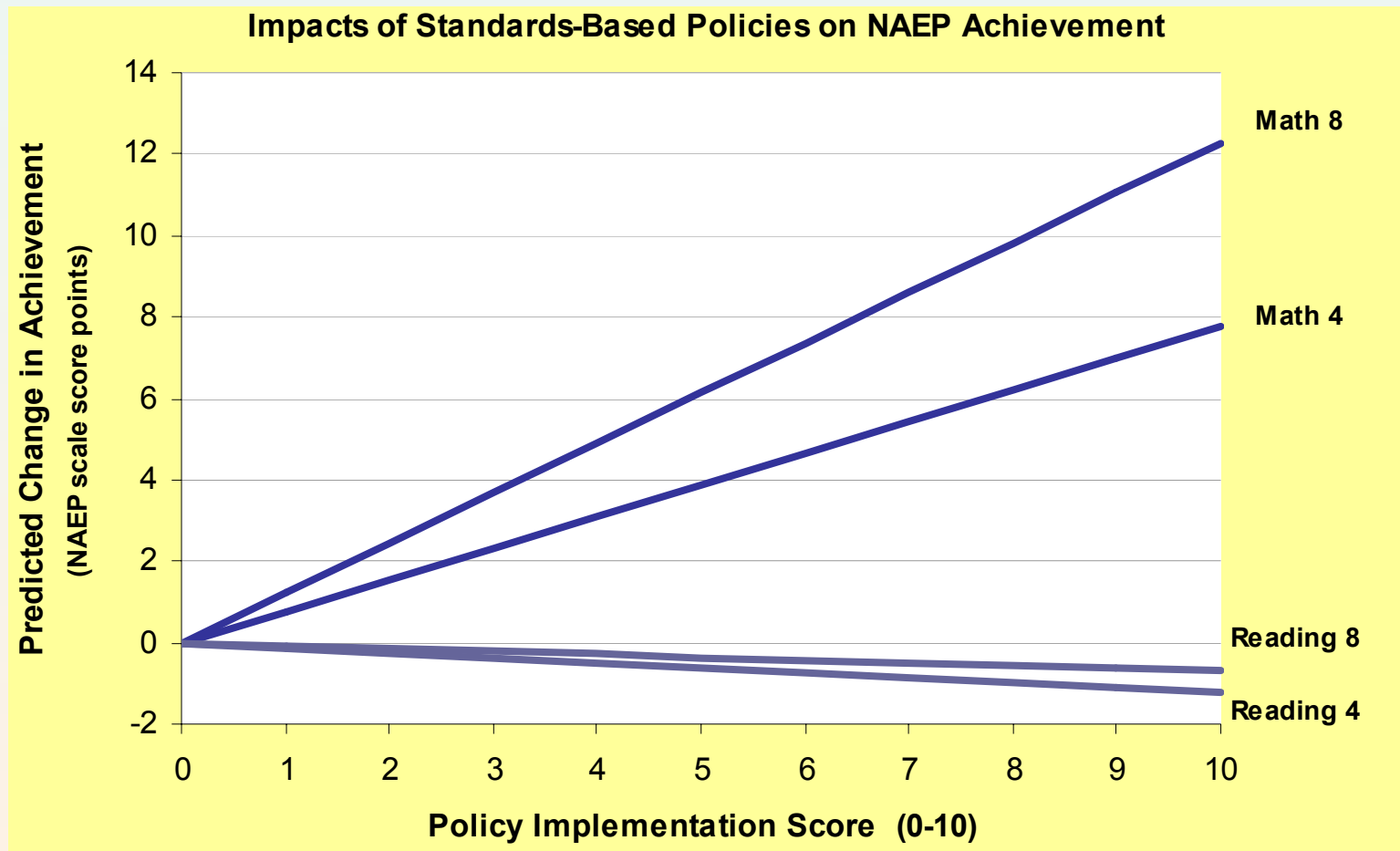
- 4 Separate analyses: math and reading, grades 4 and 8
- Outcome: **Change** in Average State Achievement
 - NAEP Math (1996-2005)
 - NAEP Reading (1998-2005)
- Predictor: Policy Implementation (**change** 1997-2005)
 - Total policy score
 - Scores for sub-categories (standards, assessment, accountability, teacher quality)
- Control Variables
 - Prior achievement levels
 - Prior policy levels
- What about school finance indicators?

Caveats

- All research has strengths and weaknesses
- Strengths of this study
 - State policy data – multiple measures, detailed, consistent over time
 - Solid regression framework - changes-on-changes, controls
 - Multiple achievement measures – 4 NAEP outcomes
- Limitations of the study
 - Small sample - the states (some missing)
 - NAEP limitations - accommodations changes, not state-aligned
 - Policy analysis is tricky
- So, be cautious about inferring causal effects from statistical "effects"

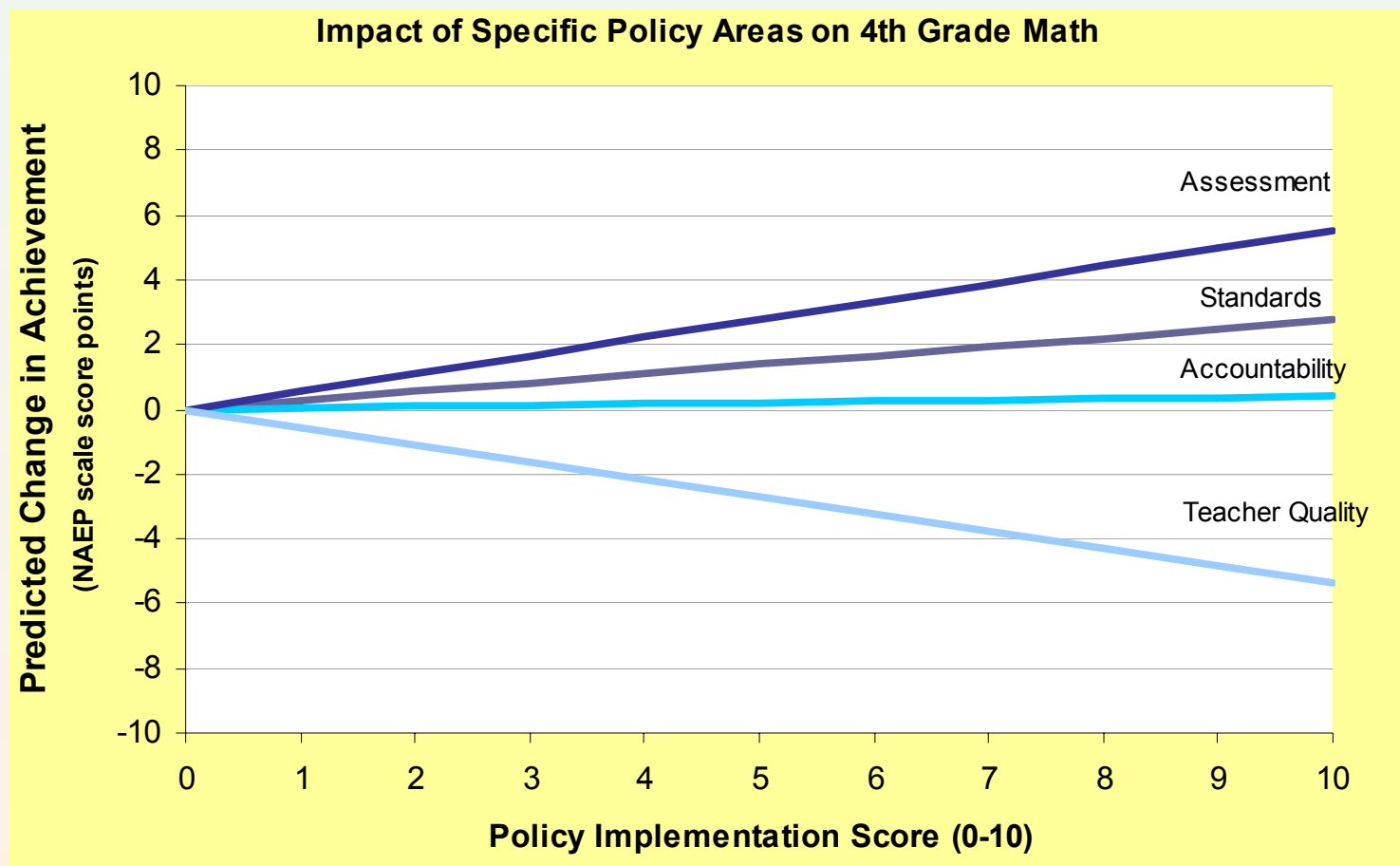
A First Look

- Regression models estimate effects of total policy score



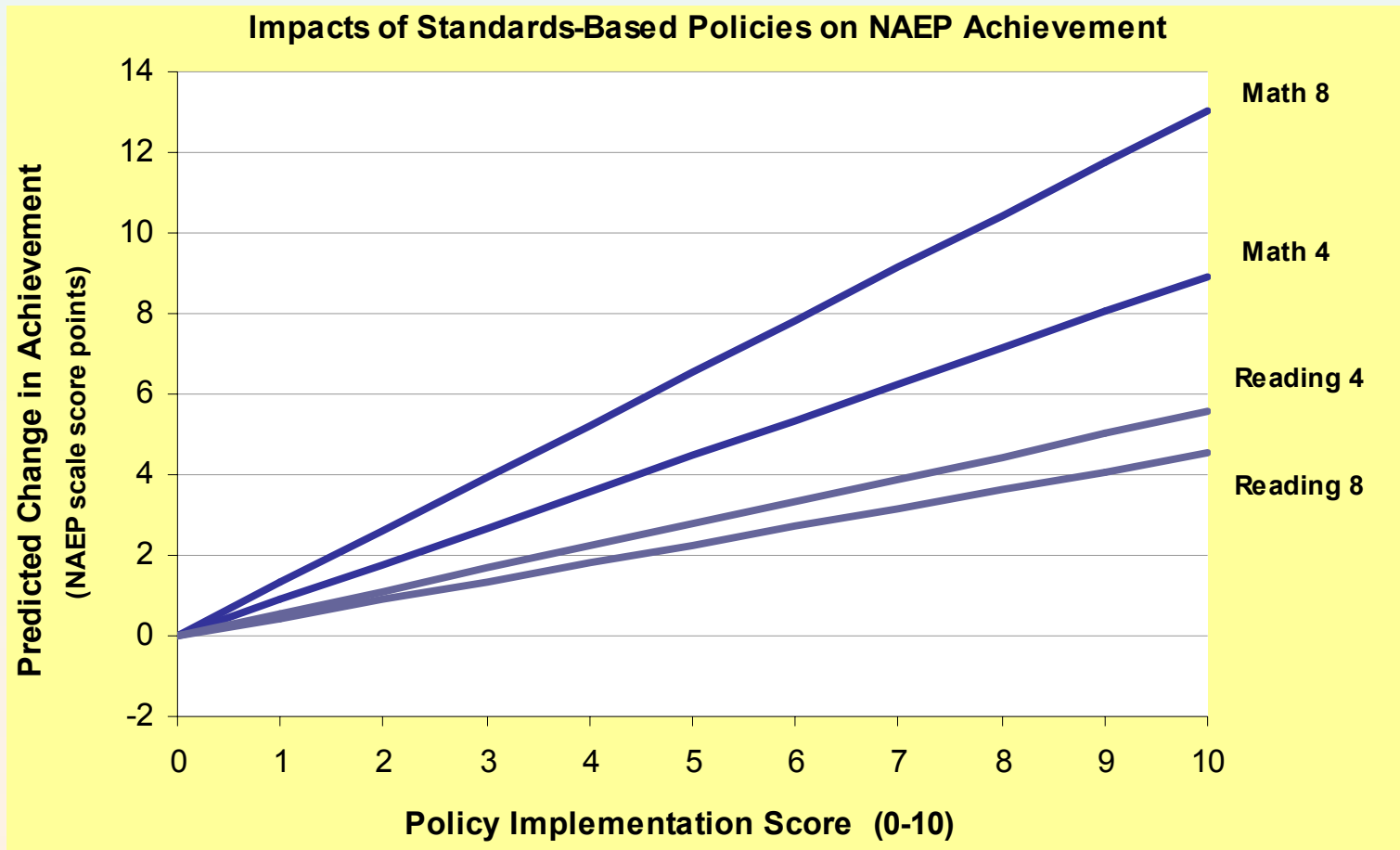
A Closer Look

- Deconstruct total policy score into 4 separate components
- Findings same across all 4 NAEP outcomes (4th grade math shown here)



A Refined Analysis

- Remove Teacher Quality policies from overall state policy score
- Repeat analysis using revised policy score (with **standards, assessment, accountability**)

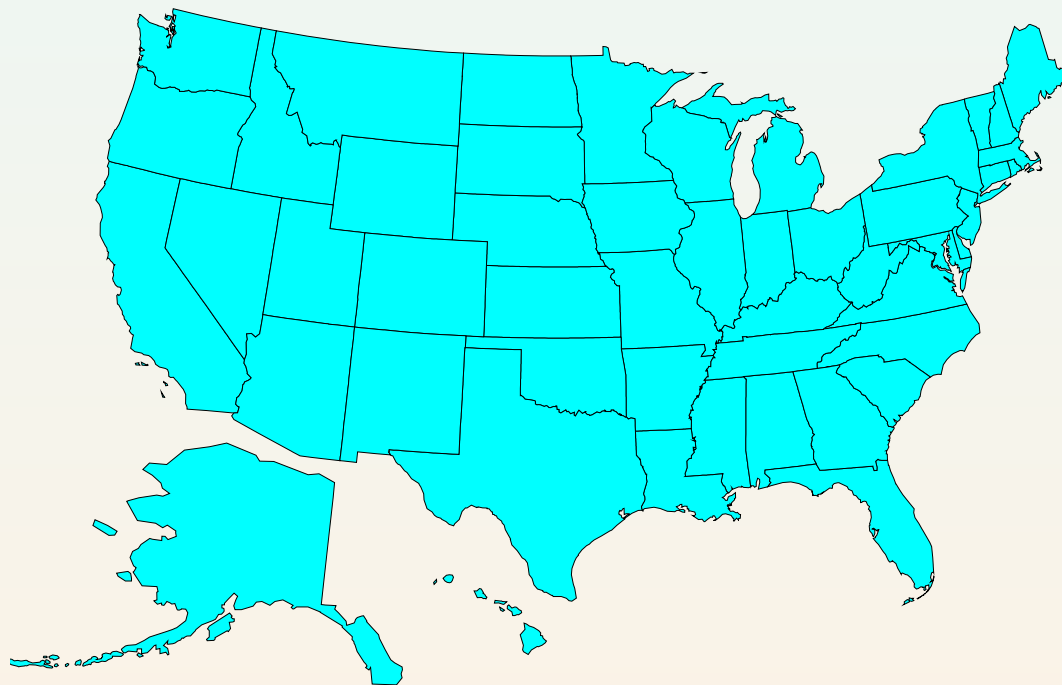


Conclusions from Analysis

- Evidence that standards-based state policy has had a positive influence on student achievement
 - Effects found for: Standards, Assessments, Accountability policy areas
 - Math: effects statistically at both grade levels
 - Reading: modest positive effects, but not significant
- Policies to Improve Teacher Quality
 - Policies negatively related to achievement gains
 - Does NOT mean that teacher quality isn't important
 - Reasons for pattern not clear
- The study is not definitive but can inform research and policymaking

State of the States 2006

- Standards and accountability
- Efforts to improve teacher quality
- School climate
- Resource equity

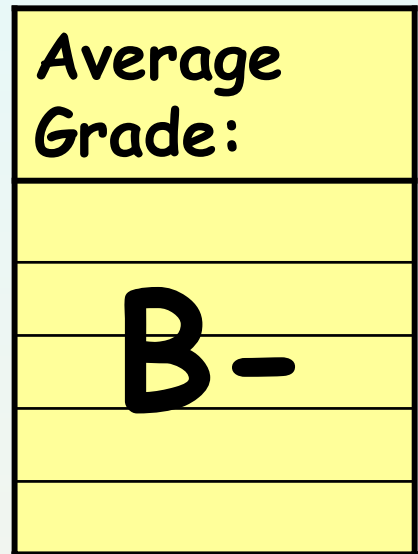


The 2006 Policy Survey

- Each year, the EPE Research Center surveys the 50 states and District of Columbia
- Meticulous administration and vetting of surveys
 - State respondents complete survey
 - Answers to questions about educational policies
 - Supporting documentation for each response
 - EPE Research Center evaluates responses
 - States review final answers
- The annual survey is supplemented with state indicators from reliable outside sources.

Standards & Accountability 2006

- Almost all states have content standards in English, math, science, and history
- 47 states and the District of Columbia use tests aligned with state standards in English and math
- 37 states offer assistance to all low-performing schools
- 28 states sanction all low-performing schools



8 States Earn A's

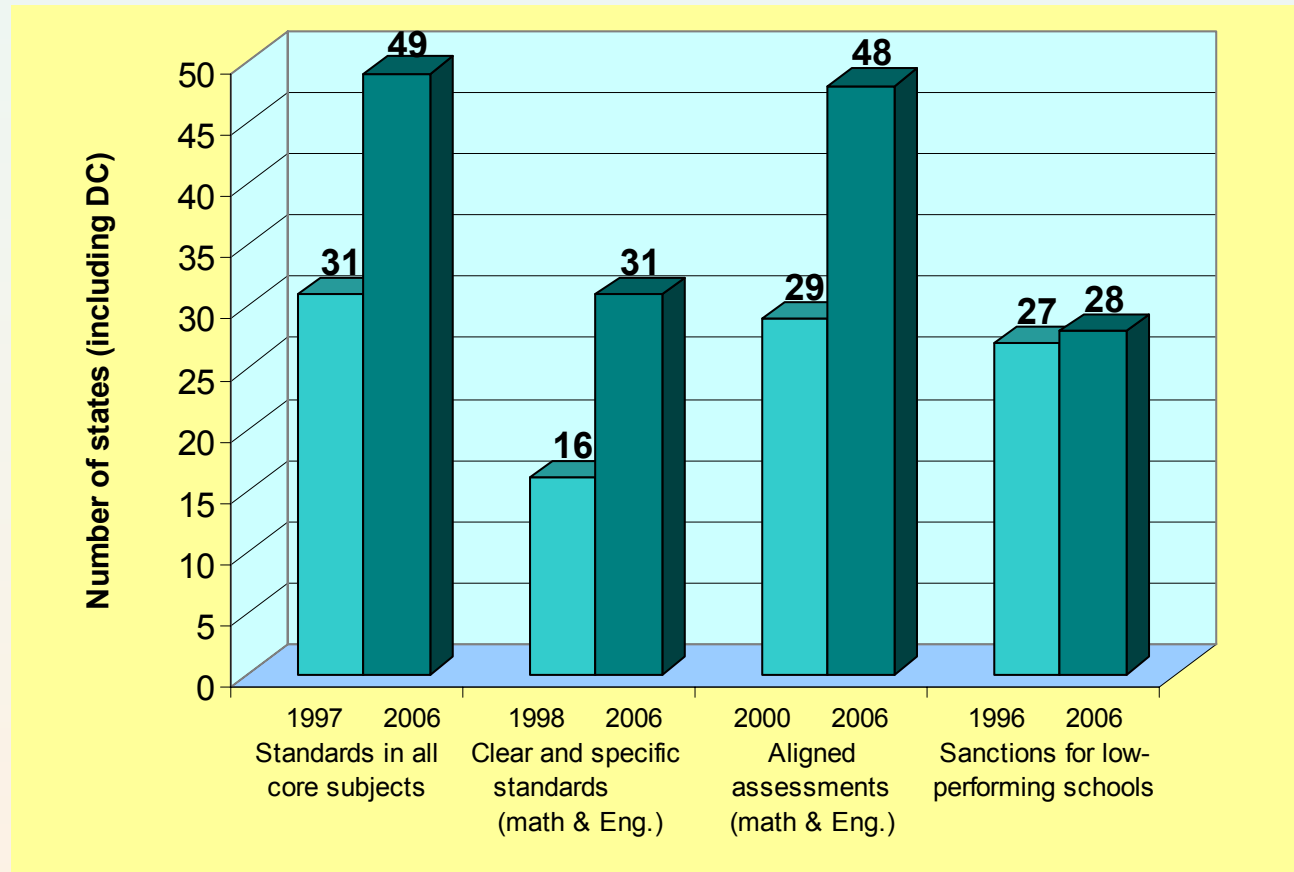
Louisiana	Indiana
New York	Florida
Massachusetts	New Mexico
South Carolina	West Virginia

1 State Earns an F

Iowa

Trends Standards & Accountability

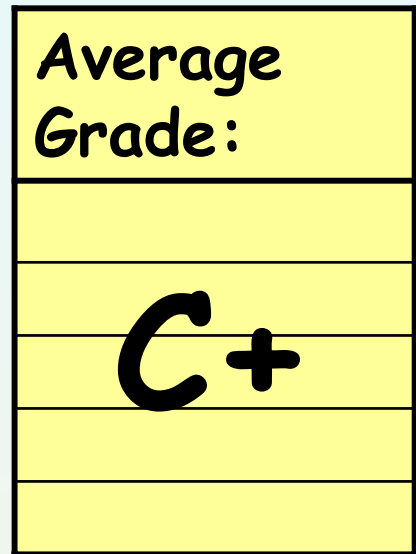
States have made much progress implementing standards and aligned assessments. But there has been less change in other areas during the past decade.



SOURCE: Editorial Projects in Education Research Center, 2006

Efforts to Improve Teacher Quality 2006

- 42 states and the District of Columbia require high school teachers to pass subject-matter tests for an initial license
- 33 states require prospective teachers to have a major in the subjects they will teach
- 47 states and the District identify low-performing teacher education programs



2 States Earn A's

Louisiana
South Carolina

6 States and DC Earn D's

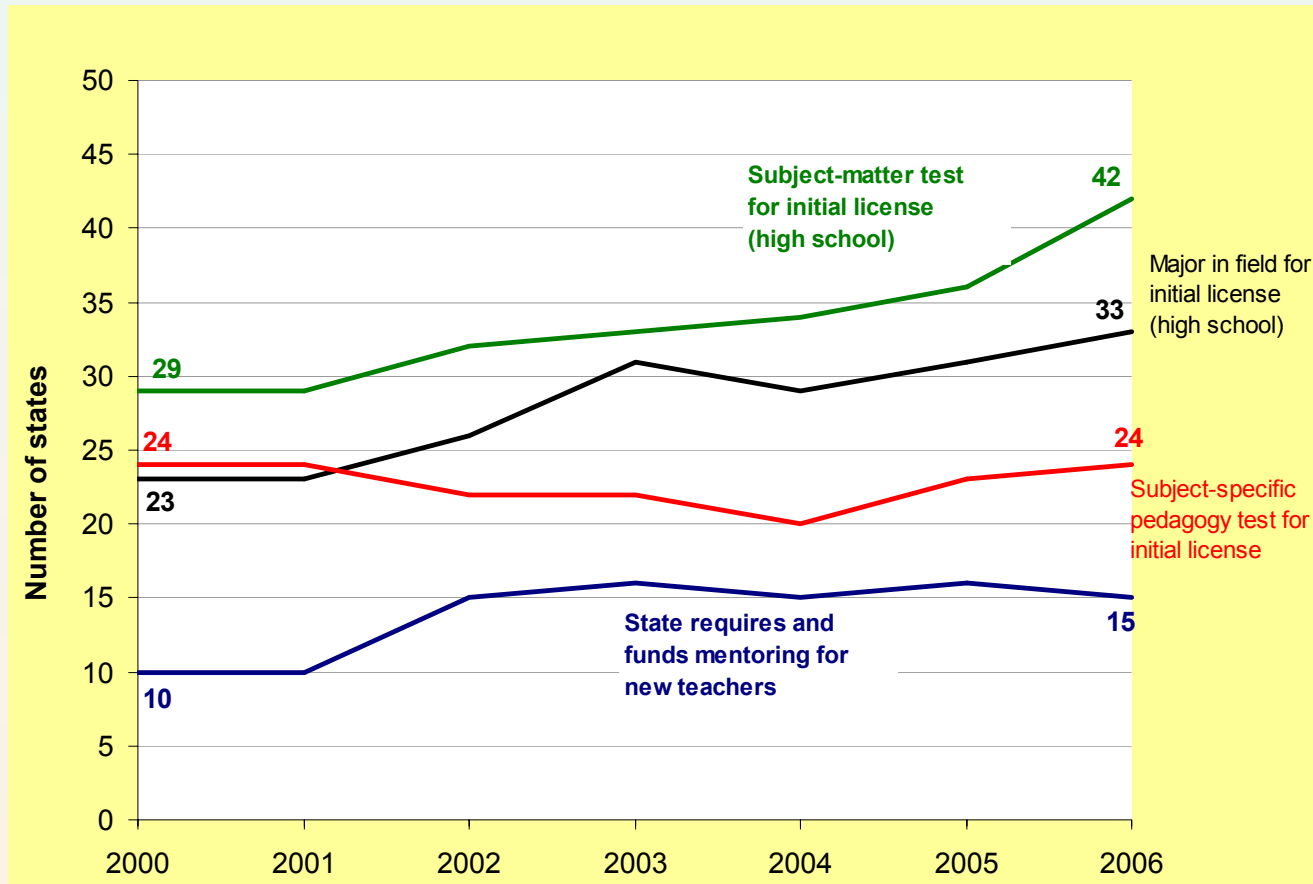
Oregon
Maine
Dist. of Columbia
Idaho

Michigan
Arizona
Alaska

Trends

Efforts to Improve Teacher Quality

Subject-matter expertise has become a focus of efforts to improve teacher quality. States have been less active in promoting pedagogical skills and supporting mentoring.



SOURCE: Editorial Projects in Education Research Center, 2006

School Climate 2006

Average
Grade:

C+

- Questions on School Climate
 - cover a wide variety of topics, and
 - have changed considerably over time
- 33 states have a class-size-reduction program
- States often include climate information on school report cards
 - 26 report school safety information
 - 10 report parent involvement
 - 25 report class size or student-teacher ratio

8 States Earn B's

Delaware	Minnesota
Colorado	Wyoming
Maine	Rhode Island
Wisconsin	Missouri

3 States Earn D+'s

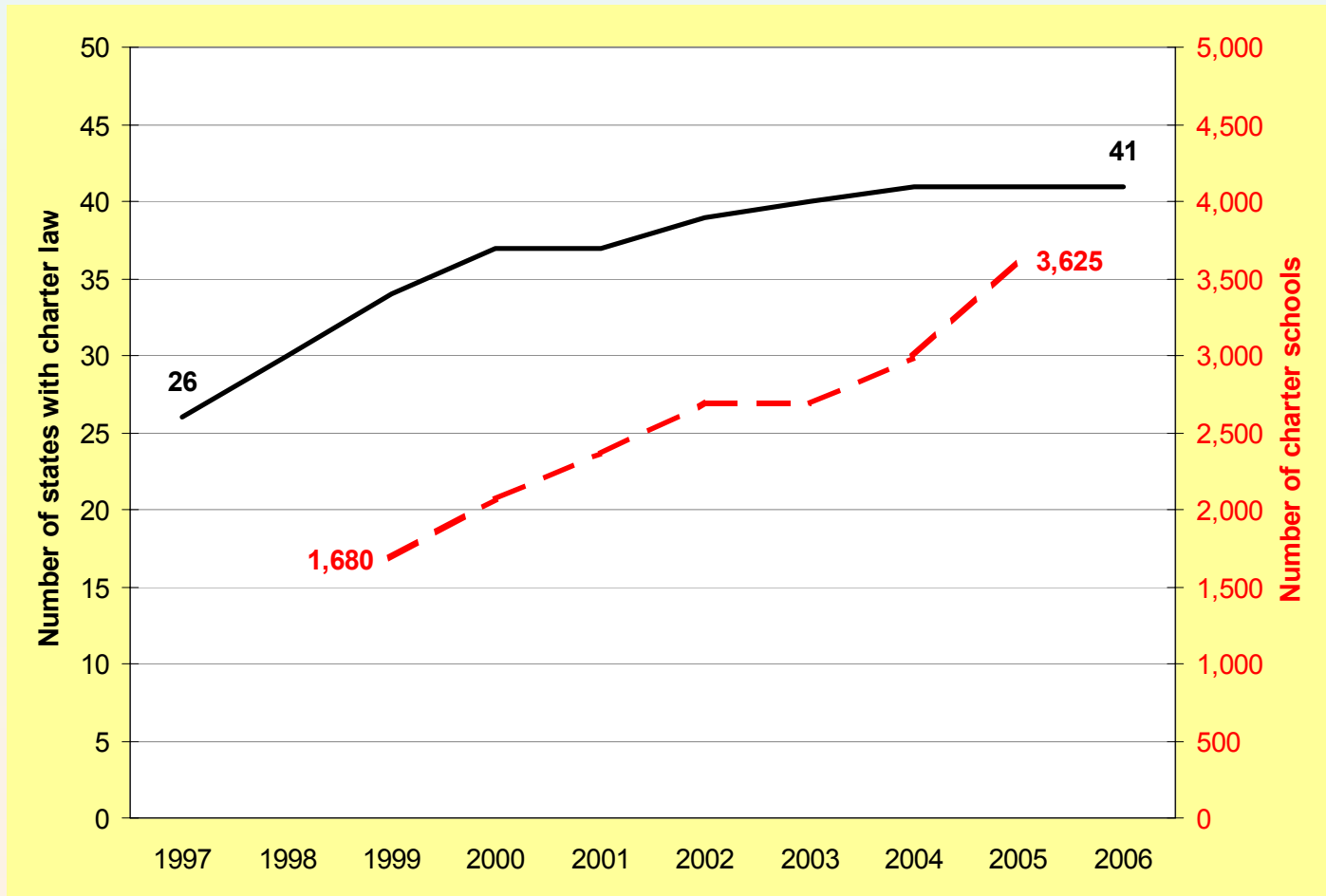
Mississippi
Maryland
Alaska

Trends



School Climate

The past decade has seen tremendous growth in charter schools. By 2005, over 3,600 charter schools were operating in 40 states and the District of Columbia



SOURCE: Editorial Projects in Education Research Center, 2006

Resource Equity 2006

Average
Grade:

C

- Resource equity grades are based on an analysis of federal data, not state policies
- Some minor methodological changes for 2006
- 3 indicators used to measure equitable distribution of resources across districts in a state
 - District of Columbia and Hawaii are single-district systems and do not receive equity grades

Most Equitable

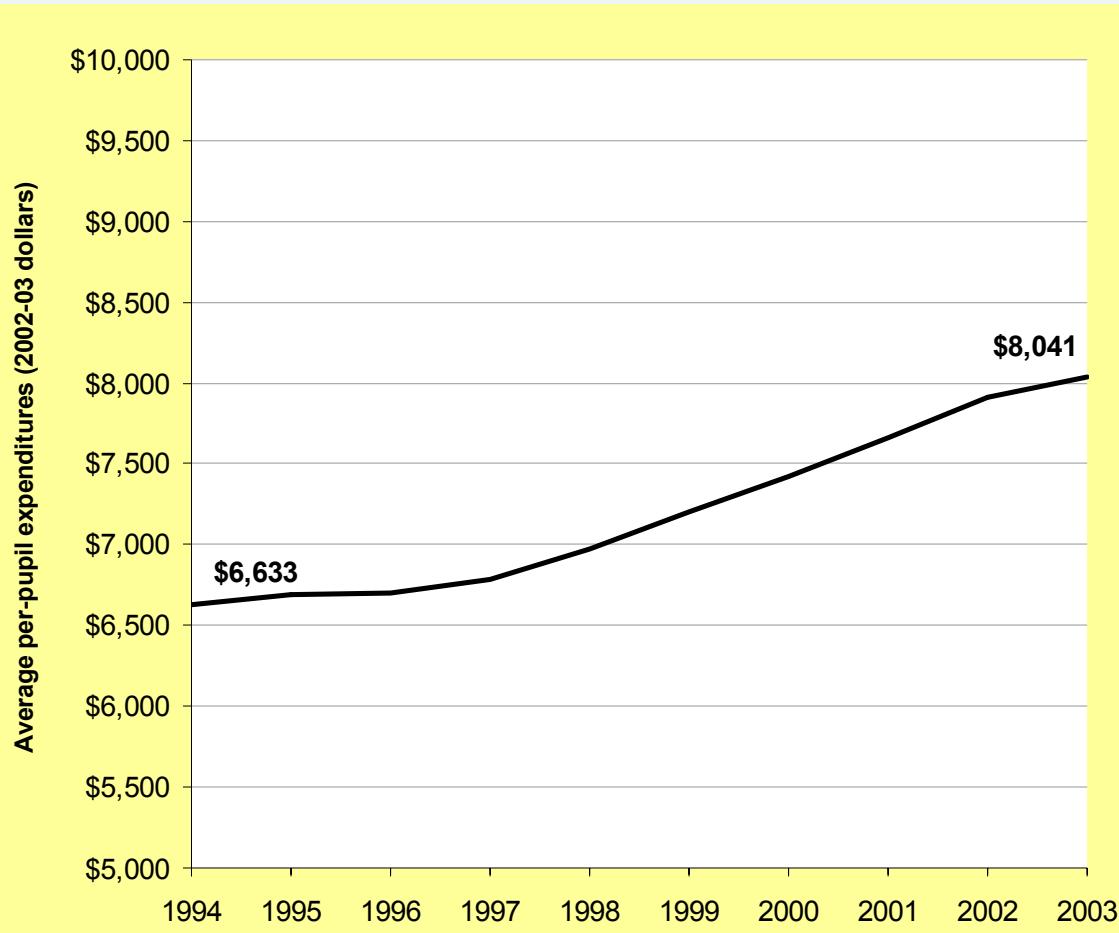
Nevada (A-)
Iowa (B+)
New Mexico (B+)
Utah (B+)

Least Equitable

Montana (D-)
North Dakota (D-)
Vermont (F)
Idaho (F)

Trends School Spending

The average level of per-pupil funding has steadily increased over the past decade. But great state-to-state variation is found after adjusting for regional costs differences.



SOURCE: Editorial Projects in Education Research Center, 2006

Adjusted Spending (2002-03)

Top 5

Dist. of Columbia	\$11,031
New Jersey	\$10,908
New York	\$10,665
Vermont	\$10,571
Wyoming	\$ 9,811

Bottom 5

Mississippi	\$ 6,646
Idaho	\$ 6,609
Nevada	\$ 6,394
Arizona	\$ 6,331
Utah	\$ 5,067

Editorial Projects in Education Research Center

Quality Counts 2006:

www.edweek.org/qc06

State Highlights Reports:

www.edweek.org/qc06/SHR

Education Counts:

www.edweek.org/rc



Quality Counts

A Decade of Standards-
Based Education

At 10

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