

October 2007





Background

NCLB calls for all students to be proficient in reading and math by 2014...

...but each state defines “proficient” as it sees fit.

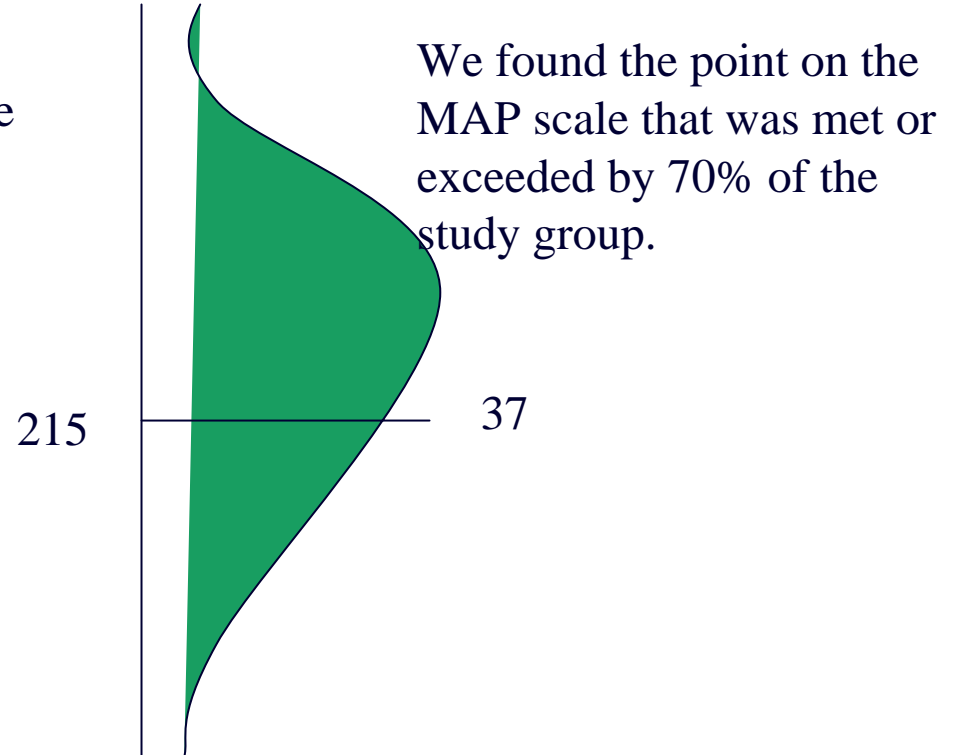
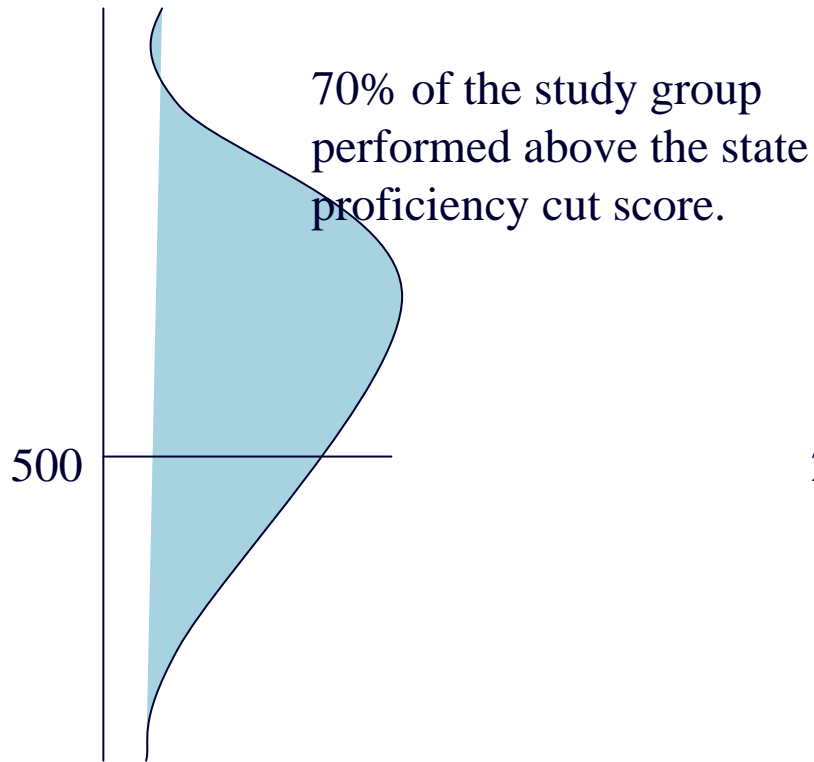
- We asked the following questions:
 1. How consistent are various states’ expectations for proficiency in reading and mathematics? In other words, it is harder to pass some states’ tests than others?
 2. Is there evidence that states’ expectations for proficiency have changed since NCLB’s enactment? Is it getting easier or harder to pass state tests?
 3. How closely are proficiency standards calibrated across grades? Is a state’s bar for achievement set straight, sloping, or uneven?



Study Group

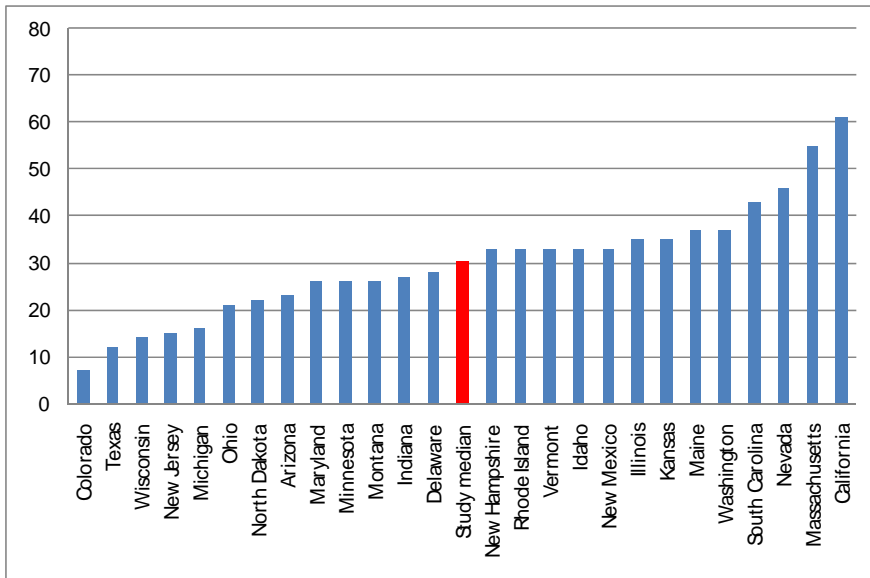
- A total of 830,000 students in 26 states took both NWEA's MAP assessment and their respective state exam.
- Test results from an additional 181,000 students were used to monitor changes in standards in 19 states.

How cut scores are estimated

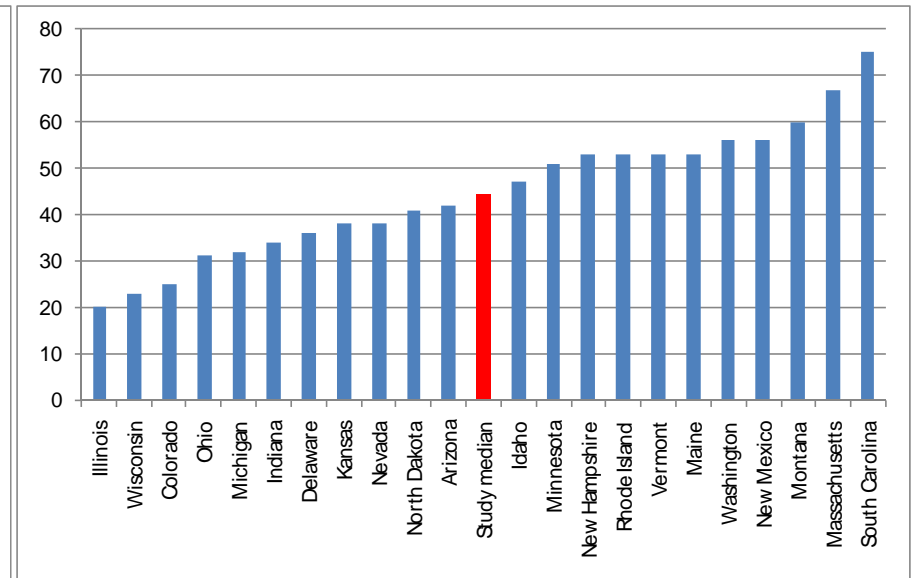


State Tests Vary in Difficulty

- Proficiency cut scores across the states ranged from the 6th percentile on the NWEA scale to the 77th percentile



3rd Grade Reading Cut Scores



8th Grade Math Cut Scores

Different meanings of “proficiency” have real world consequences.

Reading Exhibit 2 – Grade 4 item with difficulty equivalent to Wisconsin’s proficiency cut score (scale score 191 – 16th percentile)

Which sentence tells a fact, **not** an opinion?

- Cats are better than dogs.
- Cats climb trees better than dogs.**
- Cats are prettier than dogs.
- Cats have nicer fur than dogs.

Versus...

Reading Exhibit 5 – Grade 4 item with difficulty equivalent to Massachusetts’s proficiency cut score (scale score 211 – 65th percentile)

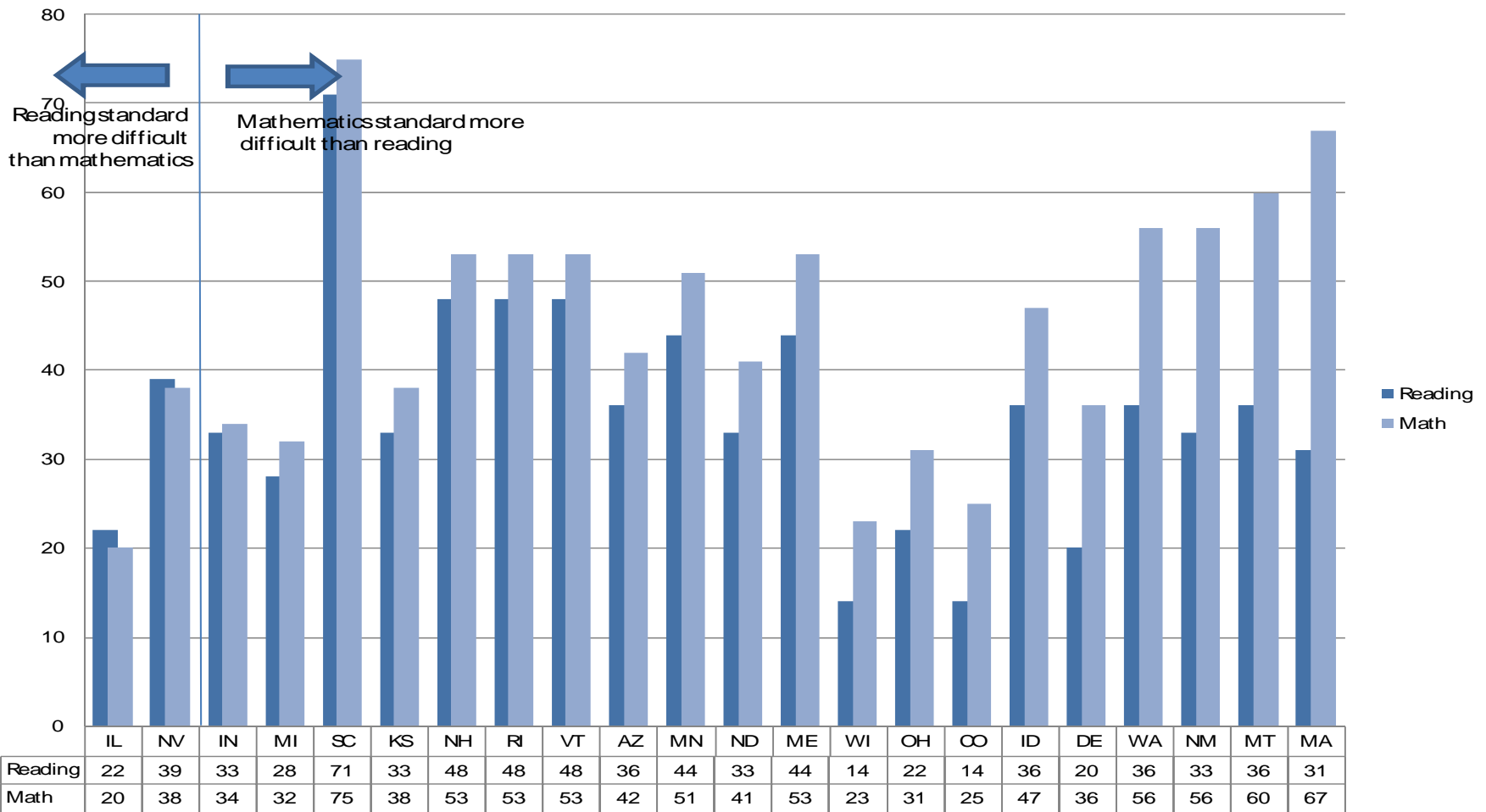
Read the excerpt from “How Much Land Does a Man Need?” by Leo Tolstoy.

So Pahom was well contented, and everything would have been right if the neighboring peasants would only not have trespassed on his wheat fields and meadows. He appealed to them most civilly, but they still went on: now the herdsmen would let the village cows stray into his meadows, then horses from the night pasture would get among his corn. Pahom turned them out again and again, and forgave their owners, and for a long time he forbore to prosecute anyone. But at last he lost patience and complained to the District Court.

What is a fact from this passage?

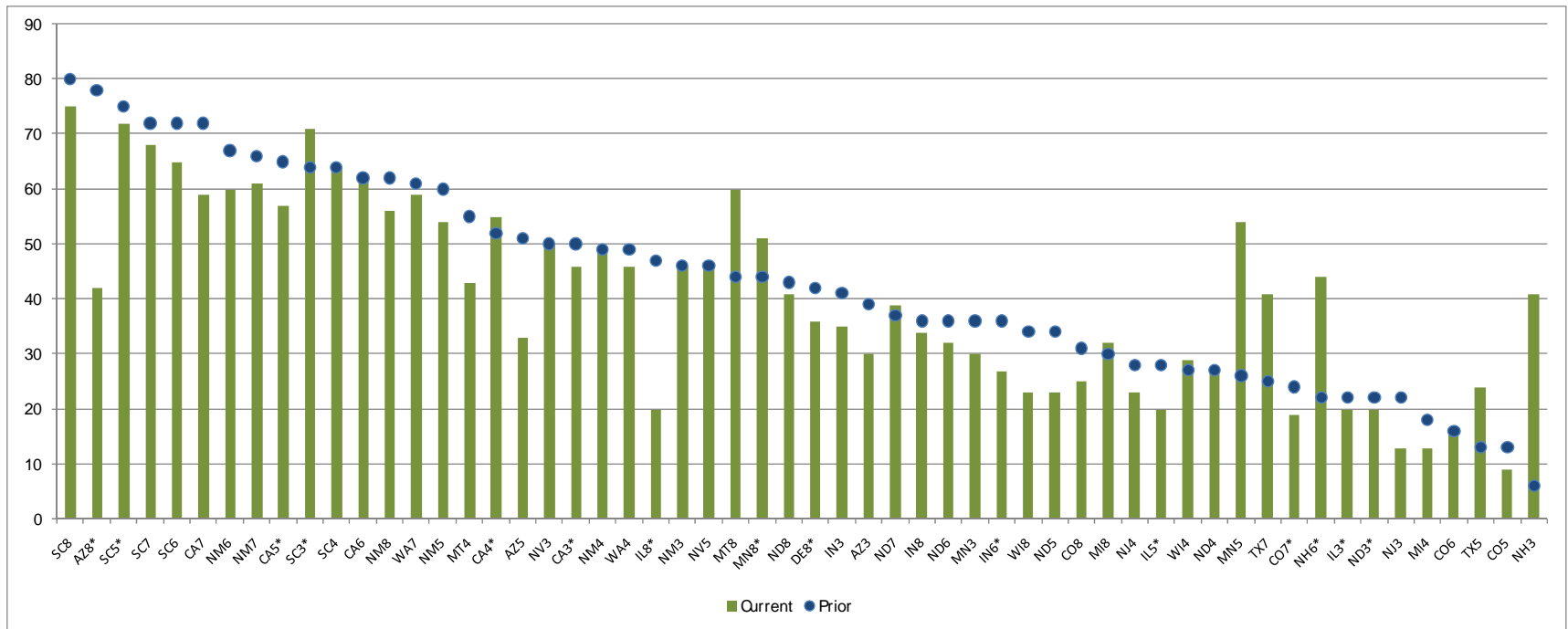
- Pahom owns a vast amount of land.
- The peasant’s intentions are evil.
- Pahom is a wealthy man.
- **Pahom complained to the District Court.**

Math tests are harder than reading

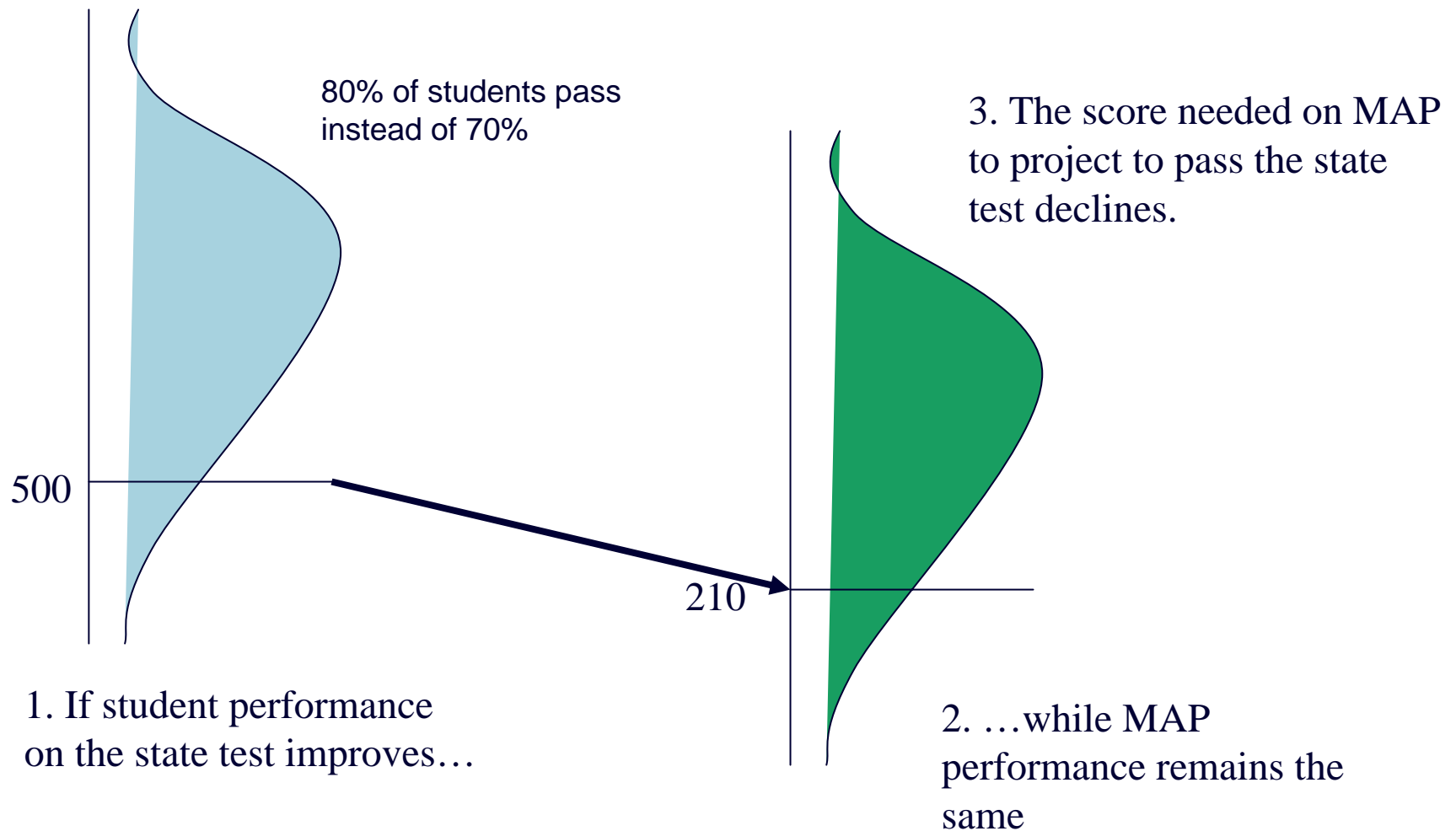


A “walk to the middle” during the NCLB era

- High standards states saw their expectations fall; a few low standards states saw their cut scores rise.

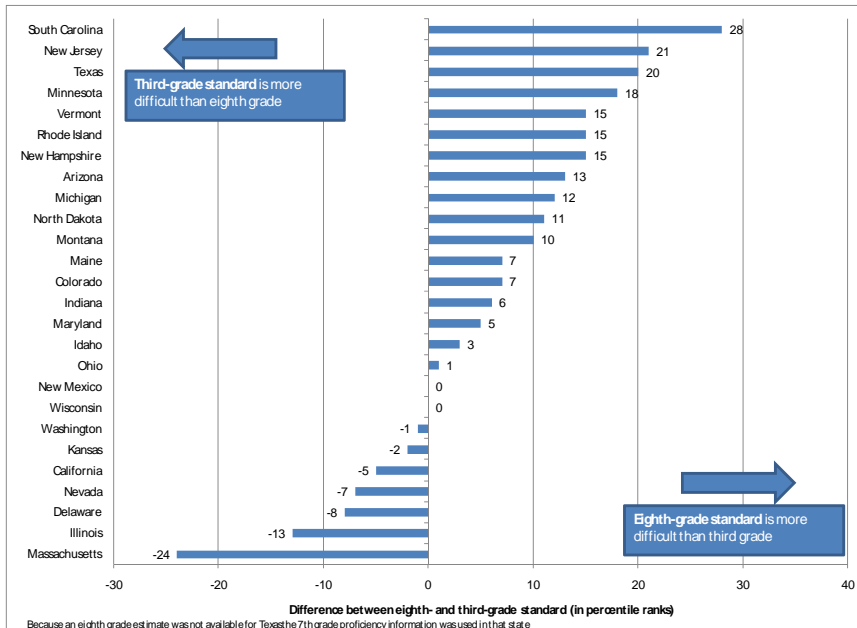


Why cut score estimates drift

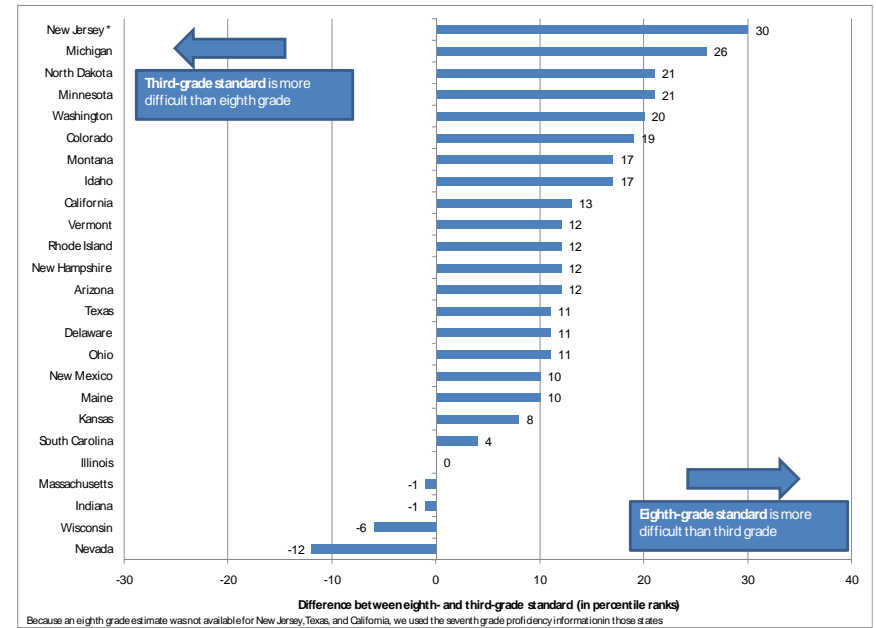


Setting kids up to fail

- Typically 8th-grade cut scores are much higher than 3rd grade, setting kids up to fail after achieving “proficiency in the 3rd grade.



Reading



Mathematics

Creating a false impression of elementary school success

- When cut scores vary by grade, parents and observers may be misled children's progress.
- Take Minnesota. The table on the left suggests lagging progress in the middle grades. But, once cut scores are all calibrated to the eighth-grade level, performance differences disappear.

Proportion of students scoring proficient or better on the MCA-II,

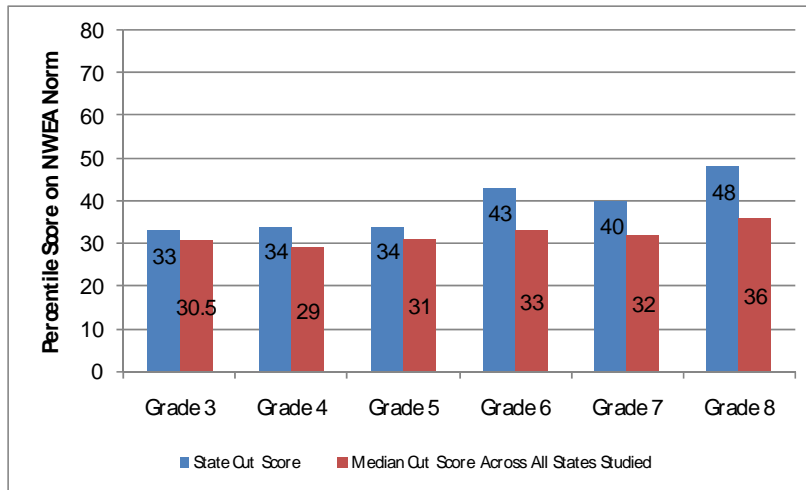
2006

Minnesota	Grade 3	82%
	Grade 4	77%
	Grade 5	77%
	Grade 6	72%
	Grade 7	67%
	Grade 8	65%

Estimated proficiency rate after calibrating test to 8th grade cut scores

Minnesota	Grade 3	64%
	Grade 4	67%
	Grade 5	65%
	Grade 6	65%
	Grade 7	66%
	Grade 8	65%

What's available in the report



Guides for each of the 26 states, including estimated cut scores in grades 3-8 in reading and math.

New Hampshire

Introduction

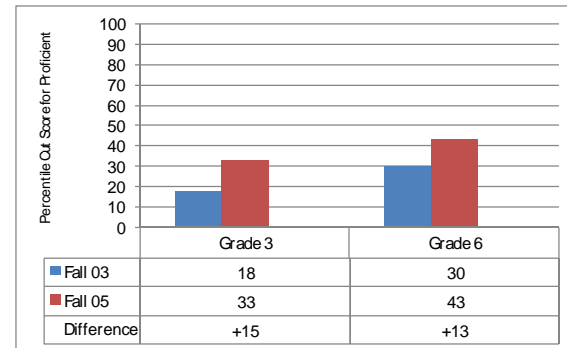
This study looked at data from the 2003 and 2005 administrations of New Hampshire's reading and math tests on the National Education Assessment Measures of Academic Progress (NAEP) assessment, a computerized adaptive test used in schools nationwide. We found that New Hampshire's definition of proficiency in reading and mathematics was relatively consistent with the standards set by the other 25 states in this study, with its reading and math test a bit above average in difficulty.

What We Studied: New Hampshire - New England Common Assessment Program (NECAP)

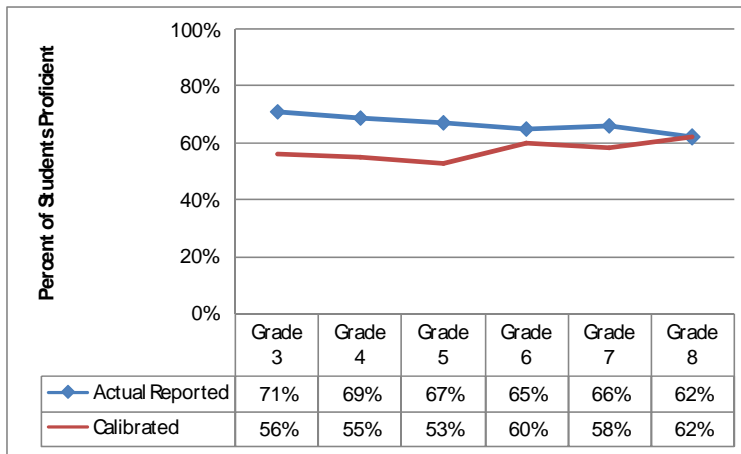
In 2003, the state of New Hampshire used the New England Common Assessment Program (NECAP) which uses mathematics and reading at grades 3, 4, 5, and 6. In 2005, the state of New Hampshire used the new assessment, the Assessment Program (ASAP), for the first time in fall 2005 and the math test had changed to include 8th grade. As a result, the common study looked at data from fall 2003 and fall 2005 administrations of common tests that were administered in the 2003 and 2005 school years.

To determine the difficulty of New Hampshire's proficiency test scores, we looked at data and used the New Hampshire test in the NAEP assessment. In particular, we used the test in a similar manner relative to other states in the assessment. This was done by creating a group of elementary and middle schools which were of similar size both in the number of students and the NAEP test. The methodology involved the use of regression to determine how well performance in these tests was compared.

We also look at changes in estimated cut scores during the NCLB era.



What's available in the report (con't)



And we calculate true student performance if cut scores were all calibrated to the eighth grade level.

New Hampshire



Introduction

This study looked at data from the 2003 and 2007 administrations of New Hampshire's reading and math tests to the National Education Assessment Measures of Academic Progress (NAEP) assessments, a computerized adaptive test used in schools nationwide. We found that New Hampshire's definitions of proficiency in reading and mathematics are relatively consistent with the standards set by the other 25 states in this study, with in reading and math seen a bit above average in difficulty.

What We Studied: New Hampshire - New England Common Assessment Program (NECAP)

New Hampshire currently uses an assessment called the New England Common Assessment Program (NECAP) which uses mathematics and reading at grades 3, 4, 5, 6, and 8. The New Hampshire Educational Improvement and Assessment Program (NEHIPAP) that we used prior to NE 2003 and that used math and reading to assess in grades 3, 4, and 8. The current study looked at data from NE 2003 and NE 2007 administration assessments that were administered in the 2003 and 2007 school years.

To determine the difficulty of New Hampshire's proficiency cut scores, we looked at data and used data from New Hampshire tests to the NAEP assessments. (A 'proficiency cut score' is the score a student must achieve in order to be considered proficient.) This was done by studying a group of elementary and middle schools in which almost all students took both the state assessment and the NAEP test. (The methodology section of the report explains how performance on these two tests was compared.)

Part 1: How Difficult are New Hampshire's Definitions of Proficiency in Reading and Math?

One way to measure the difficulty of a standard is to describe how many people attempting to attain it are likely to succeed. How do we know that a new, hard high jump bar is easy to jump over? We know because, if we asked 100 people to attempt to jump over it, perhaps 80 would make it. How do we know that a new high jump bar is challenging because only one or perhaps none of those who the individual would attempt) meet the challenge. The same principle can be applied to academic standards. Common sense tells us that it is more difficult for students to solve algebraic equations with two unknown variables than it is for them to solve an equation with only one unknown variable. But, we can figure out exactly how much more difficult by using how many eighth grade students across both types of equations succeed.



Where do we go from here?

- State standards need an overhaul.
 - Starting with end-of-high-school exams, work backward so that standards in the various grades proceed cumulatively from kindergarten to 12th grade.
- Let go of the 100% provision
 - This objective has worsened the proficiency illusion as a perverse incentive.
- Discussion of national standards should continue
 - National standards would set equal objectives across the states and ensure that everyone is on the same page about proficiency.



Questions?

To access the report online, please visit

www.edexcellence.net

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