

Things I'd Like You to Know: Excellence Gaps, Policy, and the Lives of Exceptional Students

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A little background

What are the world's 10 largest countries?

- China
- India
- U.S.A.
- Indonesia
- Brazil
- Pakistan
- **Nigeria**
- Bangladesh
- Russia
- Japan

Which country is growing the fastest?

Quick Quiz!

- **What percent of Internet traffic crosses international borders?**
 - About 15%

Quick Quiz!

- How many people worked as smartphone designers in 2007?
 - Practically none, and they were all locked in Steve Jobs' basement.

Quick Quiz!

- What percentage of engineering majors work in engineering?
 - Roughly 50%, of which 30% report not being able to find an engineering job.

Quick Quiz!

- What percent of 85 year-olds live in nursing homes and similar facilities?
 - 11% as of 2014, down from 24% in 1990.

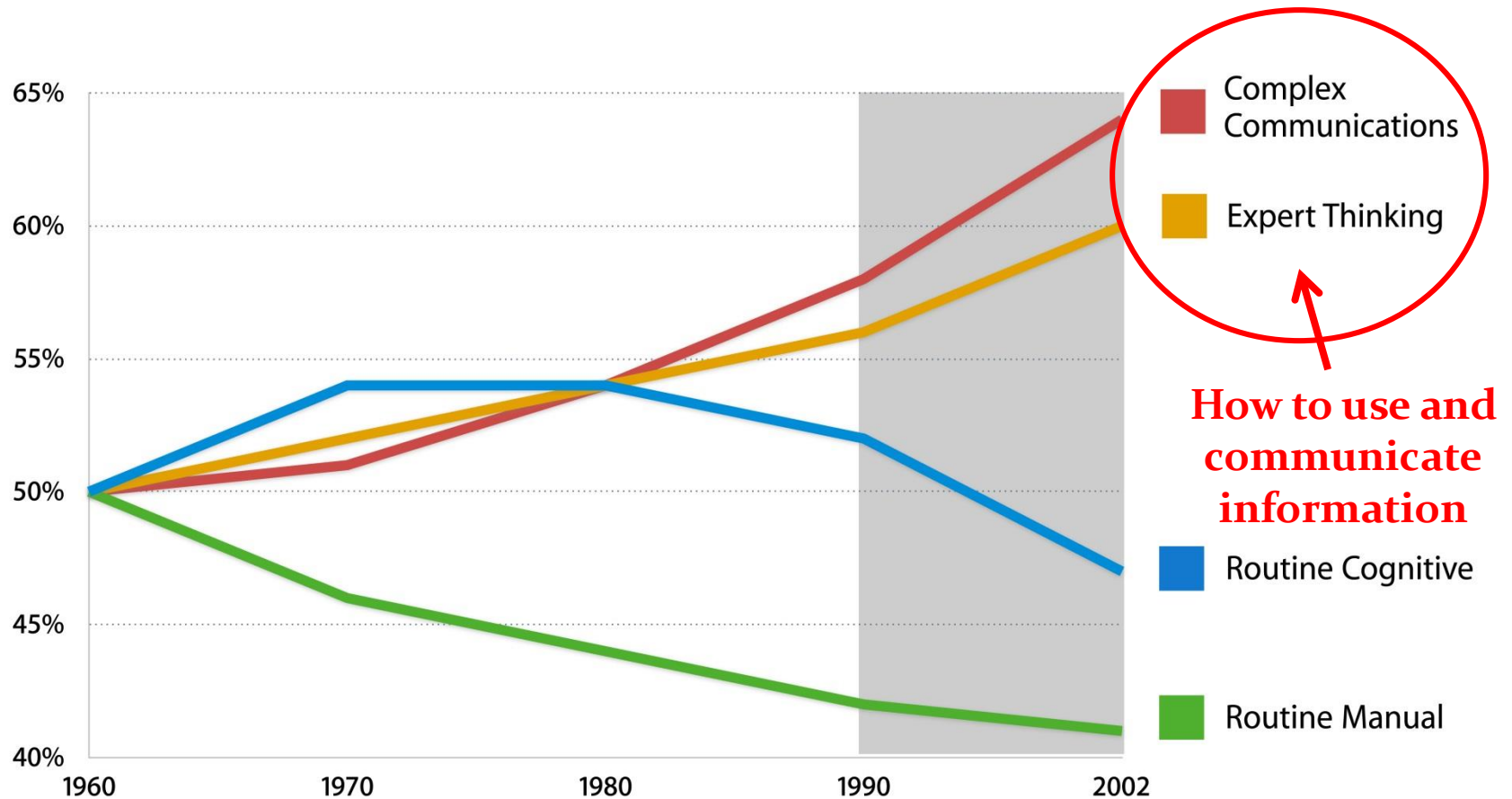
Quick Quiz!

- **What percent of world GDP crosses borders in the form of good, services, and finance?**
 - 36% in 2012, down from 52% in 2007. Business moving to local supply chains.
 - McKinsey Global Institute

Quick Quiz!

- **How many households are multigenerational?**
 - 1940s-1950s: 30+ million
 - 1970s: ~25 million
 - 2012: 57 million

How Demand for Skills has Changed



Levy and Murnane for the Organization of Economic Cooperation and Development

- Increasing globalization
 - ... although not close to it yet
- Increasing levels and sophistication of technology
 - ... for good and evil
- Return to bipolar geopolitics
- Developing countries nearing end of that process
- More economic equality among countries, less within countries
- Immigration/migration patterns are changing
- Absolutely no idea about jobs of the future

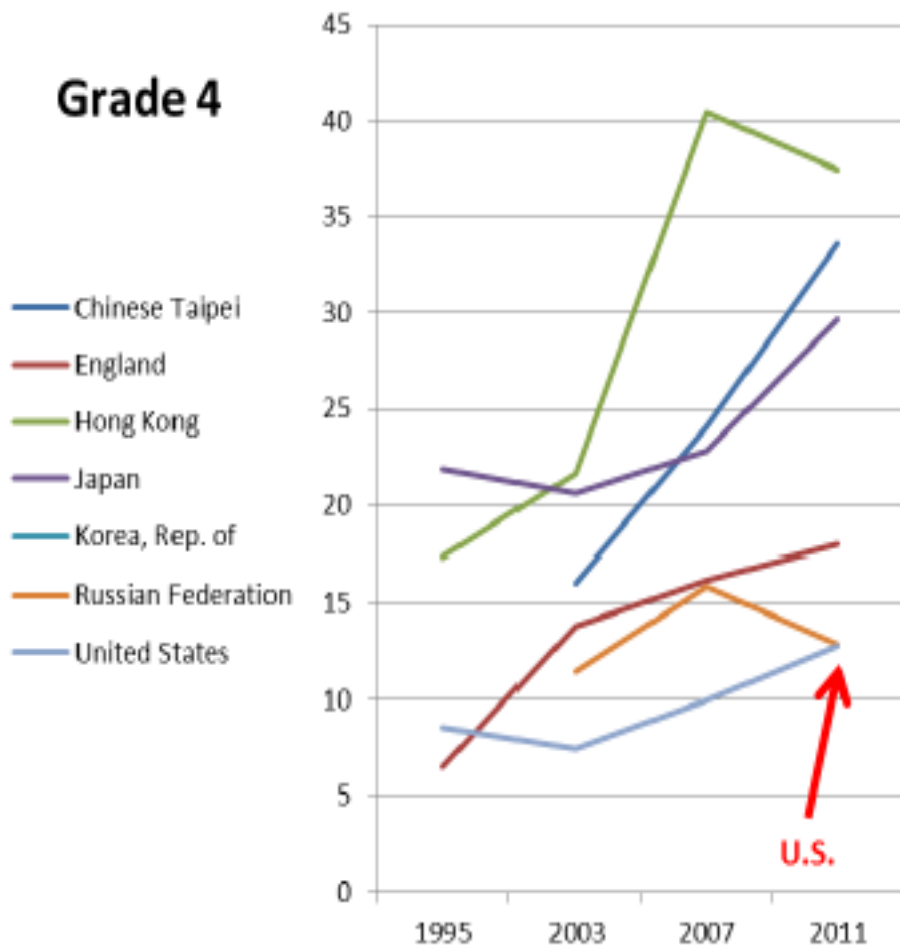
The 21st Century ...

- ... is clearly proving to be a brave new world where skills and talents that previously helped us achieve success need to be rethought.
- Part of that is rethinking where those talents and skills come from.

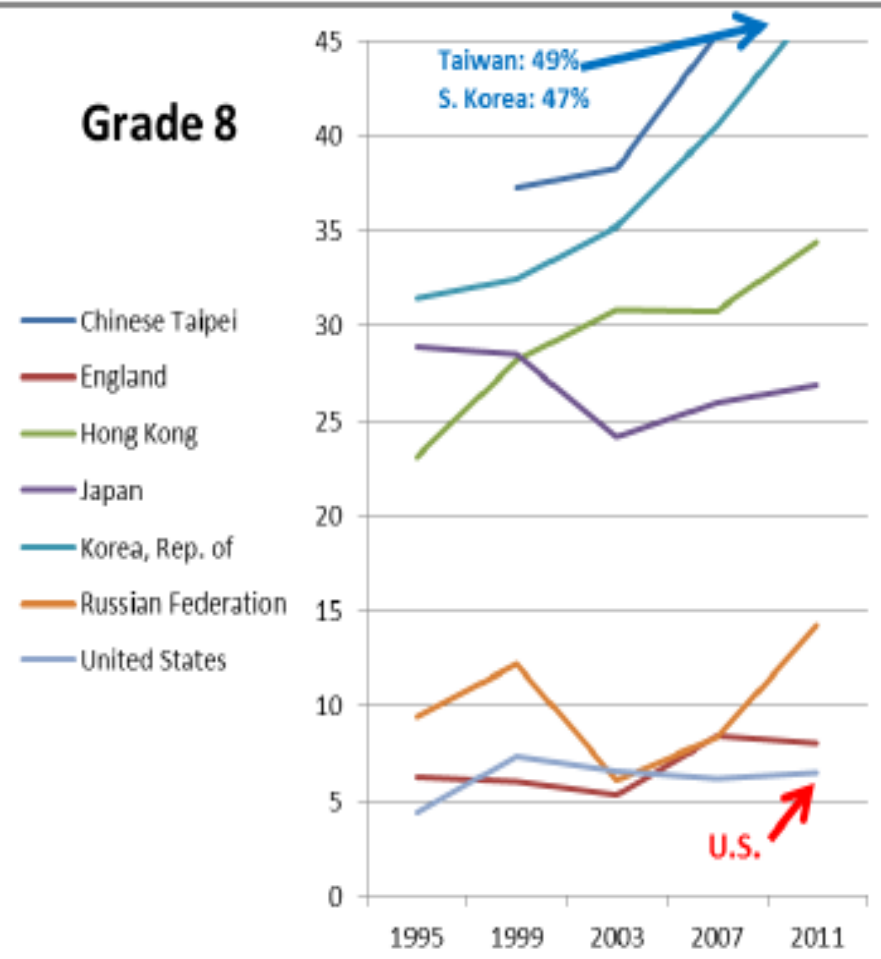
A little data

Percent of Advanced Scores (625+) on TIMSS Math Assessments

Grade 4



Grade 8



Percent of Students Scoring Advanced on NAEP Grade 4 Math

NAEP Percent Advanced

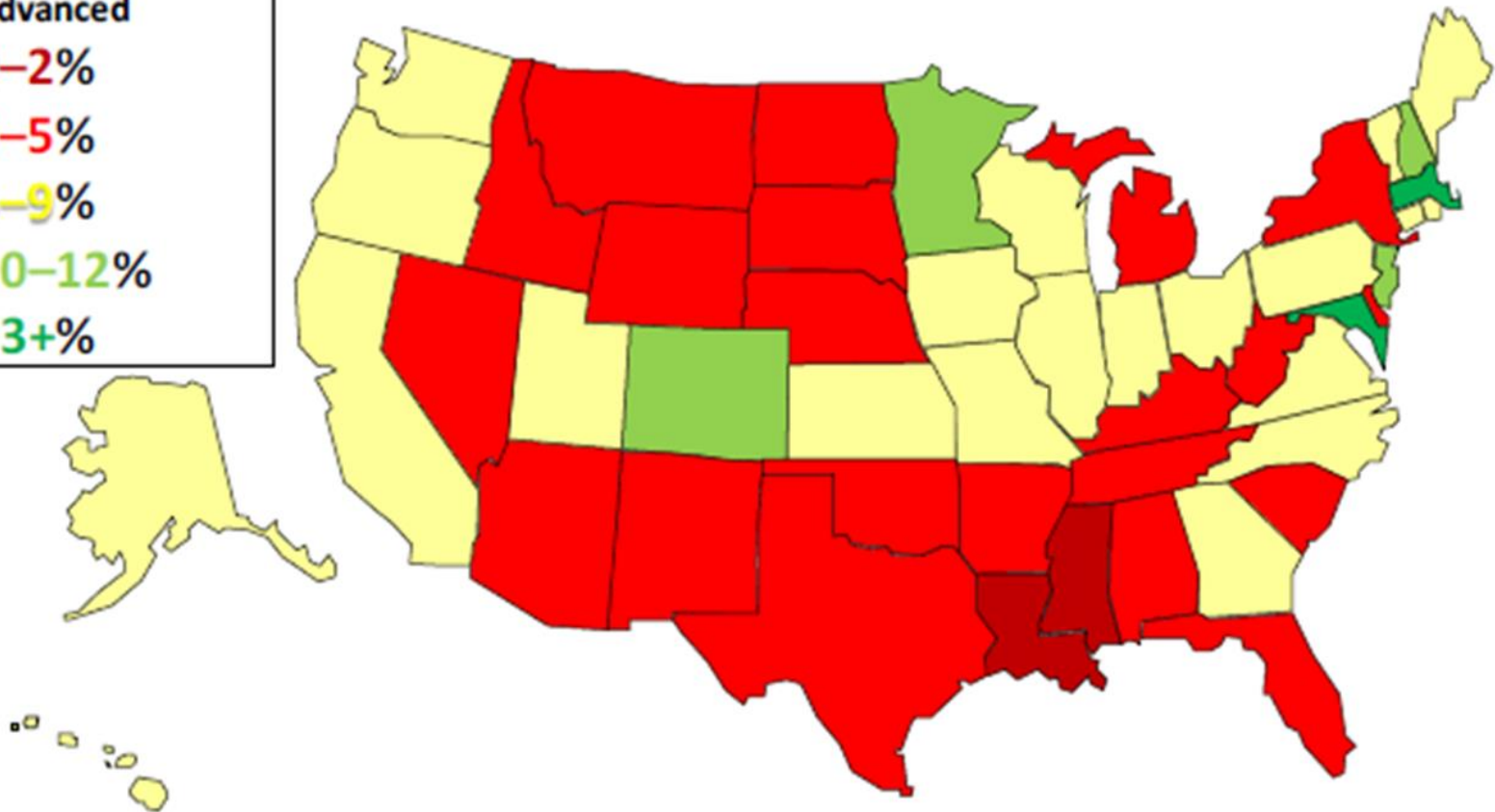
0-2%

3-5%

6-9%

10-12%

13+%



Percent of Students Scoring Advanced on NAEP Grade 8 Math

NAEP Percent Advanced

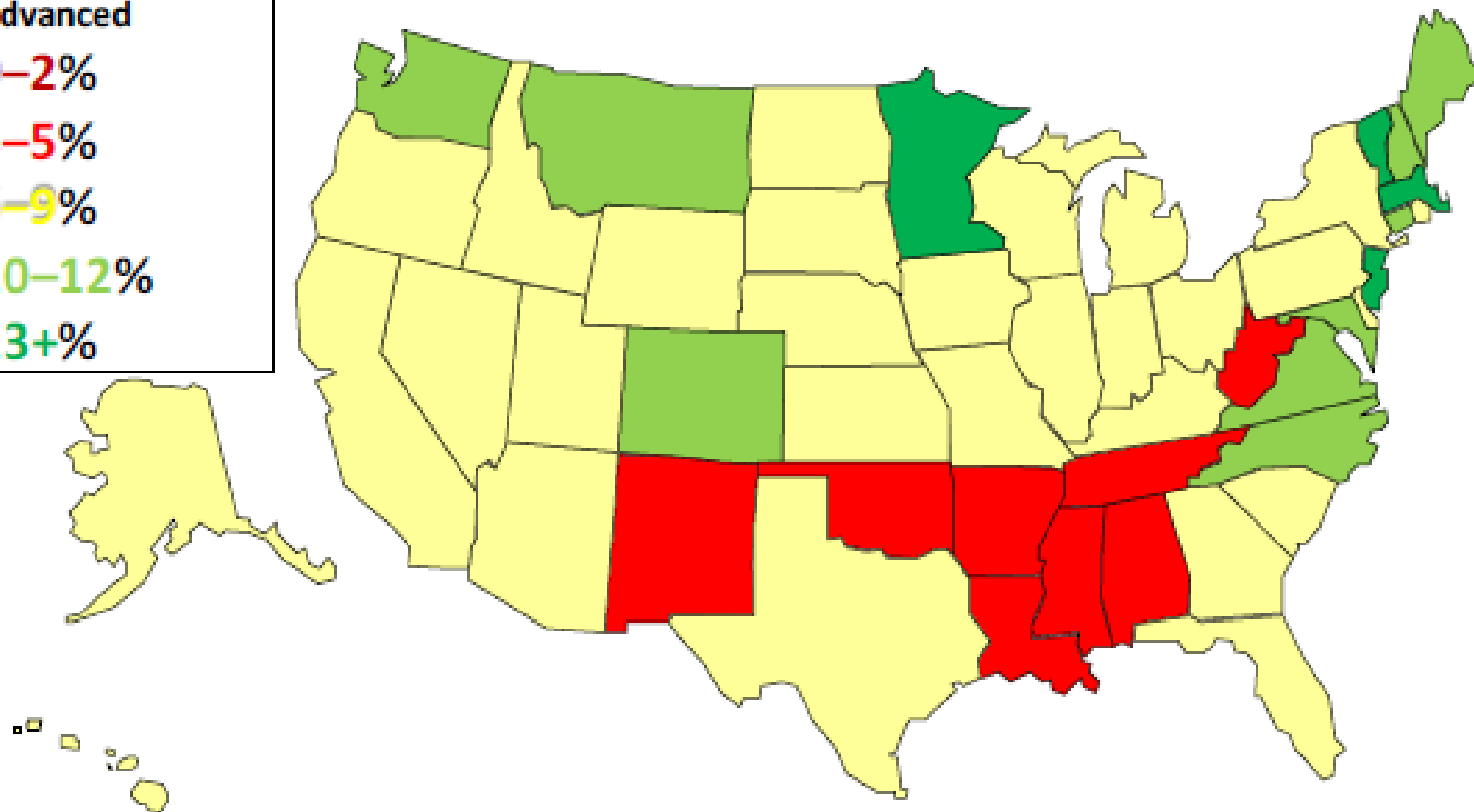
0-2%

3-5%

6-9%

10-12%

13+%



Percent of Students Scoring Advanced NAEP Grade 4 Reading

NAEP Percent Advanced

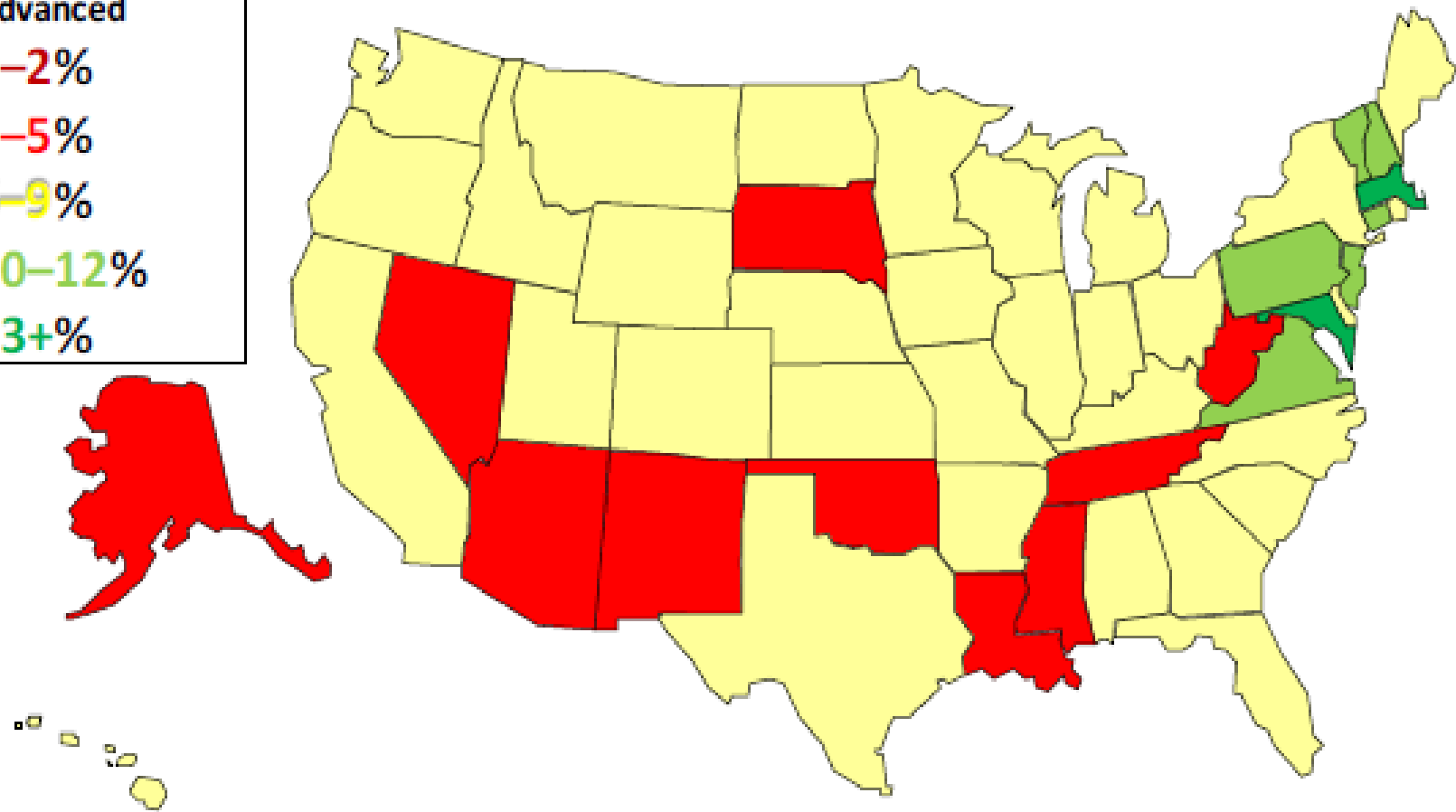
0-2%

3-5%

6-9%

10-12%

13+%



Percent of Students Scoring Advanced NAEP Grade 8 Reading

NAEP Percent Advanced

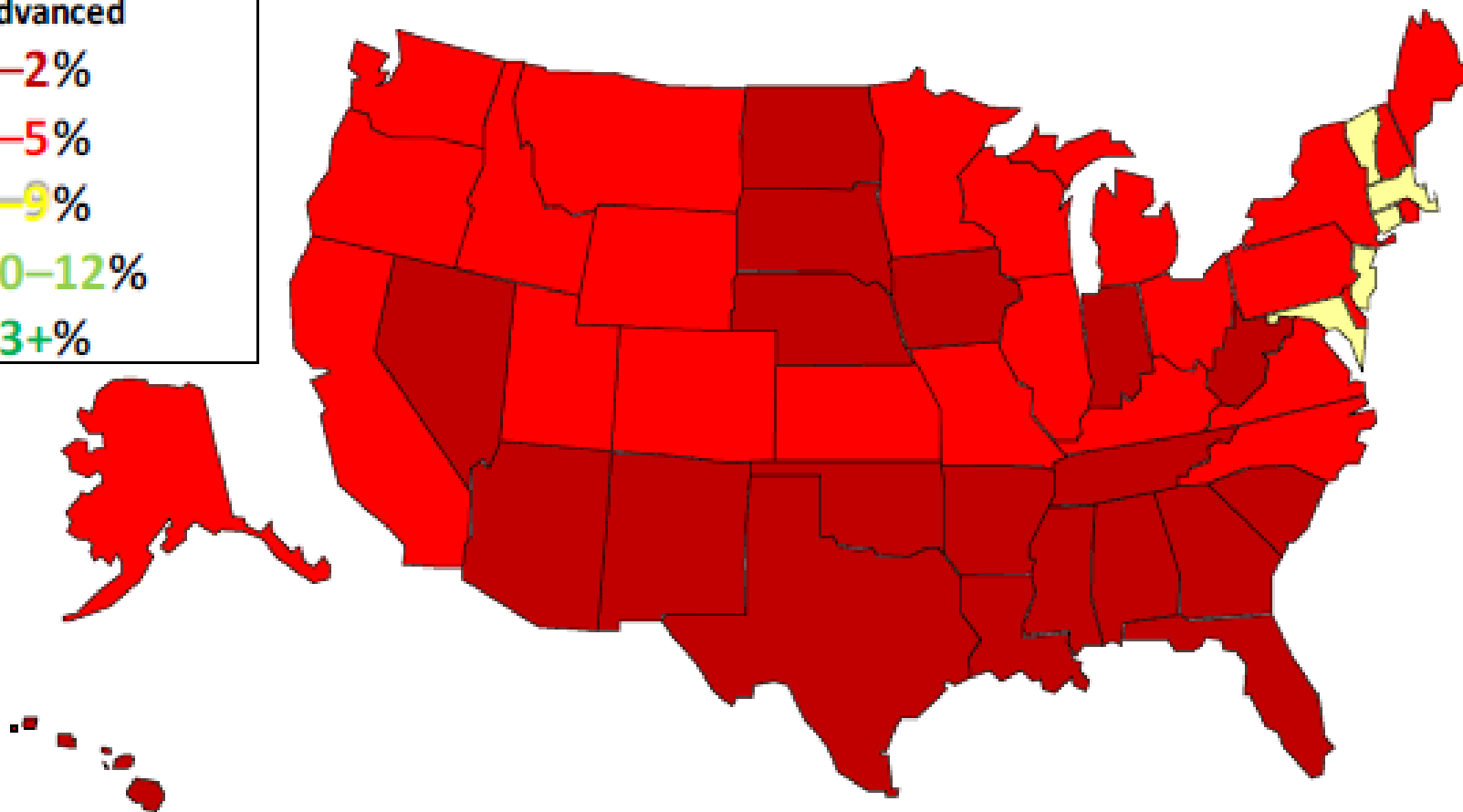
0–2%

3–5%

6–9%

10–12%

13+%



So when people say, “These kids will take care of themselves” ...

... well, they aren't.

I. Excellence Gaps

Minimum competency

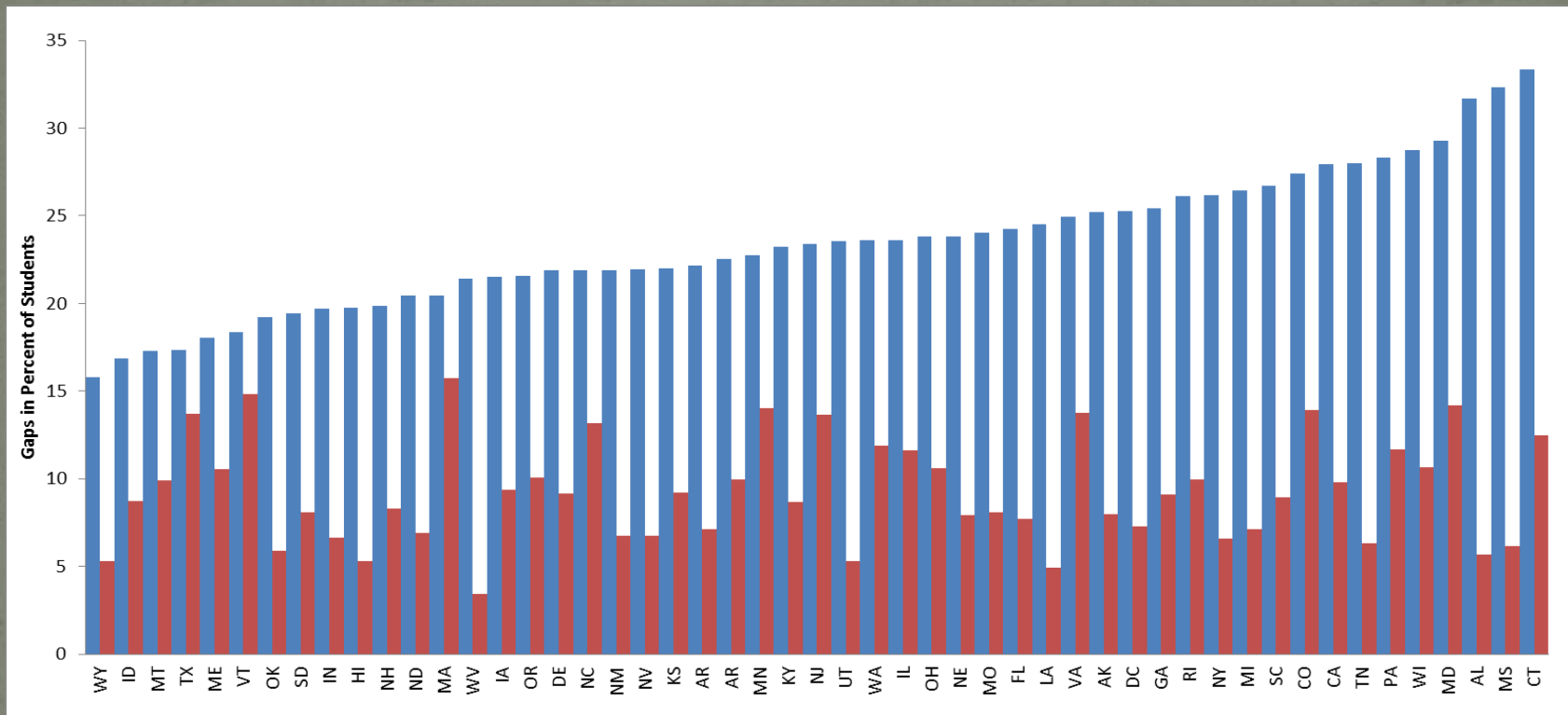
doesn't equal

advanced achievement

Proficiency vs. Excellence Gaps by State

Blue: Minimum competency gap

Maroon: Excellence gap

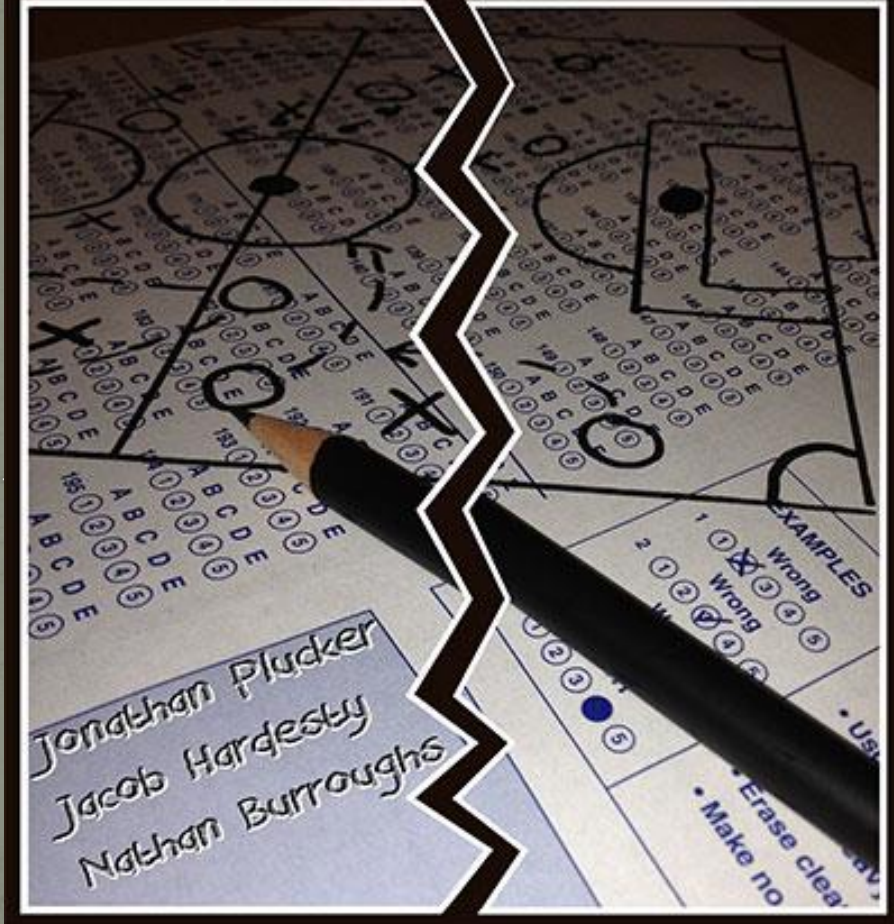


Internationally, this also appears to be the case.

Talent on the Sidelines

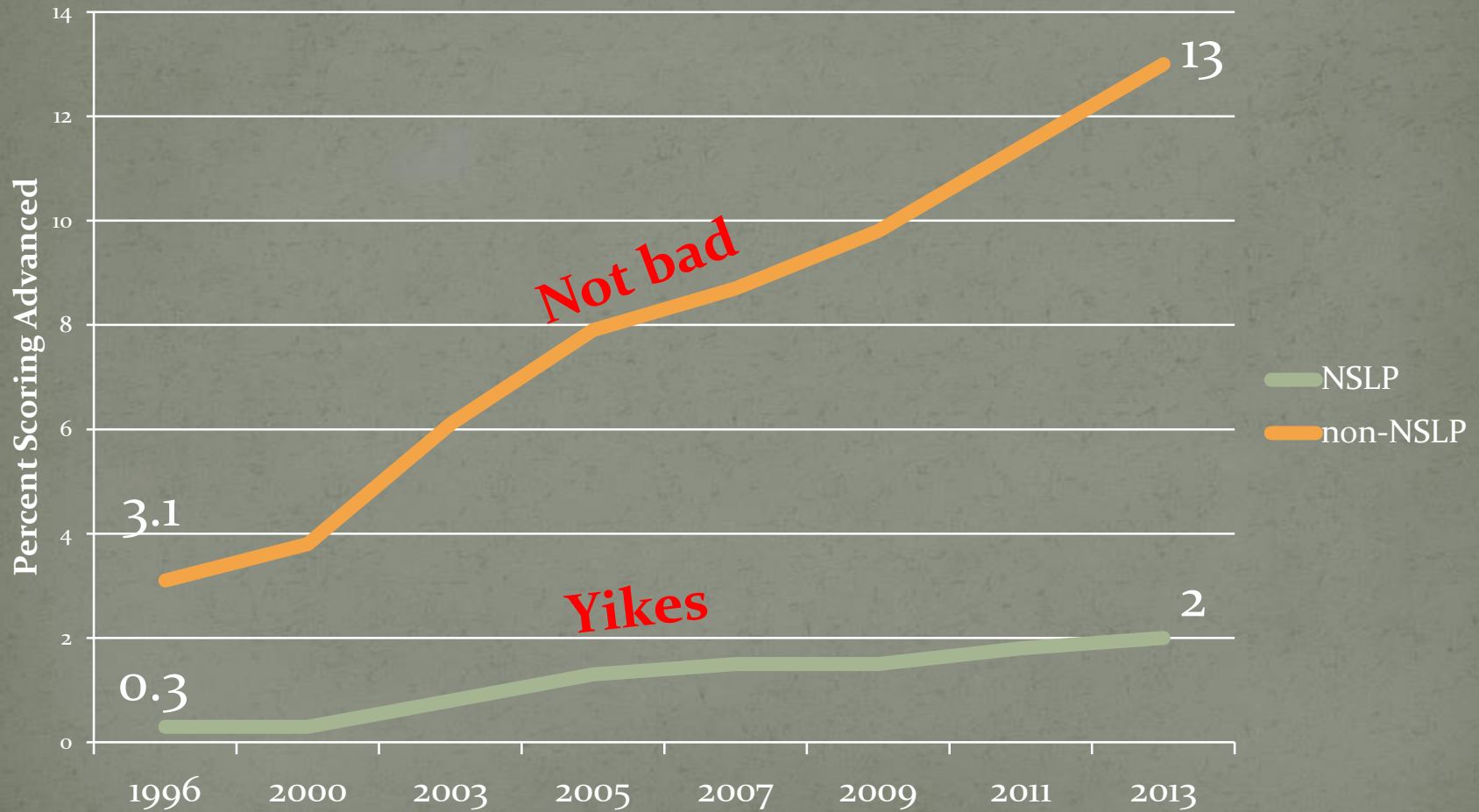
Excellence Gaps and America's Persistent Talent Underclass

Talent on the Sidelines Results

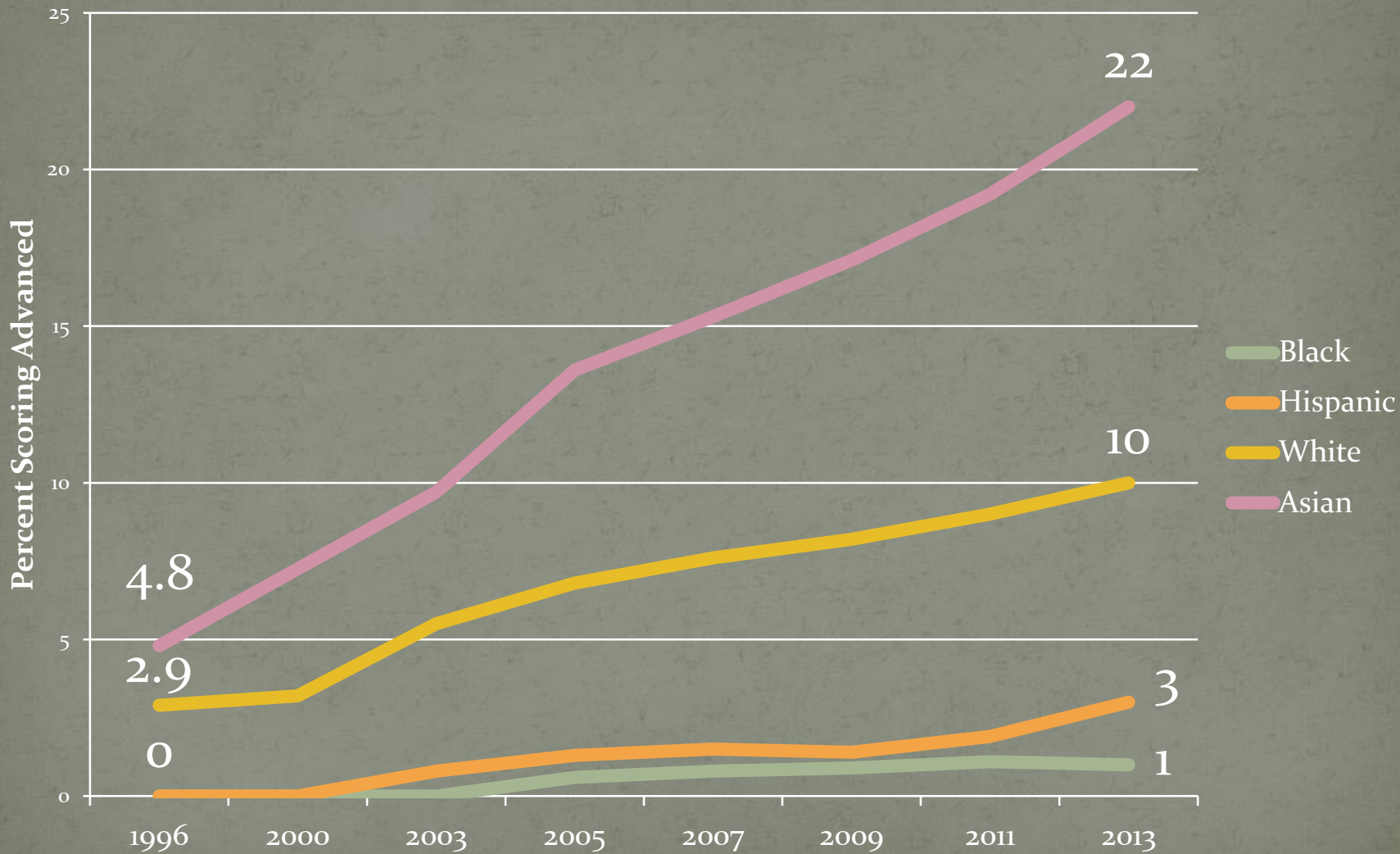


<http://cepa.uconn.edu/mindthegap>

NAEP % Advanced Math Grade 4



NAEP % Advanced Math Grade 4

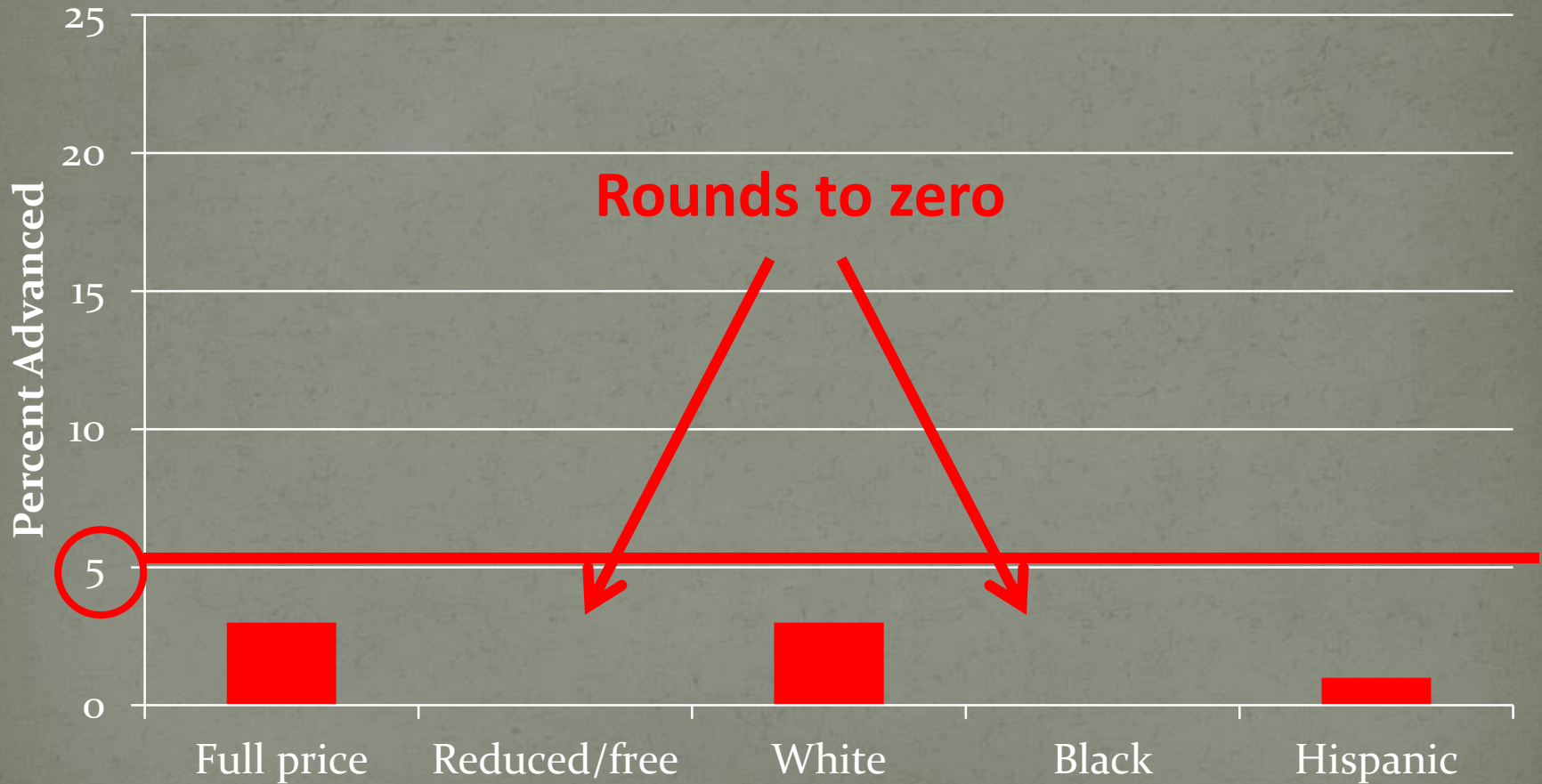


But why not other subjects?

... because math and reading look *better*.

Grade 8 NAEP Science

2011 (most recent)



So when people say, “These kids will take care of themselves” ...

... well, they aren't.

Big Implication

- We can predict with high accuracy that a talented student who is poor and/or Hispanic, Black, or Native American will not perform at advanced levels in K-12 education.
- Hence “persistent talent underclass.”

What If We ...

... shrunk the low-income excellence gap in math from 13% to 6% in Grade 4?

EACH YEAR we would have 80,000 more students exhibiting academic excellence.

EACH. YEAR. 80,000. MORE.

Recommendations

- Two questions for policymakers:
 - How will the proposed policy impact our highest achieving students?
 - How will the proposed policy help more students achieve at the highest levels?
- Publish advanced test scores and excellence gaps whenever results are released.

Recommendations

- Indicators for excellence and excellence gaps must be included in state accountability systems
 - 21st century skills need to be incorporated into these systems
 - These are the skills other countries envy
- Aggressively address low-hanging policy issues
 - Anti-acceleration policies, rigid kindergarten age cut-offs, NYC norming

From forthcoming book
with Scott Peters:



II. State Policy Report

Funded by the Jack Kent Cooke Foundation

The Jack Kent Cooke Foundation Study

Purpose

- To help state policymakers understand extent to which their policies encourage/discourage academic excellence.
 - To help them understand that all of their policies DO encourage or discourage excellence.
- To put policymaker-friendly data in the hands of advocates.

The Jack Kent Cooke Foundation Study

What we did

- Worked with expert advisory board to identify comprehensive set of state-level indicators of academic excellence
 - Researchers, current and former SEA staff, advocates, policy specialists
- Identified three sets of indicators:
 - Inputs (policies)
 - Participation
 - Outcomes

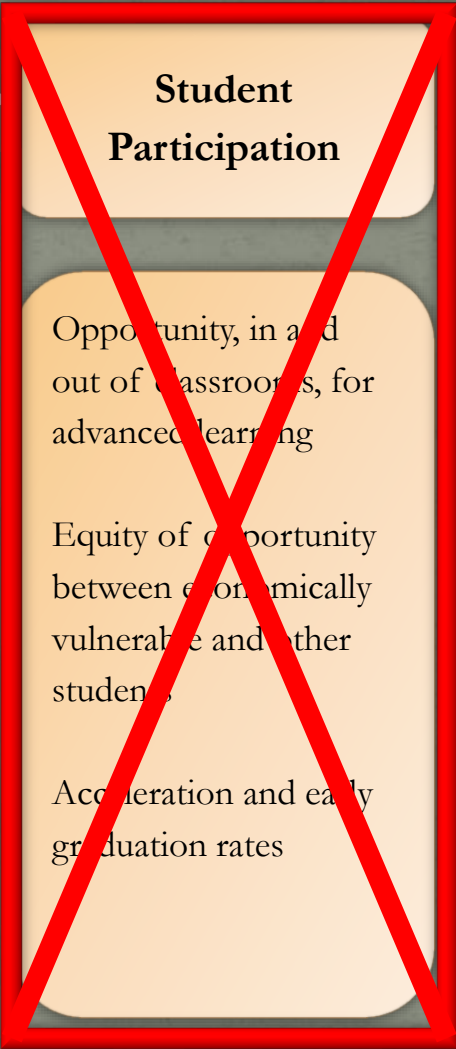
**Inputs /
State Emphases**

Identification of advanced learners

Allocation of resources to support advanced learners

Policies to support advanced learners

Tracking the progress of advanced learners



**Student
Participation**

Opportunity, in and out of classrooms, for advanced learning

Equity of opportunity between economically vulnerable and other students

Acceleration and early graduation rates



**Student
Outcomes**

Percent of students reaching advanced levels

Excellence gaps in percentage of economically vulnerable and other students reaching advanced levels, accelerating, or graduating early

- Gathered data from existing sources
- Compared multiple data sets when possible
- Called handful of states to verify data
- Called SEAs to fill in missing data
- Two pieces of missing input data out of 459 data points
 - Missing data rate = AWESOMENESS!

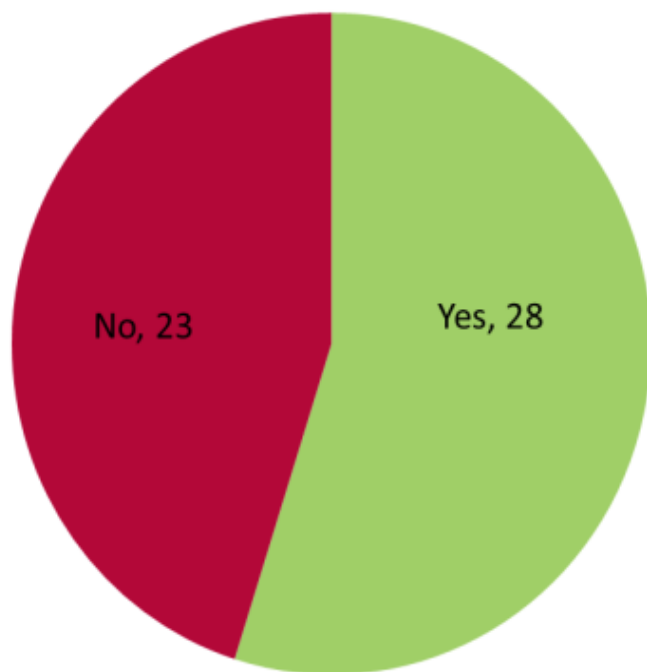
The Jack Kent Cooke Foundation Study

What We Found

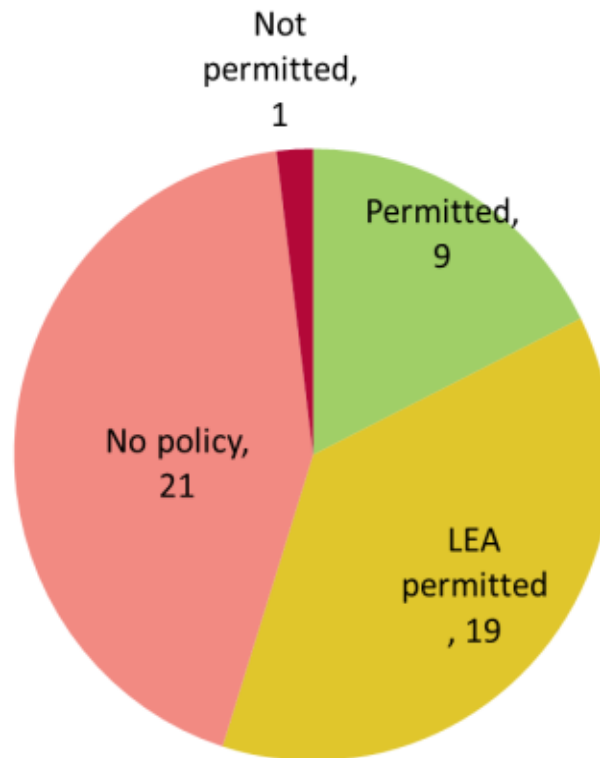
- No state is hitting it out of the park regarding inputs or outcomes.
- Some states do much more than others with policy, but most are in the middle.
- Several states do well with aggregated outcomes ...
- ... but no state does well with excellence gaps.
- Preliminary analyses suggests states with strong SEA leadership and good university resources have stronger policy environments for excellence.

A Few Highlights

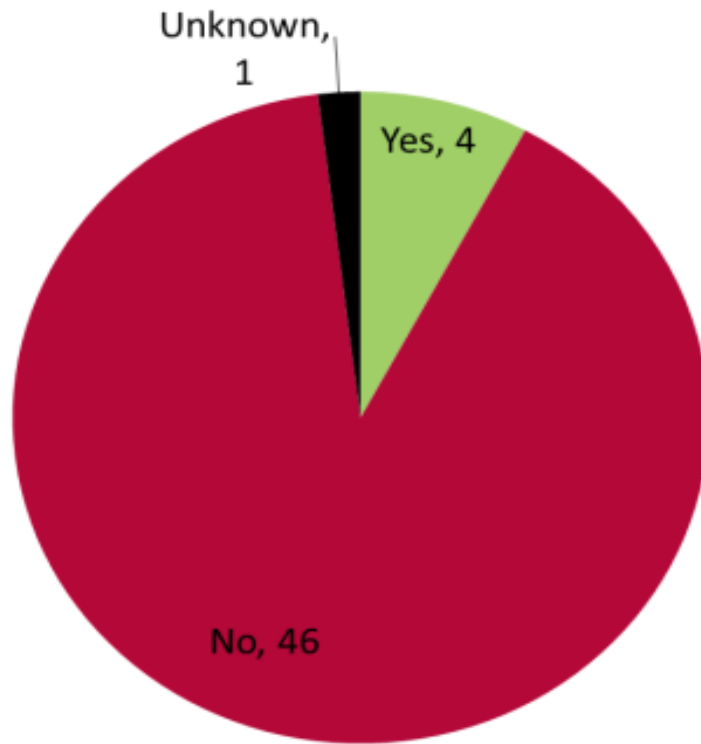
Does SEA Audit, Monitor, or Report on LEA Gifted and Talented Programs?



Does State Policy Permit Acceleration?

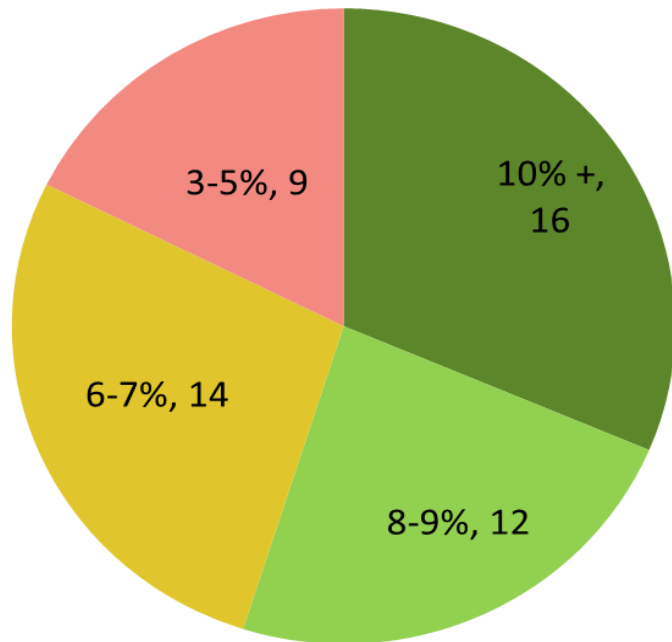


**Does State Require Gifted Coursework in
Teacher/Administrator training?**

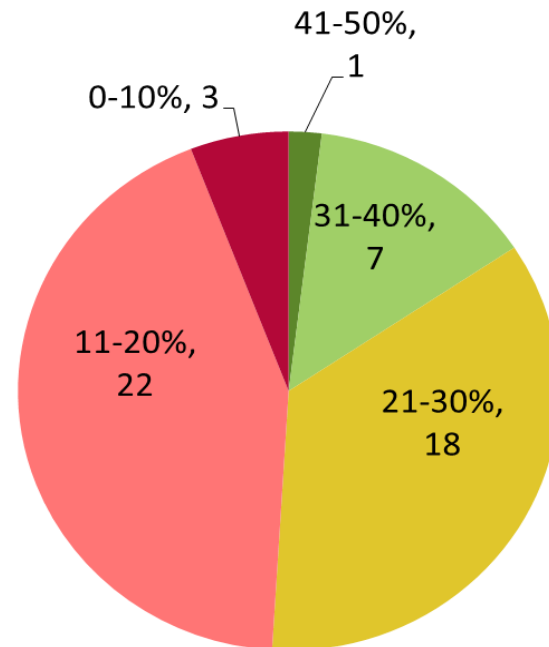


Outputs

**NAEP Grade 8 Math,
Percent Scoring Advanced**



NAEP Grade 8 Math Excellence Gaps



Kentucky



- **Strengths**

- SEA monitoring and reporting
- Mandate
- Required teacher and administrator prep

- **Non-strengths**

- Mediocre levels of overall excellence
- Very large excellence gaps

The Jack Kent Cooke Foundation Study

Some observations

- Different indicators may give different results.
- Missing indicators may give different results.
- We were easy graders.
- Tried to emphasize this is about state policy, not failings of students, educators, etc.
- Policymakers probably don't realize these policies impact talent development.
- This is a long-term project.
 - Putting data into forms that work for policymakers
 - New indicators
 - Surveying states directly

THANK YOU!

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