

Learning and Achievement in the 21st Century:

Hopes, Worries and Leverage Points



The Education Trust

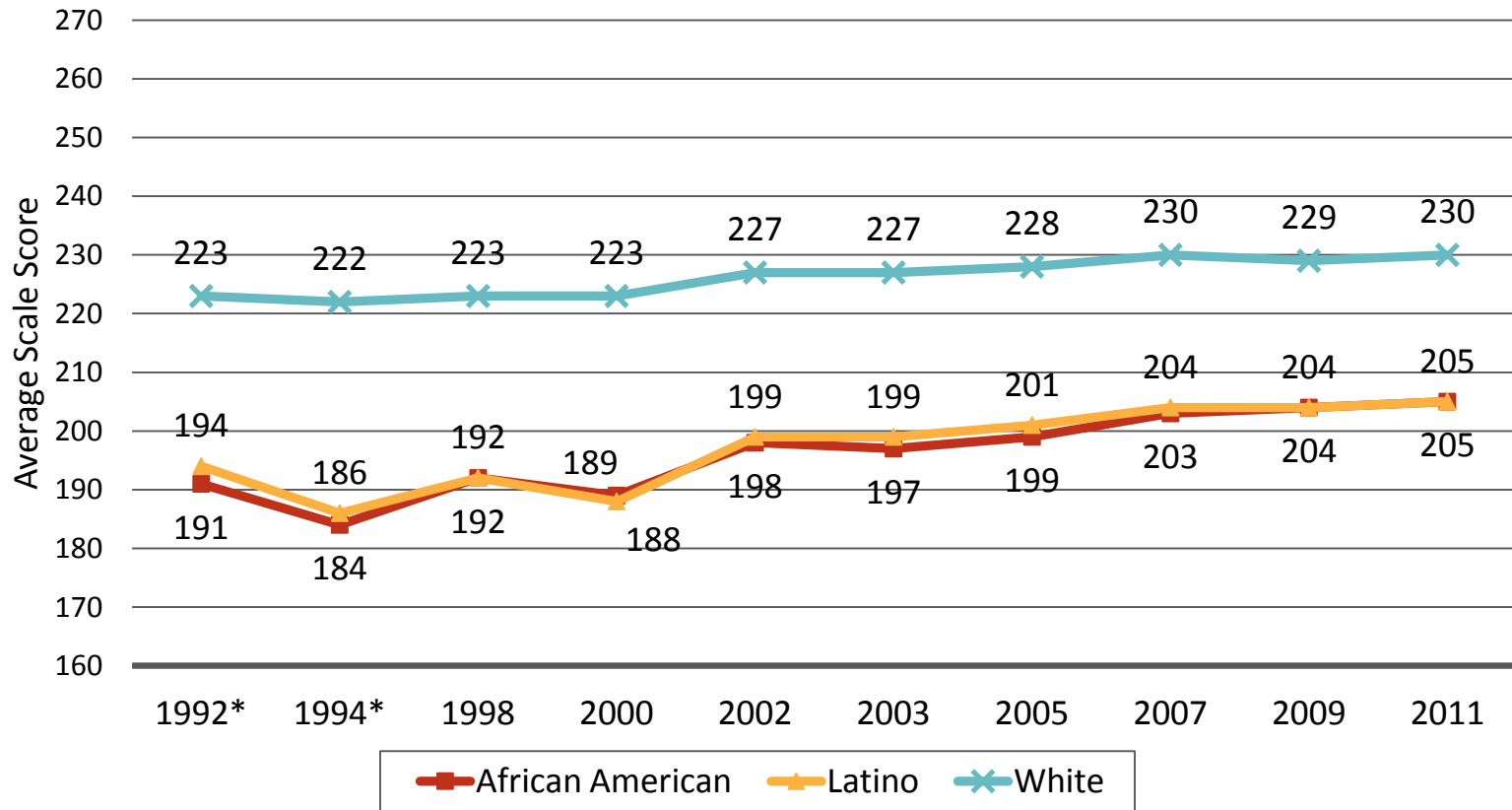
CABE CAPSS Convention
Mystic, CT
November 18, 2011

So, how are we doing?



Improvement and some gap-closing over last decade

National Public – Grade 4 NAEP Reading

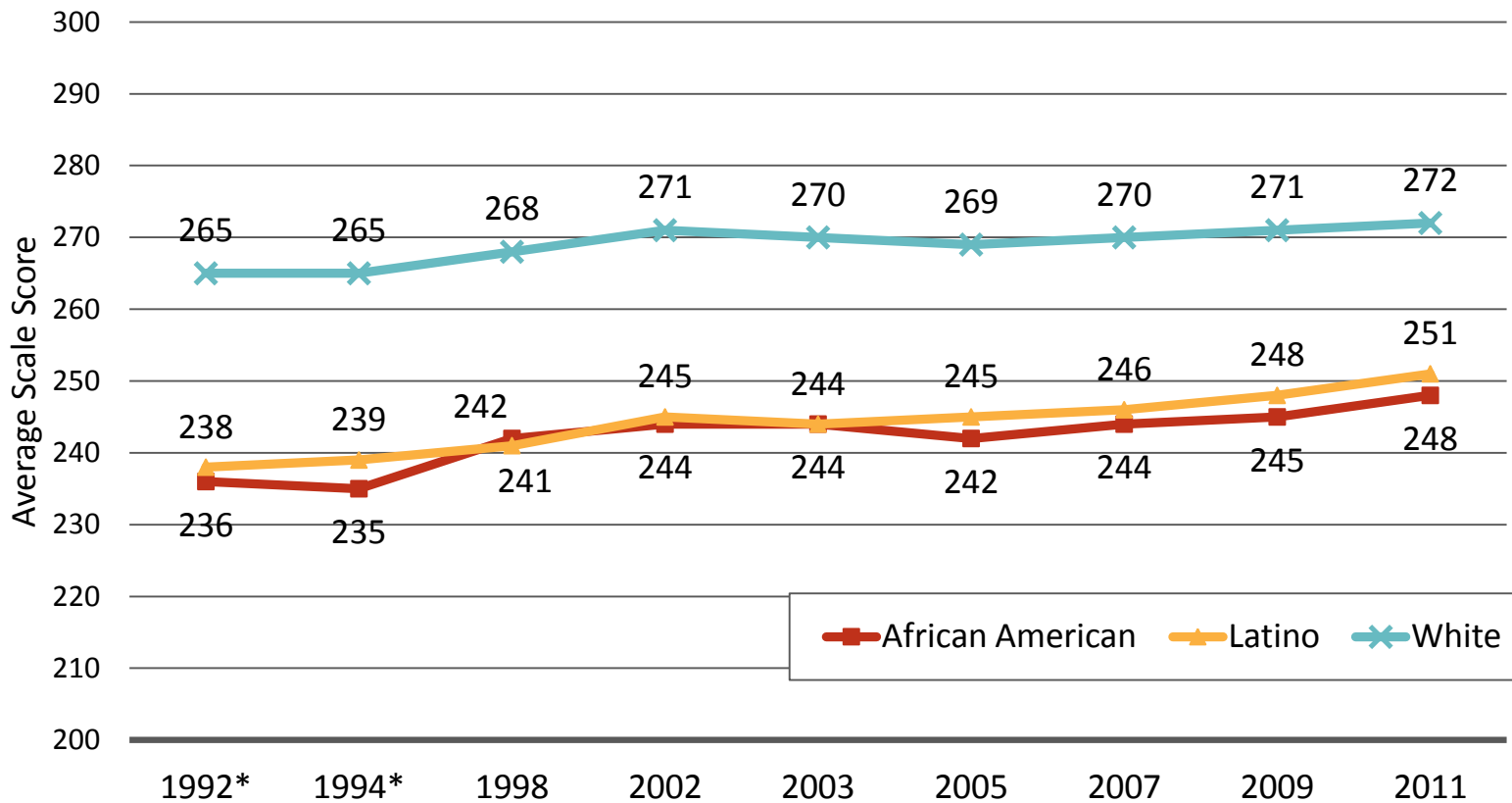


*Accommodations not permitted

Source: NAEP Data Explorer, NCES (Proficient Scale Score = 238)

Some improvement and gap closing over the last decade

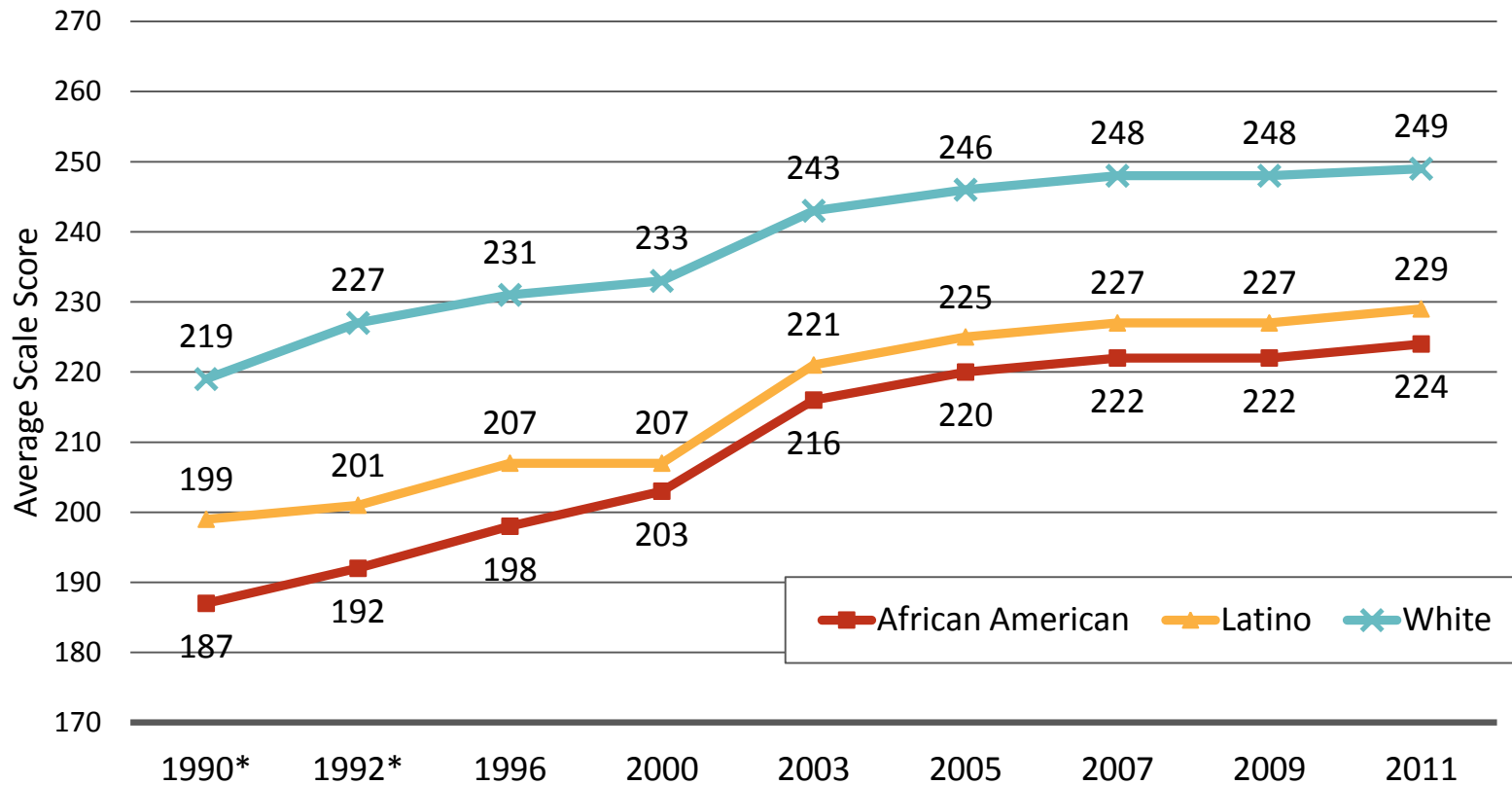
National Public – Grade 8 NAEP Reading



*Accommodations not permitted
Source: NAEP Data Explorer, NCES (Proficient Scale Score = 281)

All groups have improved since 1990

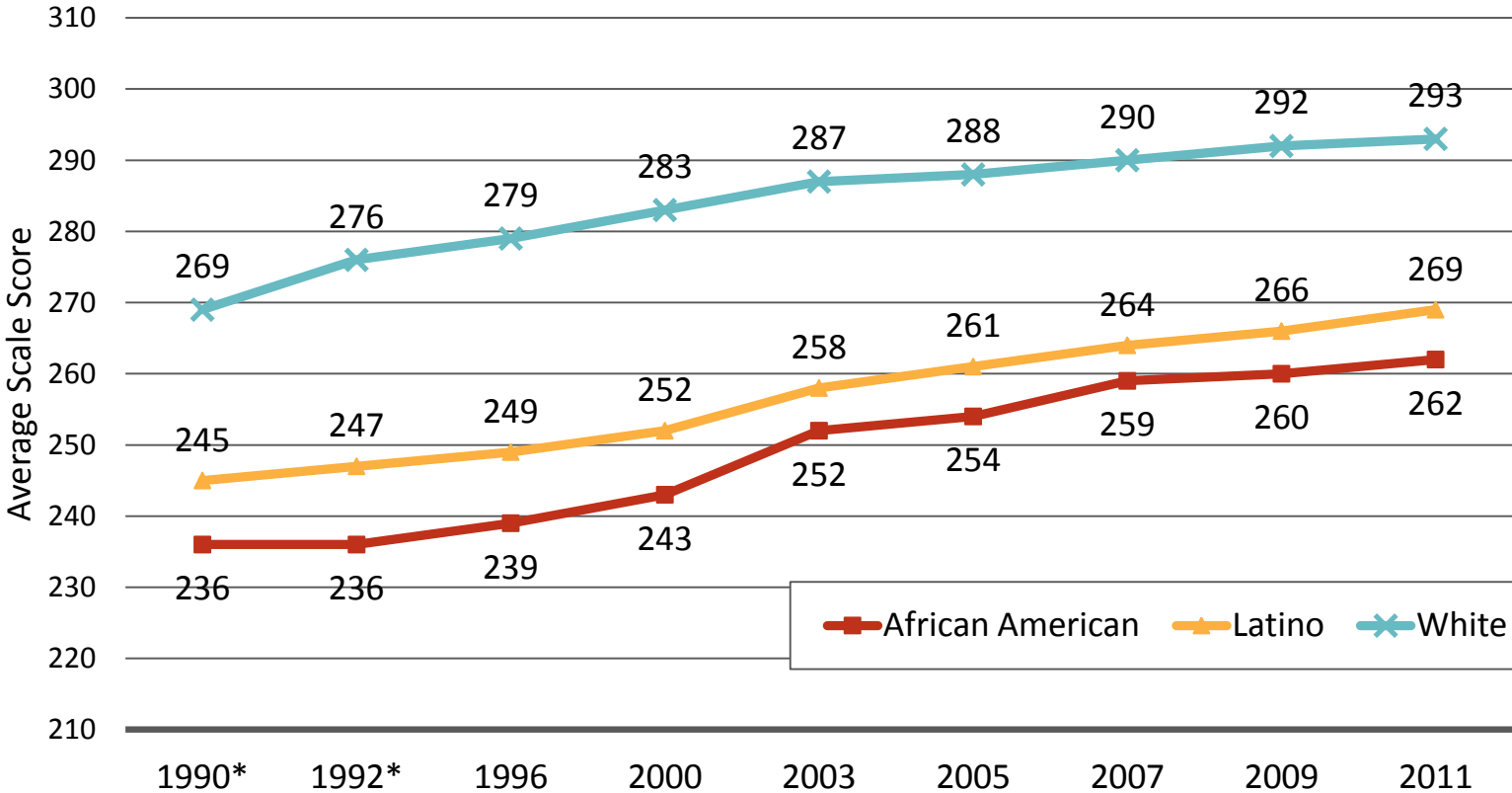
National Public – Grade 4 NAEP Math



*Accommodations not permitted
Source: NAEP Data Explorer, NCES (Proficient Scale Score = 249)

Over the last decade, all groups have steadily improved and gaps have narrowed

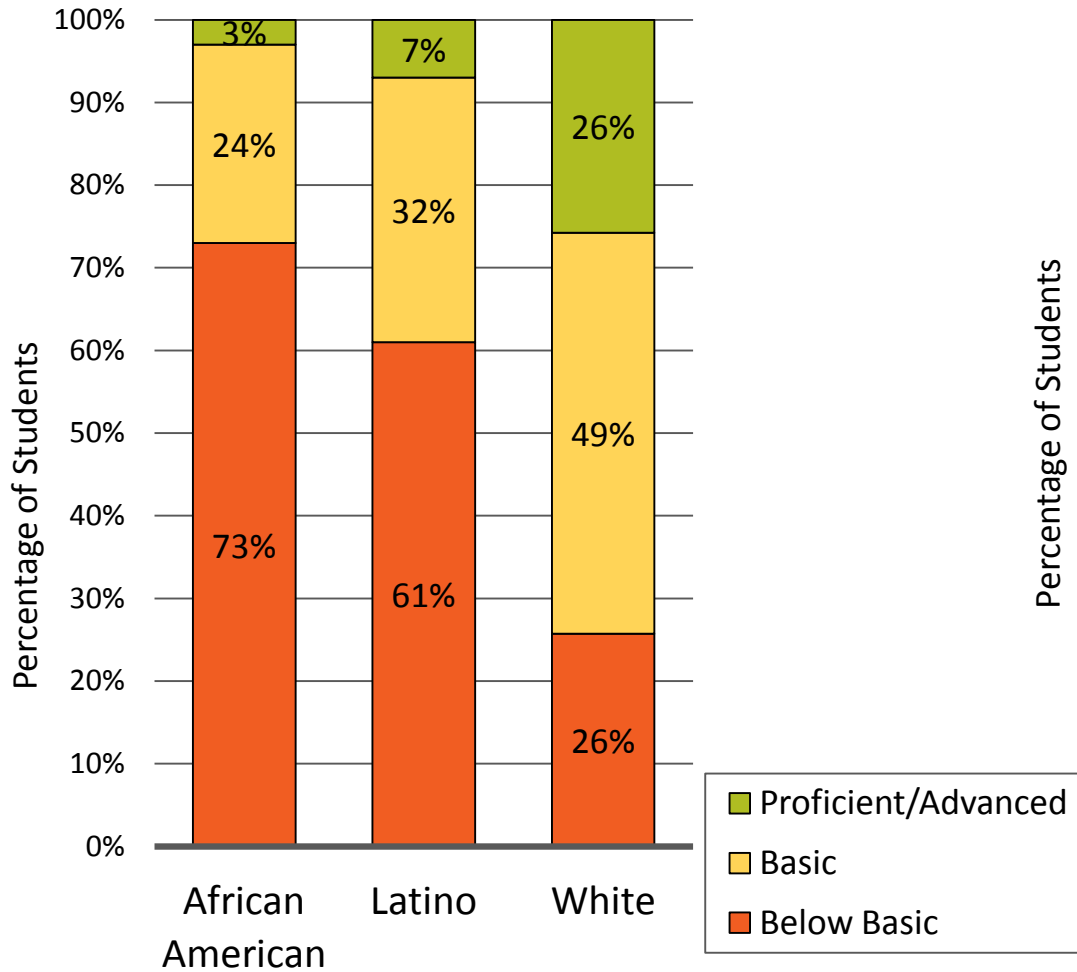
National Public – Grade 8 NAEP Math



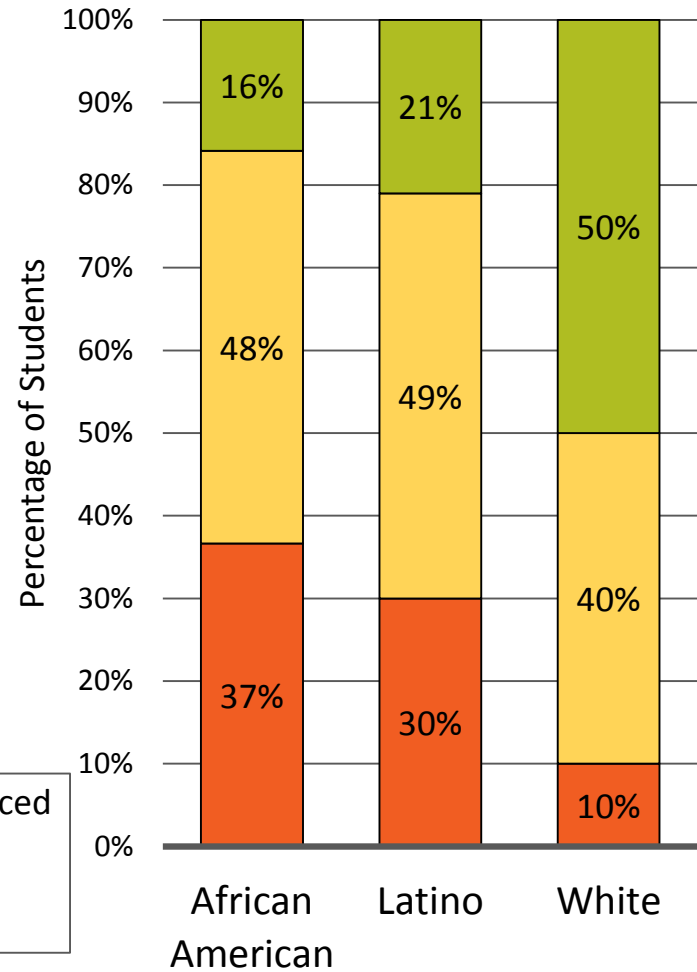
*Accommodations not permitted
Source: NAEP Data Explorer, NCES (Proficient Scale Score = 299)

NAEP Grade 4 Math by Race/Ethnicity

1996



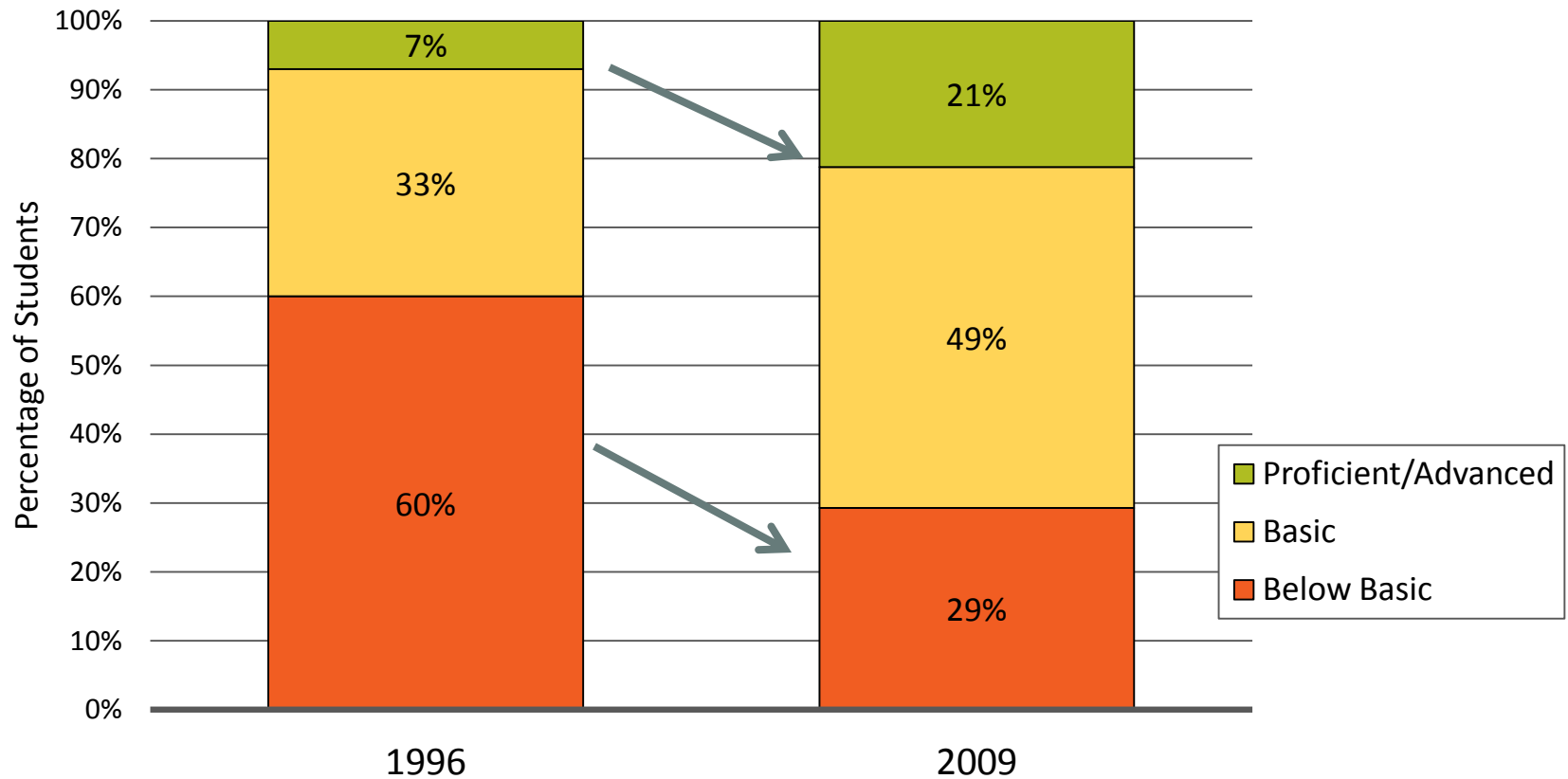
2009



Source: NAEP Data Explorer, NCES

NAEP Grade 4 Math 1996 Compared to 2009

Low-Income Students – Nation



Some states making even bigger
gains

NAEP Grade 4 Reading – Latino Students

States with the Biggest Gains in Mean Scale Scores
(2003 – 2011)

State	Gain
Maryland	11
Massachusetts	14
Georgia	13
Nevada	11
New Hampshire	11

Note: On average, mean scale scores in reading for Latino fourth-grade students increased by 6 points from 2003 to 2011.
Source: National Center for Education Statistics, NAEP Data

NAEP Grade 4 Reading – African-American Students

States with the Biggest Gains in Mean Scale Scores
(2003 – 2011)

State	Gain
Alabama	16
New Jersey	16
California	15
Maryland	13
Pennsylvania	13

Note: On average, mean scale scores in reading for African-American fourth-grade students increased by 8 points from 2003 to 2011.
Source: National Center for Education Statistics, NAEP Data

NAEP Grade 8 Math – Latino Students

States with the Biggest Gains in Mean Scale Scores
(2003 – 2011)

State	Gain
Arkansas	24
Massachusetts	18
Delaware	17
Idaho	16
Nevada	16
Pennsylvania	16
Rhode Island	16
Texas	16

Note: On average, mean scale scores in math for Latino eighth-grade students increased by 11 points from 2003 to 2011.

Source: National Center for Education Statistics, NAEP Data

NAEP Grade 8 Math – African-American Students

States with the Biggest Gains in Mean Scale Scores
(2003 – 2011)

State	Gain
New Jersey	19
Arkansas	18
Kansas	17
Texas	17
Colorado	15
Massachusetts	15
Minnesota	15
Wisconsin	15

Note: On average, mean scale scores in math for American-African eighth-grade students increased by 10 points from 2003 to 2011.
Source: National Center for Education Statistics, NAEP Data

But how do our students perform
against international benchmarks?

Performance Among the 26 OECD Countries Continuously Participating in PISA Since 2000

U.S. Ranks Low but has Risen Since 2006

Subject	2000 Rank (out of 26)	2003 Rank (out of 26)	2006 Rank (out of 26)	2009 Rank (out of 26)
Reading	14 th	14 th	n/a	Tied 10 th
Mathematics	17 th	22 nd	22 nd	Tied 20 th
Science	13 th	Tied 17 th	19 th	13 th

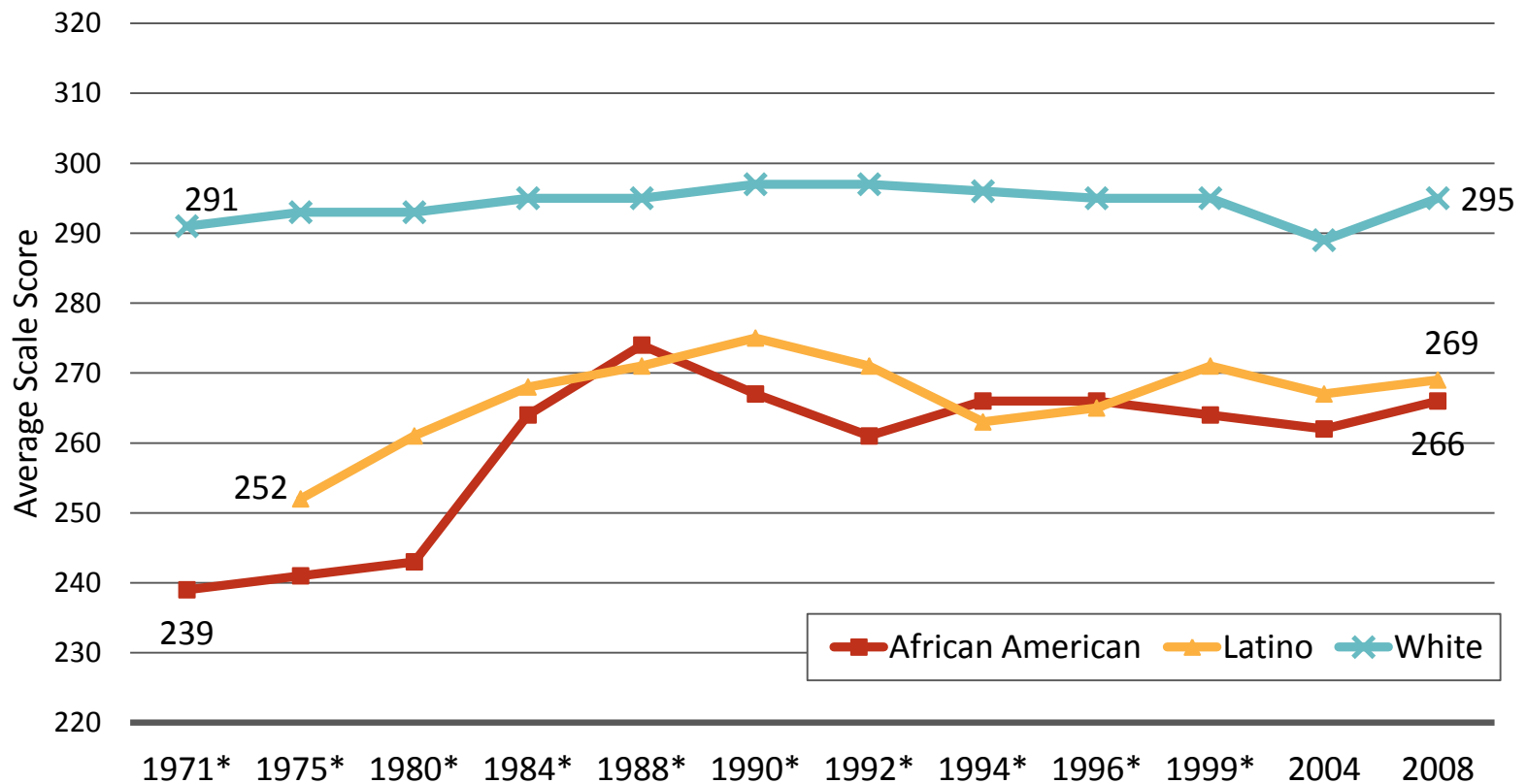
Note: Rankings are for the 26 countries that were members of the OECD and participated in PISA in 2000, 2003, 2006, and 2009. 2006 results for U.S. reading performance are not available.
Source: PISA 2009 Results, OECD

But at least we have some traction on elementary and middle school problems.

The same is NOT true
of our high schools.

12th Grade Reading: No Progress, Gaps Wider than 1988

17 Year Olds – NAEP Reading

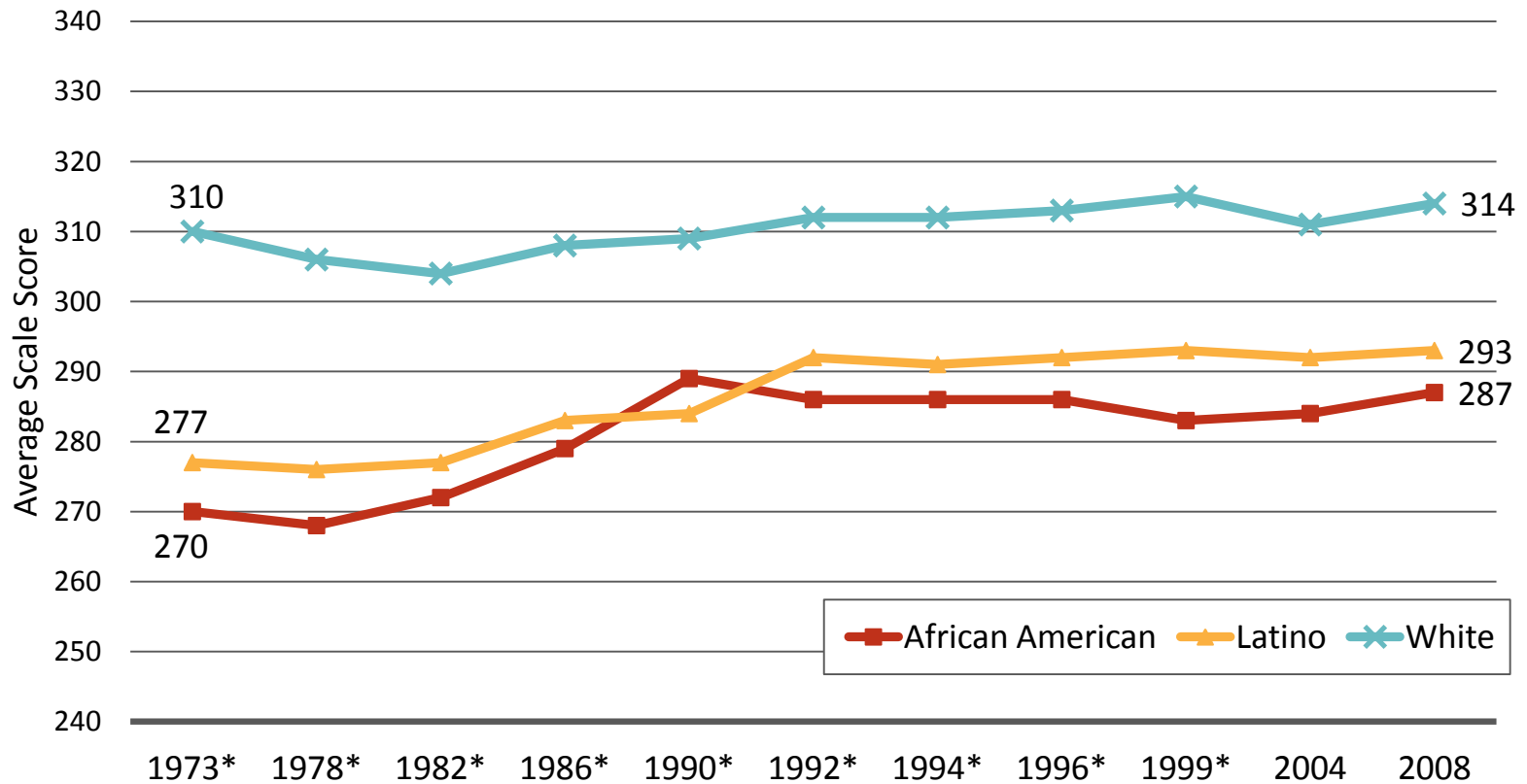


*Denotes previous assessment format

Source: NAEP 2008 Trends in Academic Progress, NCES

12th Grade Math: Results Mostly Flat Gaps Same or Widening

17 Year Olds – NAEP Math

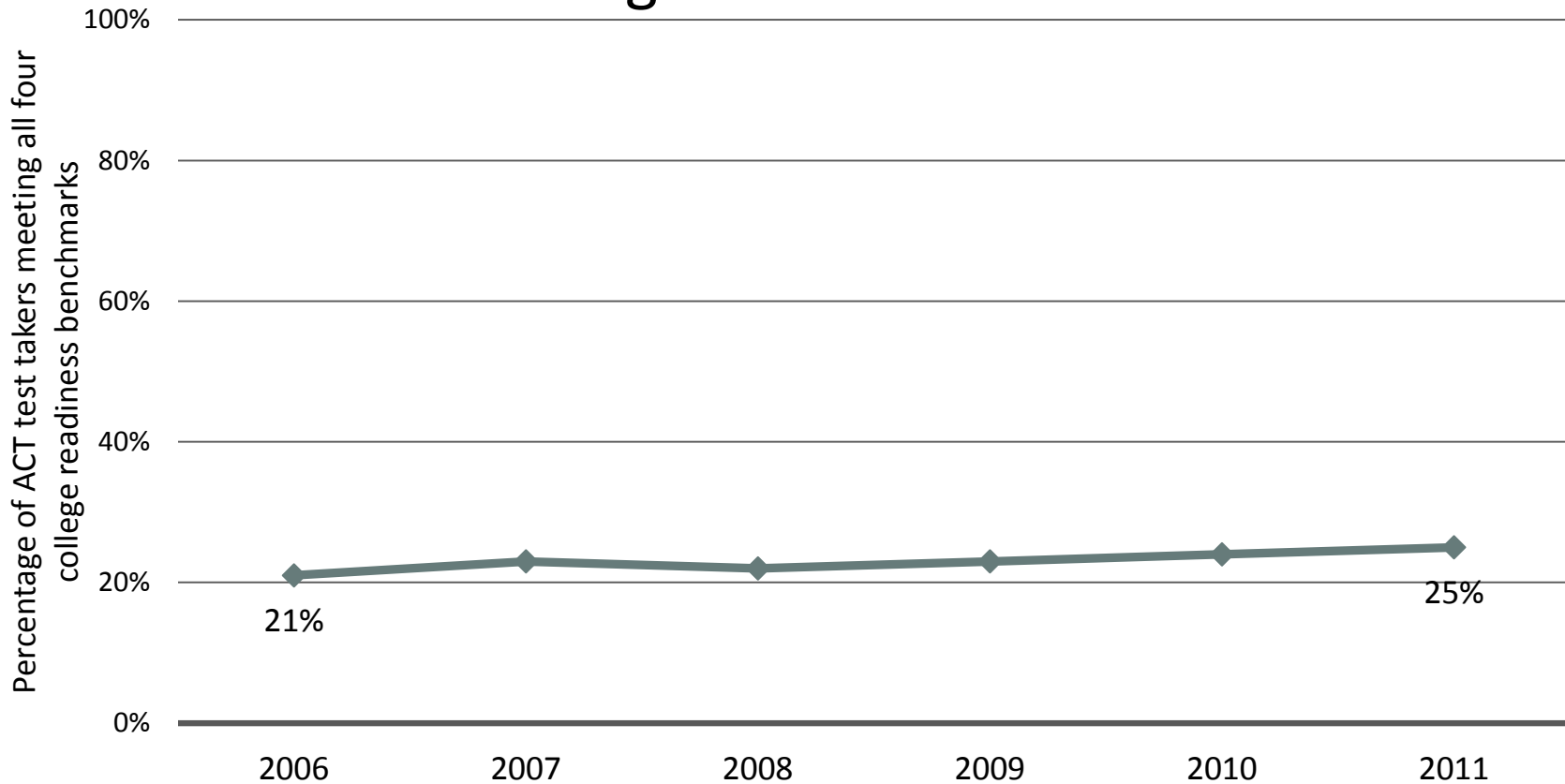


*Denotes previous assessment format

Source: NAEP 2008 Trends in Academic Progress, NCES

Many high school students are
woefully unprepared for what lies
ahead.

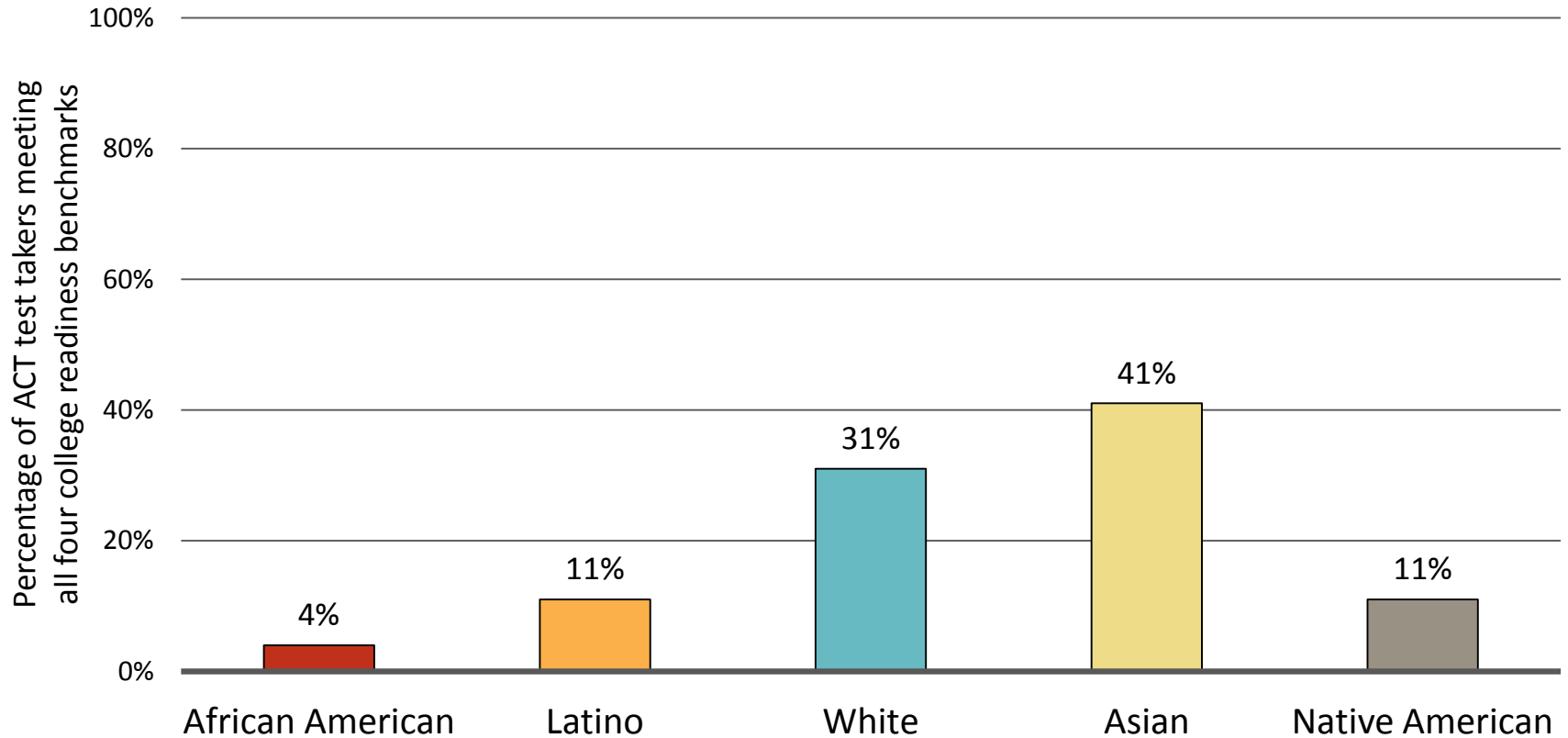
About one in four ACT test takers meets all four college readiness benchmarks



Note: College readiness benchmarks are ACT-established thresholds that represent the score that a student needs to attain in order to have at least a 50% chance of receiving a B and a 75% chance of receiving a C in corresponding first-year college courses.

Source: The Condition of College & Career Readiness 2010, ACT; The Condition of College & Career Readiness 2011, ACT

Few ACT test takers of color meet all four college readiness benchmarks



Note: College readiness benchmarks are ACT-established thresholds that represent the score that a student needs to attain in order to have at least a 50% chance of receiving a B and a 75% chance of receiving a C in corresponding first-year college courses.

Source: The Condition of College & Career Readiness 2011, ACT

Of course, these gaps do not
begin in school.

But, rather than organizing our educational
system to ameliorate this problem, we
organize it to exacerbate the problem.

Once Upon a Time: A True Story

Too bad this story is not the
exception.

In too many places and all too often,
we give those who need more less.

Less money

National Inequities in State and Local Revenue Per Student

	Gap
High Poverty vs. Low Poverty Districts	-\$773 per student
High Minority vs. Low Minority Districts	-\$1,122 per student

Source: Education Trust analyses based on U.S. Department of Education and U.S. Census Bureau data for the 2005-06 school year.

Larger class sizes

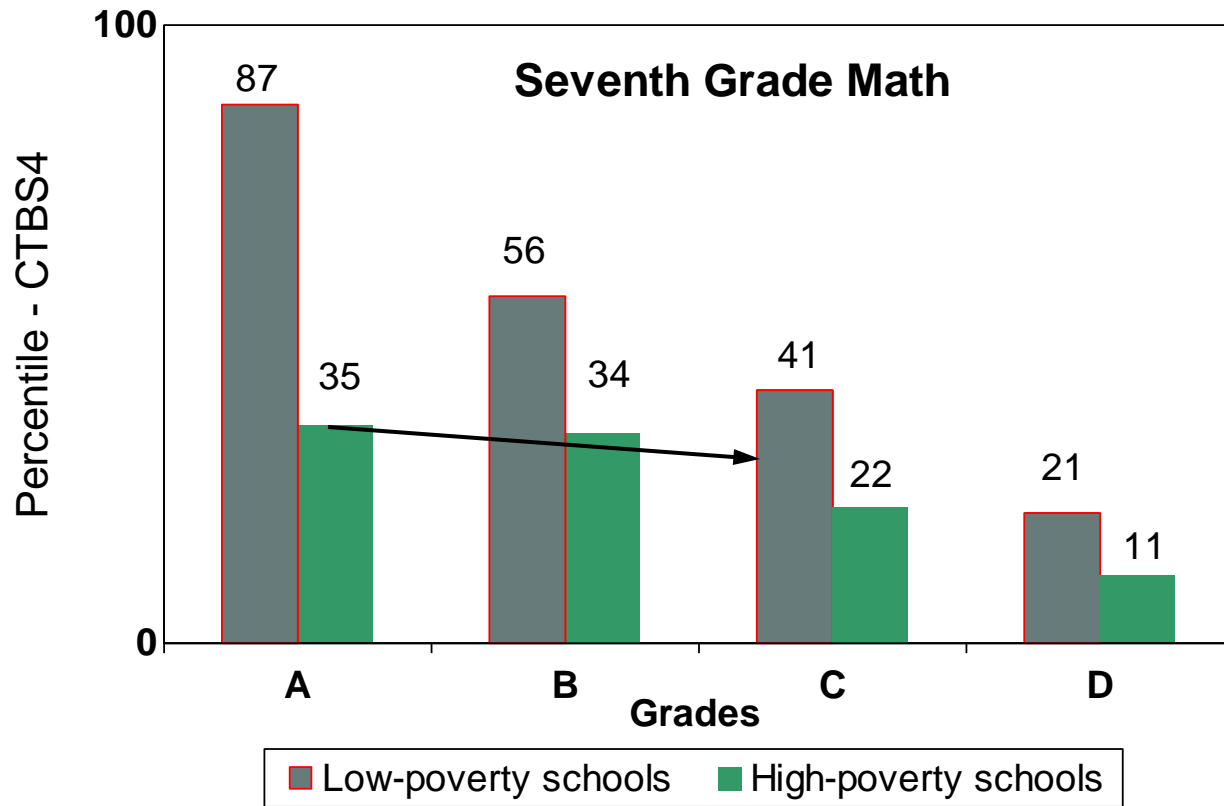
In the U.S.A., schools with lower
SES tend to have larger classes

The only other OECD countries in
which this is true?

Israel, Slovenia, and Turkey

Lower Expectations

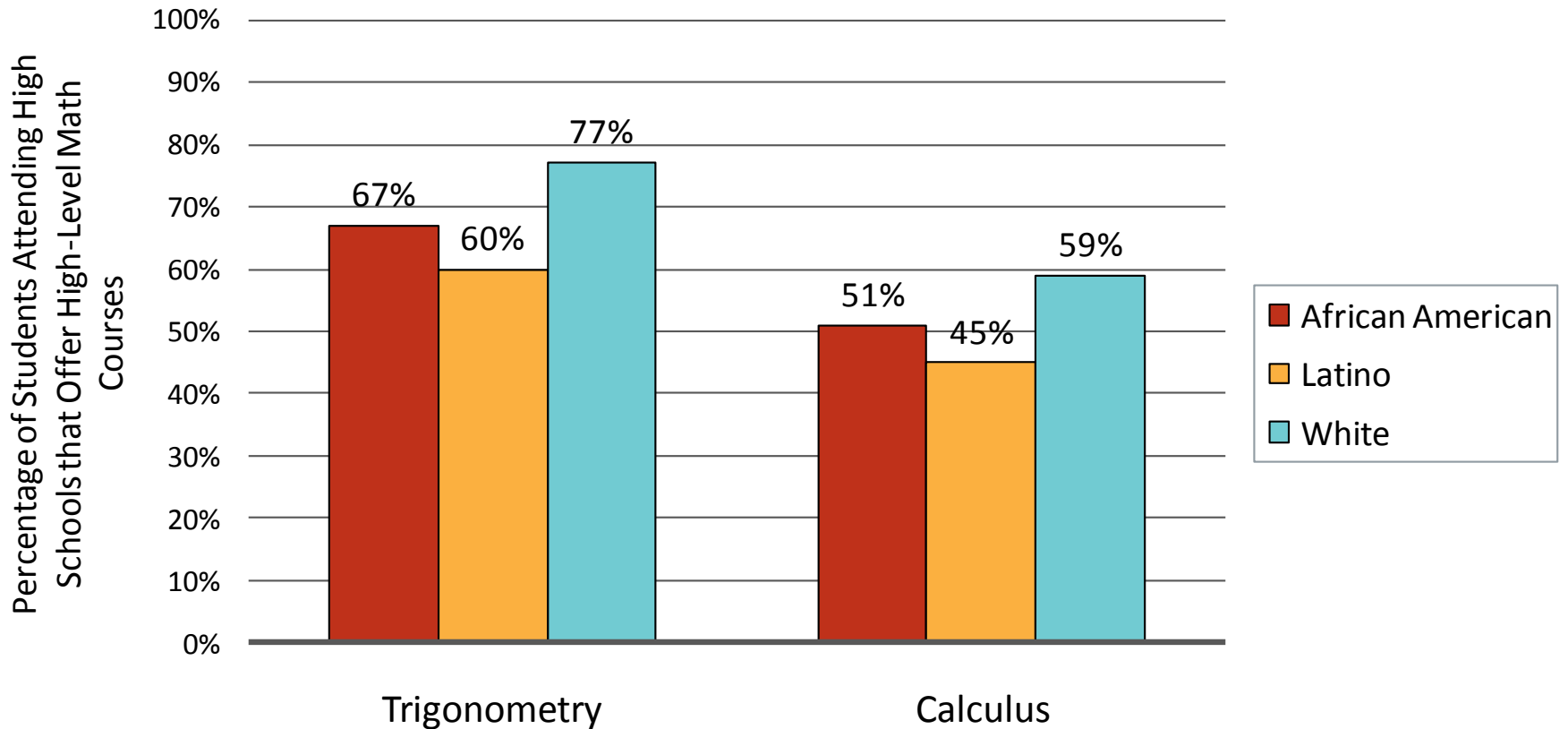
Students in Poor Schools Receive 'A's for Work That Would Earn 'Cs' in Affluent Schools



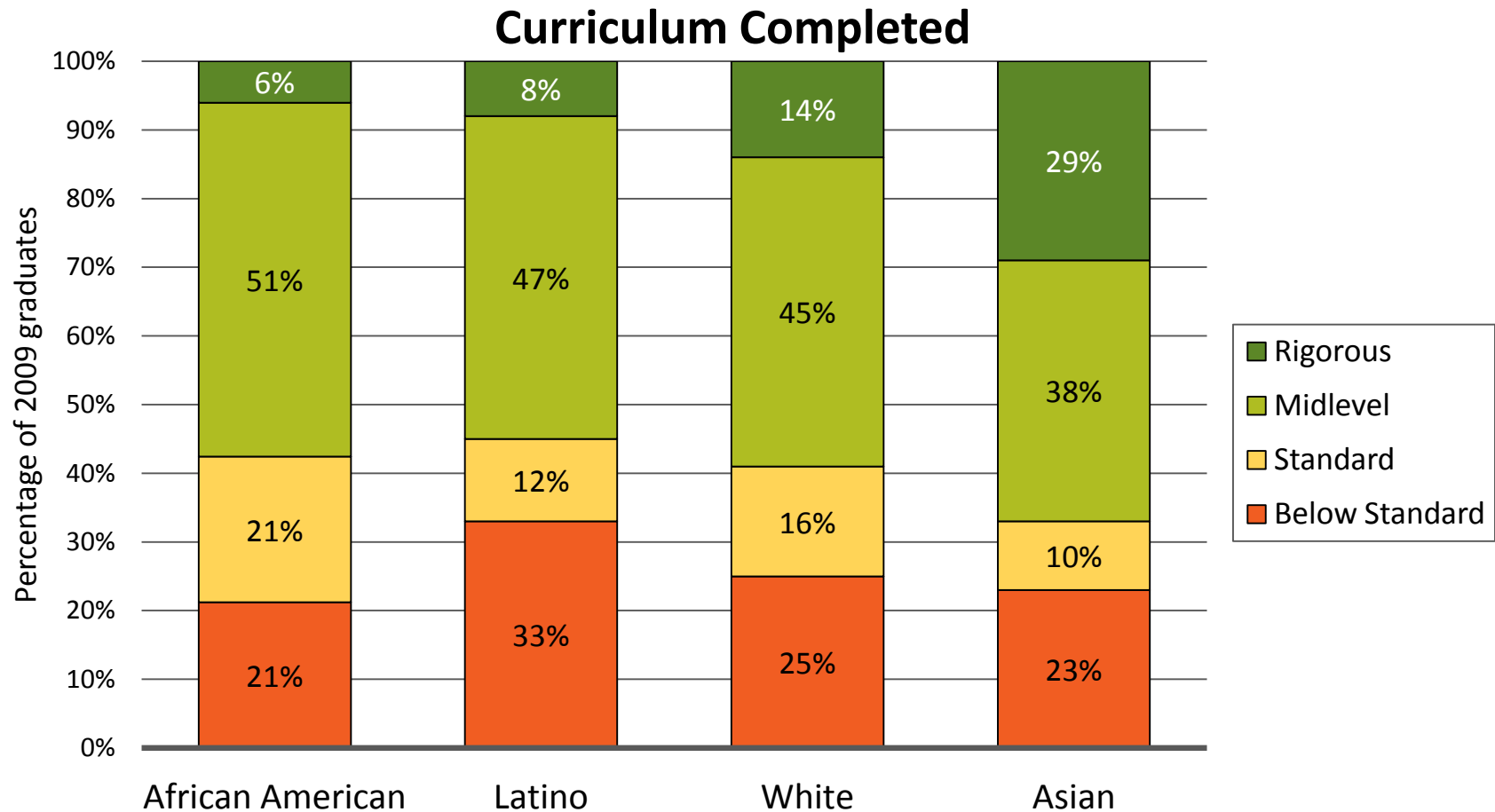
Source: Prospects (ABT Associates, 1993), in "Prospects: Final Report on Student Outcomes", PES, DOE, 1997.

Weak Curriculum

Students of color are less likely to attend high schools that offer high-level math courses



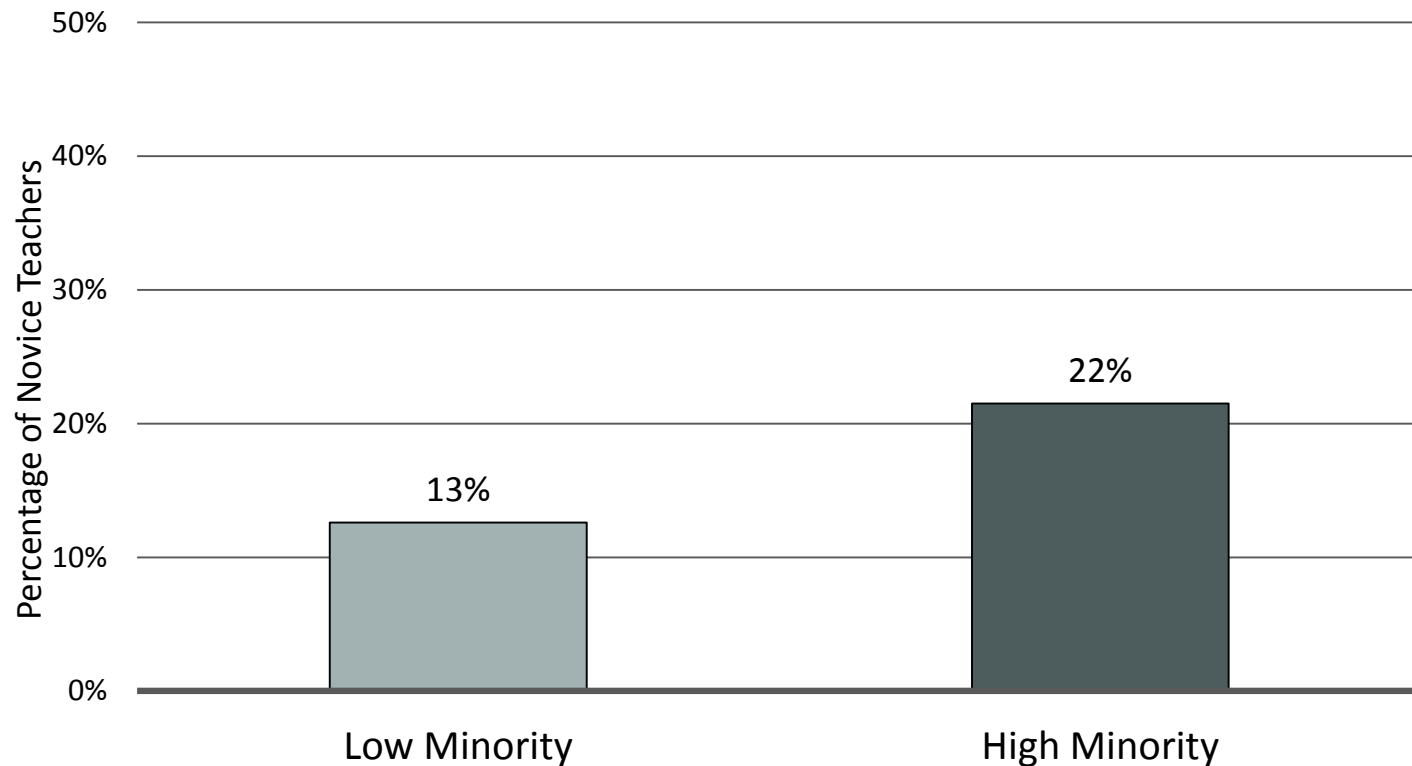
African American and Latino graduates about half as likely as white graduates to have completed rigorous curriculum



Source: NCES, "America's High School Graduates: Results of the 2009 NAEP High School Transcript Study"

Weaker Teachers

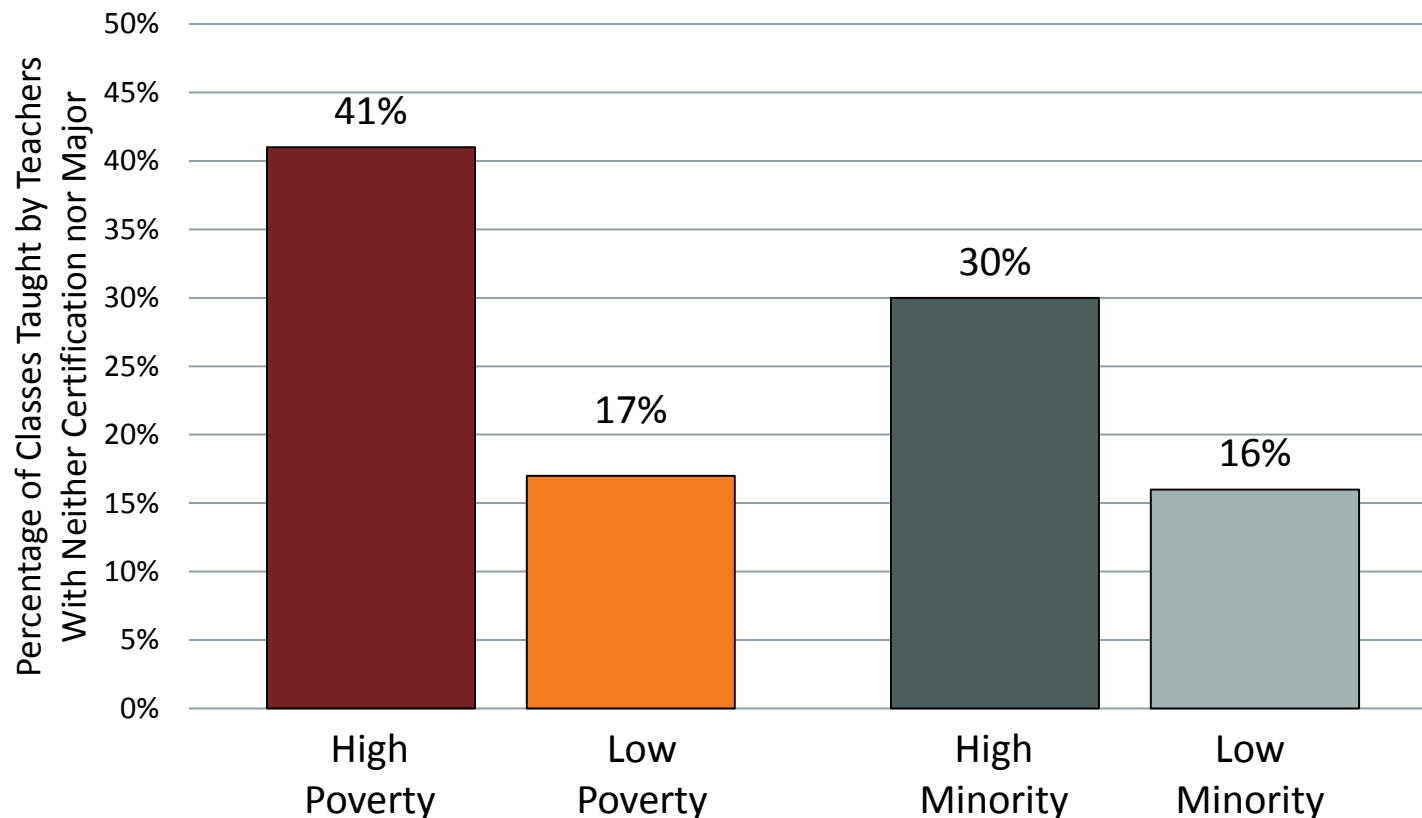
Students at high-minority schools are more likely to be taught by novice teachers



Note: Novice teachers are those with three years or fewer experience.
High-minority $\geq 75\%$ students non-white. Low-minority $\leq 10\%$ students non-white.

Source: Analysis of 2003-2004 Schools and Staffing Survey data by Richard Ingersoll, University of Pennsylvania (2007)

Core classes in high-poverty and high-minority secondary schools are more likely to be taught by out-of-field teachers



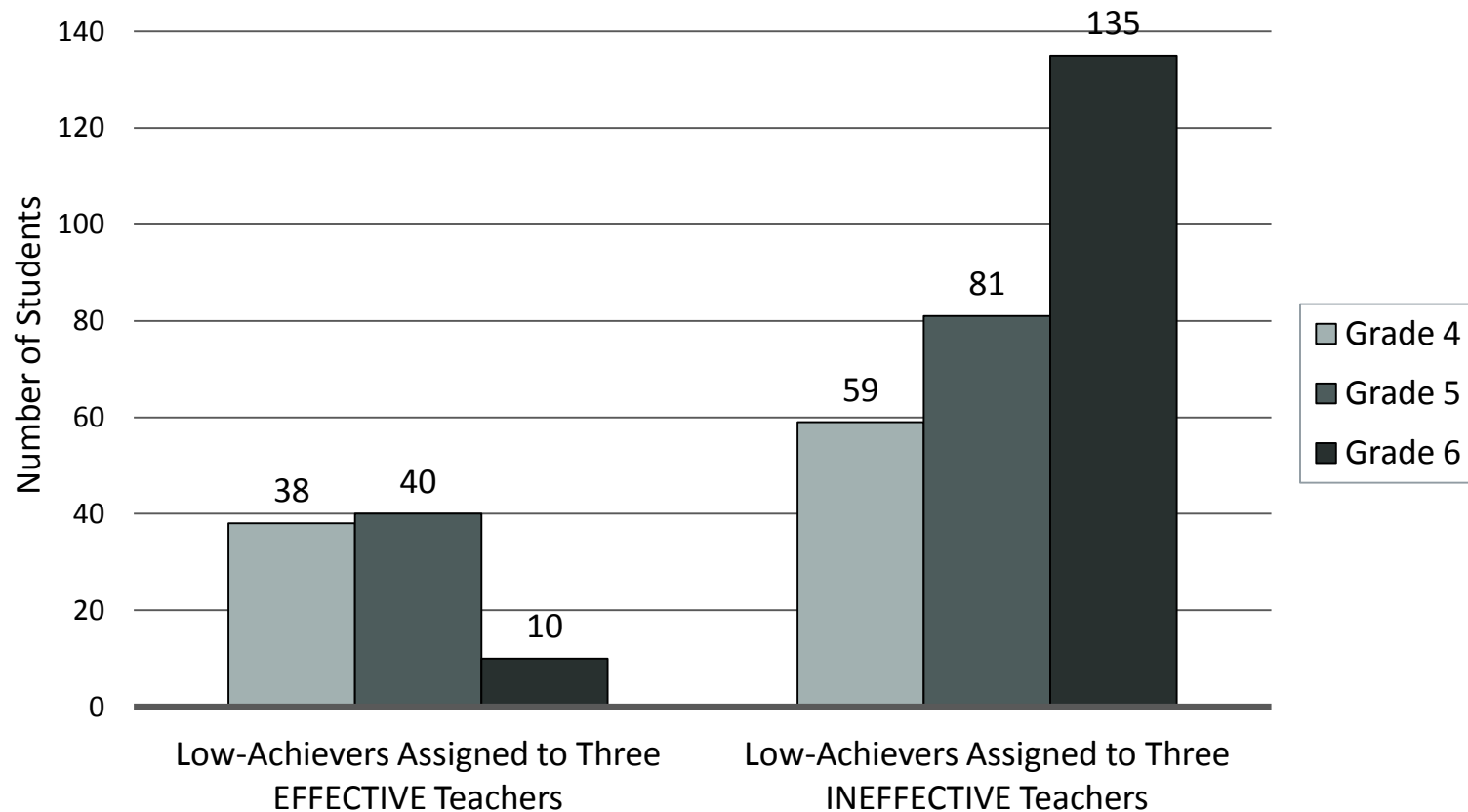
Note: Data are for secondary-level core academic classes (Math, Science, Social Studies, English) across United States.

High-poverty $\geq 75\%$ of students eligible for free/reduced-price lunch. Low-poverty school $\leq 15\%$ of students eligible.

High-minority $\geq 75\%$ students non-white. Low-minority $\leq 10\%$ students non-white.

Source: The Education Trust, *Core Problems: Out-of-Field Teaching Persists in Key Academic Courses and High-Poverty Schools*, (2008)

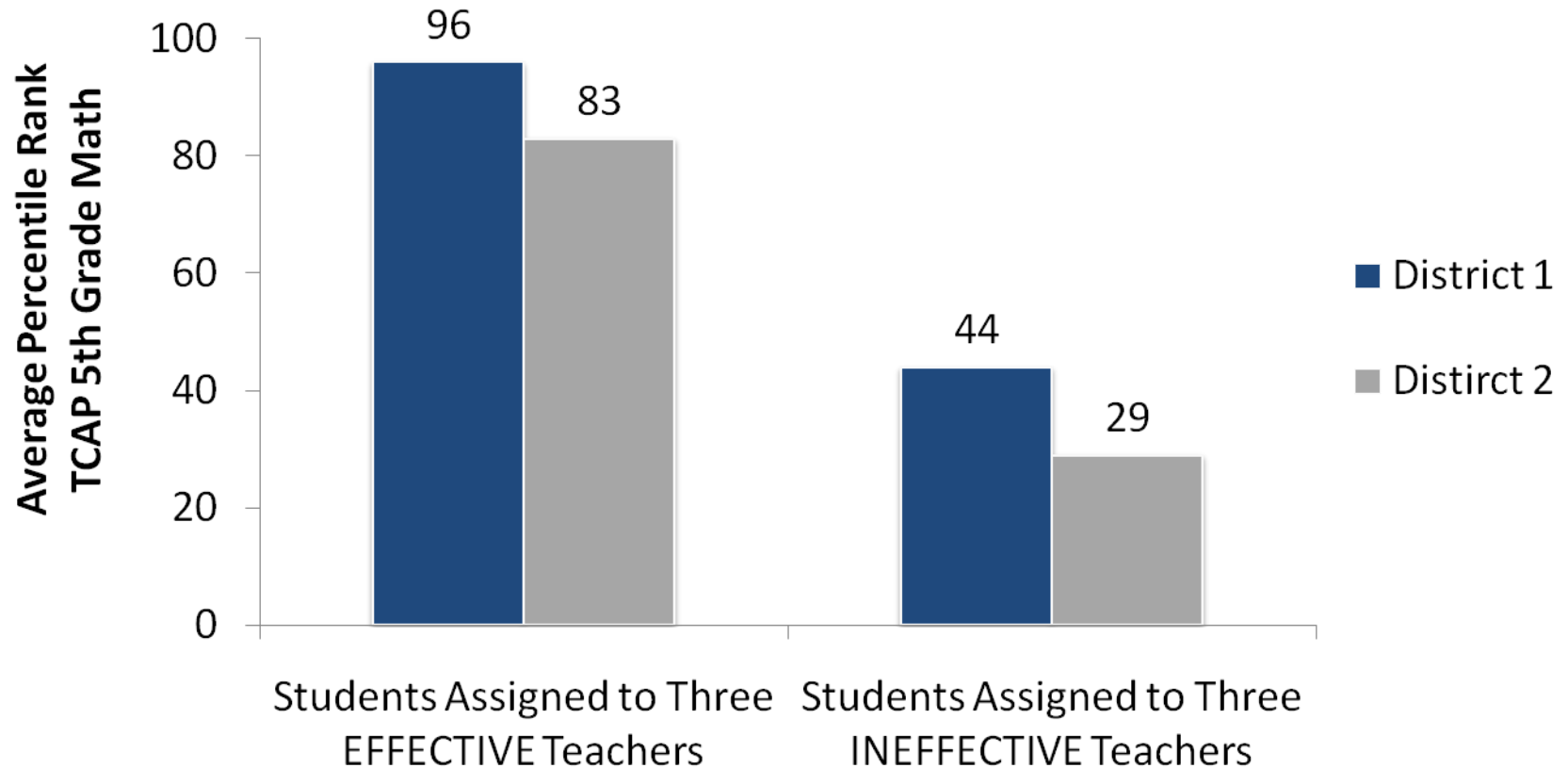
Low-achieving students are more likely to be assigned ineffective teachers than effective teachers



S. Babu and R. Mendro, *Teacher Accountability: HLM-Based Teacher Effectiveness Indices in the Investigation of Teacher Effects on Student*

Source: *Achievement in a State Assessment Program (2003)*

Students Assigned to Effective Teachers Dramatically Outperformed Students Assigned to Ineffective Teachers



Source: William L. Sanders and June C. Rivers, *Cumulative and Residual Effects of Teachers on Future Students Academic Achievement*, University of Tennessee Value-Added Research and Assessment Center, 1996.

Add up the “lesses,” and the impact
is huge

Of Every 100...

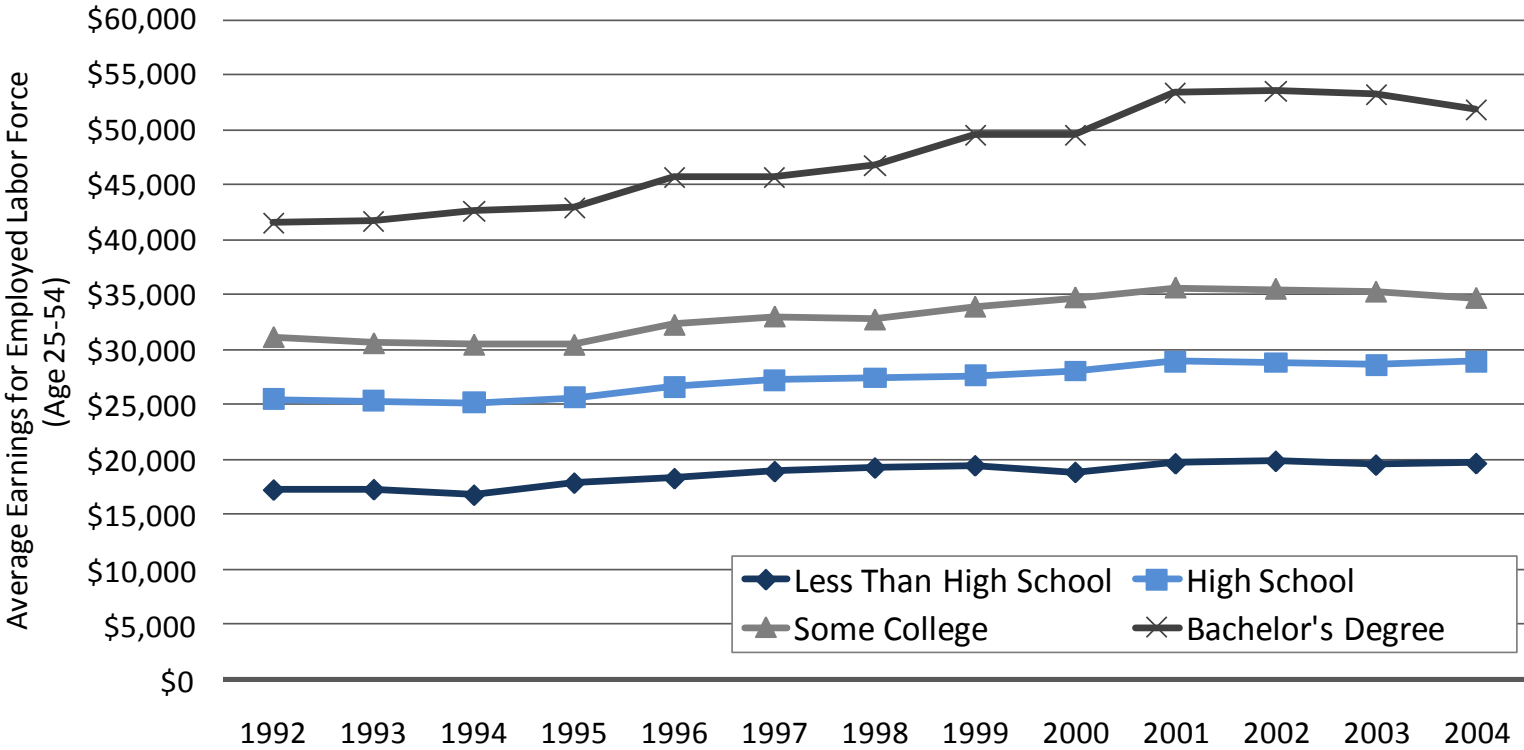
White Kindergarteners:	African American Kindergarteners:	Latino Kindergarteners:	Native American Kindergarteners:
95 graduate from high school or get a GED	89 graduate from high school or get a GED	69 graduate from high school or get a GED	71 graduate from high school or get a GED
68 complete at least some college	53 complete at least some college	35 complete at least some college	30 complete at least some college
37 obtain at least a Bachelor's degree	19 obtain at least a Bachelor's degree	12 obtain at least a Bachelor's degree	12 obtain at least a Bachelor's degree

Note: Data for white, African American, and Latino residents indicate educational attainment among 25-29 year olds; data for Native American residents indicate educational attainment for those aged 25 and above.

US Department of Commerce, Bureau of the Census. March Current Population Surveys, 1971-2009, in *The Condition of Education 2010* (Indicator Source: 22); U.S. Census Bureau, *We the People: American Indians and Alaska Natives in the United States*.

The **economic cost** of not getting some postsecondary education is a **huge burden** on both individuals and society.

Incomes are Rising for Bachelor's Degrees as they Remain Almost Flat for Lower Levels of Education



Source: Analysis by Anthony Carnevale (2006)

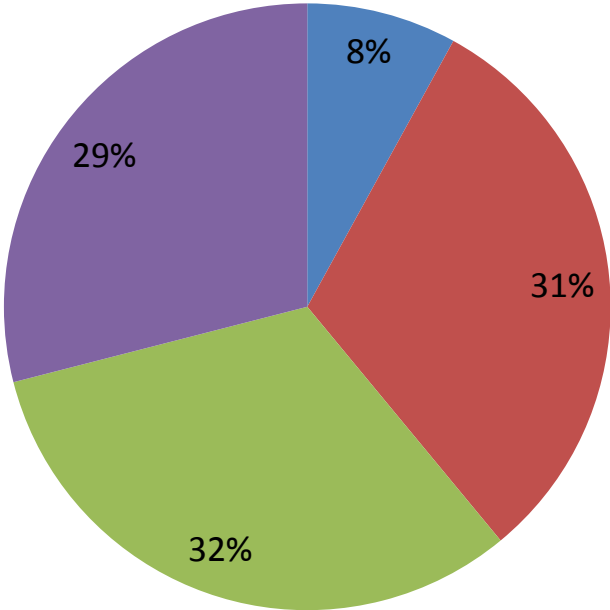
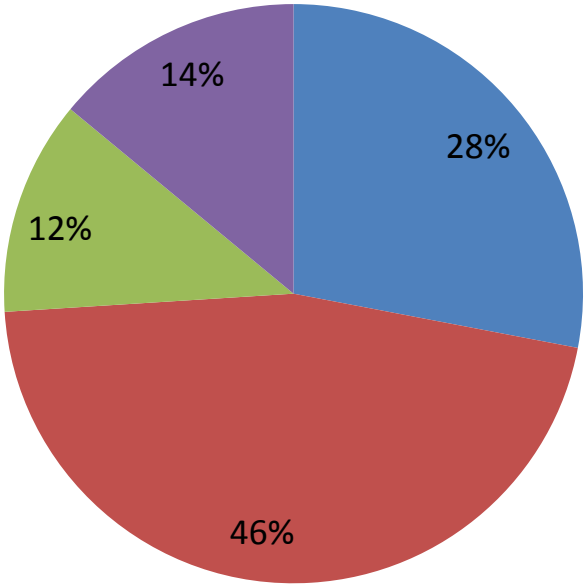
Increasingly, education beyond high school needed to earn a middle-class living

Composition of the middle class

1970

2007

- Less than high school
- High school
- Some college/Associate's degree
- Bachelor's degree or higher



Note: Middle class households are defined as those in the middle four family income deciles (\$30,000-\$79,000 in 2007)

Source: Georgetown University Center on Education and the Workforce, "Projections of jobs and education requirements through 2018," 2010.

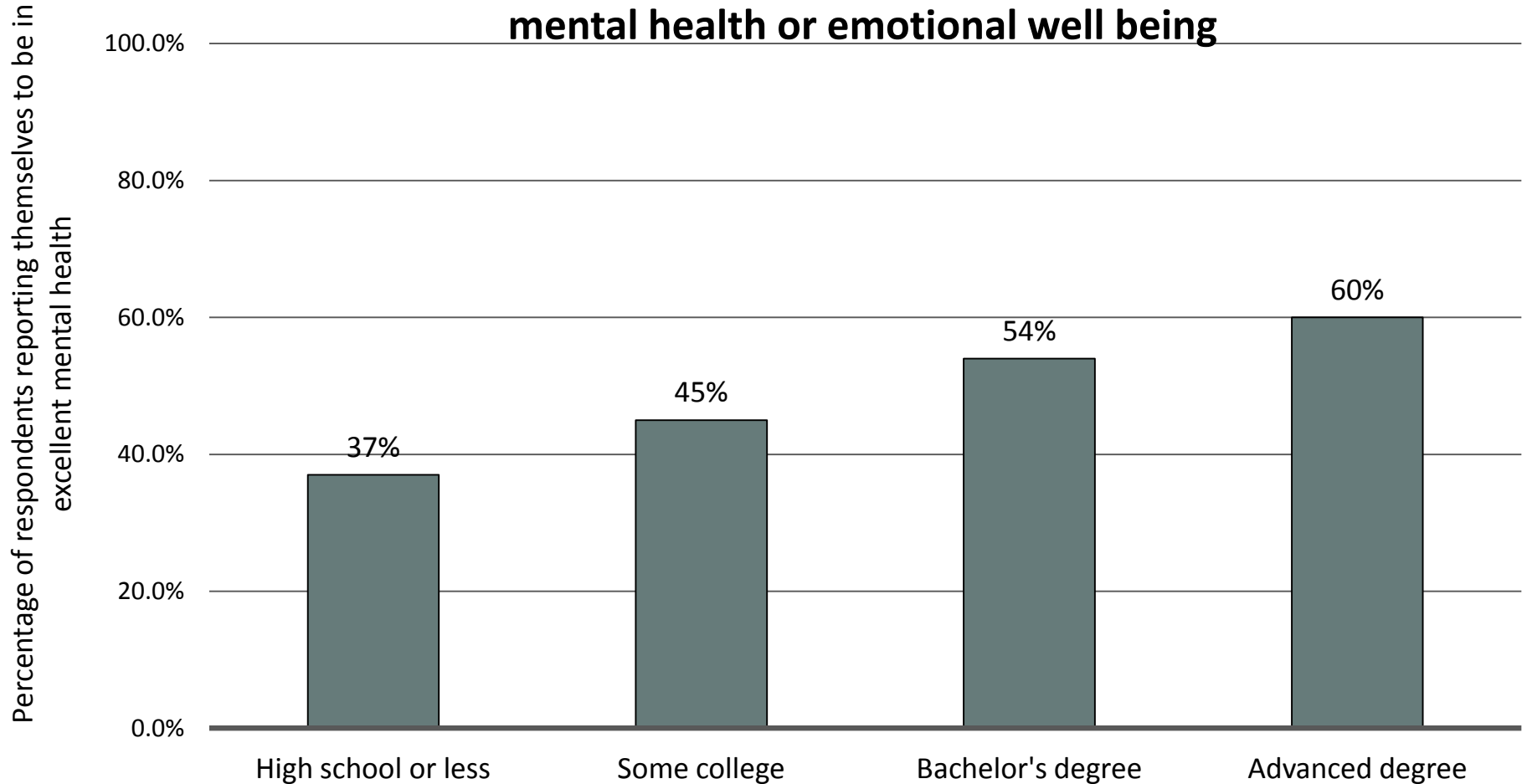
The achievement gap in the U.S. has the effect of a “permanent national recession.”

Source: "The Economic Impact of the Achievement Gap on America's Schools" McKinsey & Company, 2009

And this isn't solely about **economic**
well being . . .

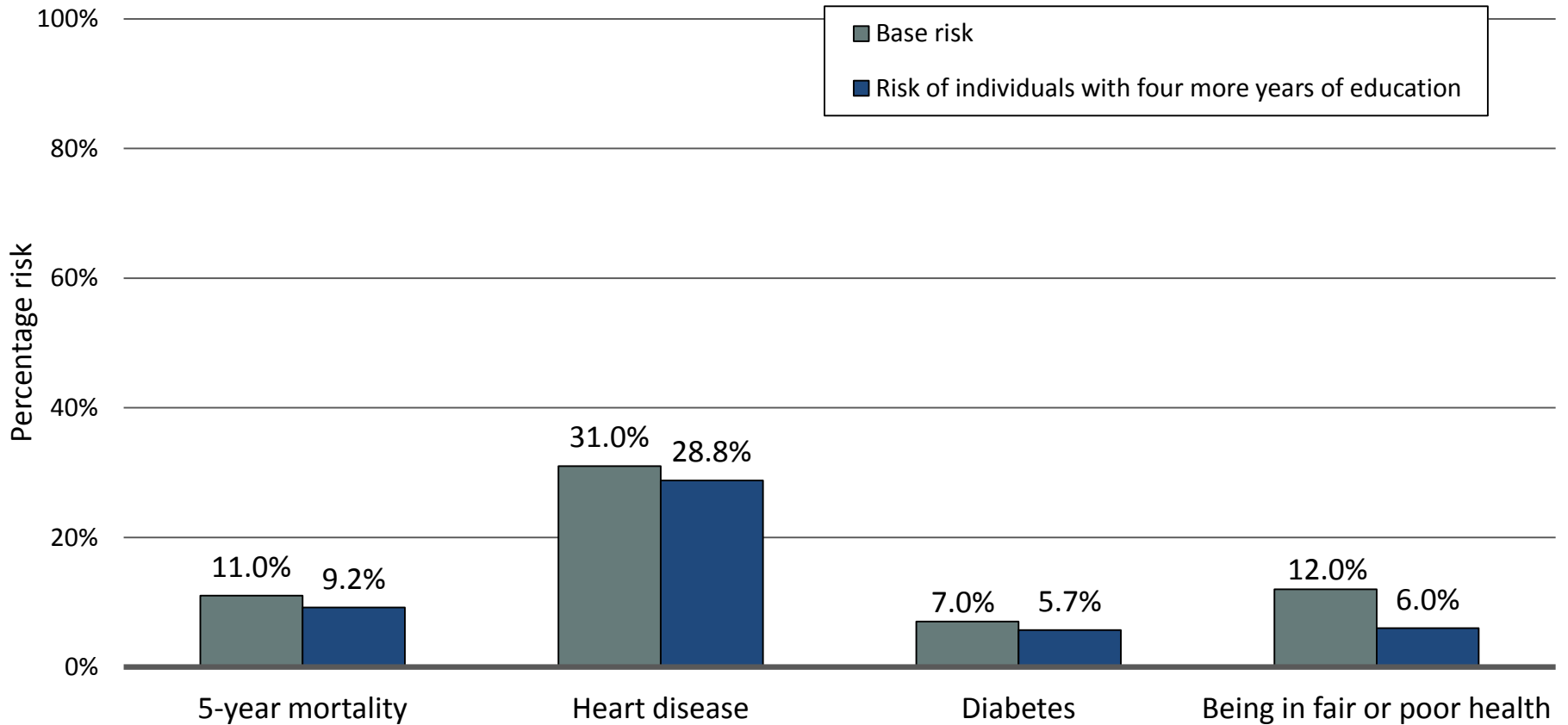
Citizens with less education tend to
suffer from more **health** problems.. .

Individuals with higher levels of education are far more likely than less educated individuals to report having “excellent” mental health or emotional well being



Source: Gallup, “Strong Relationship Between Income and Mental Health” (2007)

More educated individuals have lower risks of mortality and chronic diseases and are less likely to report themselves to be in fair or poor health



Source: Cutler & Lleras-Muney, "Education and Health," National Poverty Center Policy Brief #9 (2007)

And this is not just about physical and mental health. . . It is about the **cognitive demands of this modern world.**



Google Search

568,000 hits (0.13 sec)

[Walter Raleigh - Wikipedia, the free encyclopedia](#)

According to many biographers – Raleigh Trevelyan in his book *Sir Walter ... Life of Sir Walter Raleigh*, Founded on Authentic and Original Documents. ...

[Early life - Ireland - The New World - Later life](#)

en.wikipedia.org/wiki/Walter_Raleigh - [Cached](#) - [Similar](#)

[Sir Walter Raleigh \(1552-1618\)](#)

Jun 12, 1996 ... Website for *Sir Walter Raleigh*, Renaissance Poet, Explorer, Historian and one of Queen Elizabeth's favourite courtiers.

www.luminarium.org/renlit/raleigh.htm - [Cached](#) - [Similar](#)

[Greenbelt Maryland Steak Seafood Restaurant | Sir Walter Raleigh ...](#)

Sir Walter Raleigh Inn has maintained a Colonial Williamsburg tradition since 1970 serving your favorite American cuisine in Colonial atmosphere with real ...

www.sirwalterraleigh.com/ - [Cached](#) - [Similar](#)

[Sir Walter Raleigh](#)

Visit this site providing a short biography, facts, picture and information about *Sir Walter Raleigh* the famous explorer. Fast and accurate details and facts ...

www.elizabethan-era.org.uk/sir-walter-raleigh.htm - [Cached](#) - [Similar](#)

[Sir Walter Raleigh](#)

Sir Walter Raleigh (or Raleigh), born near East Budleigh, East Devon, South-West England, U.K. Summary of his life (1552 - 1618), with numerous links.

www.britishexplorers.com/woodbury/raleigh.html - [Cached](#) - [Similar](#)

[Sir Walter Raleigh](#)

The English explorer, poet and historian, *Sir Walter Raleigh* was born probably in 1552, though the date is not quite certain. His father, Walter Raleigh of ...

www.nndb.com/people/106/000049956/ - [Cached](#) - [Similar](#)

[Sir Walter Raleigh](#)

The Incompetech website's satirical take on *Raleigh*.

incompetech.com/authors/sirwalter/ - [Cached](#) - [Similar](#)

[Chevrolet Raleigh, NC | Used Cars Raleigh Auto Repair | Sir Walter ...](#)

Sir Walter Chevrolet is your Chevy dealer in *Raleigh* and Durham NC. At sirwalter.com you will find Chevy internet specials, used truck & car inventory, ...

www.sirwalter.com/ - [Cached](#) - [Similar](#)

[Sir Walter Raleigh](#)

Sir Walter Raleigh was a writer, adventurer, courtier, historian, poet, and a soldier. It is a legend that he once laid his cloak on a mud puddle for the ...

www.huvar.com/becka/raleigh/welcome.html - [Cached](#) - [Similar](#)

Critical Consumption of Knowledge Sources

In 2003, US citizens were asked whether there was a link between Iraq and the al Qaeda attacks of 9/11.

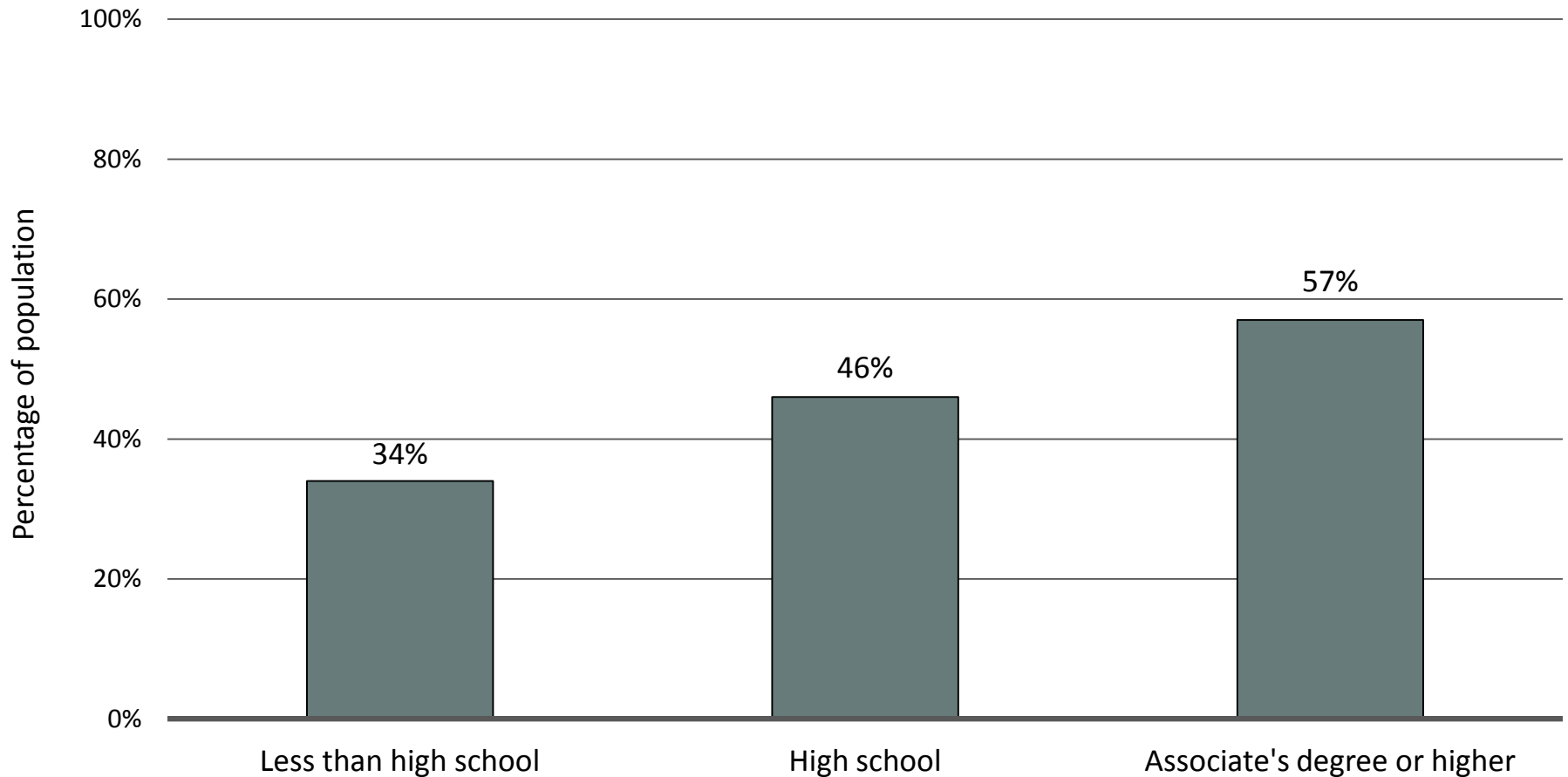
	FOX	CBS	ABC	NBC	CNN	Print	NPR/ PBS
None of the 3	20%	30%	39%	45%	45%	53%	77%
1 or more misperceptions	80%	71%	61%	55%	55%	47%	23%

Specifically, they were asked whether (a) evidence of links had been found, (b) weapons of mass destruction had been located in Iraq, and (c) world opinion favored the US invading Iraq. *All of these were false.*

Source: 2003 Polling from the Program on International Policy (PIPA) at the University of Maryland

And educational attainment is also related to the “softer”—but critically important—**demands of living in a free society.**

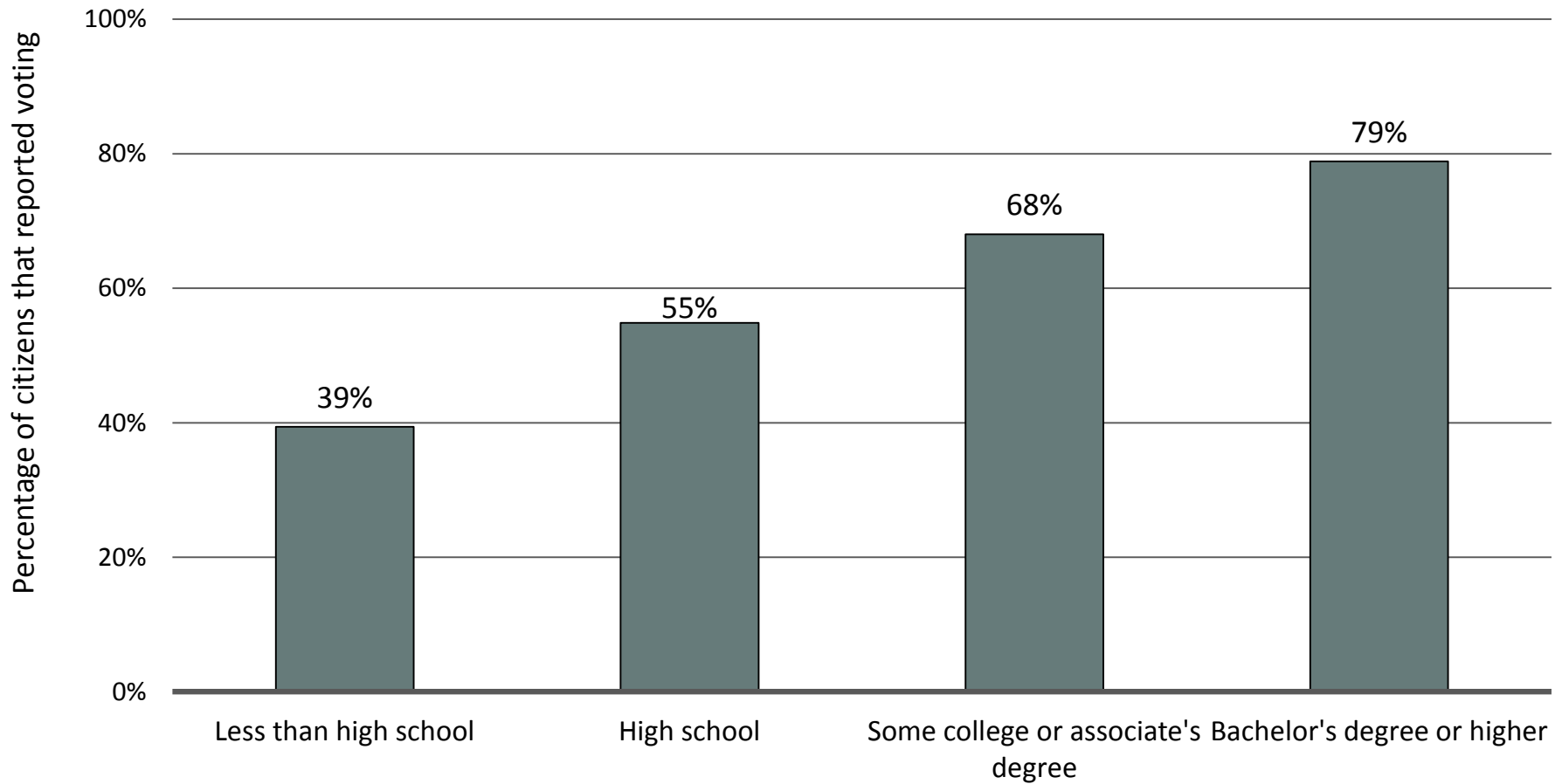
Americans who have completed postsecondary education are far more likely to report that they trust others



Note: Individuals were classified as expressing interpersonal trust if they responded to the question "Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?" with a value of 6-10 on a scale of 0-10 (where 0 = "you can't be too careful" and 10 = "most people can be trusted")

Source: Organisation for Economic Co-operation and Development, Education at a Glance 2010 (2010)

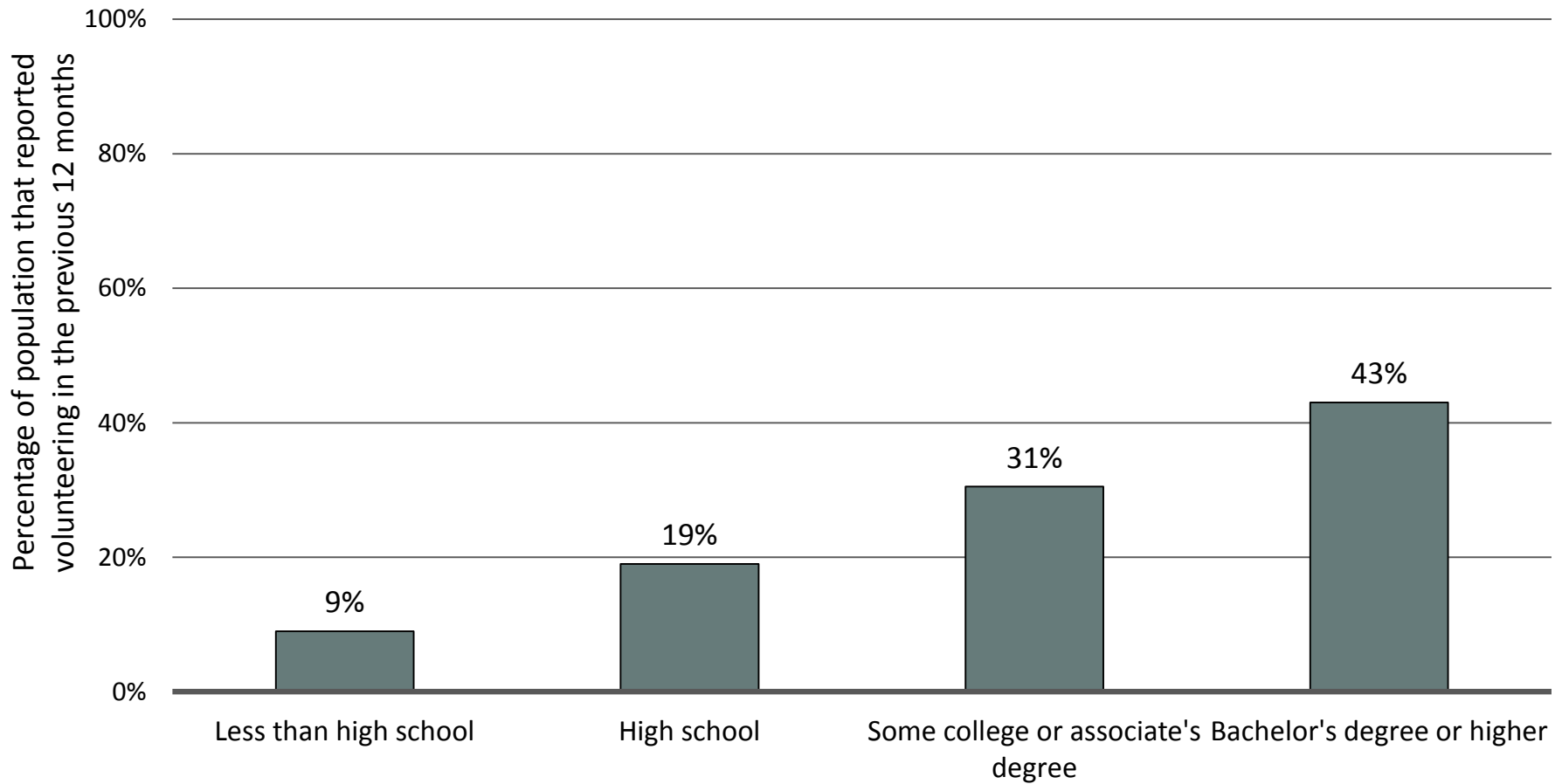
In 2008, Americans with at least some college were about twice as likely to report having voted than Americans who did not complete high school



Note: Data represent percentage of American citizens that reported voting in 2008

Source: U.S. Census Bureau, "Voting and Registration in the Election of November 2008 - Detailed Tables" (2010)

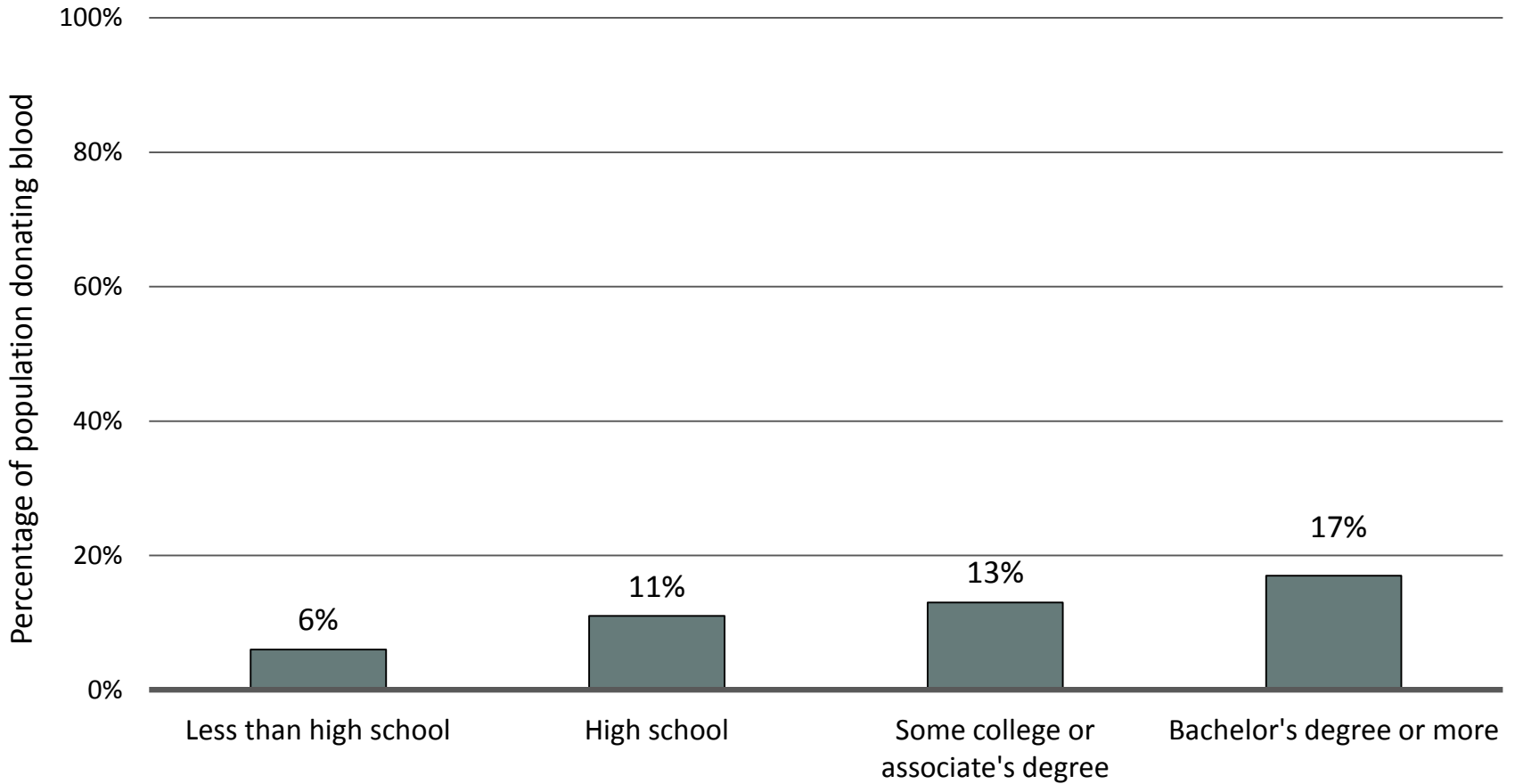
Americans with at least a bachelor's degree are over four times as likely to report having volunteered in the past year than those with less than a high school education



Note: Data represent percentage of total population that reported volunteering from September 2008 to September 2009

Source: U.S. Bureau of Labor Statistics, "Volunteering in the United States 2009" (2010)

Americans with at least a bachelor's degree are almost three times as likely to donate blood as those who did not complete high school



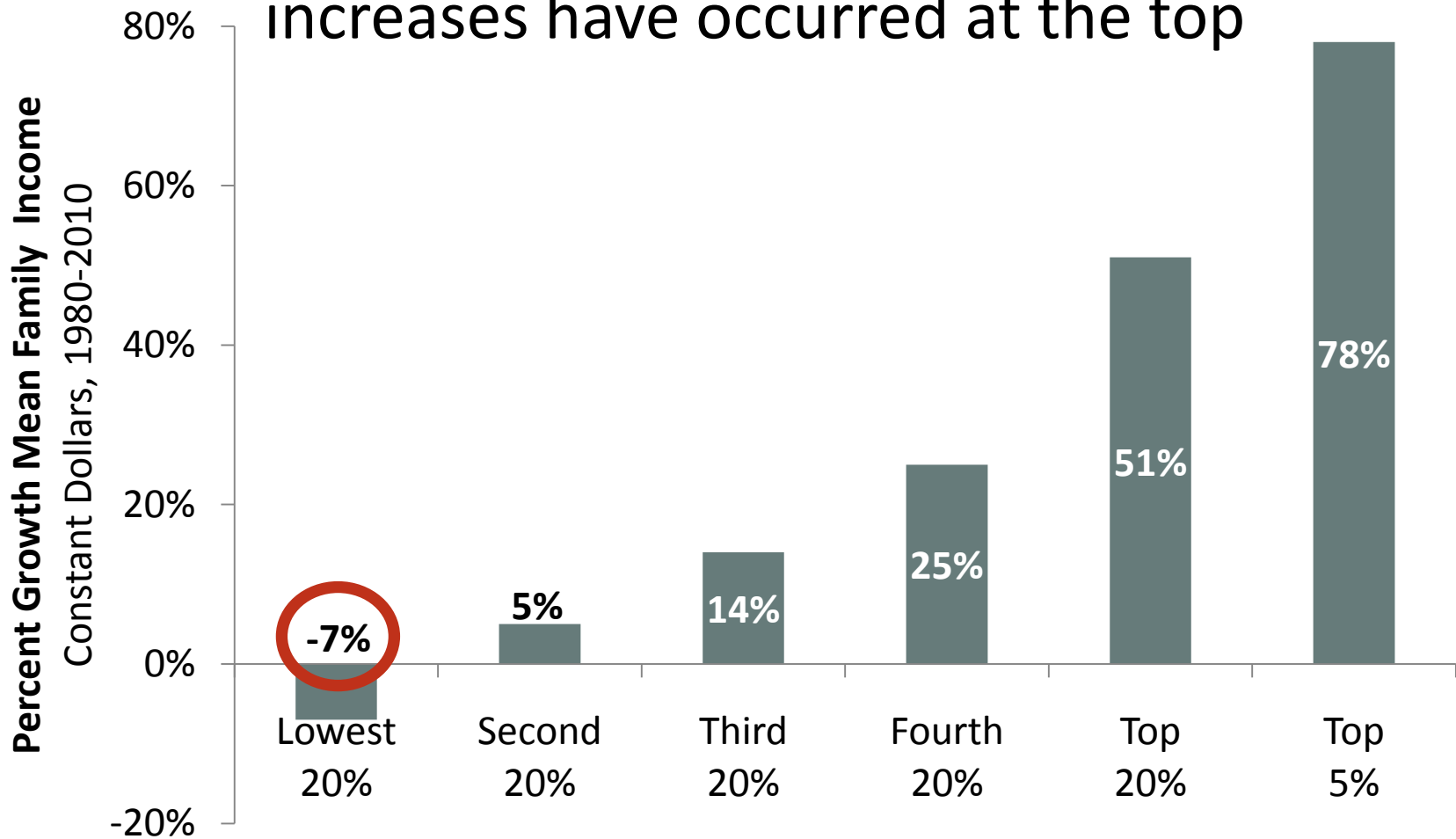
Source: DDB Worldwide, "DDB Lifestyle Survey" (2000), as reprinted in College Board, "Trends in Higher Education 2004" (2005).

And what does this mean for our
nation?

A huge divide: A new and more rigid
class system tied to race,
generational wealth, and education

Inequality growing worse:

Over past 30 years, earnings among the lowest income families have declined—while biggest increases have occurred at the top



Source: The College Board, "Trends in College Pricing 2011" (New York: College Board, 2010), Figure 16A.

Extreme increases at the very top

- Over past thirty years, real after tax income of top 1% up 275%.
- Top 1% of Americans now take home fifty percent more than the bottom 40% put together.



For **people of color**, people from **poor families**, and **less educated**, the past four years have brought an **economic Tsunami**.

2010 Poverty Rates

Black	27%
Latino	26%
Asian	12.1%
White	9.9%

Median Wealth of White Families

20 X that of African Americans

18 X that of Latinos

Less Educated More At Risk of Joblessness During Recession August 2011

Educational Attainment	Unemployed (%)
Less than High School Diploma	14.3
High School Graduates	9.6
Some College or Associate Degree	8.2
Bachelor's Degree	4.3

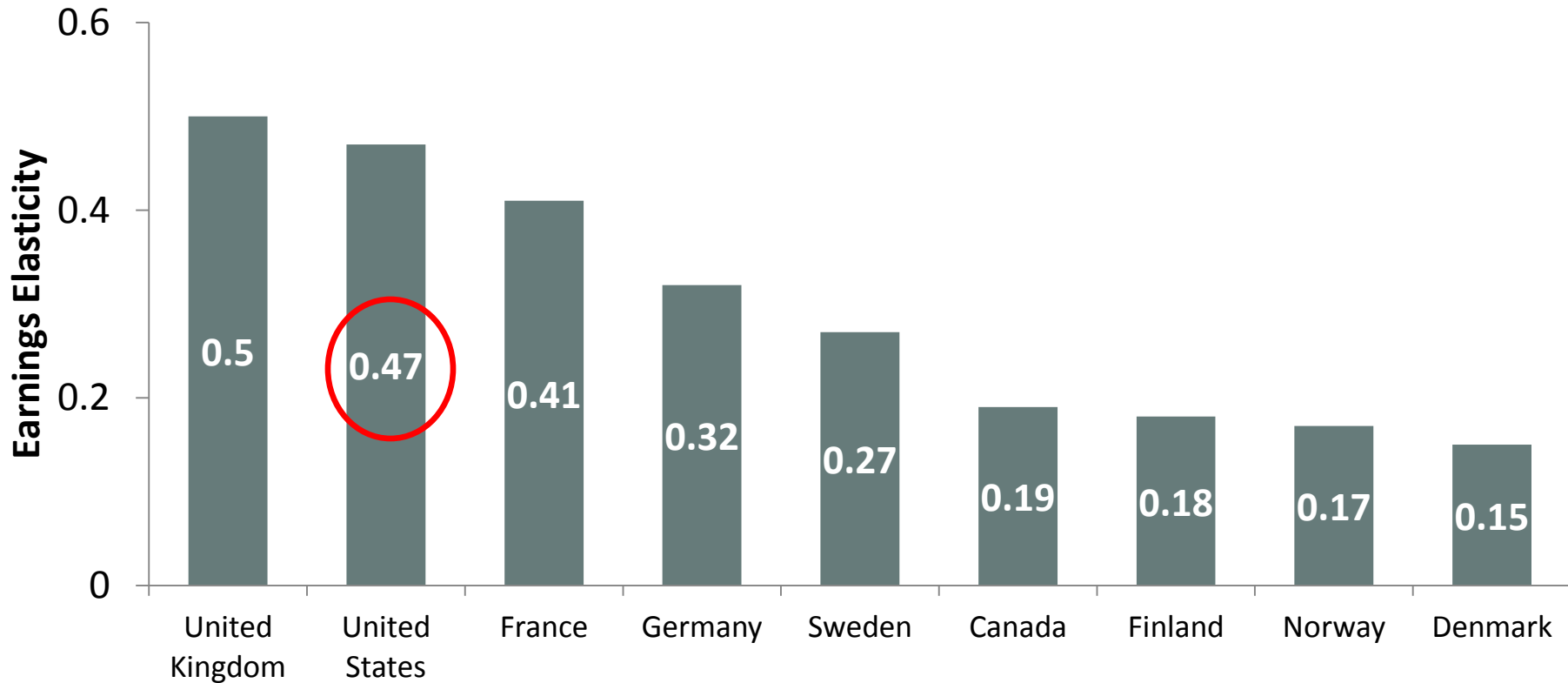
Source: U.S. Bureau of Labor Statistics, Talbe A-4, <http://www.bls.gov/news.release/empsit.t04htm>

And Mobility is Going Down



The US now has one of lowest rates of intergenerational mobility

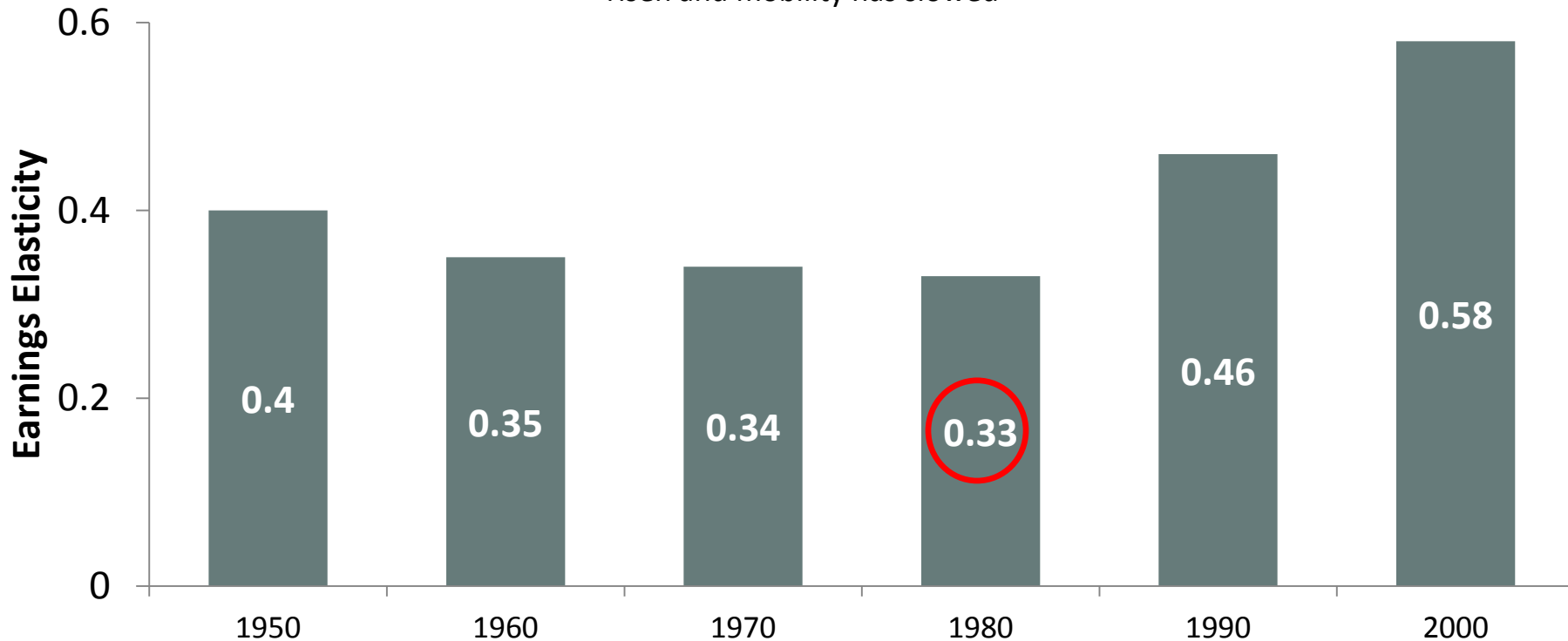
Cross-country examples of the link between father and son wages



Source: Hertz, Tom. *Understanding Mobility in America*. Center for American Progress: 2006.

US intergenerational mobility was increasing until 1980, and has sharply declined since

The falling elasticity meant increased economic mobility until 1980. Since then, the elasticity has risen and mobility has slowed



Source: Aaronson and Mazumder. *Intergenerational Economic Mobility in the U.S., 1940-2000*.

Federal Reserve Bank of Chicago WP 2005-12: Dec. 2005.



But Let's Not Forget

zipcode need not be
destiny

Education then, beyond all other devices of human origin, is the great equalizer of the conditions of men, the balance-wheel of the social machinery.

Horace Mann

George Hall Elementary School

Mobile, Alabama

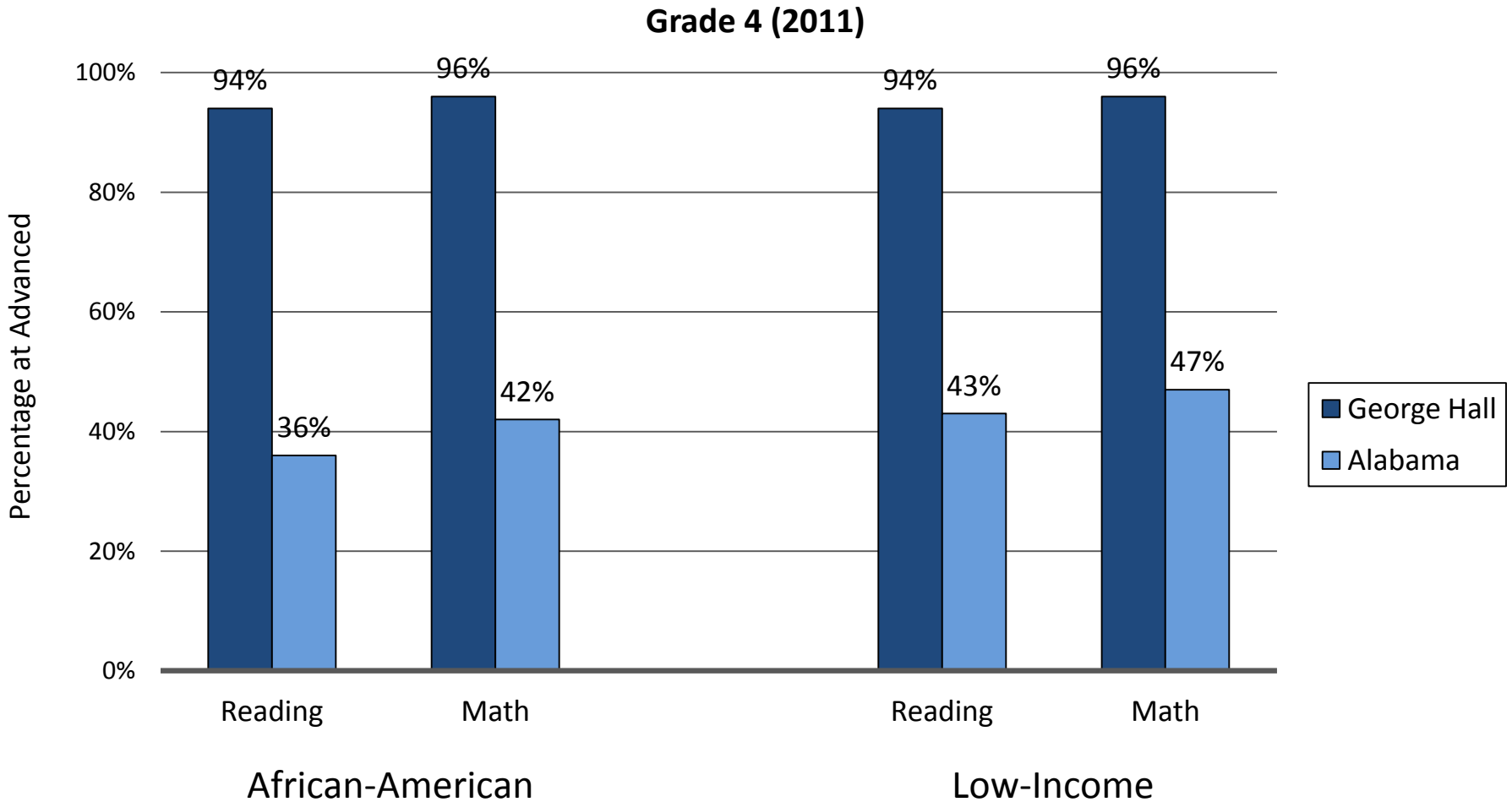
- 549 students in grades PK-5
 - 99% African American
- 99% Low-Income



Note: Enrollment data are for 2009-10 school year

Source: Alabama Department of Education

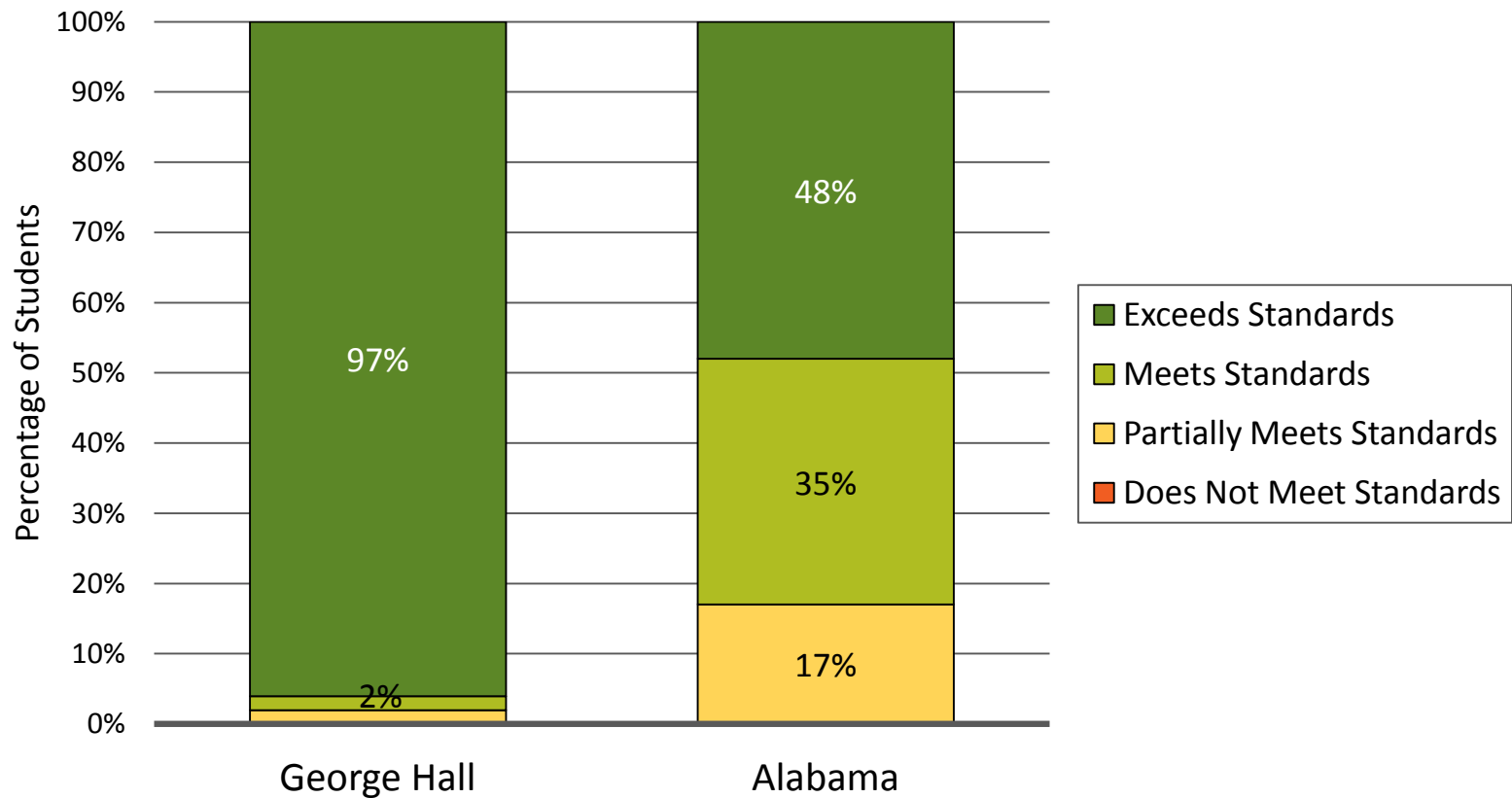
Advanced Performance at George Hall



Source: Alabama State Department of Education

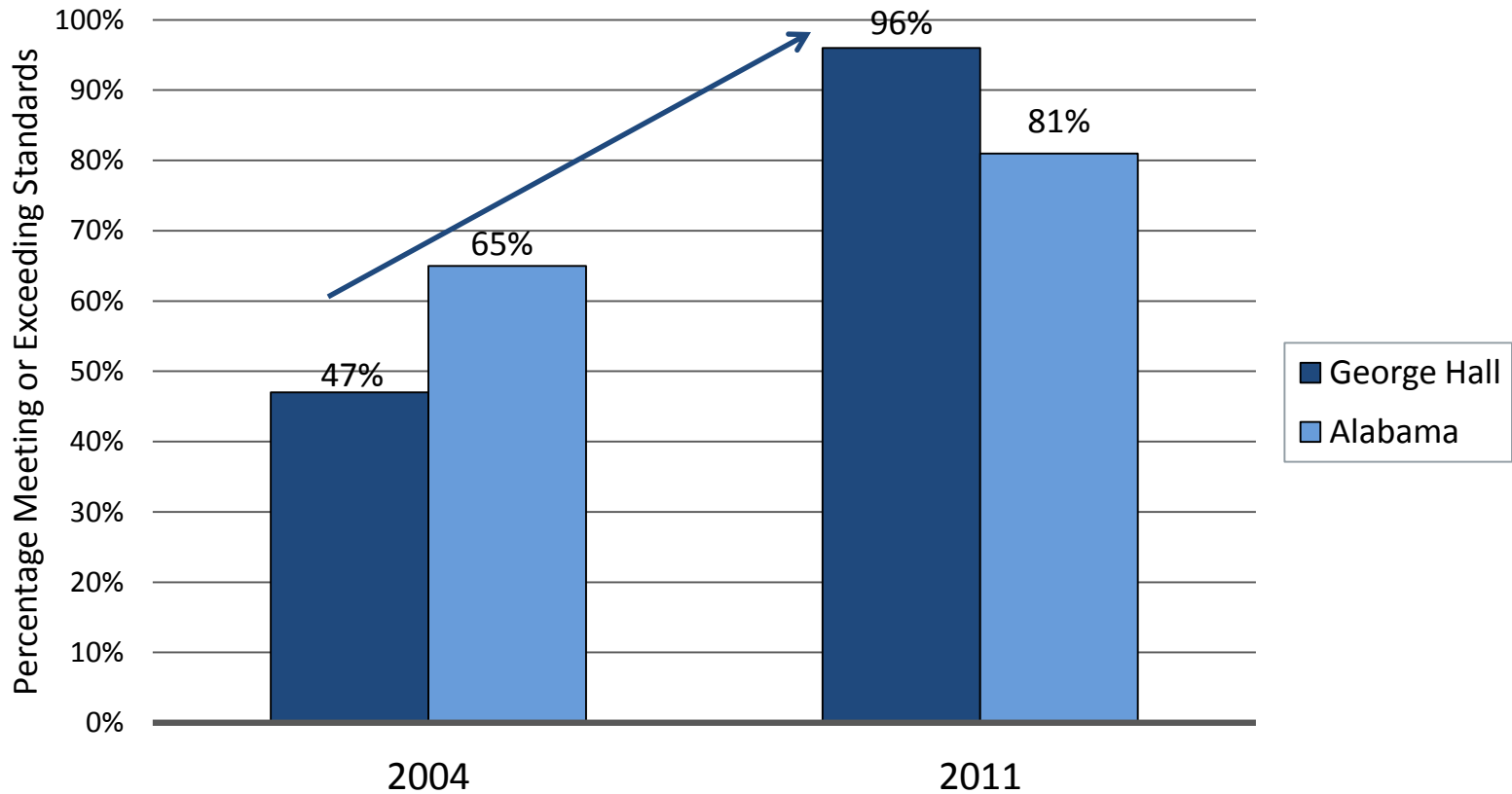
Exceeding Standards at George Hall

African-American Students – Grade 5 Math (2011)



Big Improvement at George Hall Elementary

African American Students – Grade 4 Reading



Source: Alabama State Department of Education

Morningside Elementary School

Brownsville, Texas

- 772 students in grades PK – 5
 - 100% Latino
- 91% low income
- 59% ELL



Note: Enrollment and demographic data are from 2008-09.
Source: Texas Education Agency

Griegos Elementary School

Albuquerque, New Mexico

- 354 students in grades K – 5
 - 76% Latino
 - 19% White
- 60% low income



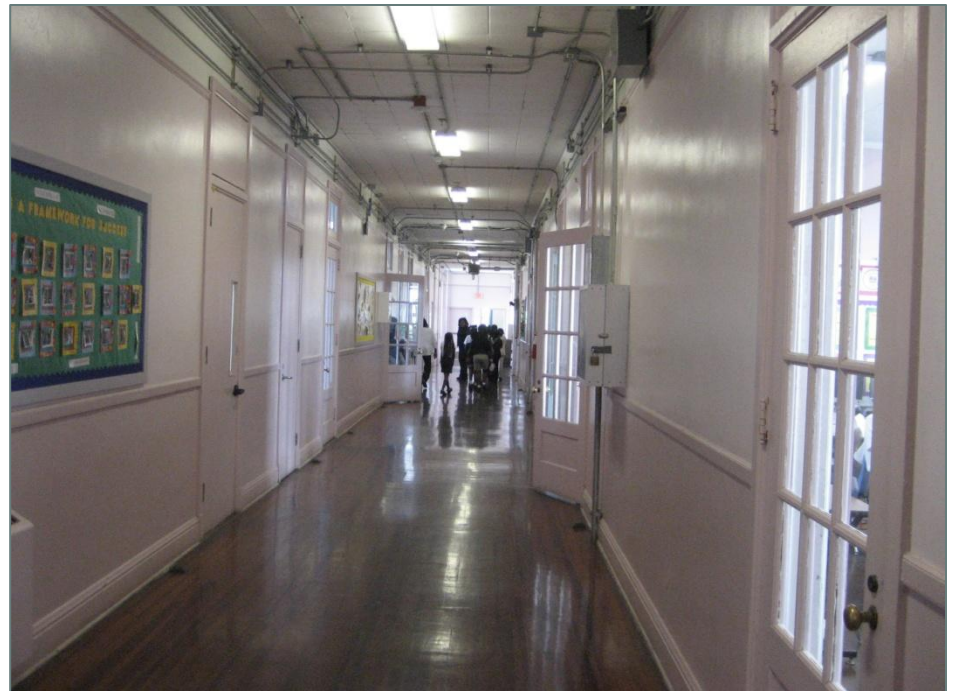
Note: Enrollment and low income data are from 2009-10;
ethnicity data are from 2008-09

Source: New Mexico Public Education Department; Albuquerque Public Schools

Mary McLeod Bethune Elementary School

New Orleans, Louisiana

- 341 students in grades PK – 6
 - 97% African American
- 88% low income



Note: Enrollment and demographic data are from 2009-2010
Source: Louisiana Department of Education

Osmond A. Church School (P.S./M.S. 124)

Queens, New York



- 1,201 students in grades PK-8
 - 31% African American
 - 45% Asian
 - 21% Latino
- 97% low-income (more than double the rate for the state)

Note: Demographic data are from 2009-10 school year
Source: New York Department of Education

Roxbury Preparatory Charter School

Roxbury, Massachusetts

- 246 students in grades 6-8
 - 62% African American
 - 37% Latino
- 72% Low-Income



Jack Britt High School

Fayetteville, North Carolina

- 1,839 students in grades 9 – 12
 - 33% African American
 - 11% Latino
 - 45% White
- 26% low income



Note: Enrollment and ethnicity data are from 2010-11;
low income data are from 2009-10
Source: North Carolina Department of Public Instruction

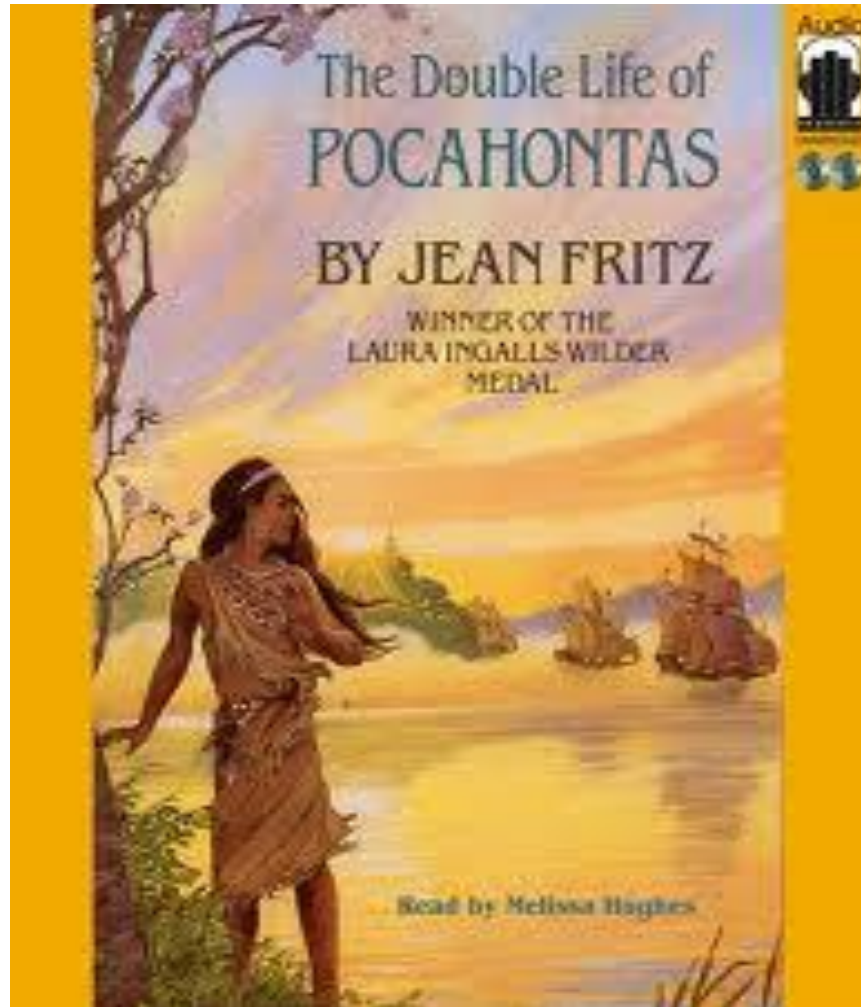
If you are interested in these amazing schools, read more . . .

And What Can You Do?

1. Elevate the **complexity**, **richness** and **rigor** of the intellectual work teachers put before students.



Consider the Difference (4th Grade ELA)



Source:

Example 1:

After reading *The Double Life of Pocahontas*, summarize Pocahontas's feelings about John Smith and Christianity in a collage of magazine clippings.

Be sure to make your visual attractive.

Example 2:

Upon completion of the *Double Life of Pocahontas* and the two primary source documents on the English settlers and Native Americans, write a friendly letter to a classmate identifying (1) a main theme of the book, (2) connections you make between those themes and other texts, the world, and your life experiences, and (3) a critique of the author's work. Be sure to use quotations and evidence from the text to support your assertions.

Review the rubric before you develop your draft.

- What is the difference in learning for students who engage these two tasks?

“Task Predicts Learning”

- Audit and investigate the tasks being given
- Create anchor tasks and rubrics to supplement curriculum
- Hold teachers accountable for producing high quality assignments
- Create cross-district consortia to develop high quality instructional supports

2. Enhance the **Quality of Teachers and Teaching**



How?

- More carefully recruit and hire based upon demonstrated ability to teach
- Revamp and monitor evaluations
- Make tenure an earned privilege

And the harder stuff . . .

- Eliminate the “bottom tail”
- Assure equitable access to the best teachers

3. Recruit, Support and Retain the Most Effective Principals You Can Find



How?

- Demand more of institutions of higher education
- Create your own pipeline
- Enhance your evaluation system

And . . .

- Put your best in the schools farthest behind . . . *within districts and across districts*

Final Thoughts of Concerns and Optimism

This presentation will be available for download from
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