



# Raising Achievement and Closing Gaps Between Groups:

Lessons from Schools and Districts  
on the Performance Frontier



The Education Trust

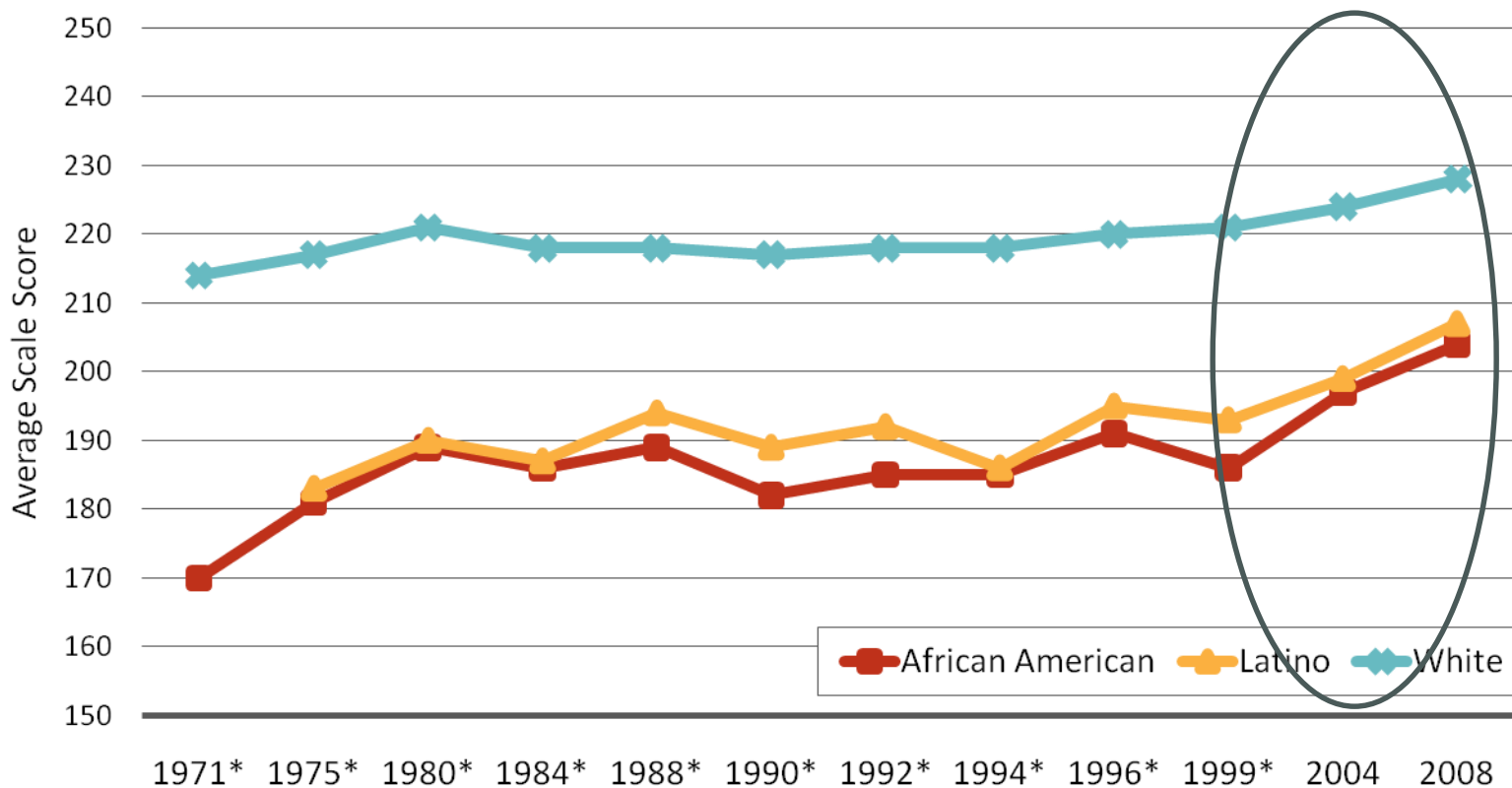
Detroit Public Schools  
Principals and Union Chairs  
February, 2010

# First, some good news.

After more than a decade of fairly flat achievement and stagnant or growing gaps, we appear to be turning the corner.

# 4<sup>th</sup> Grade Reading: Record Performance with Gap Narrowing

## 9 Year Olds – NAEP Reading

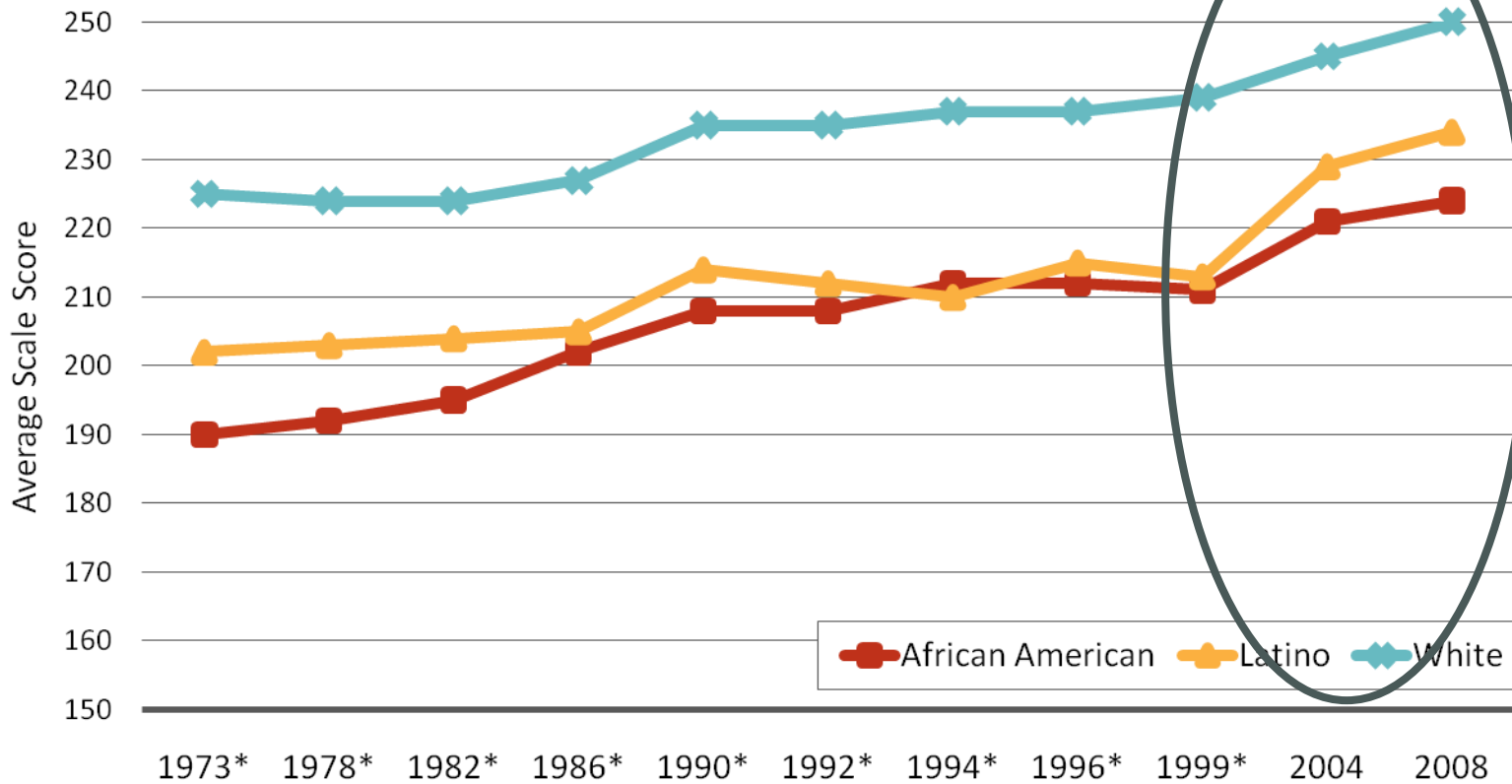


\*Denotes previous assessment format

Source: NAEP 2008 Trends in Academic Progress, NCES

# 4<sup>th</sup> Grade Math: Record Performance with Gap Narrowing

## 9 Year Olds – NAEP Math

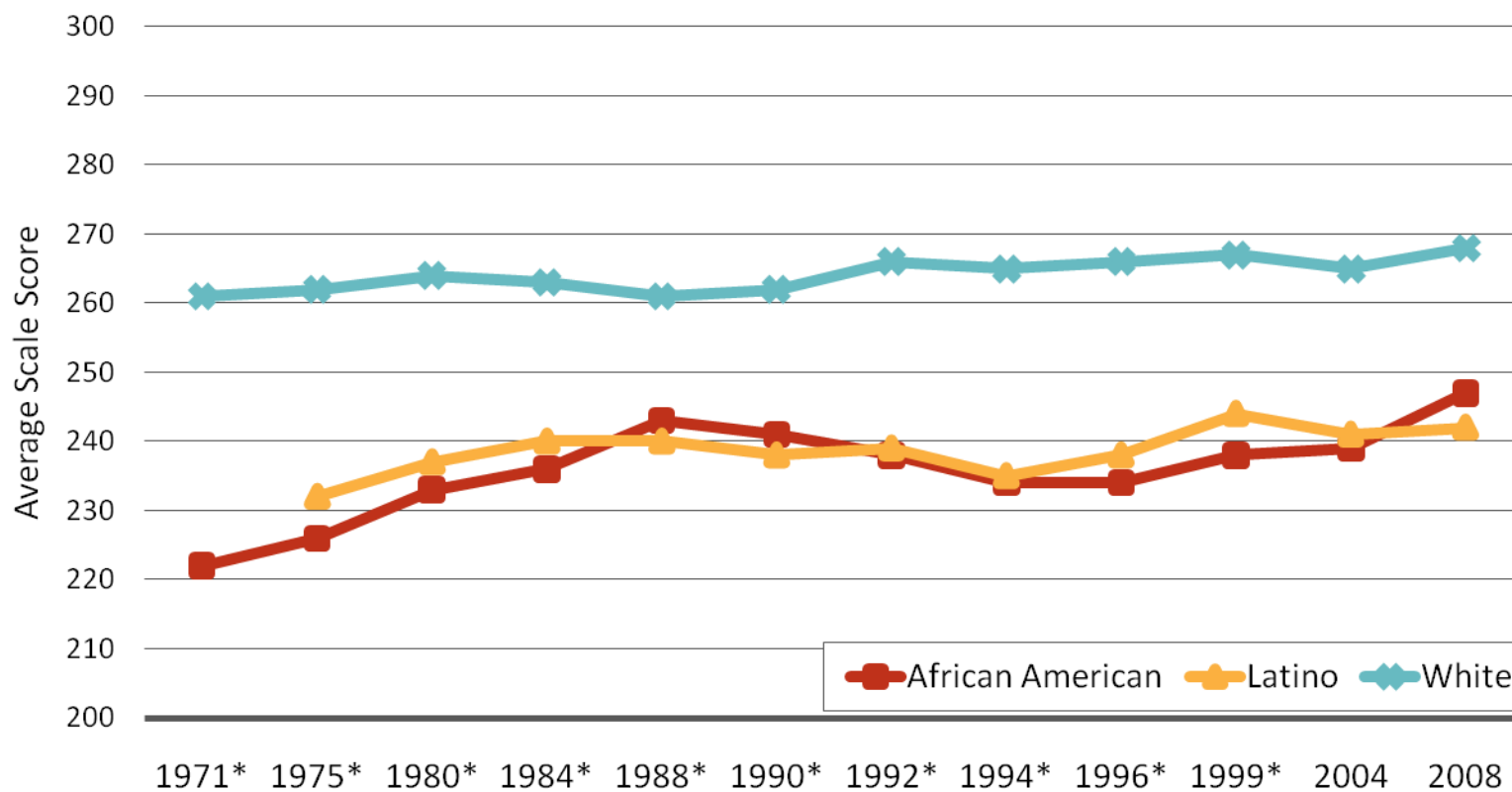


\*Denotes previous assessment format

Source: NAEP 2008 Trends in Academic Progress, NCES

# 8<sup>th</sup> Grade Reading: Recent Gap Narrowing for Blacks, Less for Latinos

## 13 Year Olds – NAEP Reading

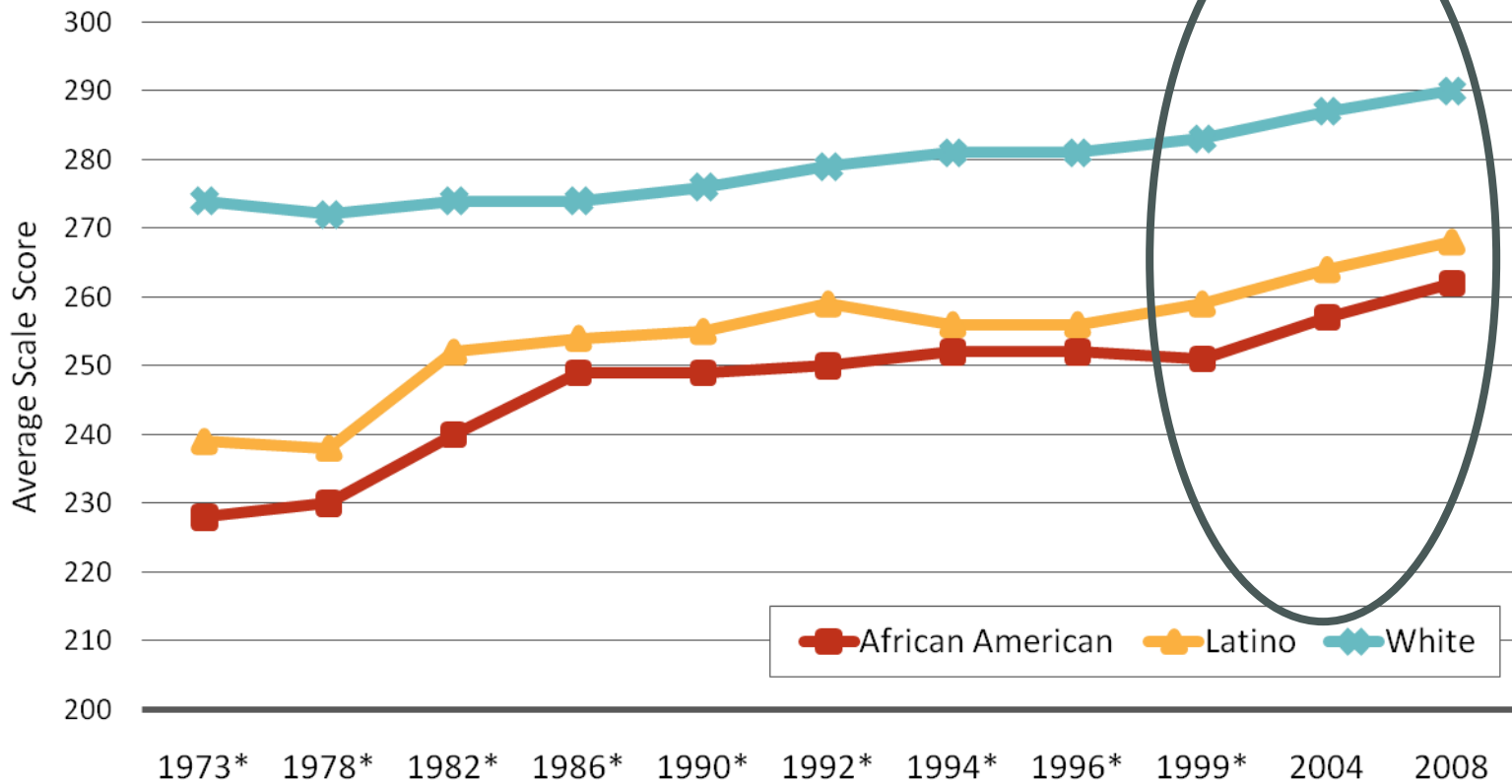


\*Denotes previous assessment format

Source: NAEP 2008 Trends in Academic Progress, NCES

# 8<sup>th</sup> Grade Math: Progress for All Groups, Some Gap Narrowing

## 13 Year Olds – NAEP Math



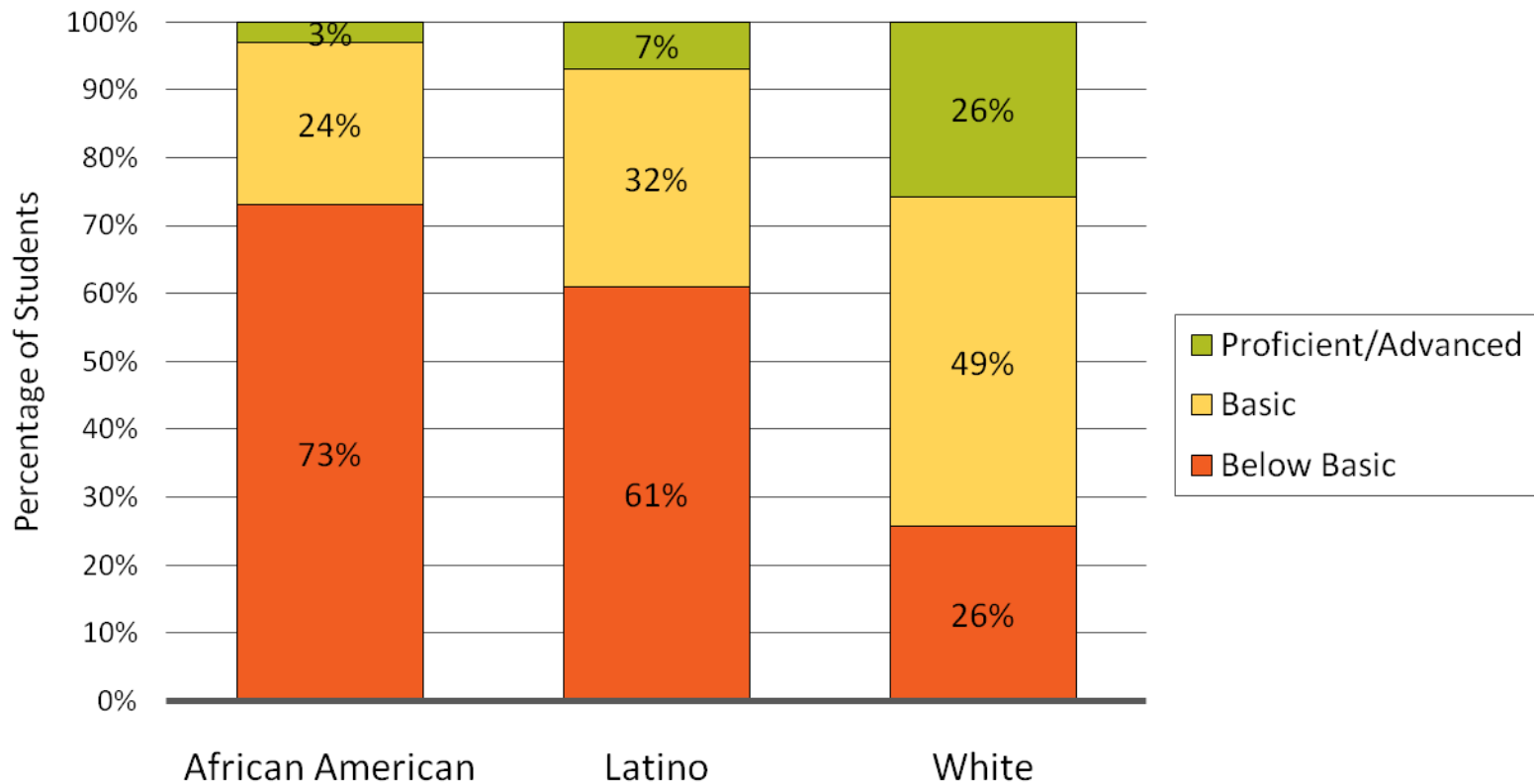
\*Denotes previous assessment format

Source: NAEP 2008 Trends in Academic Progress, NCES

And next time somebody tells you,  
“We’re spending more on education,  
but the results are flat,” show them  
the results of a decade of **effort in  
mathematics...**

# 1996 NAEP Grade 4 Math

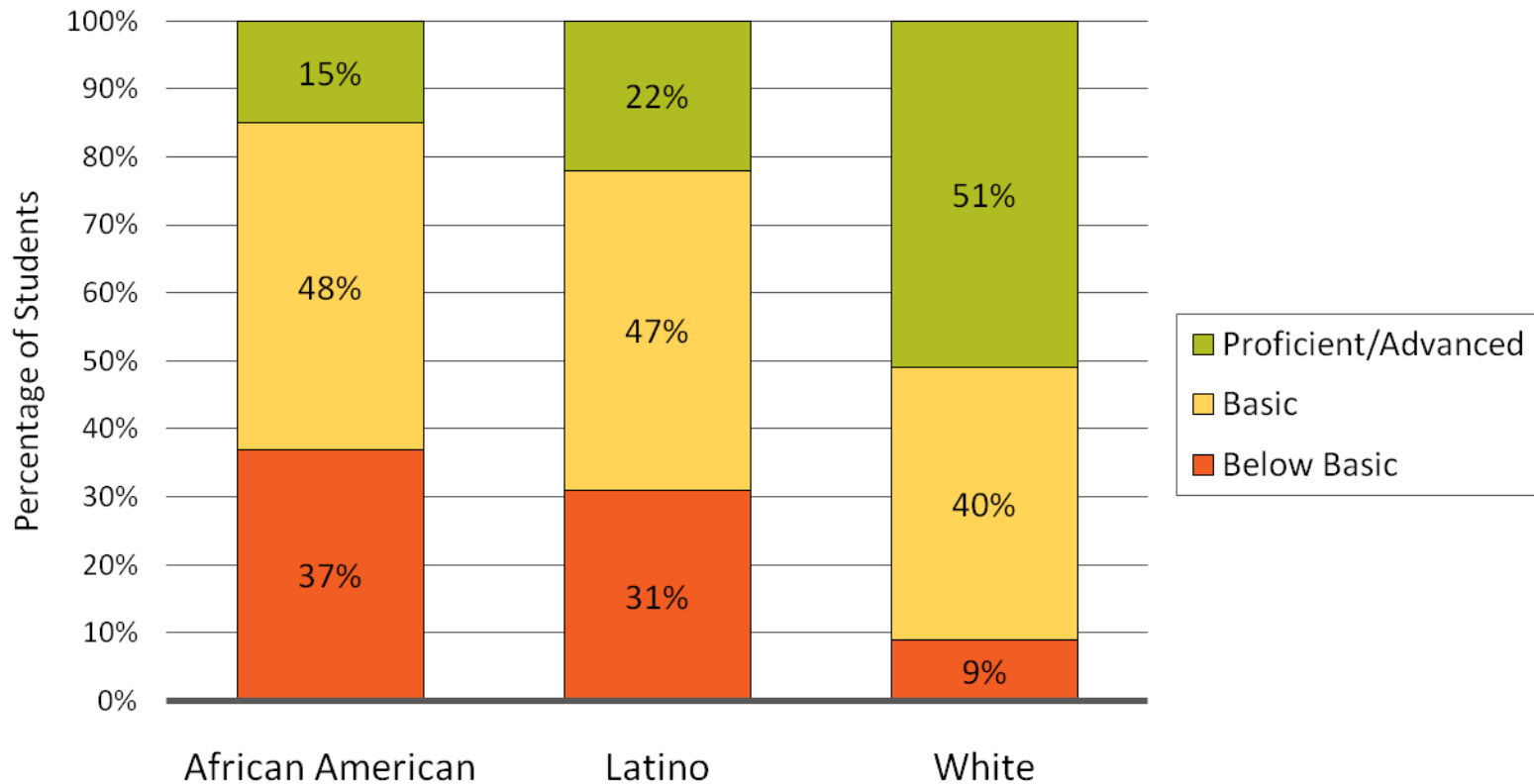
## By Race/Ethnicity – Nation





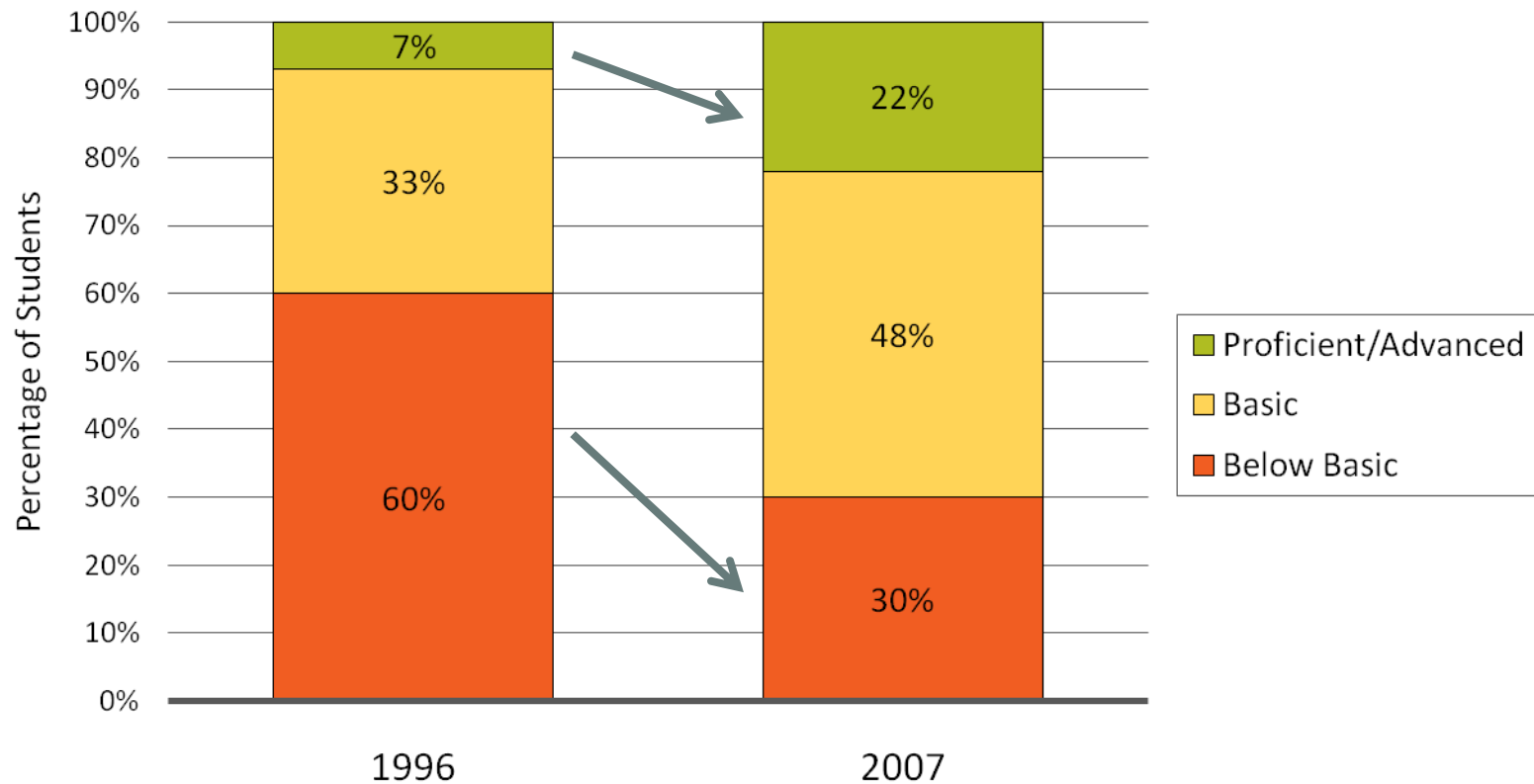
# 2007 NAEP Grade 4 Math

## By Race/Ethnicity – Nation



# NAEP Grade 4 Math 1996 Compared to 2007

## Low-Income Students – Nation



# Bottom Line:

When we really focus on something,  
we make progress!



Clearly, much more remains to be done  
in elementary and middle school

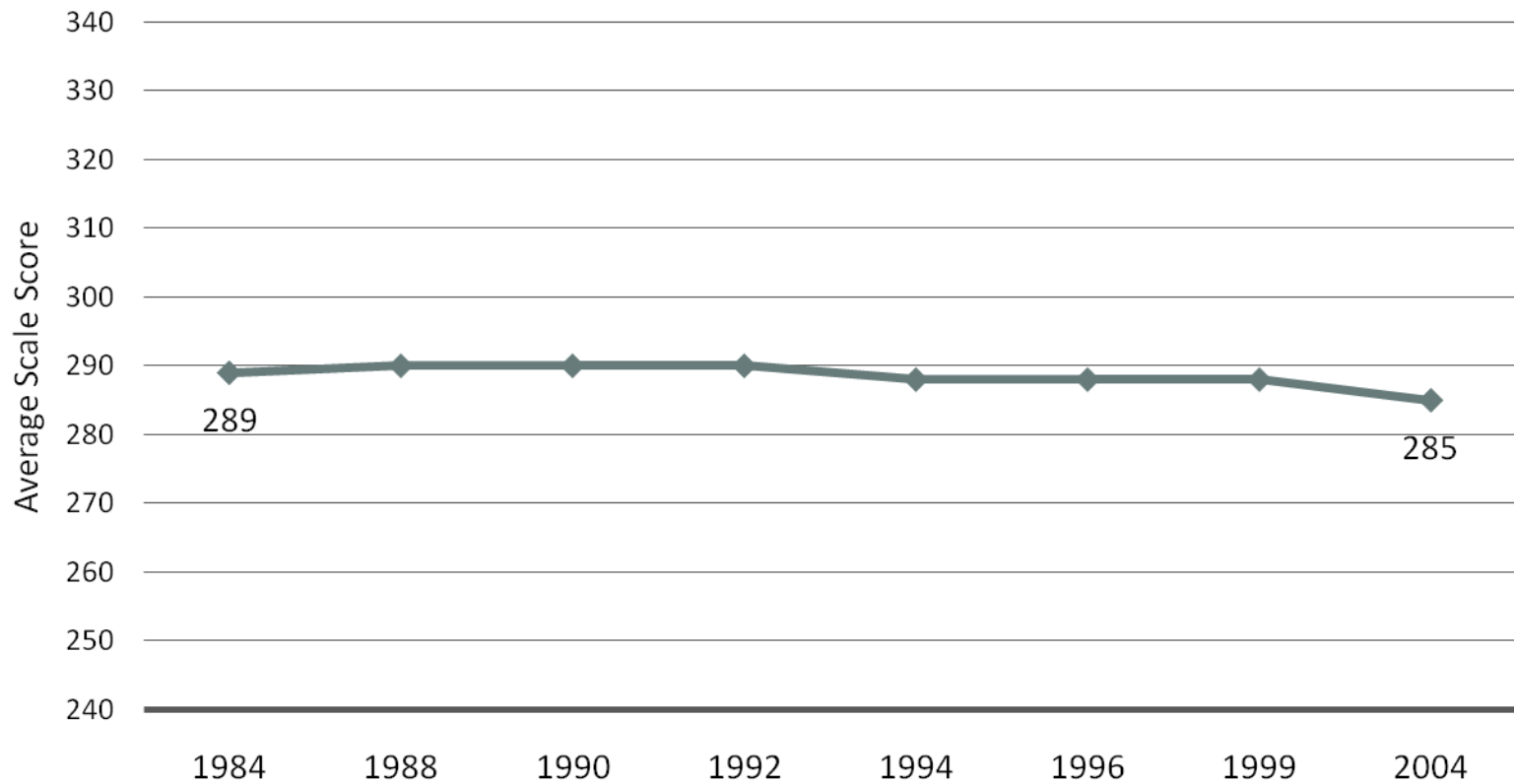
Too many youngsters still enter high  
school way behind.

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

The same is NOT true  
of our high schools.

# Achievement Flat in Reading

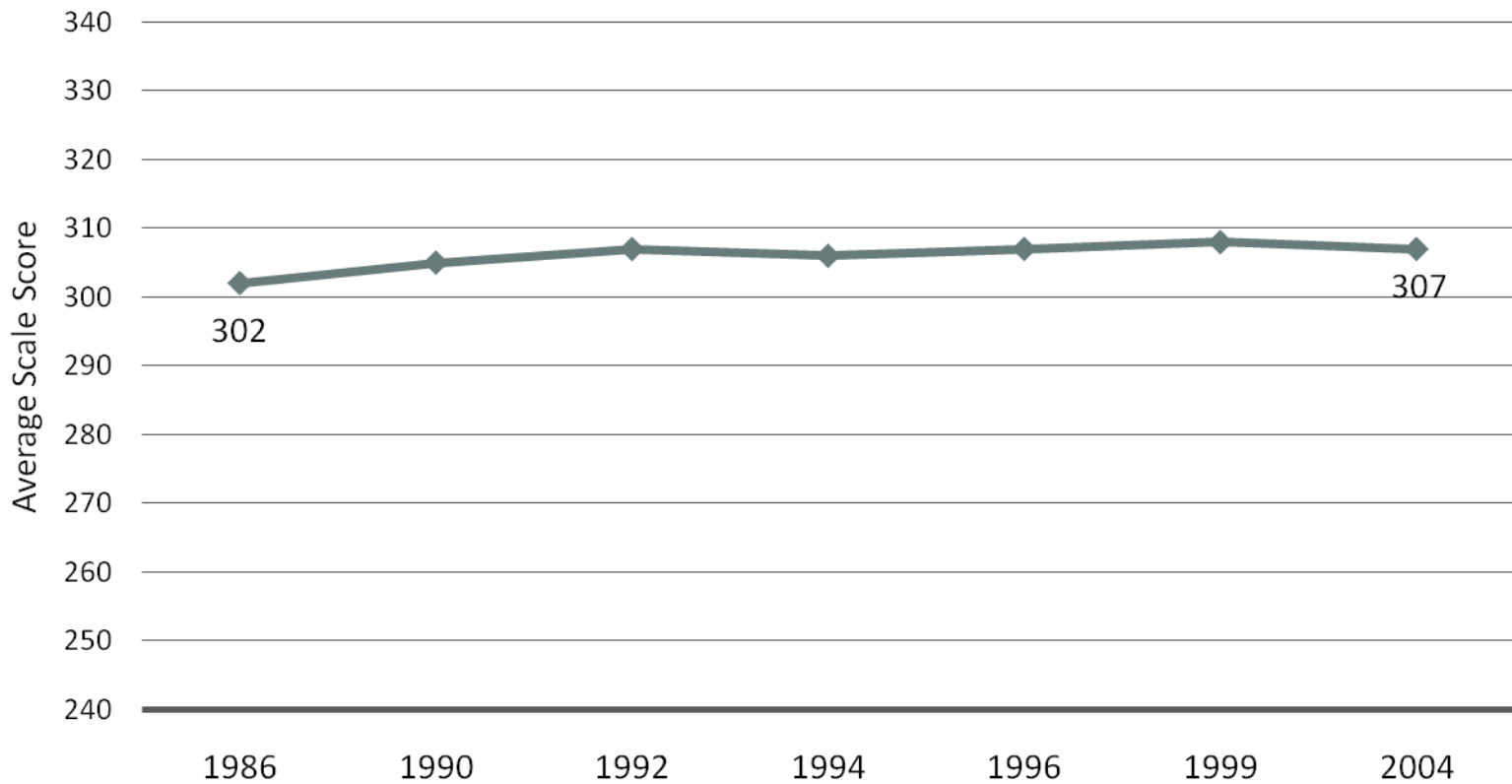
## 17 Year Olds Overall - NAEP



Source: NAEP Long-Term Trends, NCES (2004)

# Achievement Also Flat in Math

## 17 Year Olds Overall - NAEP



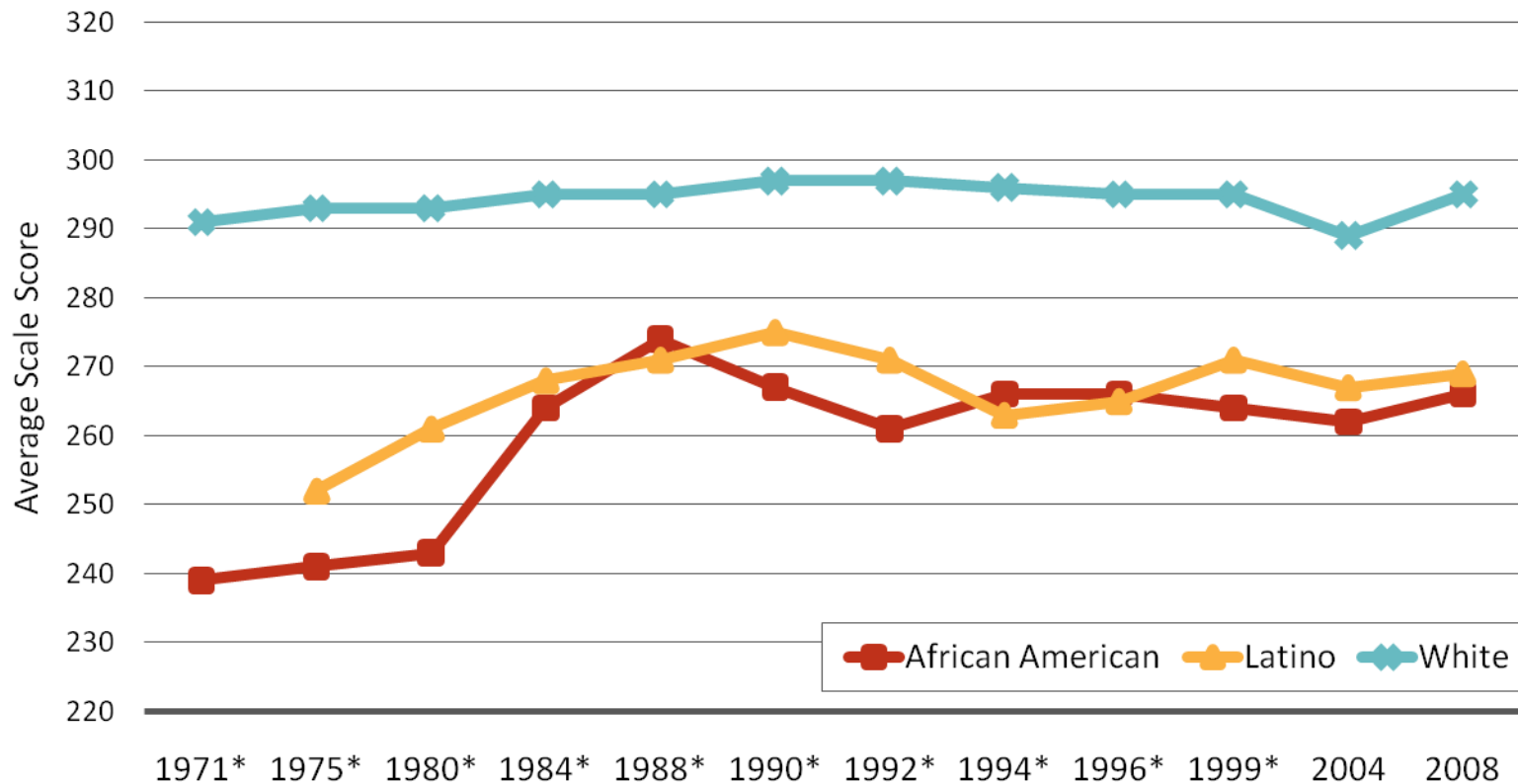
Source: NAEP Long-Term Trends, NCES (2004)

And gaps between groups are **wider**  
today than in 1990



# 12<sup>th</sup> Grade Reading: No Progress, Gaps Wider than 1988

## 17 Year Olds – NAEP Reading

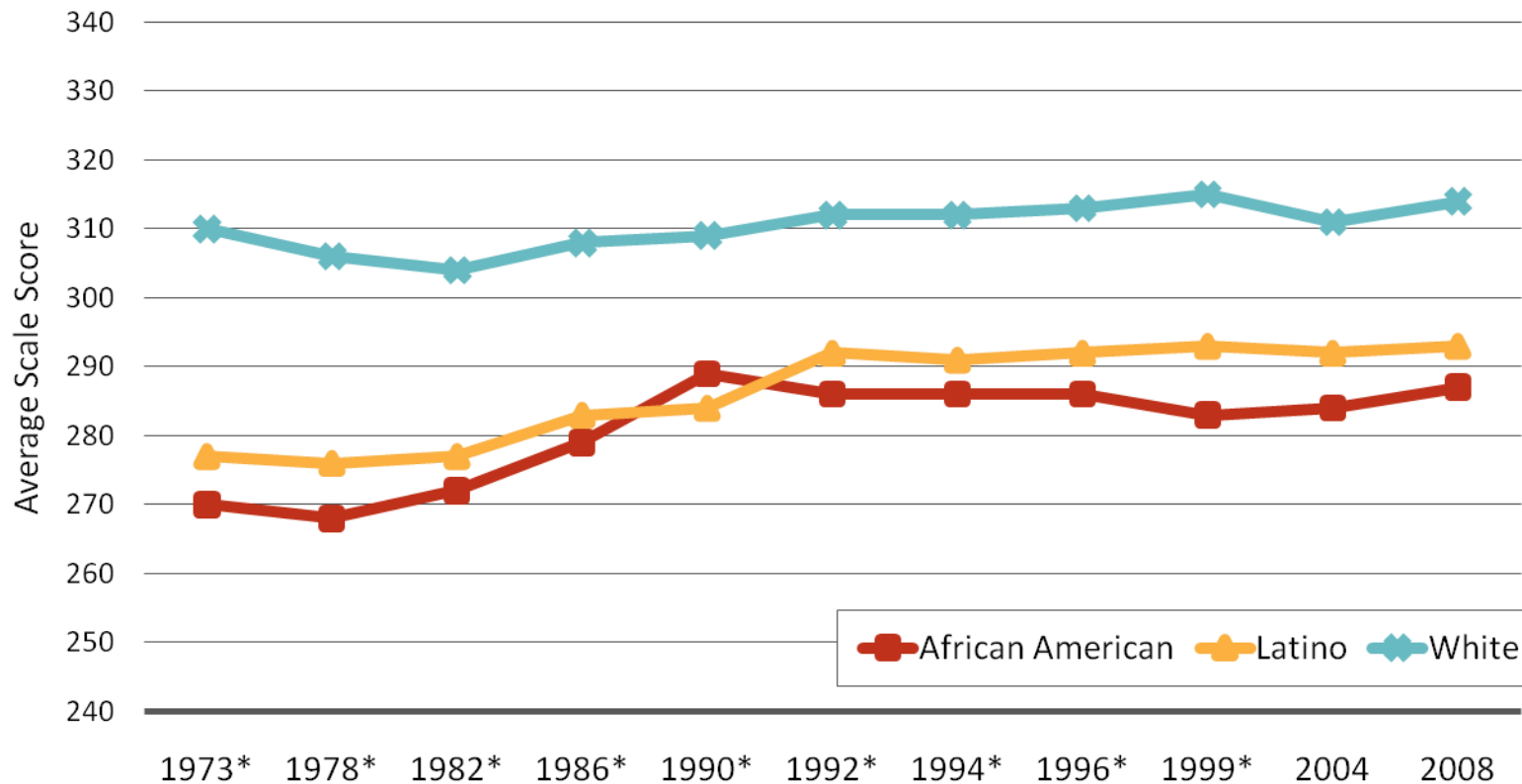


\*Denotes previous assessment format

Source: NAEP 2008 Trends in Academic Progress, NCES

# 12 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

And no matter how you cut the data, our students aren't doing well compared to their peers in other countries.

# PISA Performance

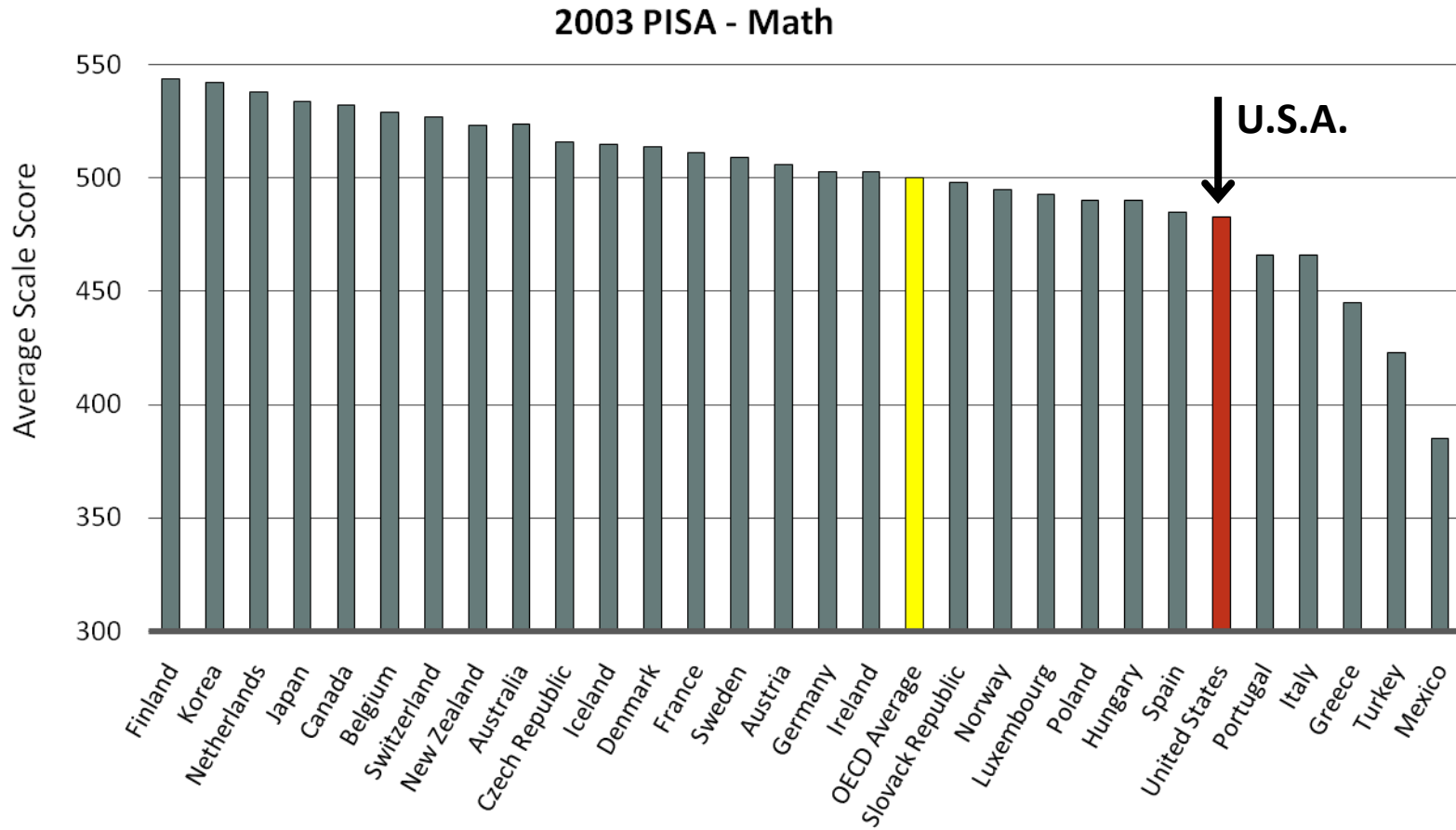
U.S.A. Ranks Near Bottom, Has Fallen Since 2000

<b>Subject</b>	<b>2000 Rank (out of 26)</b>	<b>2003 Rank (out of 26)</b>	<b>2006 Rank (out of 26)</b>
Mathematics	17 <sup>th</sup>	22 <sup>nd</sup>	22 <sup>nd</sup>
Science	13 <sup>th</sup>	Tied for 17 <sup>th</sup>	19 <sup>th</sup>

Rankings are for the 26 OECD countries participating in PISA in 2000, 2003, and 2006.

# A closer look at math

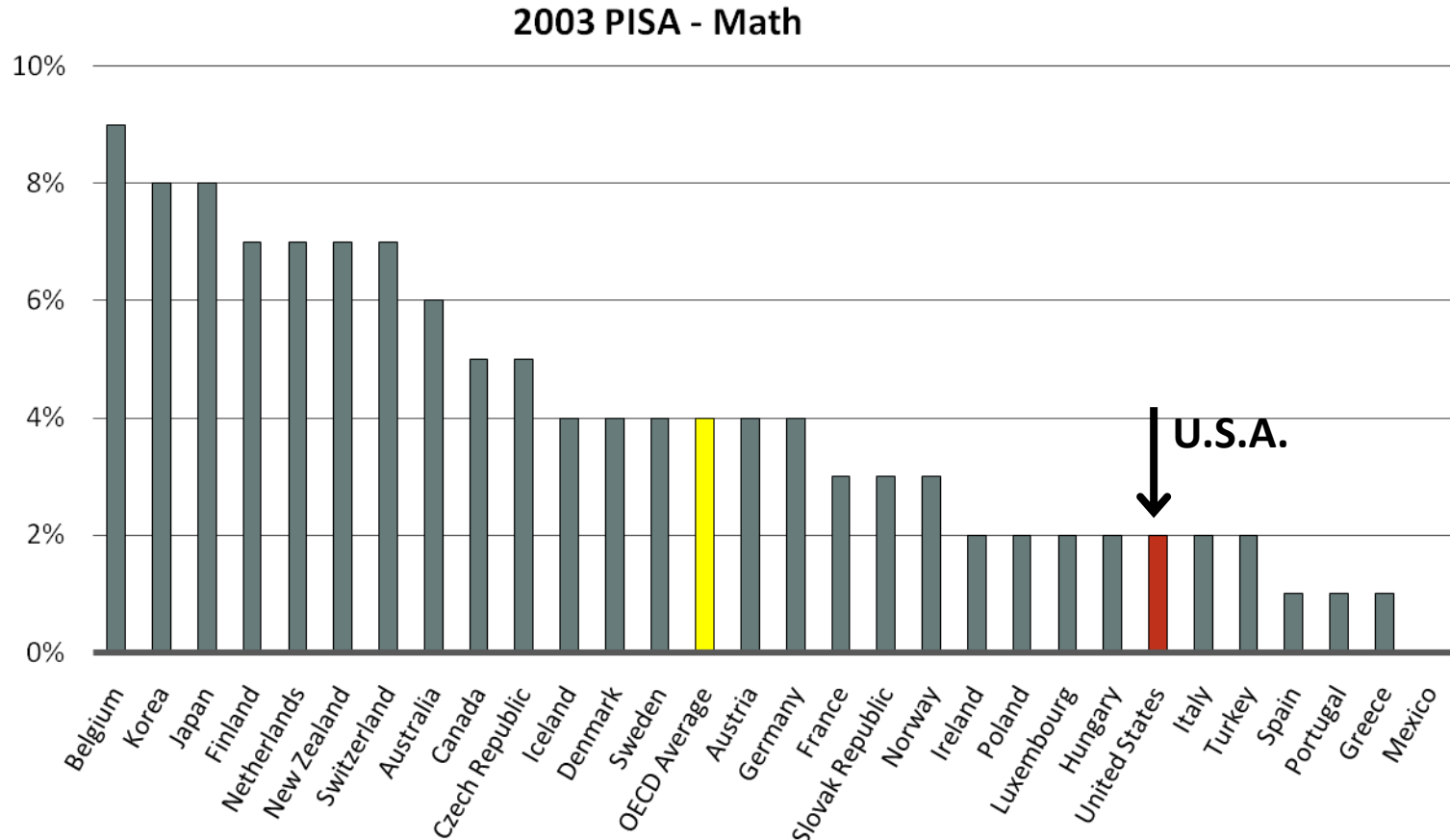
# Of 29 OECD Countries, U.S.A. Ranked 24<sup>th</sup>



Source: PISA 2003 Results, OECD

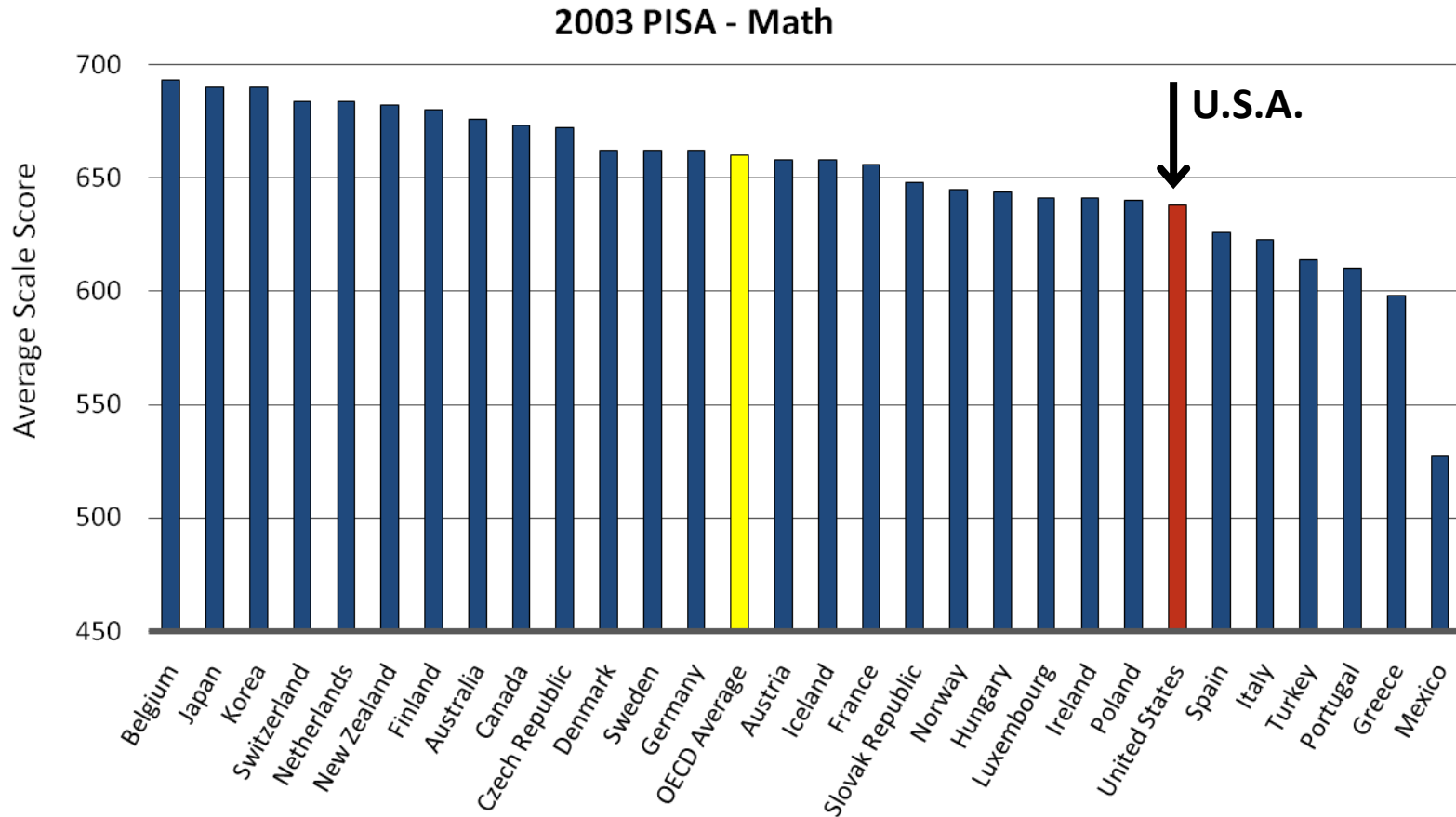
Problems are not limited to  
our high-poverty and high-  
minority schools . . .

# U.S.A. Ranks Low in the Percentage of Students in the Highest Achievement Level (Level 6) in Math





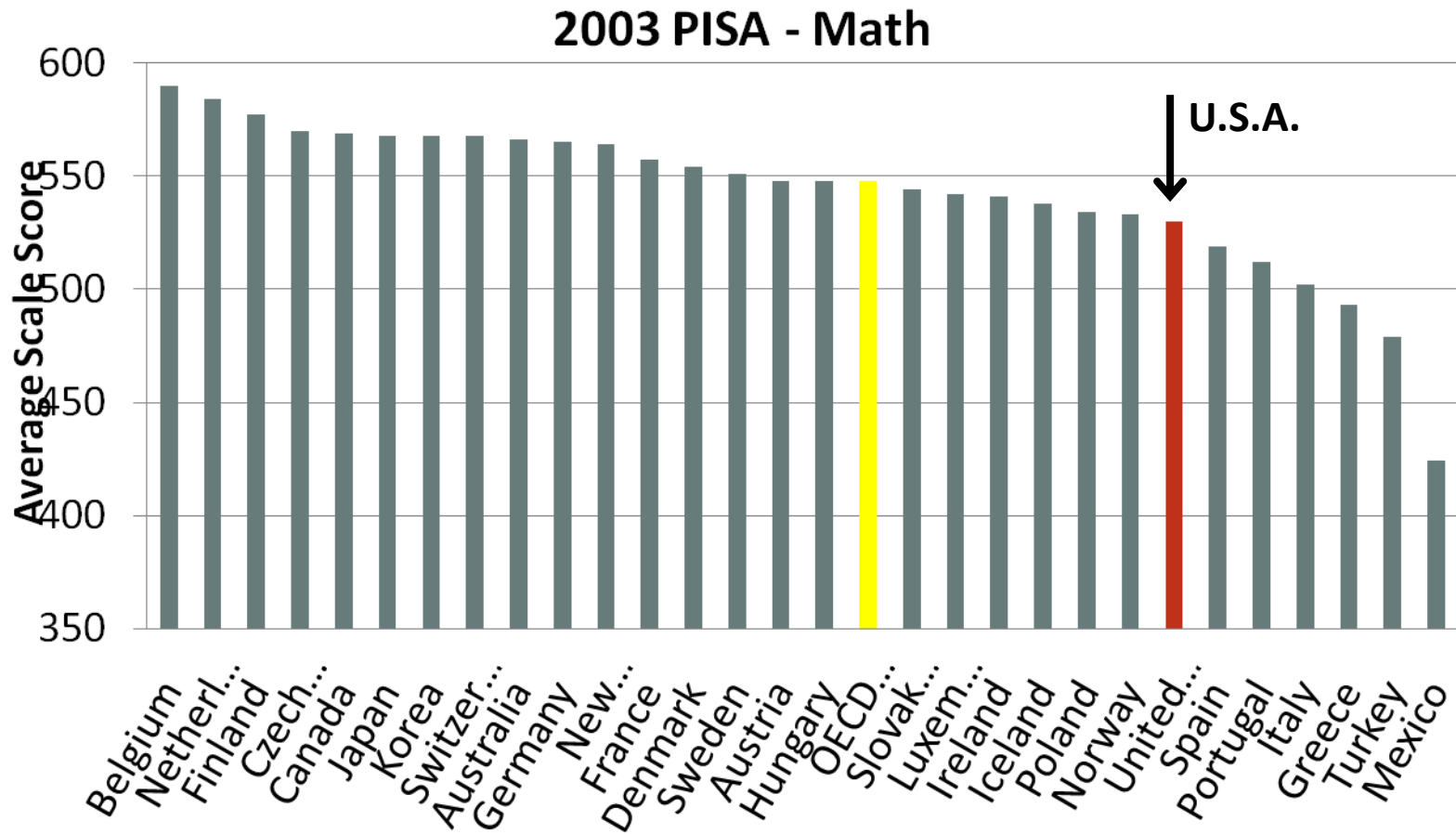
# U.S.A. Ranks 23<sup>rd</sup> out of 29 OECD Countries in the Math Achievement of the Highest-Performing Students\*



\* Students at the 95<sup>th</sup> Percentile

Source: PISA 2003 Results, OECD

# U.S.A. Ranks 23<sup>rd</sup> out of 29 OECD Countries in the Math Achievement of High-SES Students

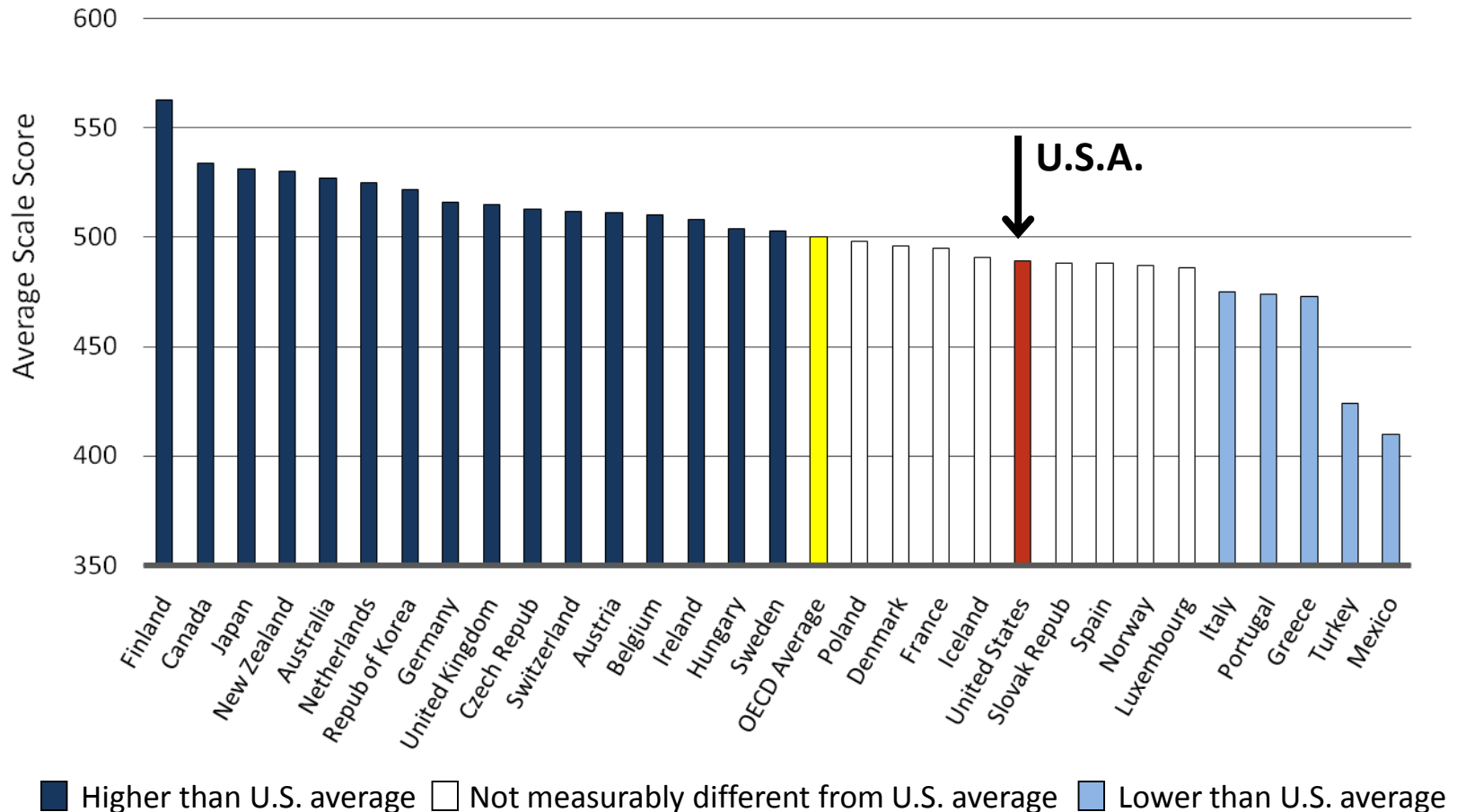


Problems not limited to math,  
either.

Science?

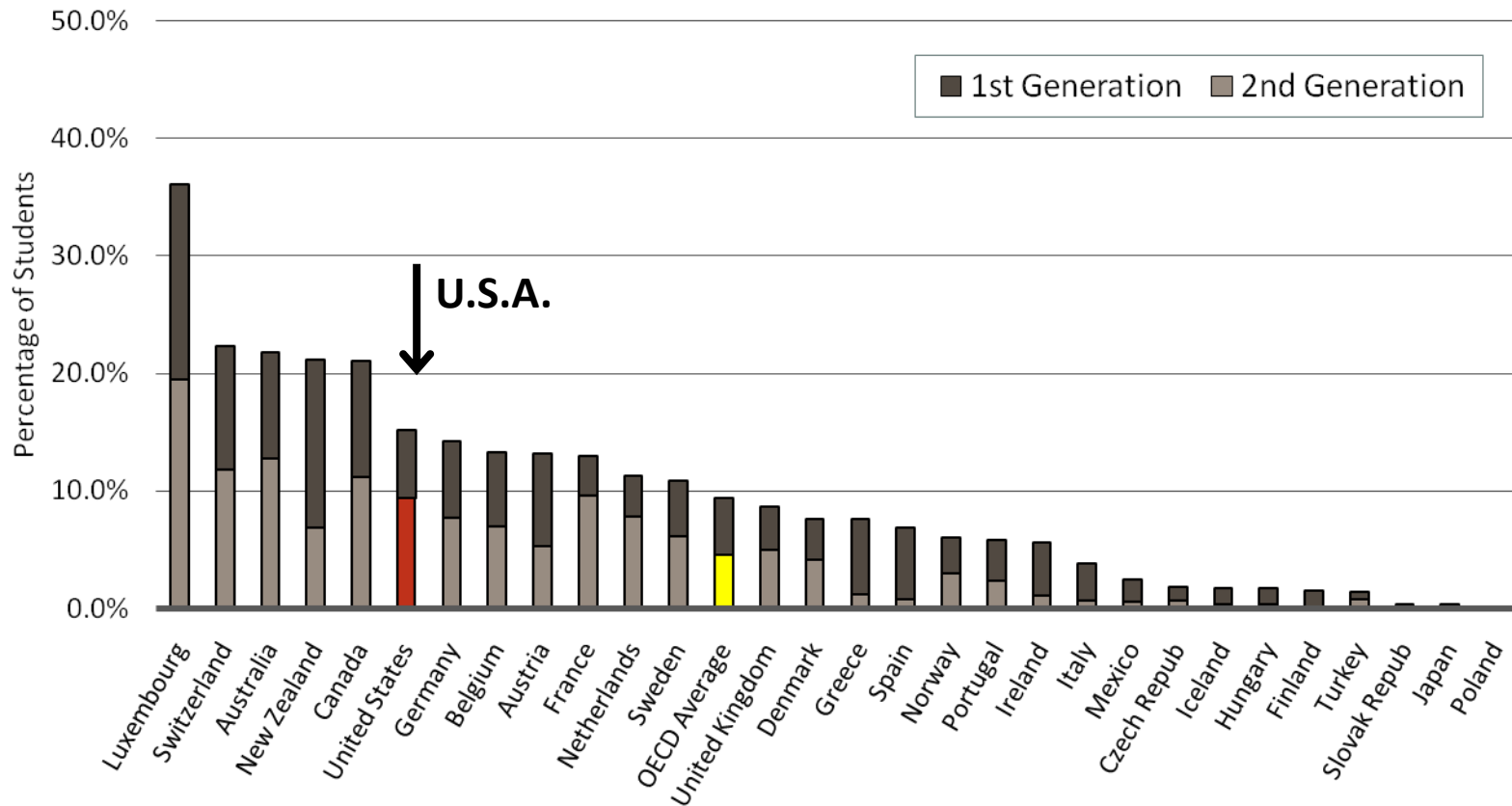
# Of 30 OECD Countries, U.S.A. Ranked 21<sup>st</sup>

2006 PISA - Science



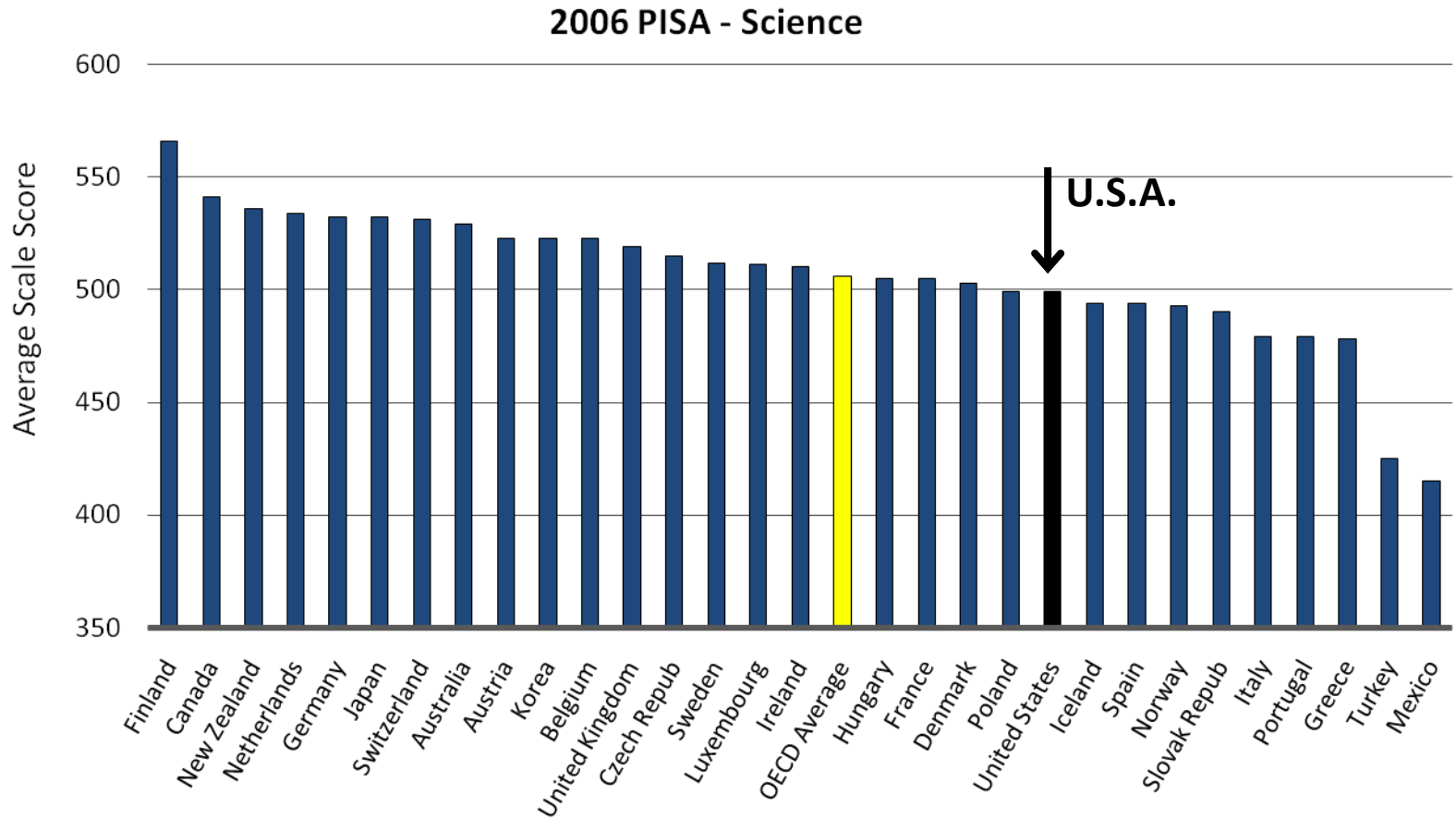
Source: PISA 2006 Results, OECD

# The U.S.A. does have a larger percentage of immigrants and children of immigrants than most OECD countries



Source: PISA 2006 Results, OECD, table 4.2c

But ranks 21<sup>st</sup> out of 30 OECD countries when only taking into account native student\* scores



\*Students born in the country of assessment with at least one parent born in the same country

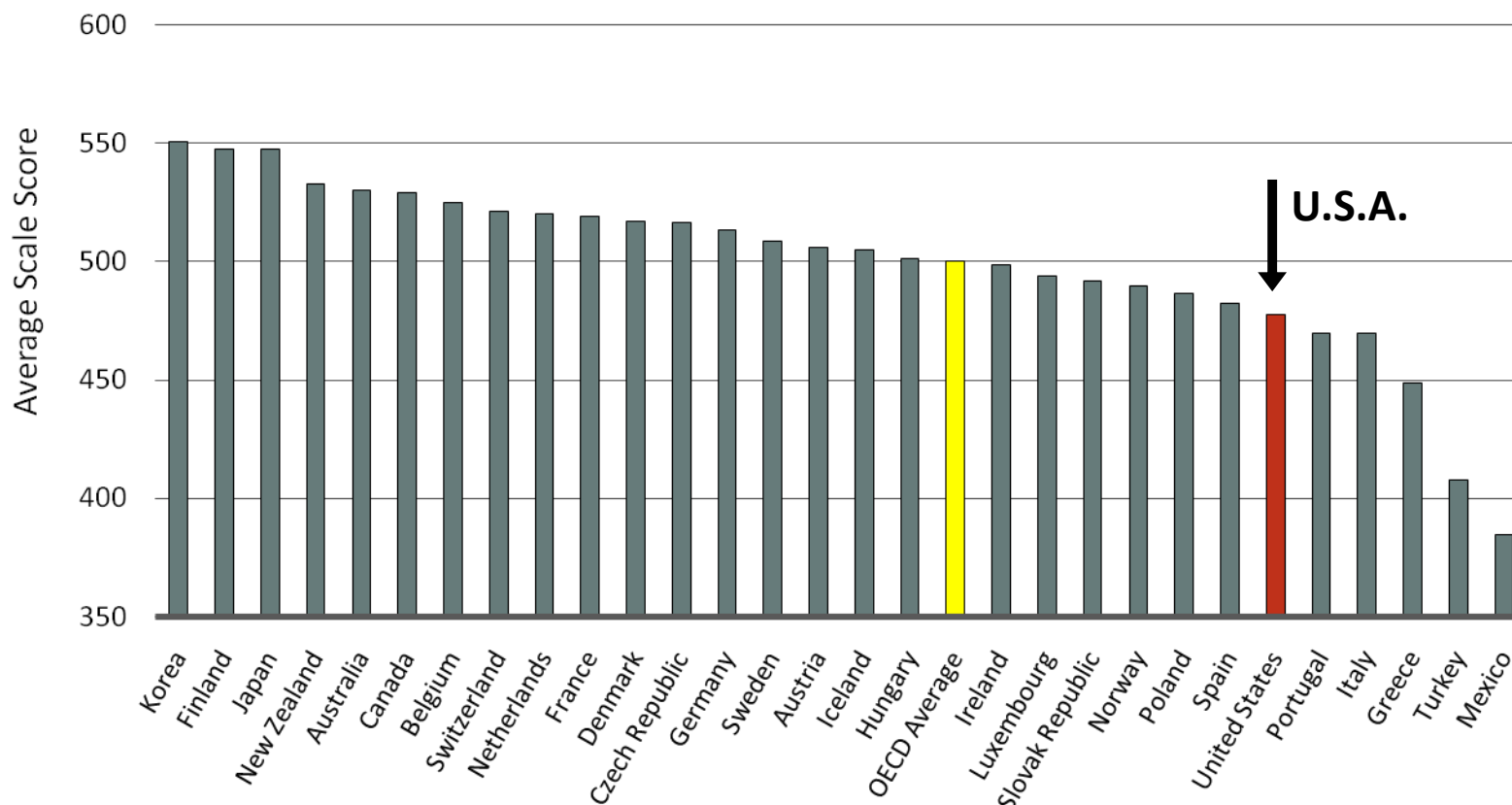
Source: PISA 2006 Results, OECD, table 4.2c

Even in problem-solving, something we consider an American strength...



# U.S.A. Ranks 24<sup>th</sup> Out of 29 OECD Countries in Math Problem-Solving

2003 PISA - Math



Only place we rank high?

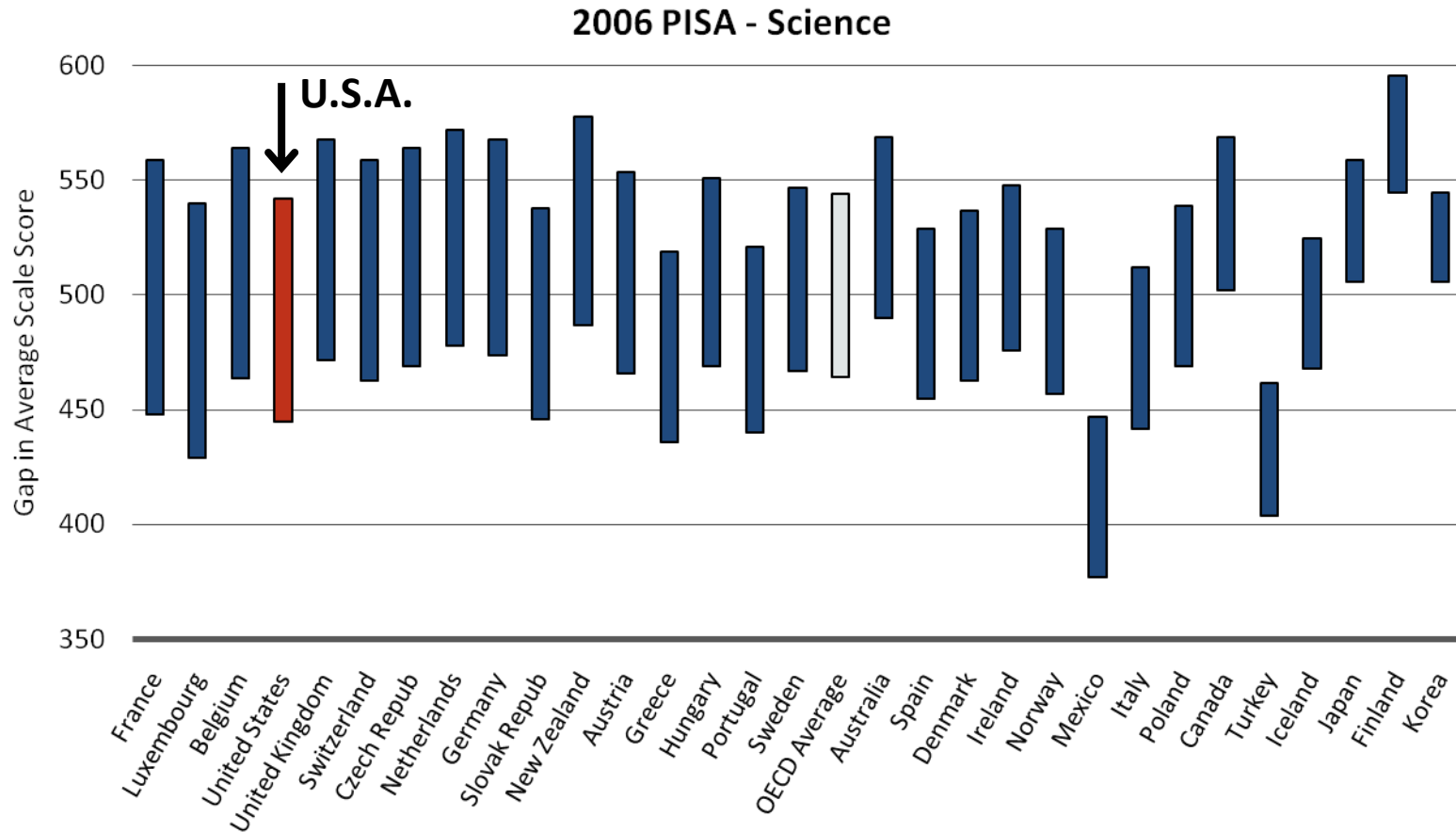
Inequality.

# PISA 2003: Gaps in Performance Of U.S.15 Year-Olds Are Among the Largest of OECD Countries

	<b>Rank in Performance Gaps Between Highest and Lowest Achieving Students *</b>
<b>Mathematical Literacy</b>	<b>8<sup>th</sup></b>
<b>Problem Solving</b>	<b>6<sup>th</sup></b>

**\*Of 29 OECD countries, based on scores of students at the 5<sup>th</sup> and 95<sup>th</sup> percentiles.**

# Among OECD Countries, U.S.A. has the 4<sup>th</sup> Largest Gap Between High-SES and Low-SES Students



Source: PISA 2006 Results, OECD, table 4.8b

**These gaps begin before children  
arrive at the schoolhouse door.**

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

# How?

By giving students who arrive with  
less, less in school, too.

Some of these “lesser” are a result of choices that policymakers make.

# National Inequities in State and Local Revenue Per Student

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

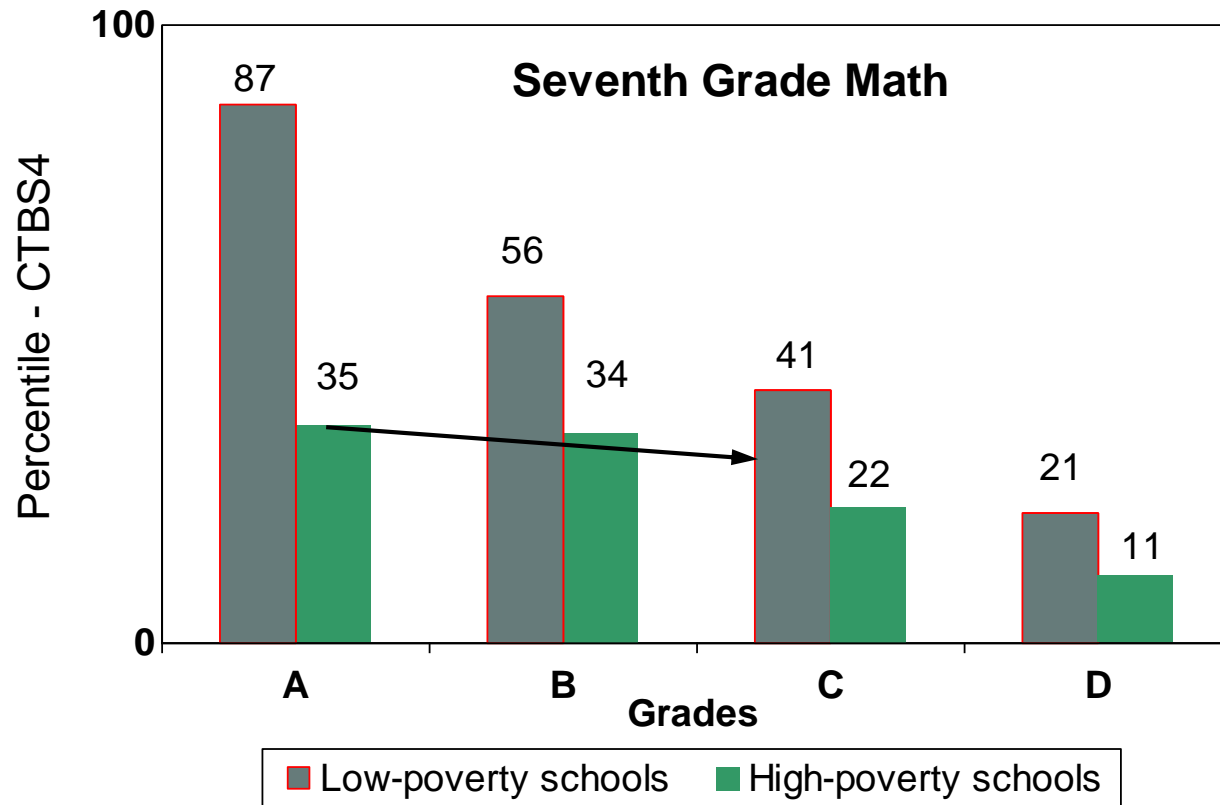
Source: Education Trust analyses based on U.S. Department of Education and U.S. Census Bureau data for the 2005-06 school year.



In truth, though, some of the most devastating “lesses” are a function of choices that we educators make.

Choices we make about what to  
expect of whom...

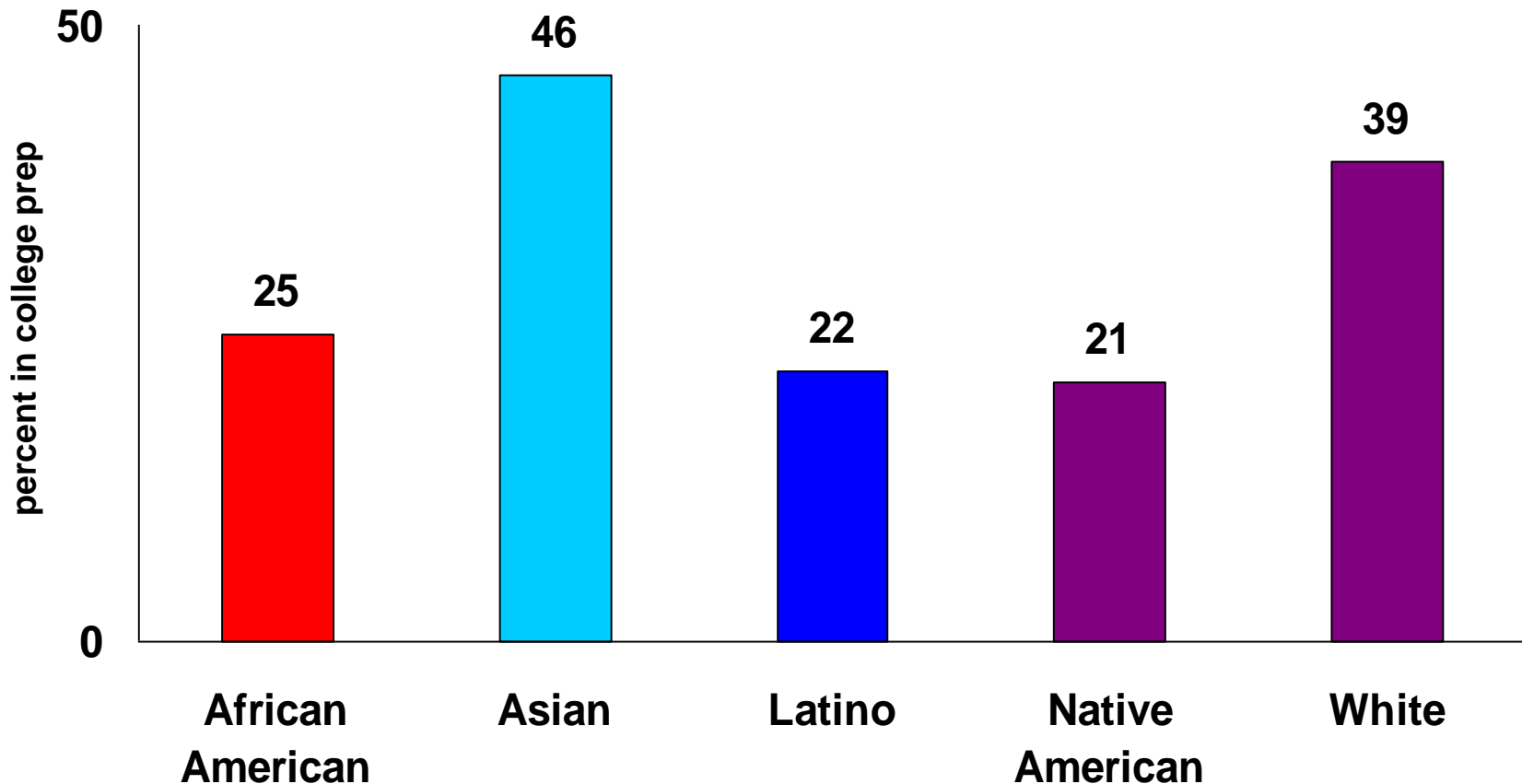
# Students in Poor Schools Receive 'A's for Work That Would Earn 'Cs' in Affluent Schools



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

Choices we make about what to  
teach whom...

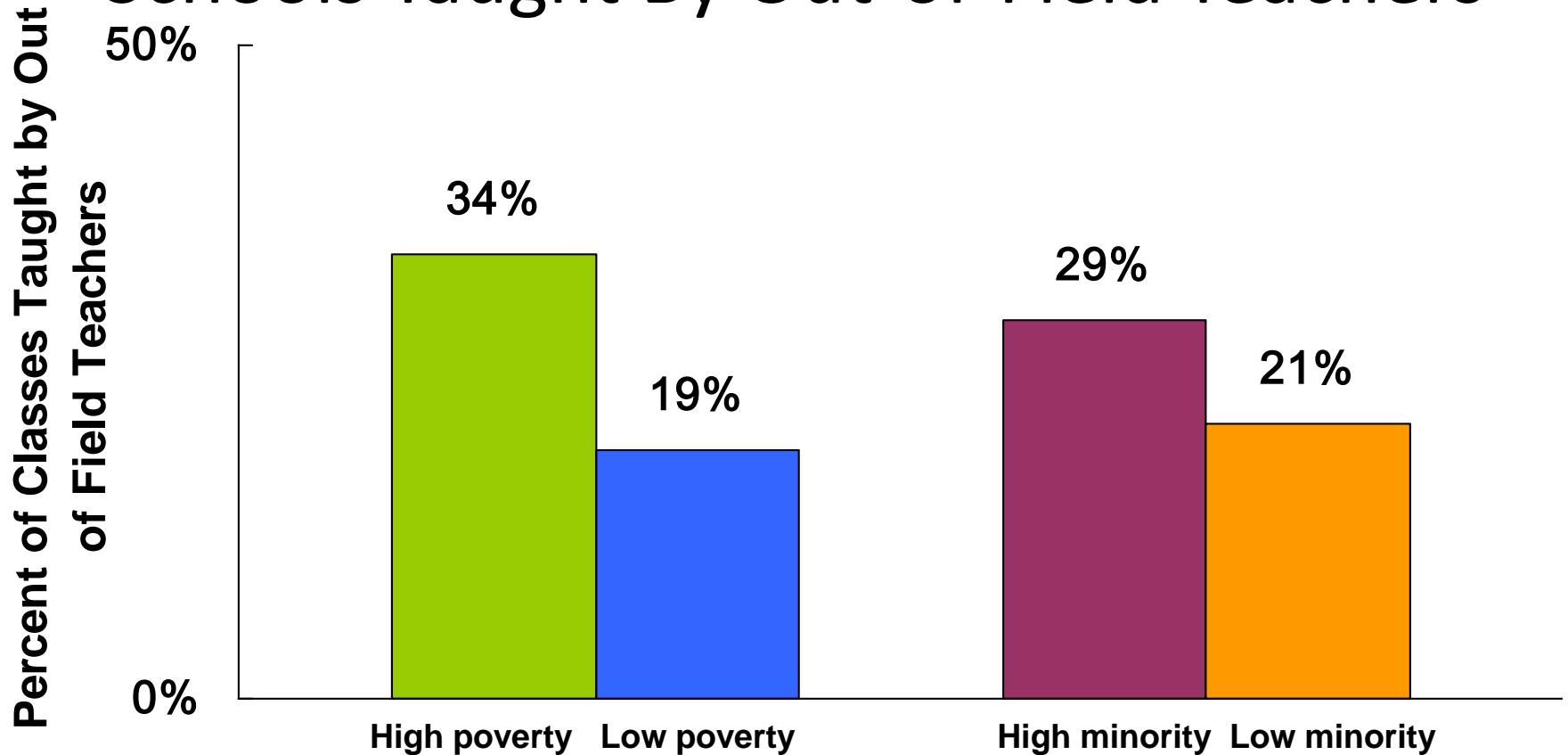
# African American, Latino & Native American high school graduates are less likely to have been enrolled in a full college prep track



Full College Prep track is defined as at least: 4 years of English, 3 years of math, 2 years of natural science, 2 years of social science and 2 years of foreign language

And choices we make about  
*who* teaches whom...

# More Classes in High-Poverty, High-Minority Schools Taught By Out-of-Field Teachers



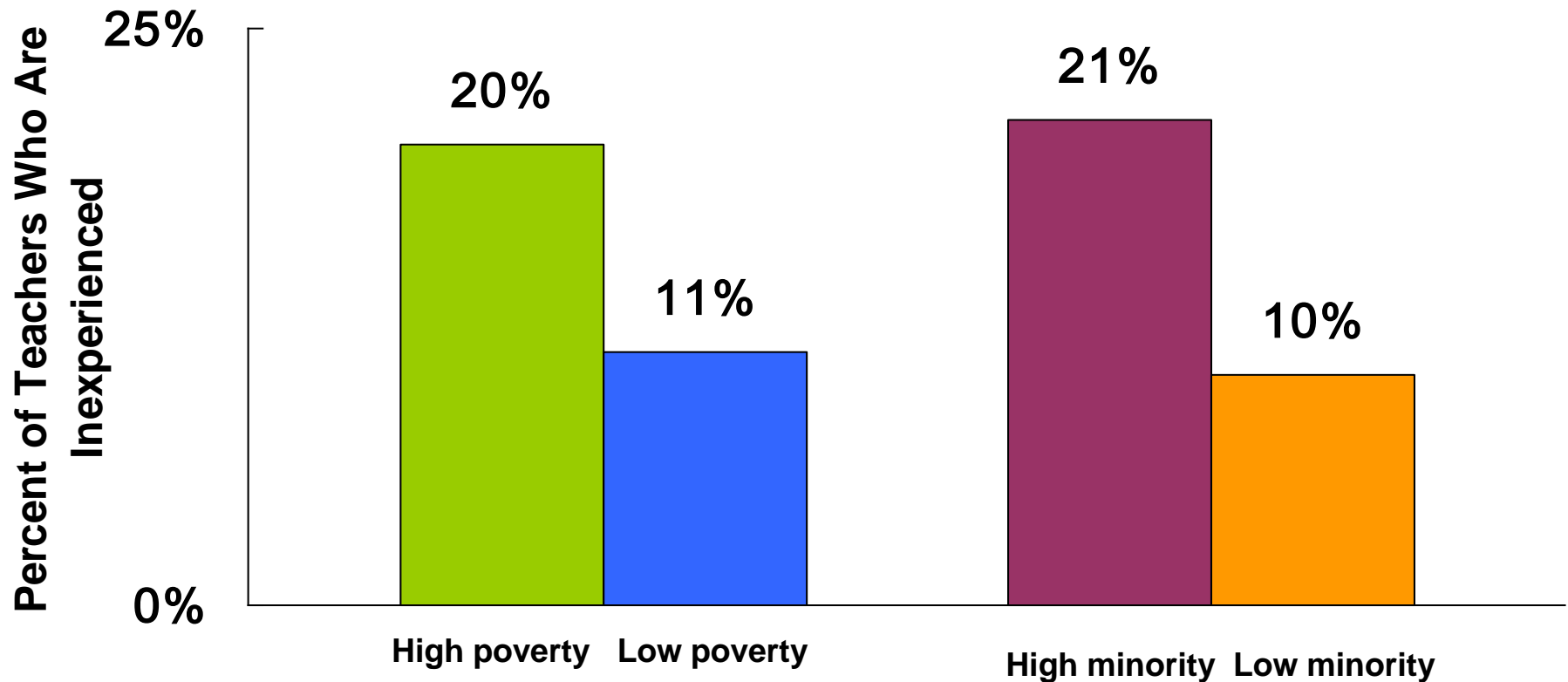
Note: High Poverty school-50% or more of the students are eligible for free/reduced price lunch. Low-poverty school -15% or fewer of the students are eligible for free/reduced price lunch.

High-minority school - 50% or more of the students are nonwhite. Low-minority school- 15% or fewer of the students are nonwhite.

**\*Teachers lacking a college major or minor in the field. Data for secondary-level core academic classes.**

Source: Richard M. Ingersoll, University of Pennsylvania. Original analysis for the Ed Trust of 1999-2000 Schools and Staffing Survey. © 2010 THE EDUCATION TRUST

# Poor and Minority Students Get More Inexperienced\* Teachers



**\*Teachers with 3 or fewer years of experience.**

Note: High poverty refers to the top quartile of schools with students eligible for free/reduced price lunch. Low poverty-bottom quartile of schools with students eligible for free/reduced price lunch. High minority-top quartile; those schools with the highest concentrations of minority students. Low minority-bottom quartile of schools with the lowest concentrations of minority students



# Results are devastating.

Kids who come in a little behind,  
leave a **lot** behind.

# What Can We Do?

An awful lot of Americans have decided that we can't do much.

# What We Hear Many Adults Say:

- They're poor
- Their parents don't care
- They come to schools without breakfast
- Not enough books
- Not enough parents

But if they are right, why are low-income students and students of color performing so much higher in some schools...

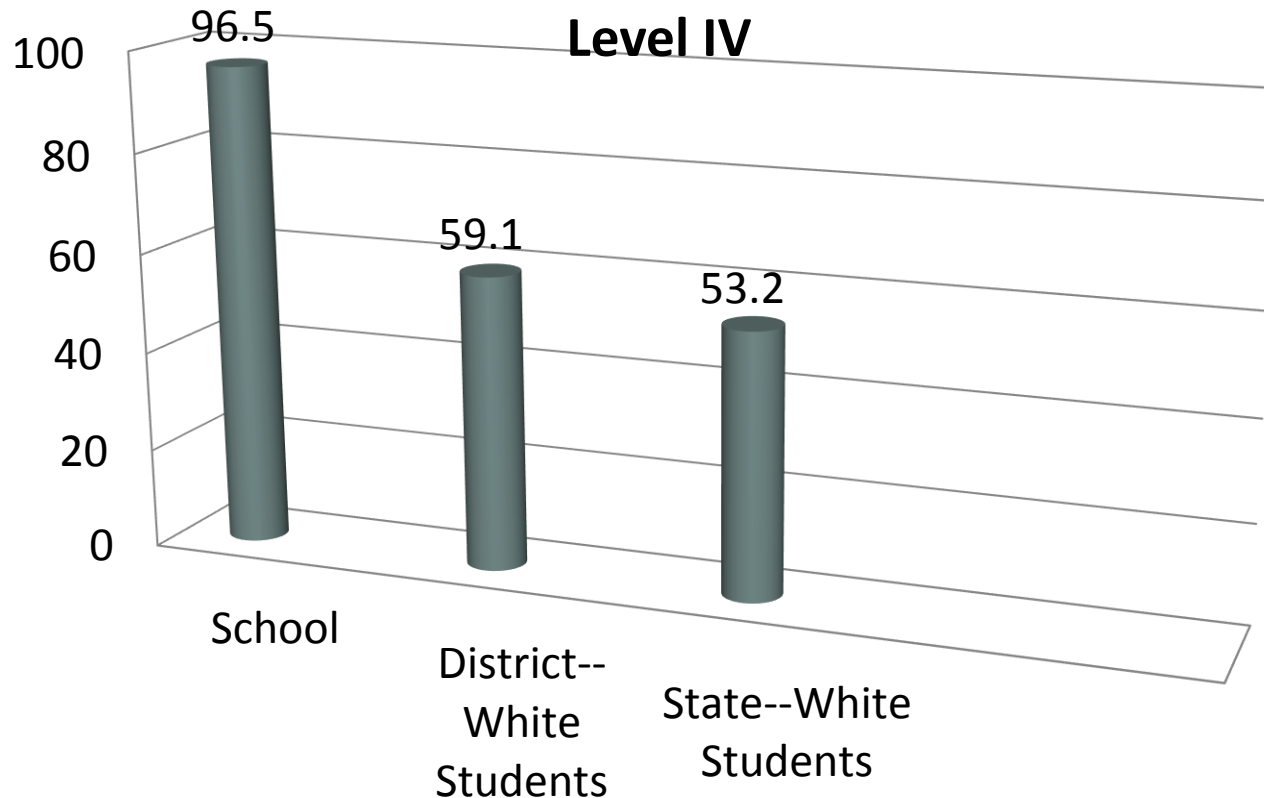
# George Hall Elementary School

Mobile, AL

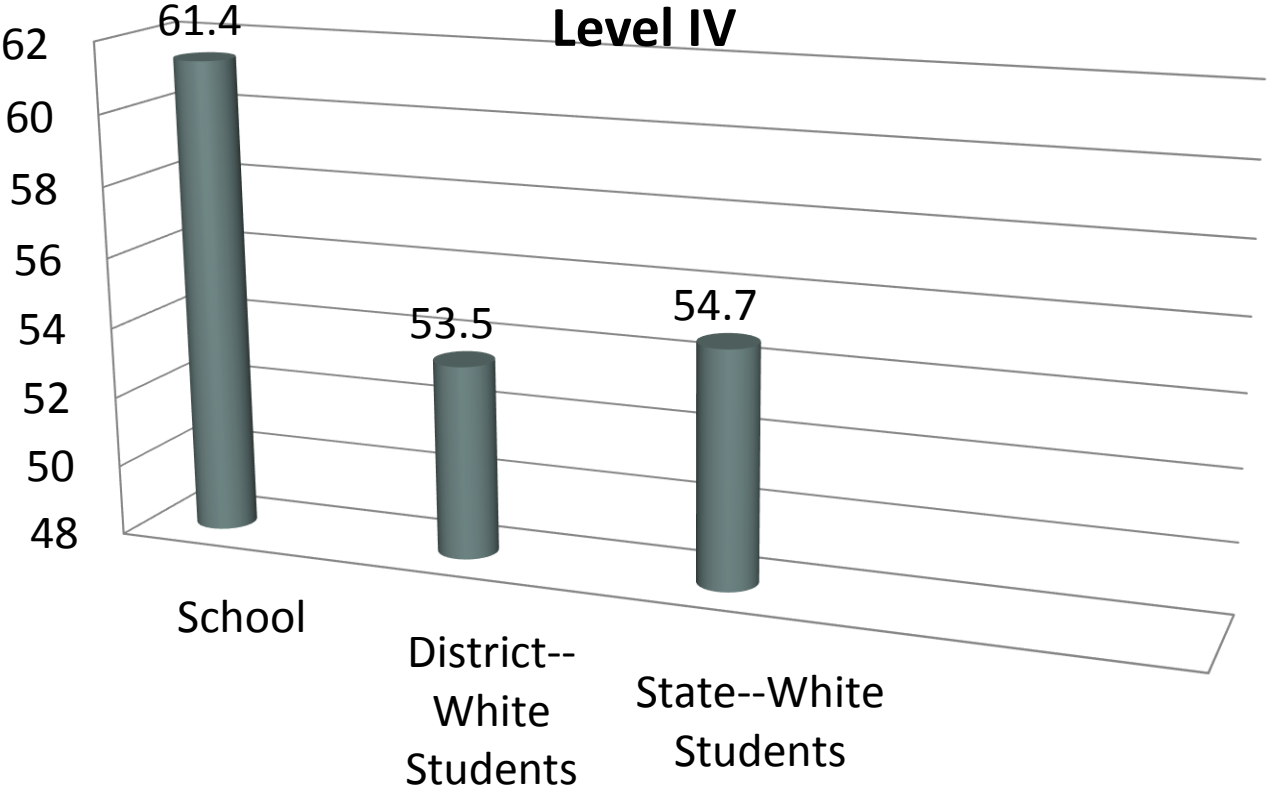
- 530 Students
- 100% African American
- 99% Low-Income

Four years ago, school was lowest performing in the district and among the bottom few in the state. District reconstituted—and restaffed.

# George Hall Elementary, Grade 5 Math 2008



# George Hall Elementary, Grade 5 Reading 2008



Source: Public Affairs Research Council of Alabama, "Does the System Succeed with All Kinds of Kids."



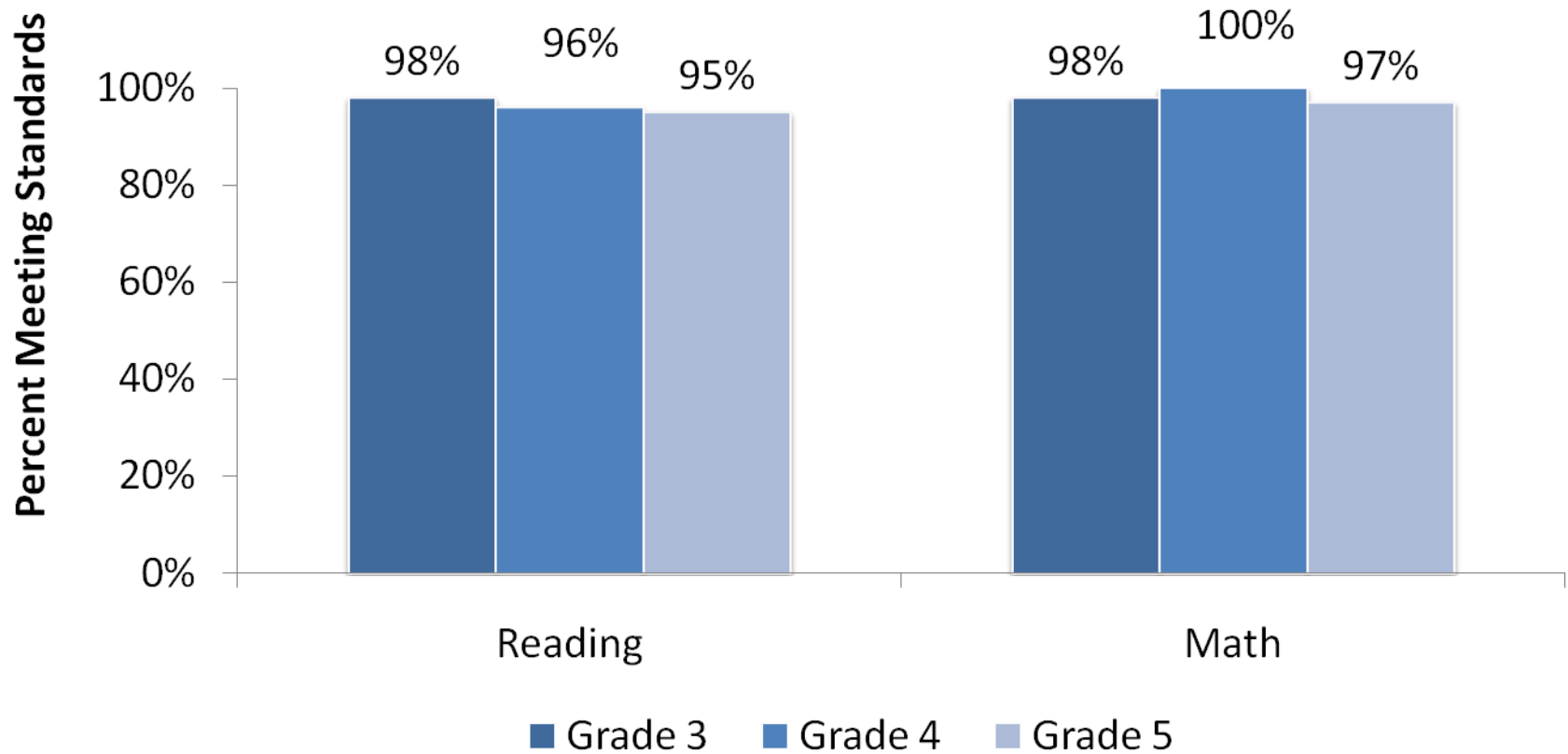
# Capitol View Elementary

## Atlanta, GA

- ▶ **228 students in grades K-5**
- ▶ **96% African American**
- ▶ **88% Low-Income**



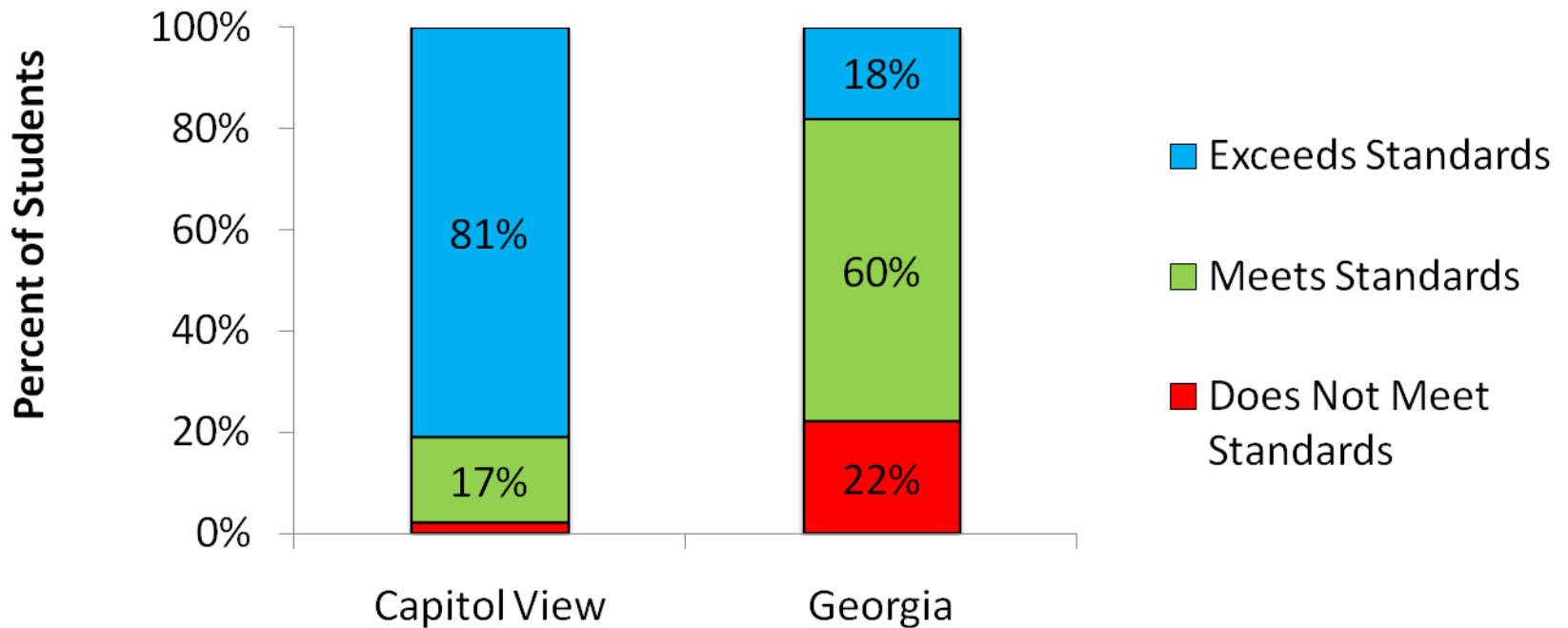
# High Achievement for All at Capitol View, 2007



# Exceeding Standards at Capitol View

## African American Students

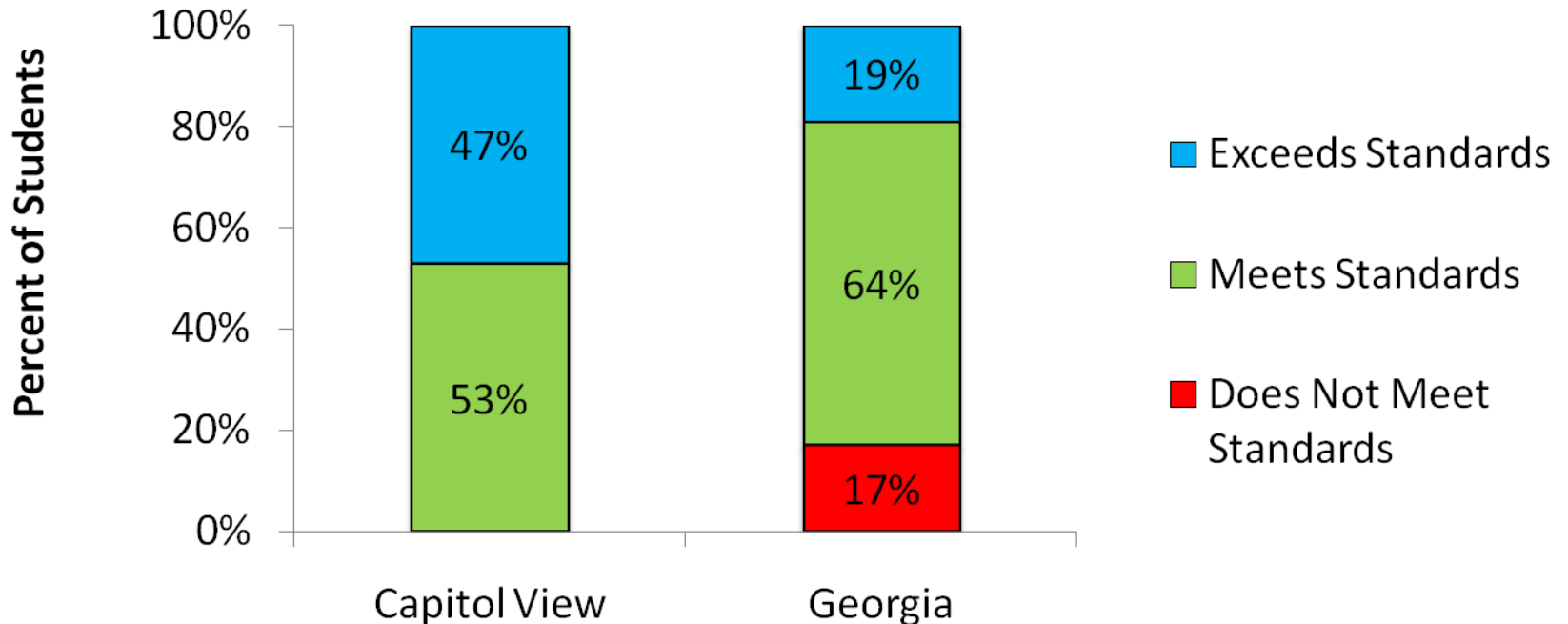
### Grade 3 Reading (2007)



# Exceeding Standards at Capitol View

## Low-Income Students

### Grade 5 Math (2007)



# Osmond A. Church School New York, New York



**Osmond A. Church School,  
P.S./M.S. 124  
Queens, NY**

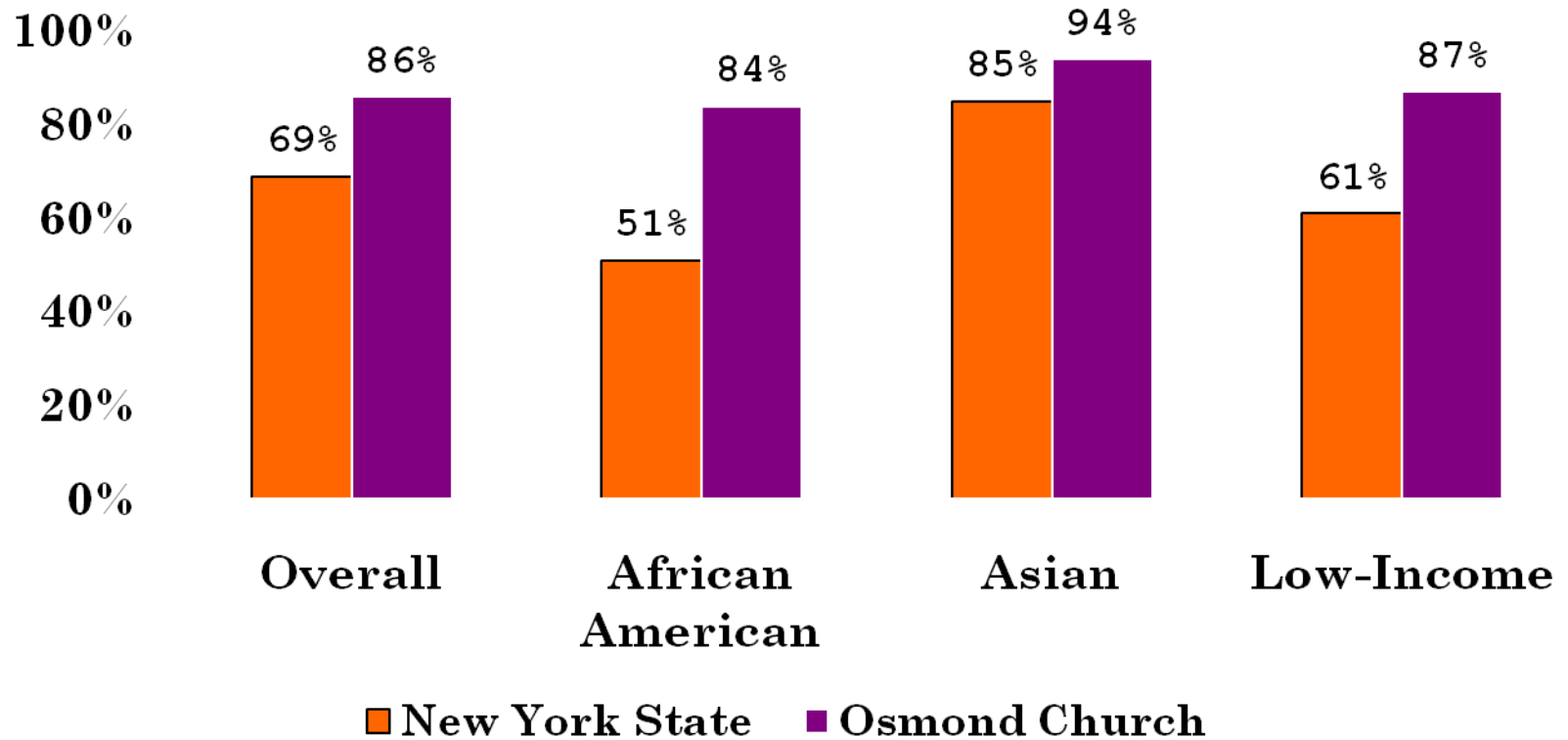
- ▶ **924 students in grades PK-7\***
- ▶ **40% African American**
- ▶ **33% Asian**
- ▶ **23% Latino**
- ▶ **97% Low-Income**

**\* In 2005-06**

# Osmond A. Church School

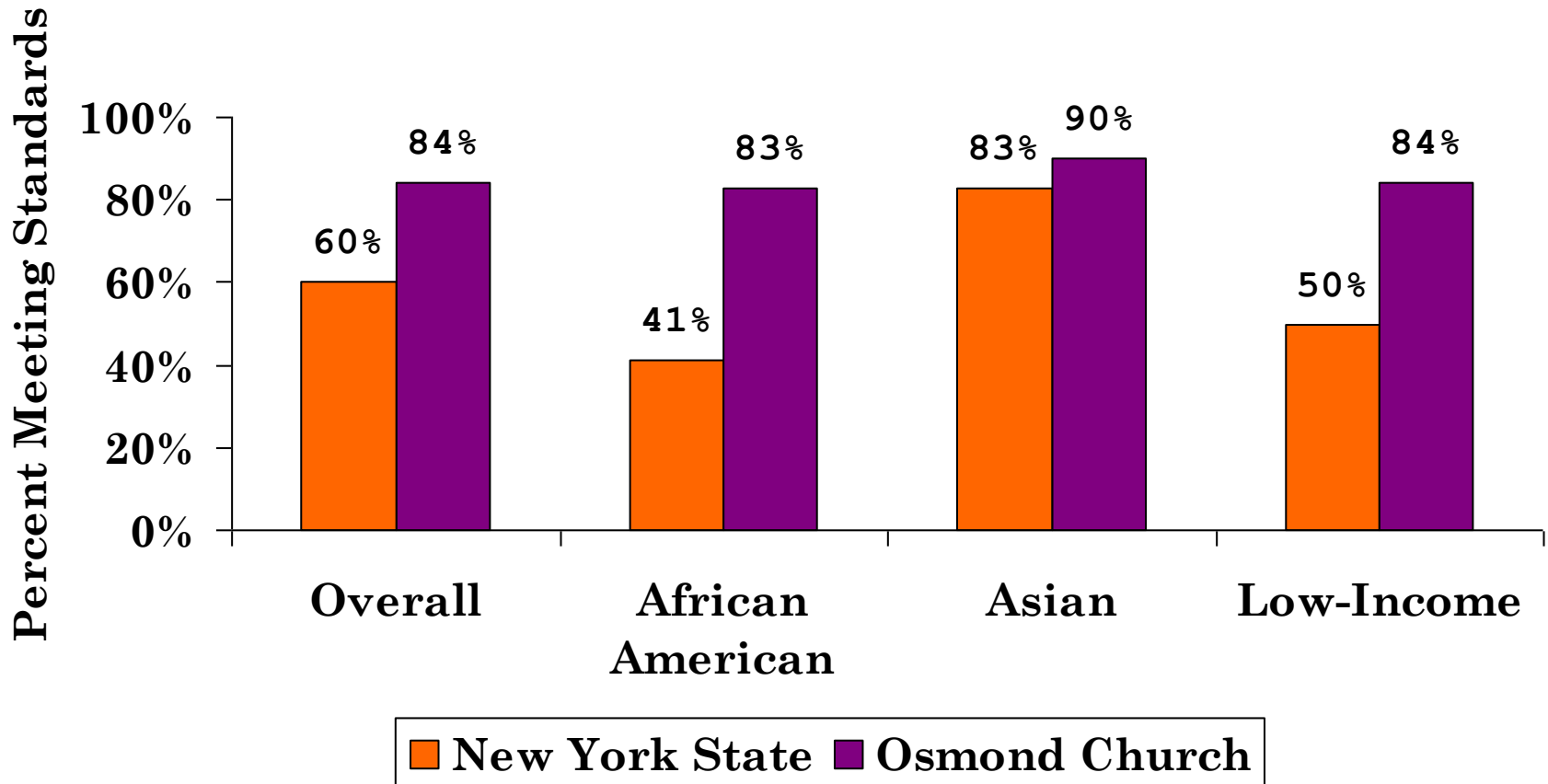
## High Achievement for All

### Grade 3 ELA (2006)



# Osmond A. Church School High Achievement for All

## Grade 6 Math (2006)





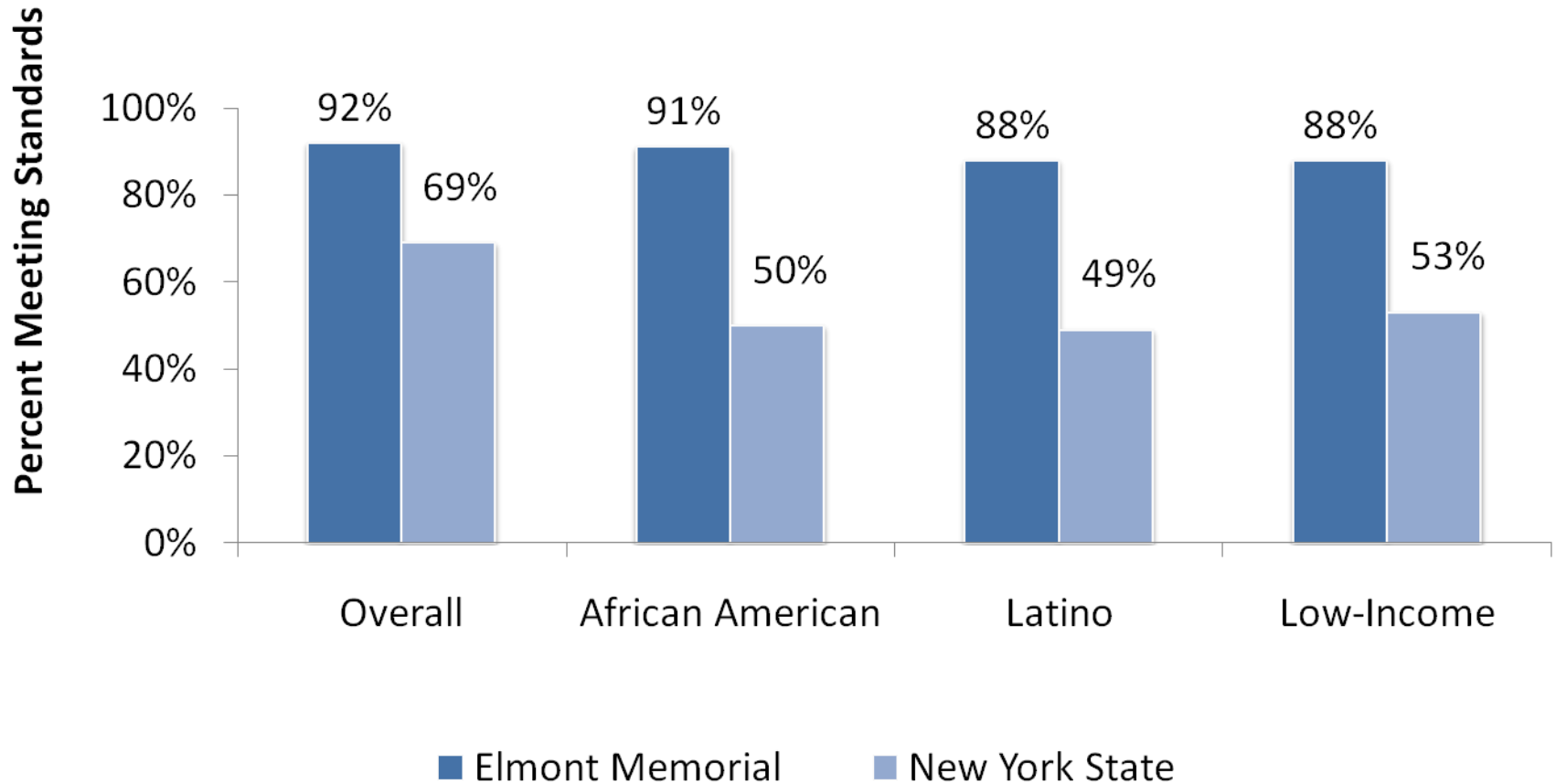
# Elmont Memorial Junior-Senior High

## Elmont, New York

- 1,945 students in grades 7-12
  - 77% African American
- 27% Low-Income

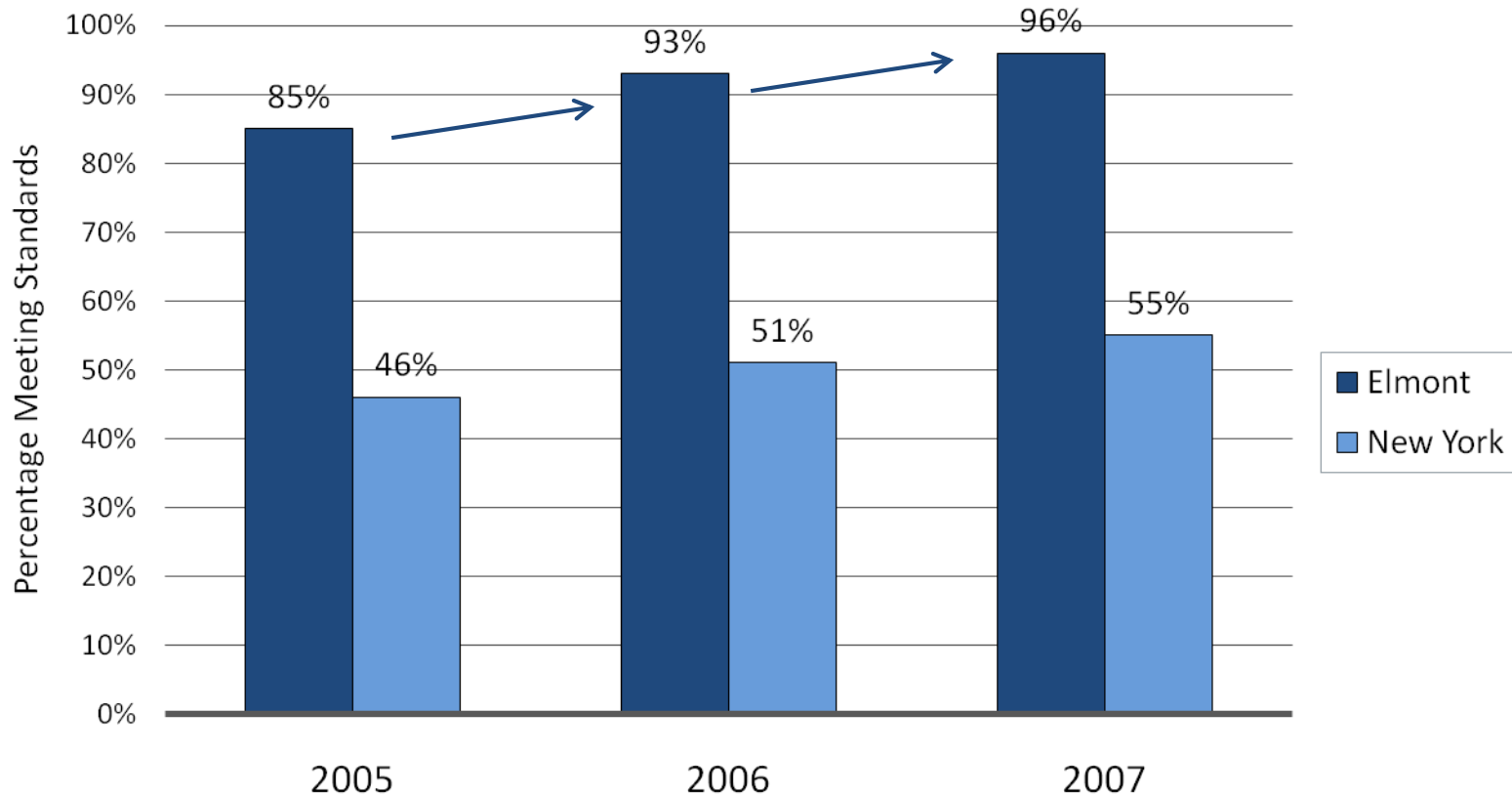


# Elmont: Out-Performing the State Secondary-Level English (2006)



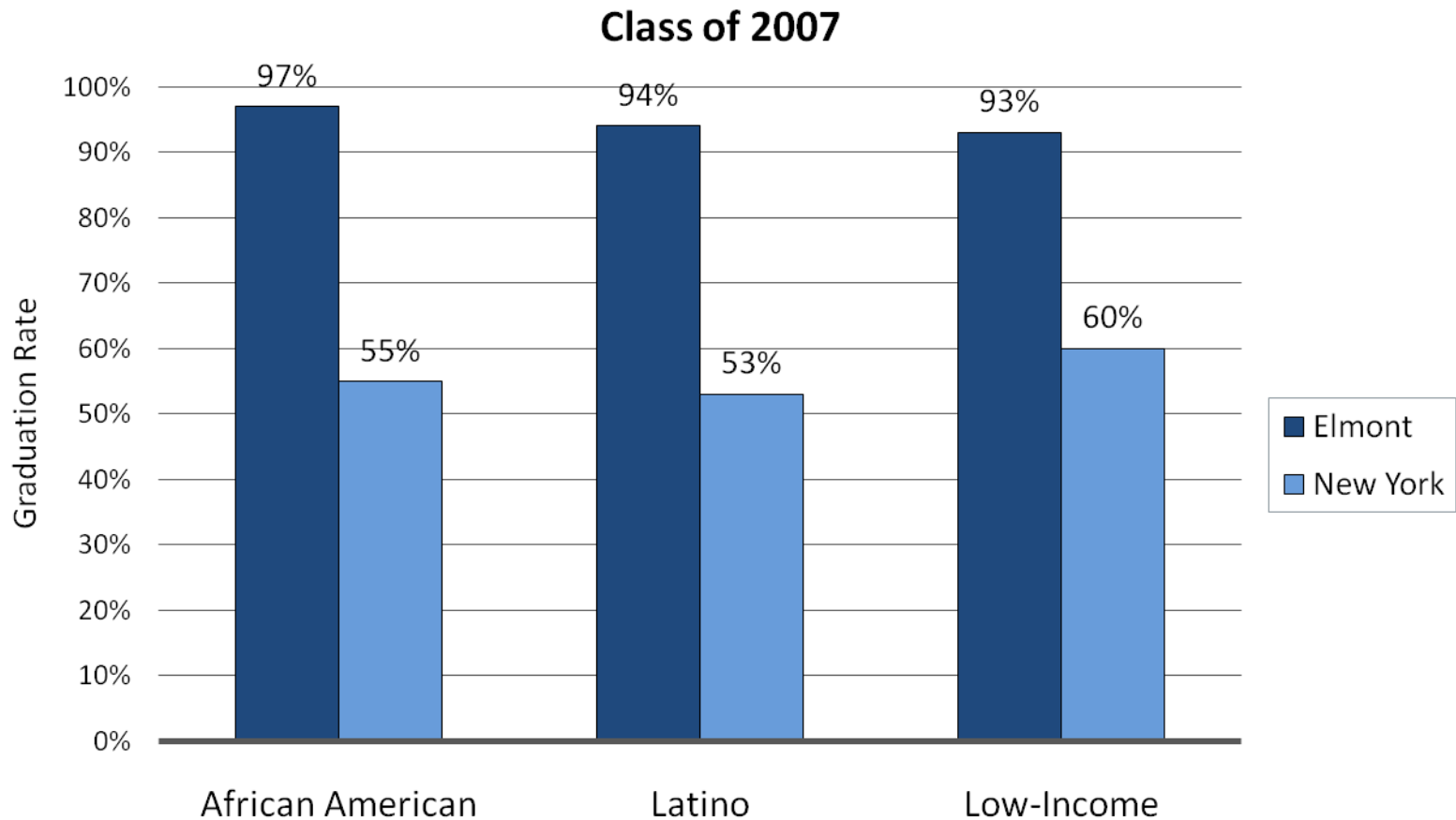
# Improvement and High Performance at Elmont Memorial Junior-Senior High

## African-American Students – Secondary-Level Math



Source: New York Department of Education

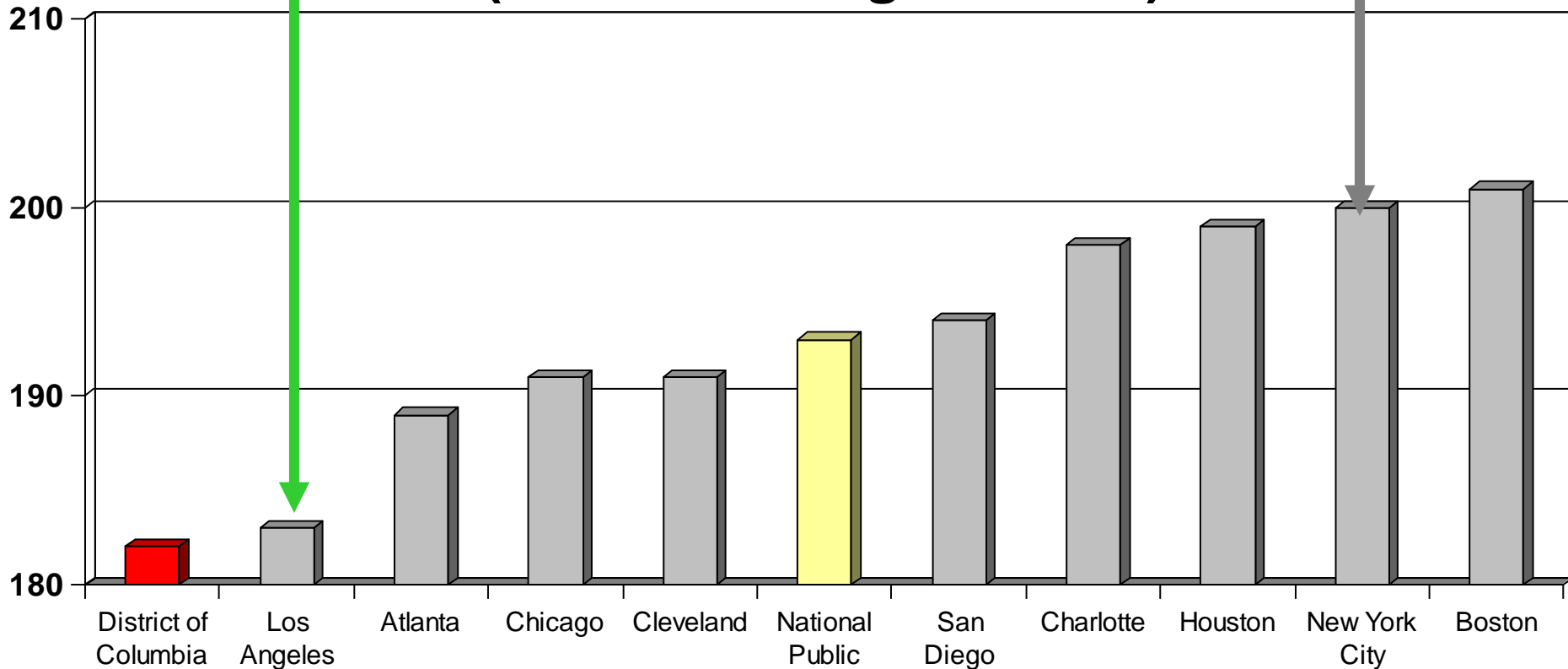
# More Students Graduate at Elmont Memorial Junior-Senior High



Source: New York Department of Education

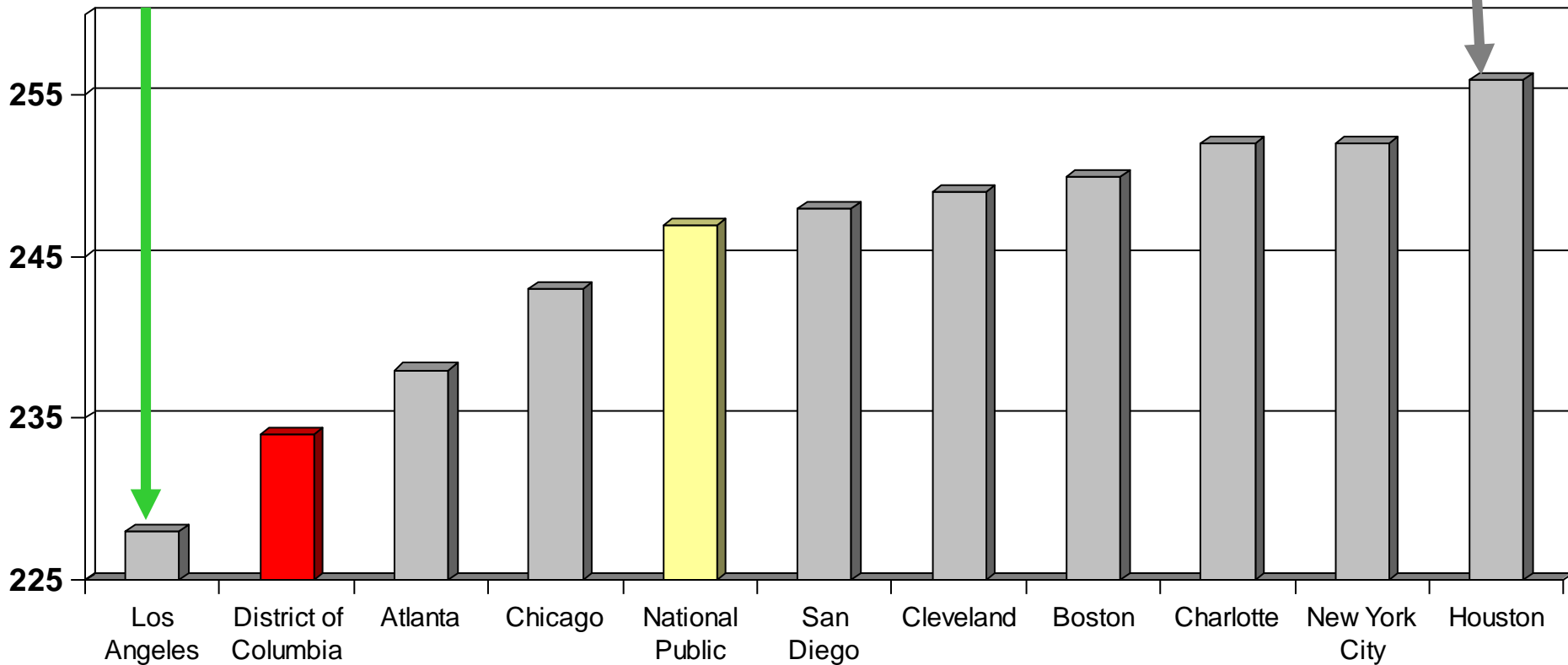
Big differences in whole districts,  
too.

# Low-Income African American Students do Better in Some Districts (NAEP Reading 4th 2003)



**\* There is a 19 point gap between Poor African American 4<sup>th</sup> graders in the District of Columbia and Boston (roughly equivalent to 2 years' worth of learning)**

# Low-Income African American Students do Better in Some Districts (NAEP Math 8th 2003)



**\* There is a 28 point gap between Poor African American 8<sup>th</sup> graders in Los Angeles and Houston (roughly equivalent to 3 years' worth of learning)**

# Bottom Line:

At every level of education,  
what we do matters a lot!



# What Do We Know About How To Accelerate Success?

What do the high performers do?

#1. They focus on what they *can* do, rather than what they *can't*.

Some schools and districts get all caught up in “correlations”.

**Spend endless time tracking:**

- Percent of babies born at low birth-weight
- Percent of children born to single moms
- Percent of children in families receiving government assistance
- Education levels of mothers

The leaders in high-performing high poverty schools and districts don't do that.

“Some of our children live in pretty dire circumstances. But we can't dwell on that, because we can't change it. So when we come here, we have to dwell on that which is going to move our kids.”

Barbara Adderly, Principal,  
M. Hall Stanton Elementary, Philadelphia

#2. They don't leave  
anything about **teaching**  
**and learning** to chance.

An awful lot of our teachers—even brand new ones—are left to figure out on their own what to teach and what constitutes “good enough” work.

•  
•

“No,” say the education leaders.  
“They’re supposed to teach to  
standards!”

But when is the last time you looked  
at a standard?

# Sample Language Arts Standard: Grade 9

“The student will develop and apply expansive knowledge of words and word meanings to communicate.”



# Sample Language Arts Standard: Grade 10

“The student will develop and apply expansive knowledge of words and word meanings to communicate.”

# Sample Language Arts Standard: Grade 11

“The student will develop and apply expansive knowledge of words and word meanings to communicate.”

# Sample Language Arts Standard: Grade 12

“The student will develop and apply expansive knowledge of words and word meanings to communicate.”

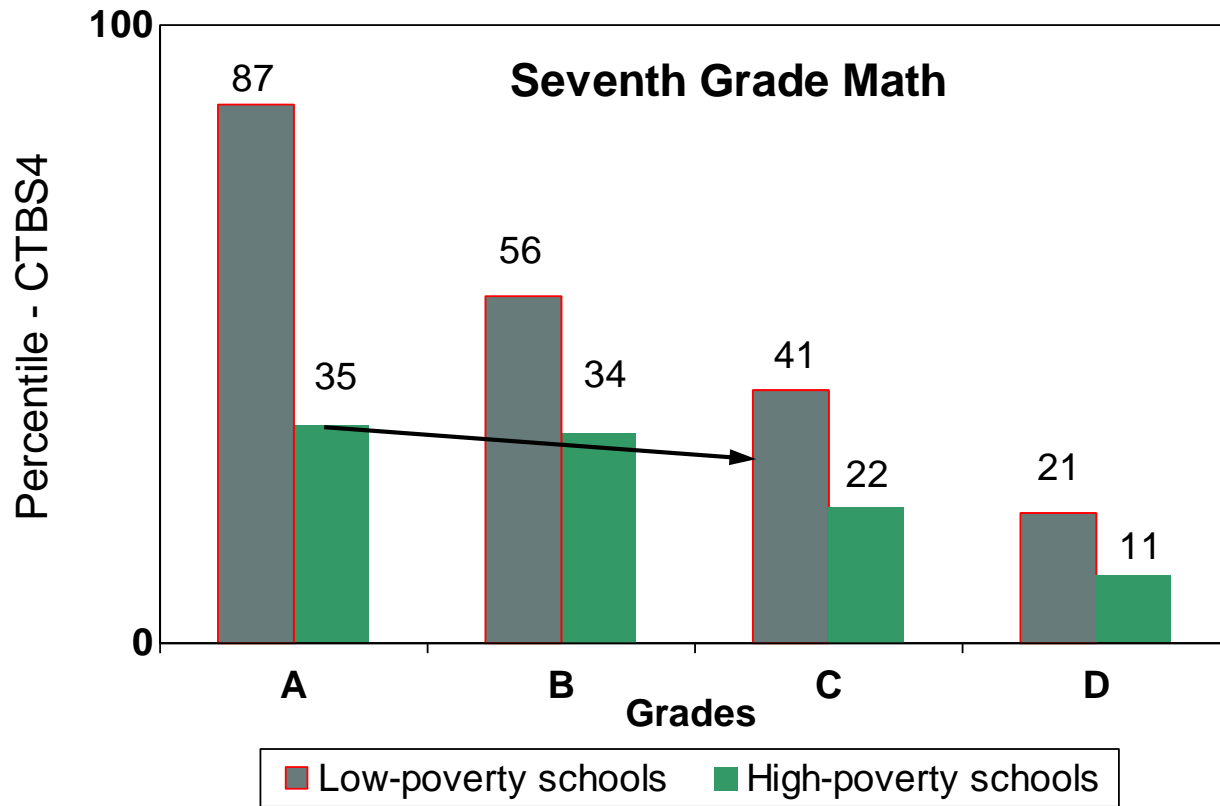
# Sample History Standard

“Students understand how science, technology and economic activity have developed, changed and affected societies throughout history.”

What does this do?

Leaves teachers entirely on their own to figure out what to teach, what order to teach it in, HOW to teach it...and to what level.

# 'A' Work in Poor Schools Would Earn 'Cs' in Affluent Schools



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

Students can do  
no better than  
the assignments  
they are given...

# Grade 10 Writing Assignment

A frequent theme in literature is the conflict between the individual and society. From literature you have read, select a character who struggled with society. In a well-developed essay, identify the character and explain why this character's conflict with society is important.



# Grade 10 Writing Assignment

Write a composition of at least 4 paragraphs on Martin Luther King's most important contribution to this society. Illustrate your work with a neat cover page. Neatness counts.

# Grade 7 Writing Assignment

## Essay on Anne Frank

Your essay will consist of an opening paragraph which introduced the title, author and general background of the novel.

Your thesis will state specifically what Anne's overall personality is, and what general psychological and intellectual changes she exhibits over the course of the book

You might organize your essay by grouping psychological and intellectual changes OR you might choose 3 or 4 characteristics (like friendliness, patience, optimism, self doubt) and show how she changes in this area.

# Grade 7 Writing Assignment

**The "ME" Page**

My name:
Three words which describe me best:
Three words others would use to describe me:
My best feature:
A neat expression:
My best friend:
My favorite food:
A chore I hate:
Something I wish would happen at my home:
My hero:
My favorite sport:
A car I want:
The best thing about my school:
My biggest secret:
A television character I act like:
My worst fear:
A contest I want to win:
My favorite movie star:
My heartthrob:
A political office I would like to hold:
Something I want to buy:
My chosen career:
My favorite beverage:
A place I want to visit:
A school subject I adore:
My favorite book:
A nightmare I have:
Someone I would like to have as a relative:
A movie I would like to be the star in:
Something I would like to do for my family:
A teacher I respect:
What I would do if I were in Hollywood:
A friend I would like to have:
What I would do to change our school:
My dream for America:

- My Best Friend:
- A chore I hate:
- A car I want:
- My heartthrob:

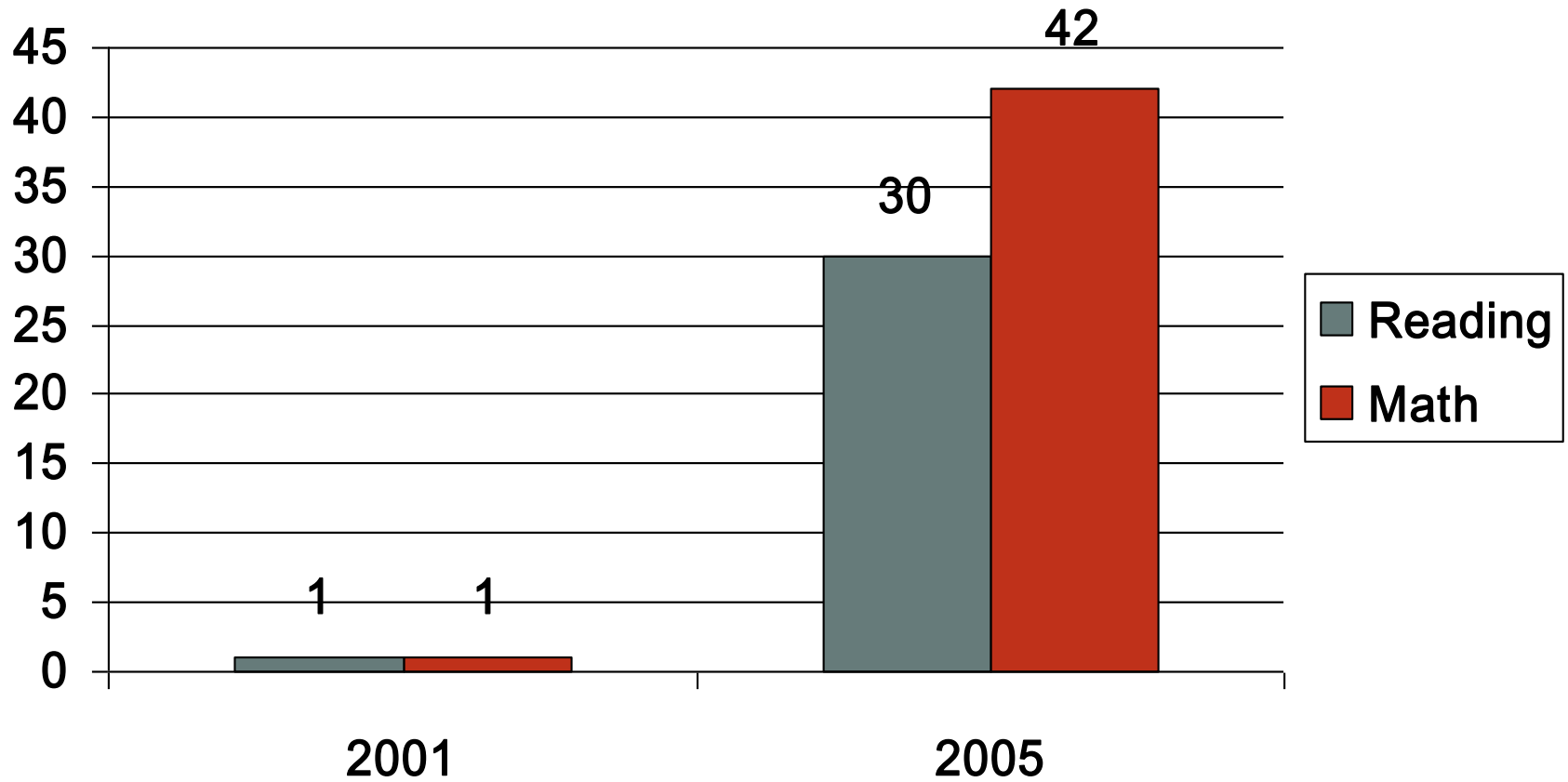
# High Performing Schools and Districts

- Have clear and specific goals for what students should learn in every grade, including the order in which they should learn it
- Provide teachers with common curriculum, assignments
- Have regular vehicle to assure common marking standards
- Assess students every 4-8 weeks to measure progress
- Act immediately on the results of those assessments

#3. They set their goals  
high.

Elementary Version...

# M. Hall Stanton Elementary: Percent of 5<sup>th</sup> Graders ADVANCED



High School Version...



Even when they start with high drop out rates, high impact high schools focus on preparing all kids for college and careers

Education Trust 2005 study, "Gaining Traction, Gaining Ground."

#4. Higher performing secondary schools put all kids—not just some—in a demanding high school core curriculum.

And those demanding courses are not just demanding in name only.

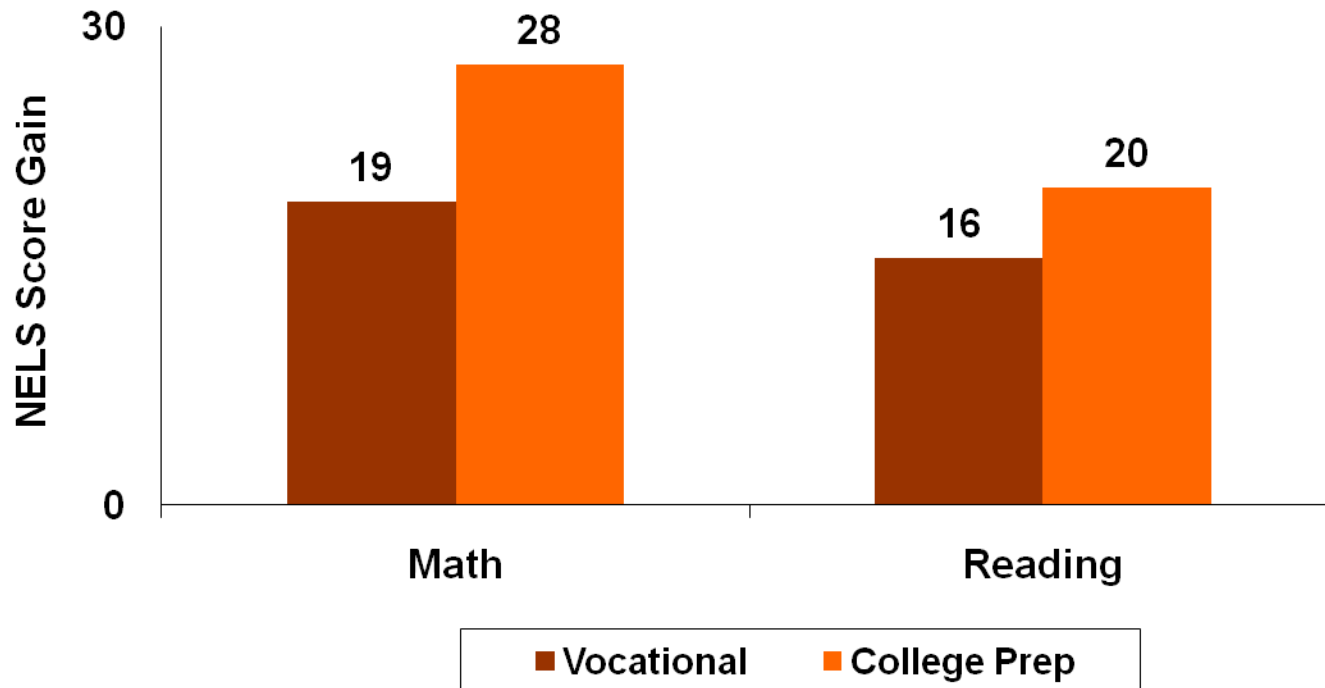
The single biggest predictor post-high school success is the **QUALITY AND INTENSITY** OF THE HIGH SCHOOL CURRICULUM

Cliff Adelman, *The Toolbox Revisited*, U.S. Department of Education

College prep curriculum has  
benefits far beyond college.

Students of all sorts will learn  
more...

# Low Quartile Students Gain More From College Prep Courses\*



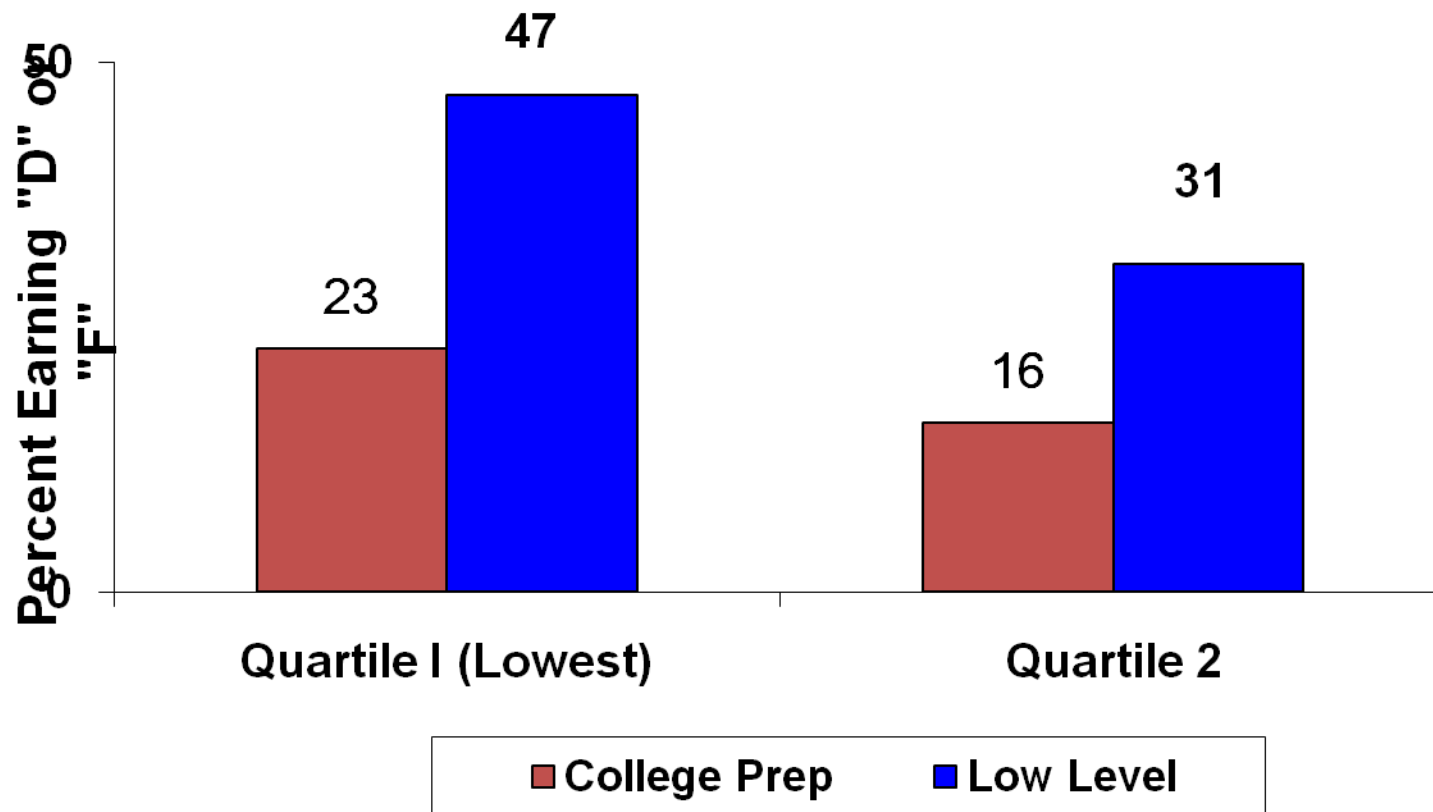
**\*Grade 8-grade 12 test score gains based on 8th grade achievement.**

**Source:** USDOE, NCES, *Vocational Education in the United States: Toward the Year 2000, in Issue Brief: Students Who Prepare for College and Vocation*

They will also fail less often...

# Challenging Curriculum Results in Lower Failure Rates, Even for Lowest Achievers

**Ninth-grade English performance, by high/low level course, and eighth-grade reading achievement quartiles**



**Source:** SREB, "Middle Grades to High School: Mending a Weak Link". Unpublished Draft, 2002.



And they'll be better prepared  
for the workplace.

Leading states and districts  
are making college prep  
the default curriculum.

Texas, Indiana, Arkansas,  
Michigan, Oklahoma,  
South Dakota, New York

#5. Principals are hugely important, ever present, but **NOT** the only leaders in the school

# Elmont Memorial Junior-Senior High

## Elmont, New York

- 1,945 students in grades 7-12
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- 27% Low-Income



# In high performing schools...

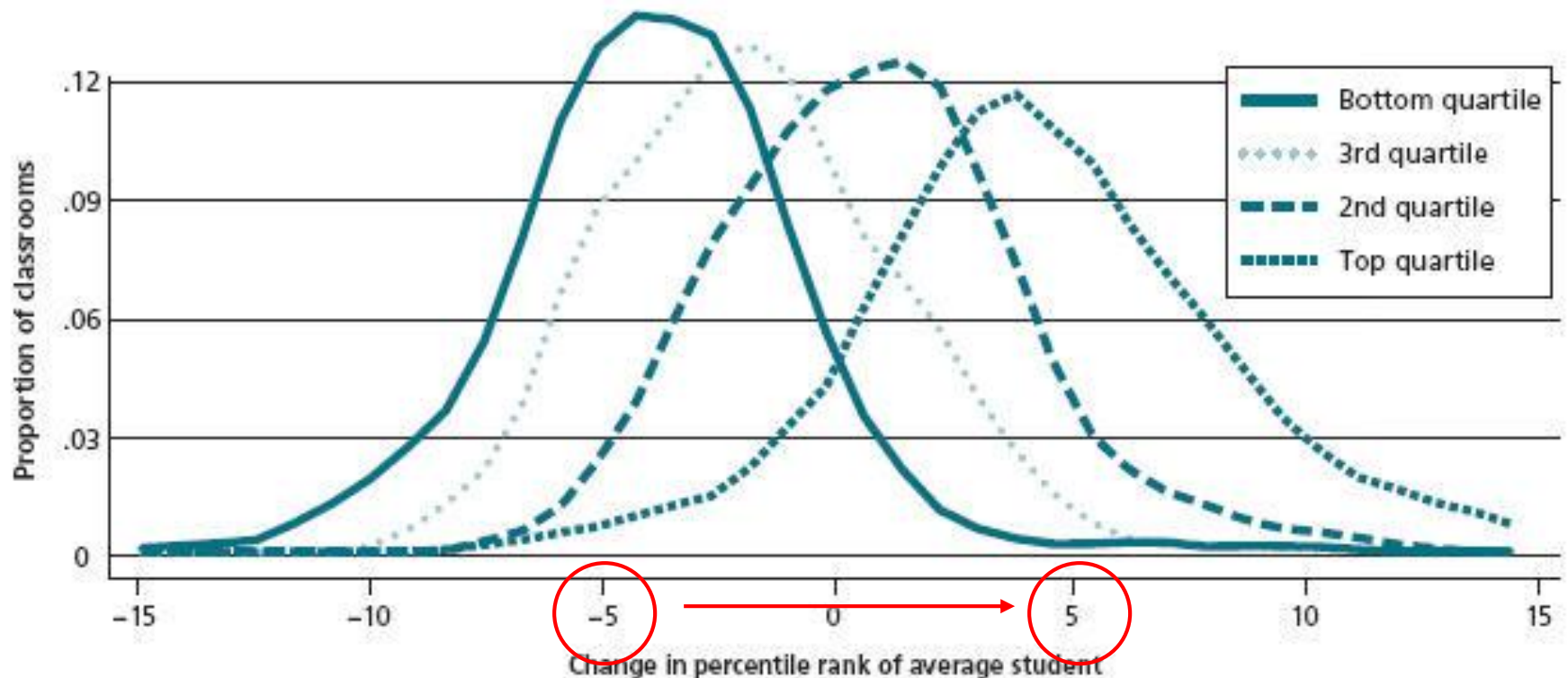
- Teachers regularly observe other teachers
- Teachers have time to plan and work collaboratively
- New teachers get generous and careful support and acculturation
- Teachers take on many other leadership tasks at the school

#7. Good schools know how much **teachers matter**, and they **act** on that knowledge.



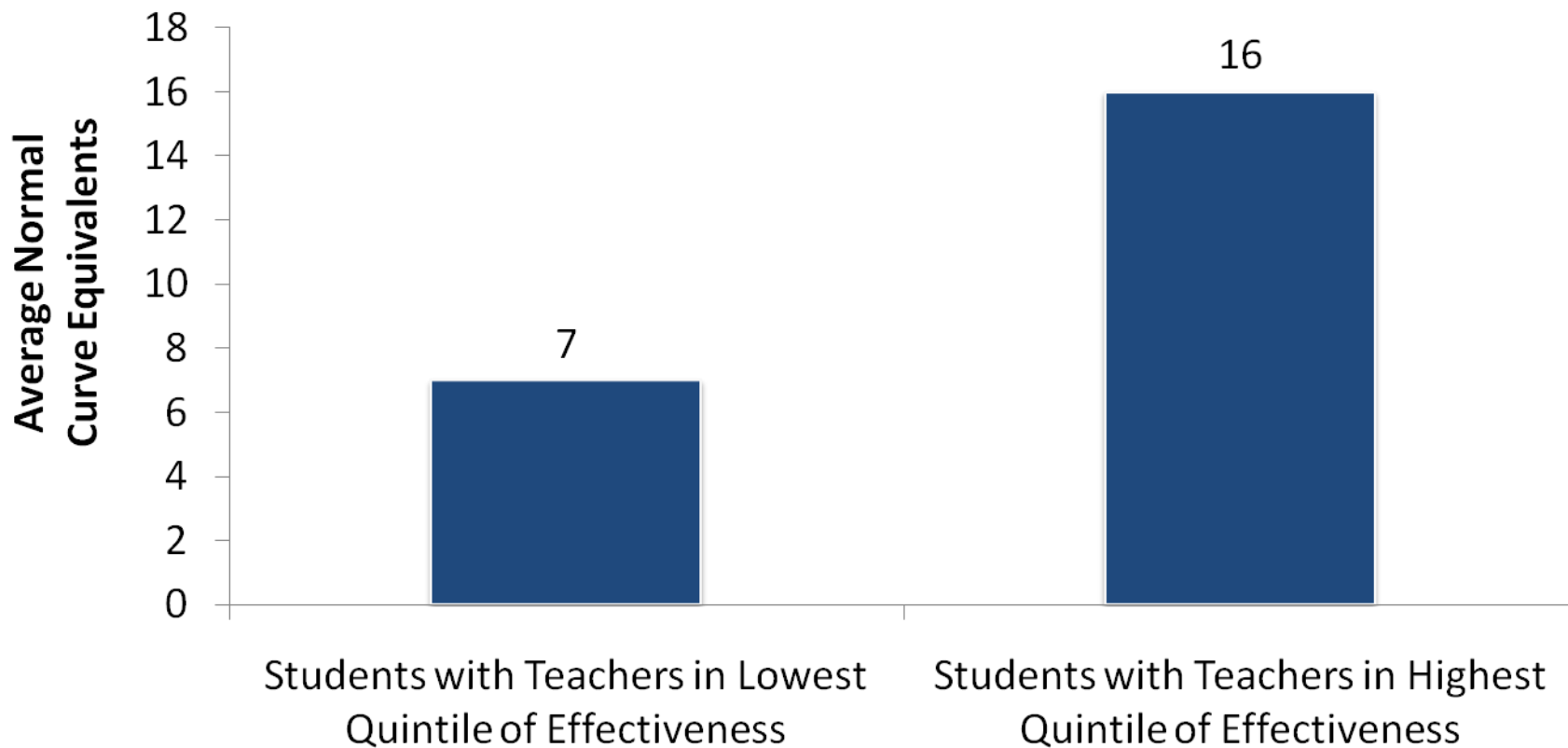
# 10 Percentile Point Average Difference for Students who have Top and Bottom Quartile Teachers

Figure 2. Teacher Impacts on Math Performance in Third Year By Ranking after First Two Years



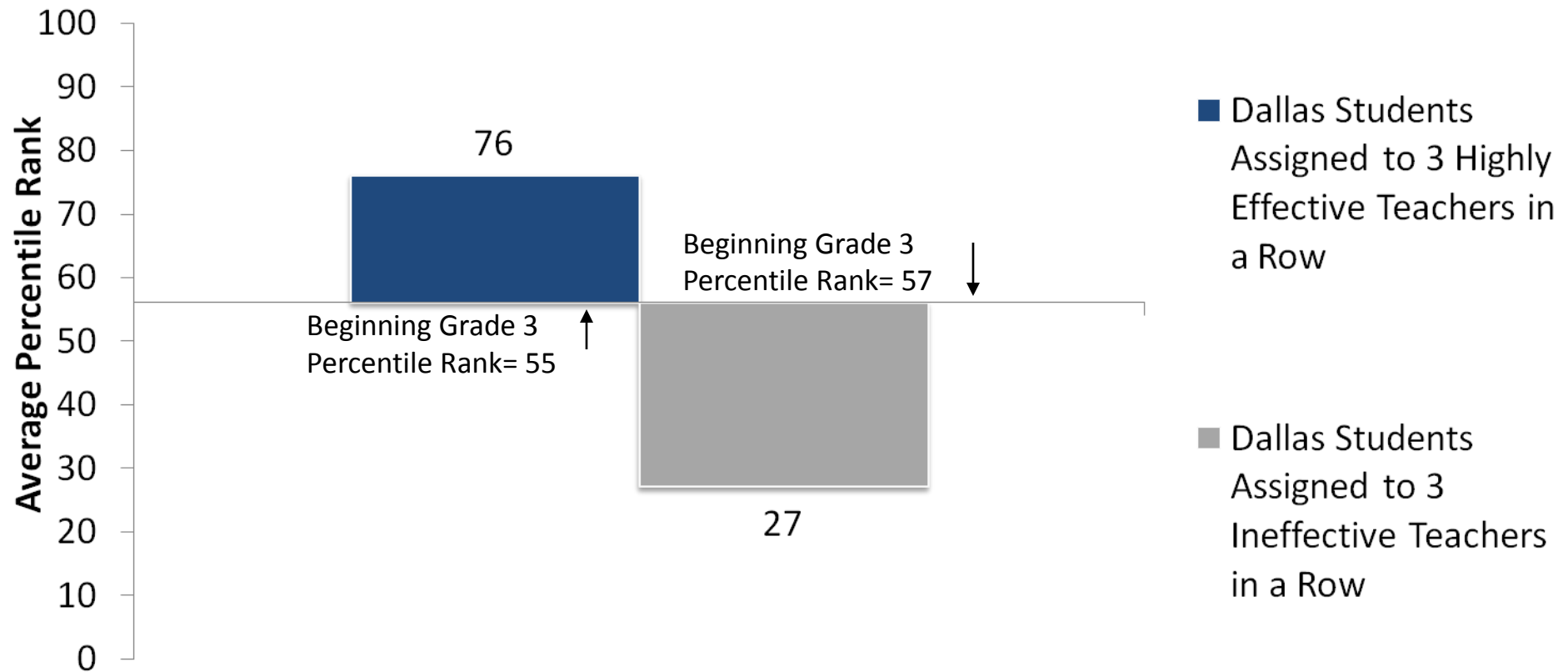
Note: Classroom-level Impacts on average student performance, controlling for baseline scores, student demographics, and program participation. LAUSD elementary teachers, < 4 years' experience.

# Students in Dallas Gain More in Math with Effective Teachers: One Year Growth From 3<sup>rd</sup>-4<sup>th</sup> Grade





# Cumulative Teacher Effects On Students' Math Scores in Dallas (Grades 3-5)



So, there are VERY BIG  
differences among our teachers.

**BUT**

**We pretend that there aren't...**



In districts that use a two-rating teacher performance evaluation system—most commonly “satisfactory” or “unsatisfactory”—the “unsatisfactory” rating is rarely used.

Site	S Number of Satisfactory Evaluation Ratings SY03-04 - SY07-08 <sup>1</sup>	U Number of Unsatisfactory Evaluation Ratings SY03-04 - SY07-08 <sup>2</sup>
Denver <sup>3</sup>	2,676	22 (0.8%)
Jonesboro <sup>4</sup>	246	0 (0%)
Pueblo <sup>5</sup>	1,284	2 (0.2%)
Toledo <sup>6</sup>	1,768	3 (0.2%)

All data for tenured/non-probationary teachers.

<sup>1</sup> Source: District extant data supplied between April 2008 and March 2009

<sup>2</sup> Source: District extant data supplied between April 2008 and March 2009

<sup>3</sup> Number evaluation ratings assigned between SY 2003-04 to SY 2007-08

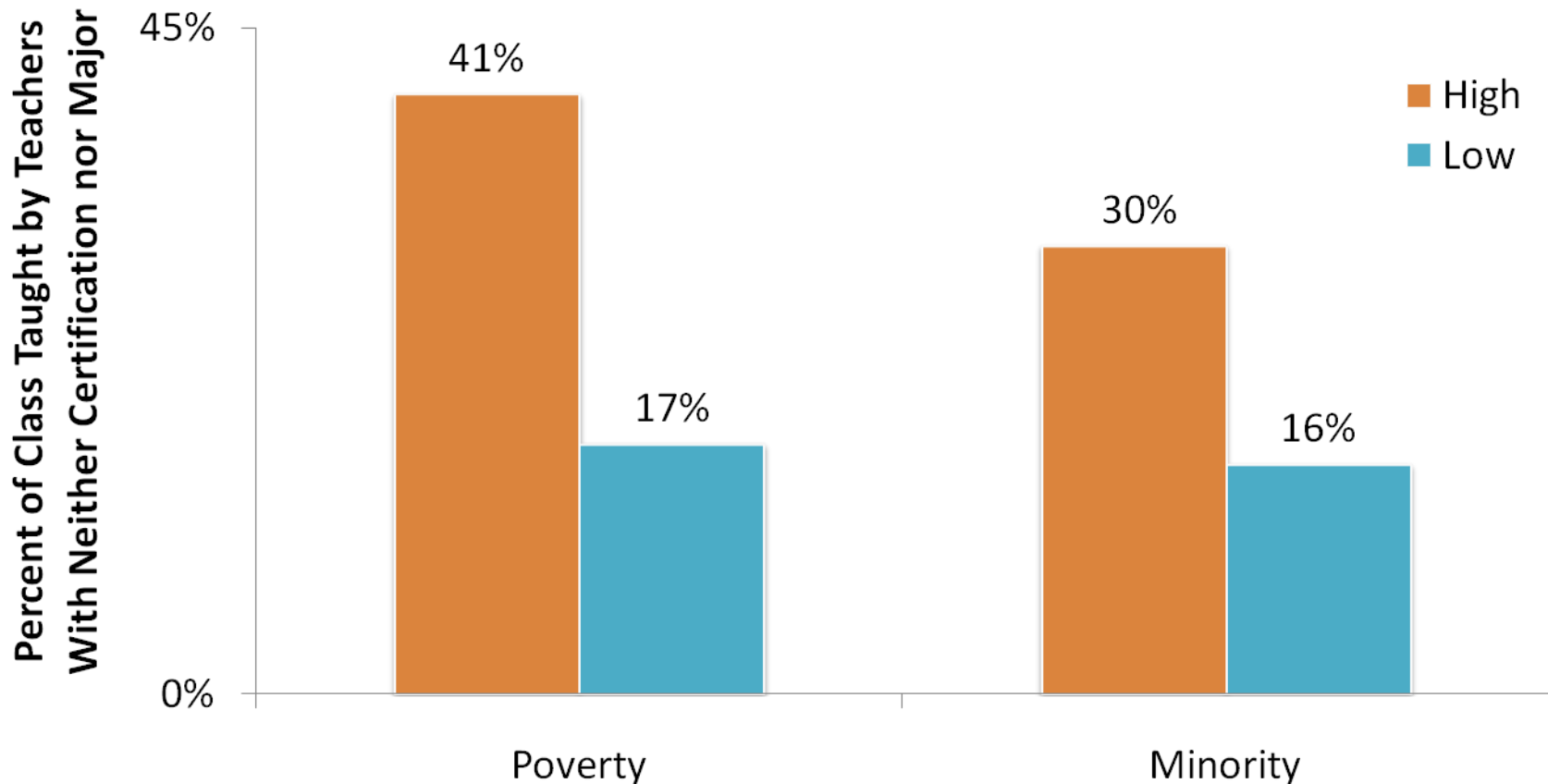
<sup>4</sup> Number of evaluation ratings assigned between SY 2003-04 to SY 2005-06

<sup>5</sup> Number of evaluation ratings assigned between SY 2005-06 to SY 2007-08

<sup>6</sup> Number of evaluation ratings assigned between SY 2005-06 to SY 2007-08

...and we often assign our weakest  
to the kids who need the strongest.

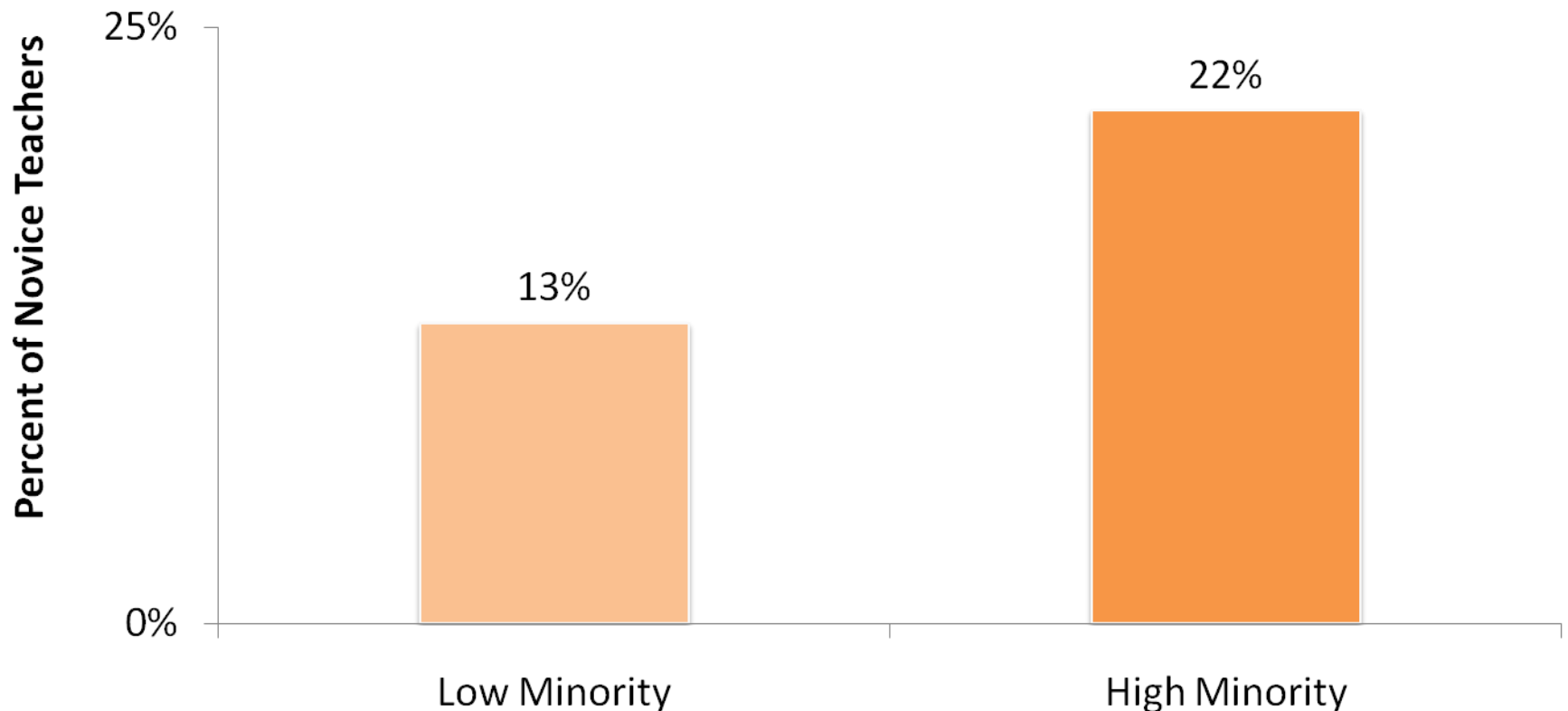
# Math Classes at High-Poverty and High-Minority Schools More Likely to be Taught by Out of Field\* Teachers



Note: High Poverty school-75% or more of the students are eligible for free/reduced price lunch. Low-poverty school -15% or fewer of the students are eligible for free/reduced price lunch. High minority school-75% or more of the students are Black, Hispanic, American Indian or Alaskan Native, Asian or Pacific Islander. Low-minority school -10% or fewer of the students are non-White students.

\*Teachers with neither certification nor major. Data for secondary-level core academic classes (Math, Science, Social Studies, English) across USA. Source: Analysis of 2003-2004 Schools and Staffing Survey data by Richard Ingersoll, University of Pennsylvania 2007. © 2010 THE EDUCATION TRUST

# Students at High-Minority Schools More Likely to Be Taught By Novice\* Teachers

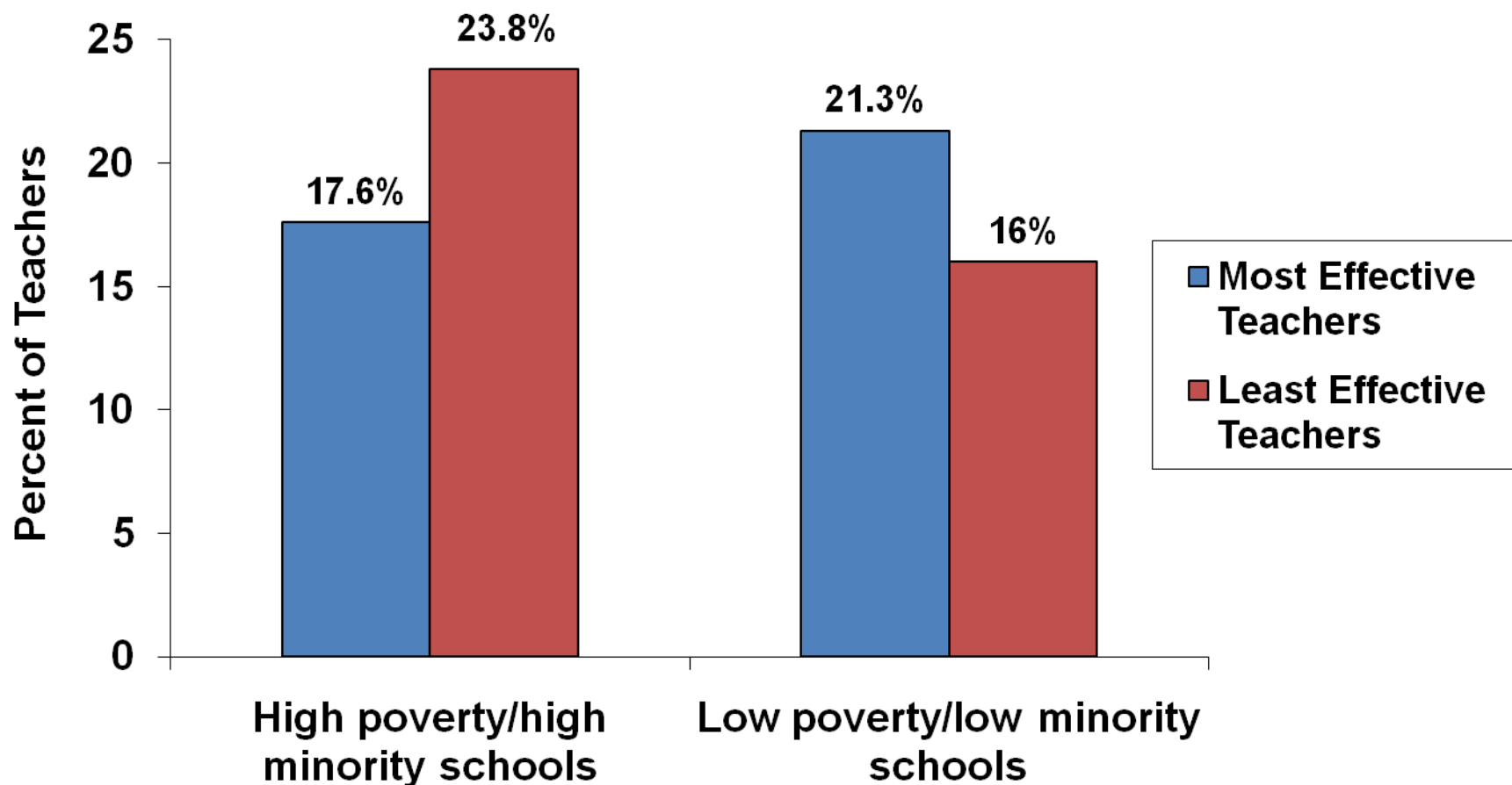


Note: High minority school-75% or more of the students are Black, Hispanic, American Indian or Alaskan Native, Asian or Pacific Islander. Low-minority school -10% or fewer of the students are non-White students.

\*Novice teachers are those with three years or fewer experience.

Source: Analysis of 2003-2004 Schools and Staffing Survey data by Richard Ingersoll, University of Pennsylvania 2007 © 2010 THE EDUCATION TRUST

# Tennessee: High poverty/high minority schools have fewer of the “most effective” teachers and more “least effective” teachers



**Note:** High Poverty/High minority means at least 75% qualify for FRPL and at least 75% are minority.

**Source:** Tennessee Department of Education 2007. "Tennessee's Most Effective Teachers: Are they assigned to the schools that need them most?" [http://tennessee.gov/education/nclb/doc/TeacherEffectiveness2007\\_03.pdf](http://tennessee.gov/education/nclb/doc/TeacherEffectiveness2007_03.pdf)



# High performing schools and districts...

- Work hard to attract and hold good teachers
- Make sure that their best are assigned to the students who most need them
- Help new teachers grow ever more effective

And, both administrators and teachers care so much about quality teaching that they collectively chase out teachers who are not “good enough” for their kids.

# In the end...

None of this is magic, it is just  
mostly common sense.

The children in these pictures are some of the lucky ones. Though they are poor...they live on the high end of the gap because they attend schools that enable their students to soar.















But most of the children who look like them aren't so lucky. They live on the bottom side of the gap.

Not because they couldn't learn...but because we didn't bother to teach them.

The most important agenda for  
all of us?

Turning that around.

# Download These Slides

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**November, 2010, in Washington, DC**

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