

## THE EDUCATION TRUST Achievement and Opportunity in America

Prince William County Board of Education November, 2014

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#### America: Two Powerful Stories

## 1. Land of Opportunity:

Work hard, and you can become anything you want to be.

## 2. <u>Generational Advancement:</u>

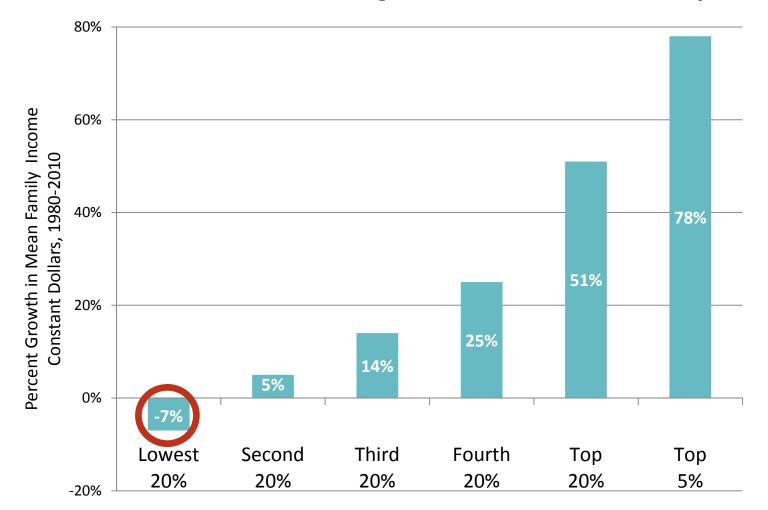
Through hard work, each generation of parents can assure a better life — and better education — for their children.

## Powerful narratives.

Fast slipping away.

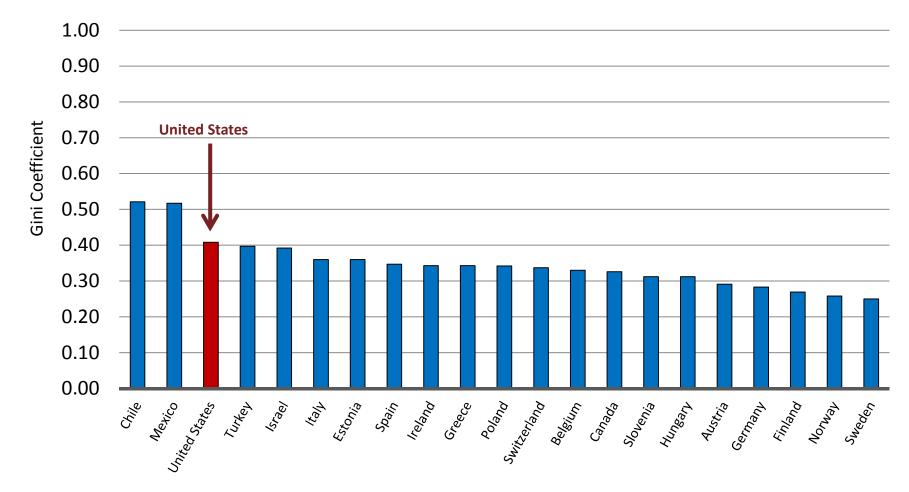
# Within the U.S., income inequality has been rising.

Earnings among the lowest income families have declined, even amid big increases at the top.



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

# Instead of being the most equal, the U.S. has the third highest income inequality among OECD nations.



Note: Gini coefficient ranges from 0 to 1, where 0 indicates total income equality and 1 indicates total income inequality. Source: United Nations, U.N. data, <u>http://data.un.org/DocumentData.aspx?q=gini&id=271</u>: 2011

#### Median Wealth of White Families

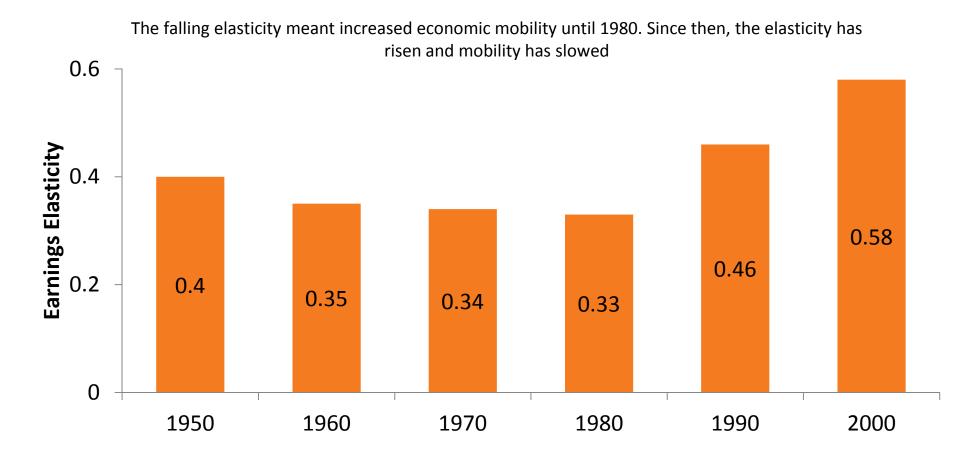
# $20\ X$ that of African Americans

# $18 X_{\rm that \ of \ Latinos}$

Source: Rakesh Kochhar, Richard Fry, and Paul Taylor, "Twenty-to-One: Wealth Gaps Rise to Record Highs Between Whites, Blacks, and Hispanics," Pew Social & Demographic Trends, 2011.

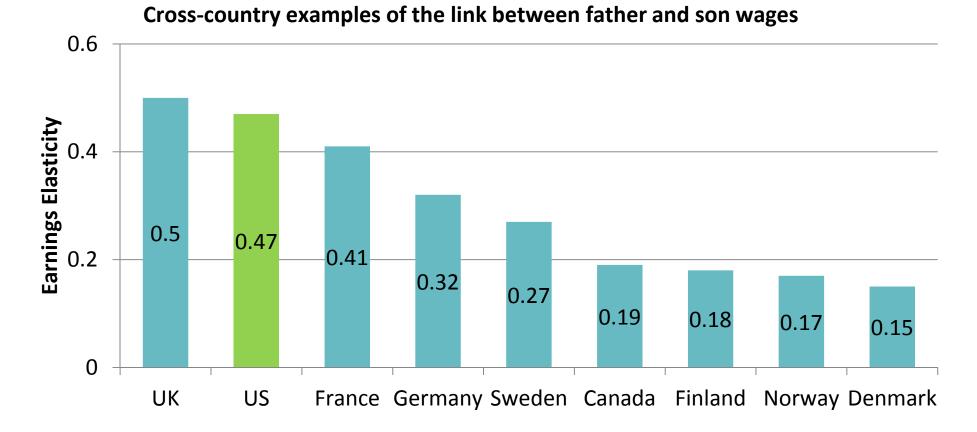
# Not just wages and wealth, but economic mobility as well.

#### US intergenerational mobility was getting better until 1980, but gotten much worse since



Aaronson and Mazumder. *Intergenerational Economic Mobility in the U.S.*. 1940-2000. Federal Reserve Bank of Chicago WP 2005-12: Dec. 2005.

#### Now, instead of being the "land of opportunity," the US has one of lowest rates of intergenerational mobility



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

At macro level, better and more equal education is not the only thing we have to do to improve opportunity and mobility in America.

But at the individual level, it really is.

## What schools and colleges do, in other words, is hugely important to our **economy**, our **democracy**, and our **society**.

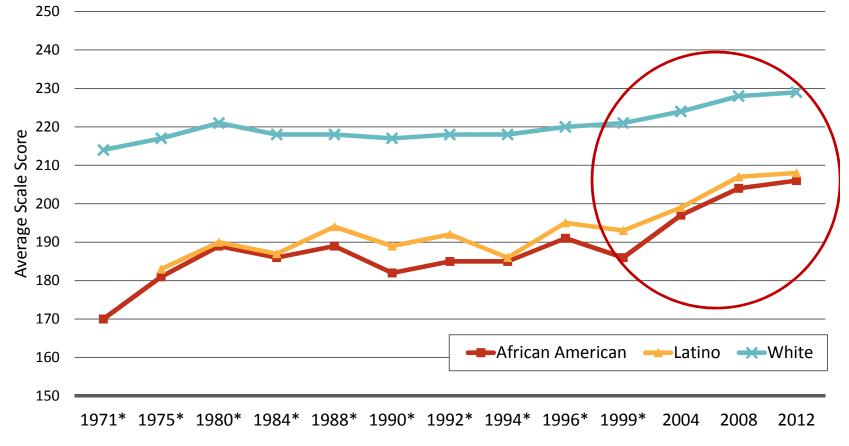
#### So, how are we doing?



## First, some good news.

After more than a decade of fairly flat achievement and stagnant or growing gaps in K-12, we appear to be turning the corner with our elementary students. Since 1999, large gains for all groups of students, especially students of color

9 Year Olds – NAEP Reading

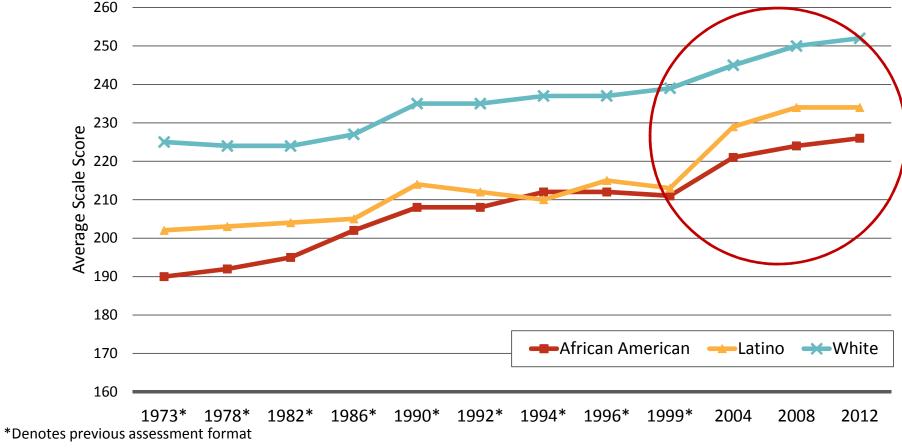


\*Denotes previous assessment format

Source: National Center for Education Statistics, "The Nation's Report Card: Trends in Academic Progress 2012"

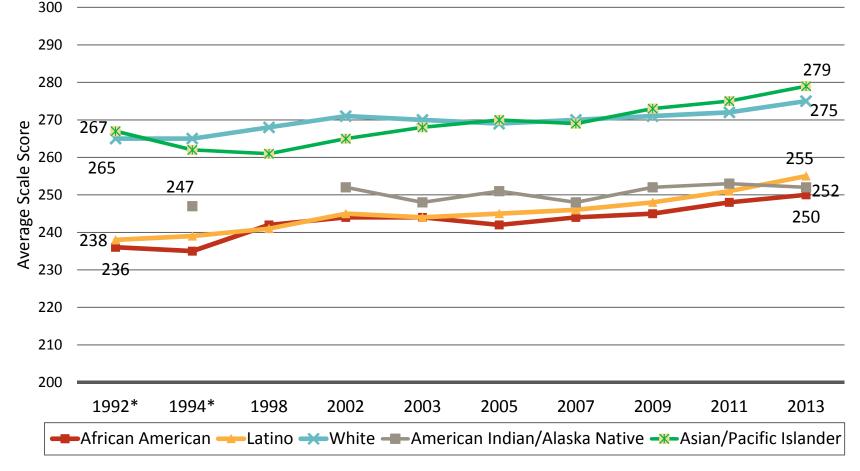
# Since 1999, performance rising for all groups of students

9 Year Olds – NAEP Math



Source: National Center for Education Statistics, "The Nation's Report Card: Trends in Academic Progress 2012"

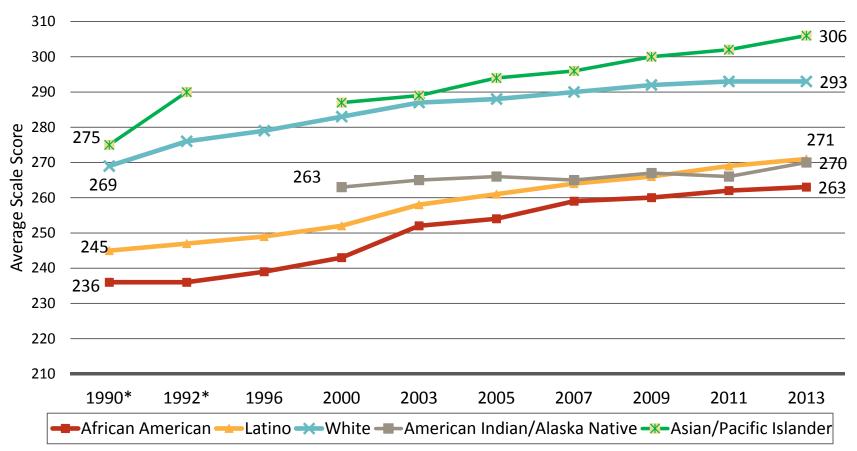
#### Reading: Modest improvement and some gap closing over the last decade National Public – Grade 8 NAEP Reading



\*Accommodations not permitted

Source: NAEP Data Explorer, NCES (Proficient Scale Score = 281)

#### Math: More improvement and gap narrowing.



#### National Public – Grade 8 NAEP Math

\*Accommodations not permitted

Source: NAEP Data Explorer, NCES (Proficient Scale Score = 299)



#### Bottom Line:

# When we really focus on something, we make progress!

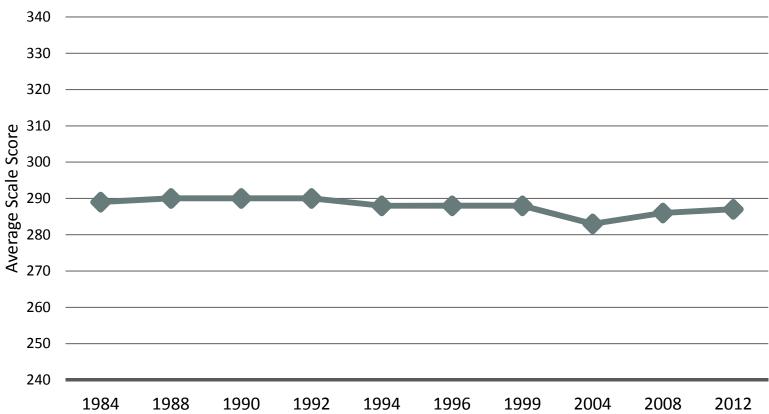
# Clearly, much more remains to be done in elementary and middle school

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 is flat in reading for students overall.



17-Year-Olds Overall - NAEP

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

# Math achievement for students overall is flat over time.

1973\* 1978\* 1982\* 1986\* 1990\* 1992\* 1994\* 1996\* 1999\* 2004 2008 2012

17-Year-Olds Overall - NAEP

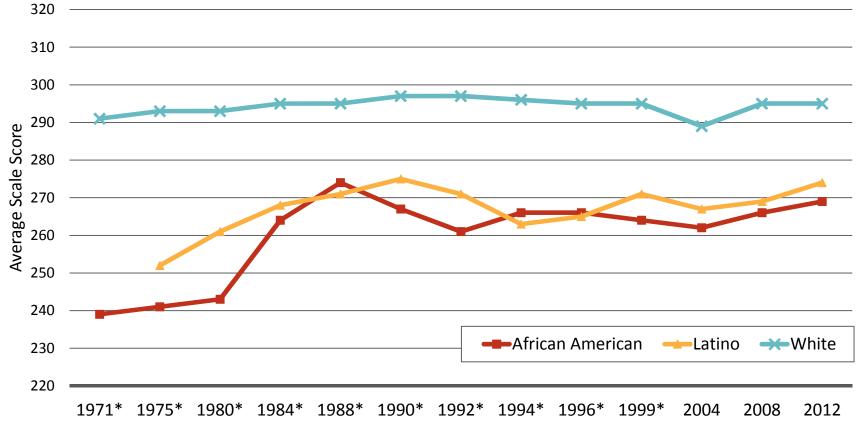
\* Denotes previous assessment format

Source: National Center for Education Statistics, NAEP 2008 Trends in Academic Progress

### And despite earlier improvements, gaps between groups haven't narrowed much since the late 80s and early 90s.

# Reading: Not much gap narrowing since 1988.

**17 Year Olds – NAEP Reading** 

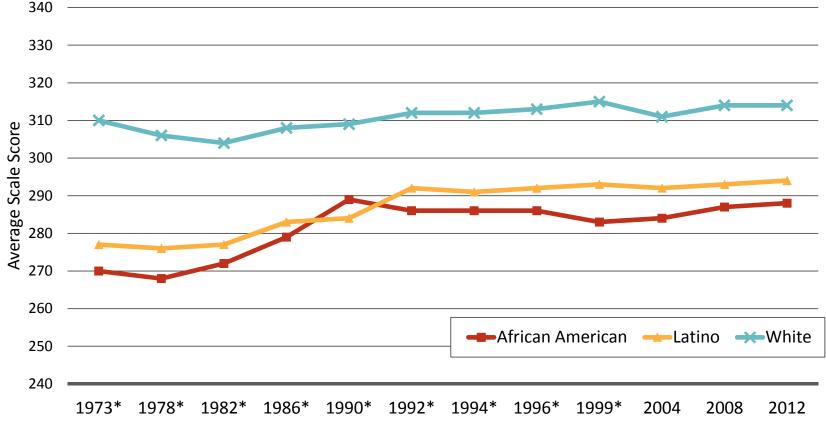


\*Denotes previous assessment format

Source: National Center for Education Statistics, "The Nation's Report Card: Trends in Academic Progress 2012"

#### Math: Not much gap closing since 1990.

17 Year Olds – NAEP Math



\*Denotes previous assessment format

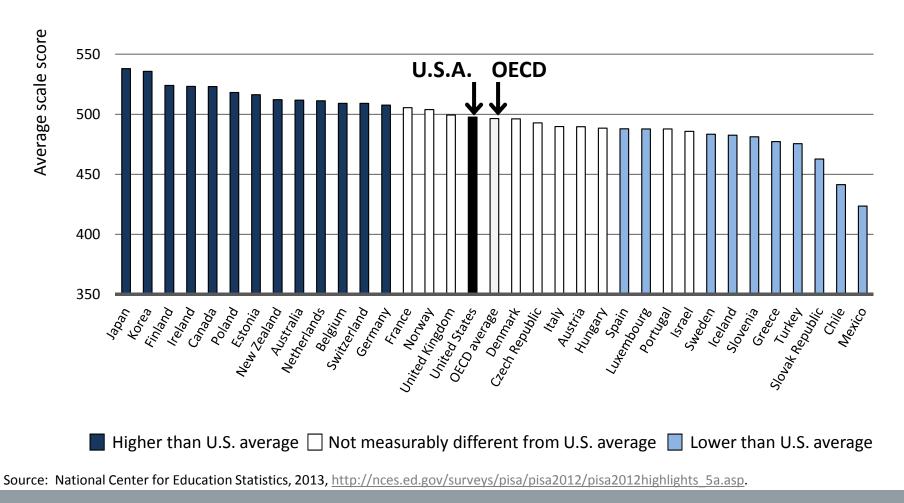
Source: National Center for Education Statistics, "The Nation's Report Card: Trends in Academic Progress 2012"

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

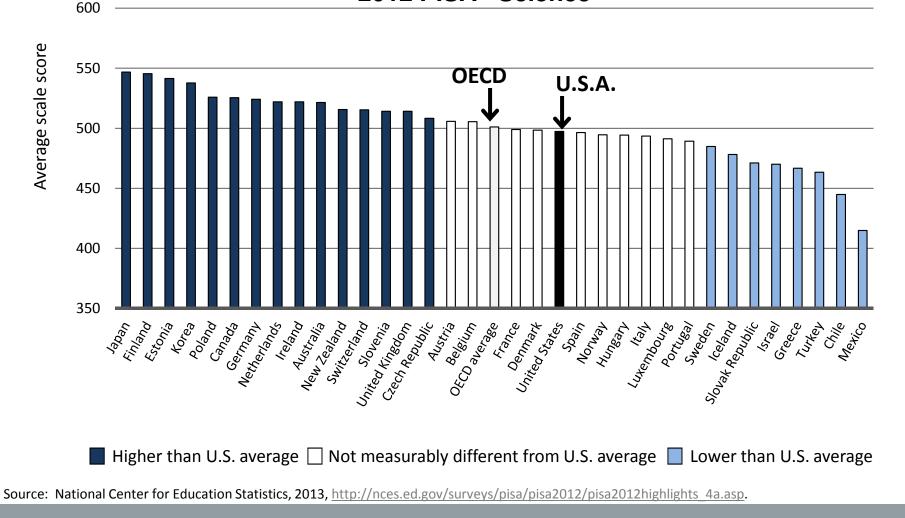
#### Of 34 OECD Countries, U.S.A. Ranks 17<sup>th</sup> in Reading

2012 PISA - Reading

600



#### Of 34 OECD Countries, U.S.A. Ranks 20<sup>th</sup> in Science 2012 PISA - Science



#### Of 34 OECD Countries, U.S.A. Ranks 27<sup>th</sup> in Math Literacy

2012 PISA - Math

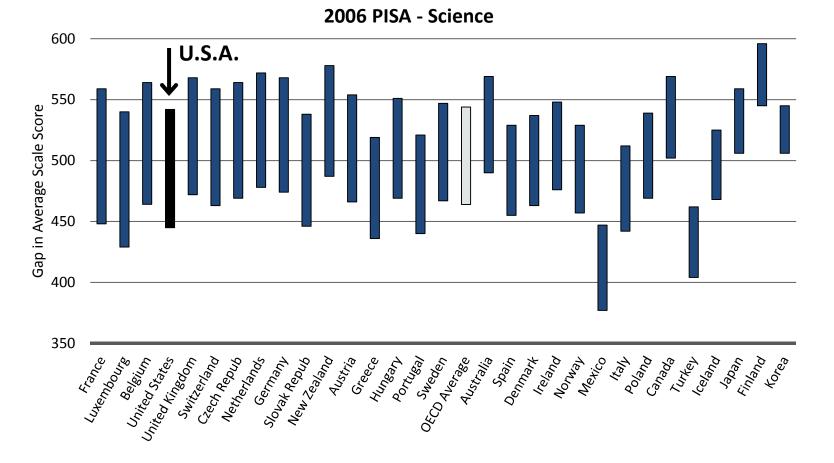
550 OECD U.S.A. Average Scale Score 500 450 400 350 Solvak Soain United Static 300 OFCD average Luxenbourg Austria Austria Estonia V Finland Poland Belling Clech Republic New Zealand Switzerland Netherlands Dennark Canada Germany Ireland Slovenia Norway Portu. Sueden Neguny Greece ueder Turker Metico tores Israel Chile 📕 Higher than U.S. average 🗌 Not measurably different from U.S. average 📘 Lower than U.S. average

Source: National Center for Education Statistics, 2013, http://nces.ed.gov/surveys/pisa/pisa2012/pisa2012highlights\_3a.asp.

#### Only place we rank high?

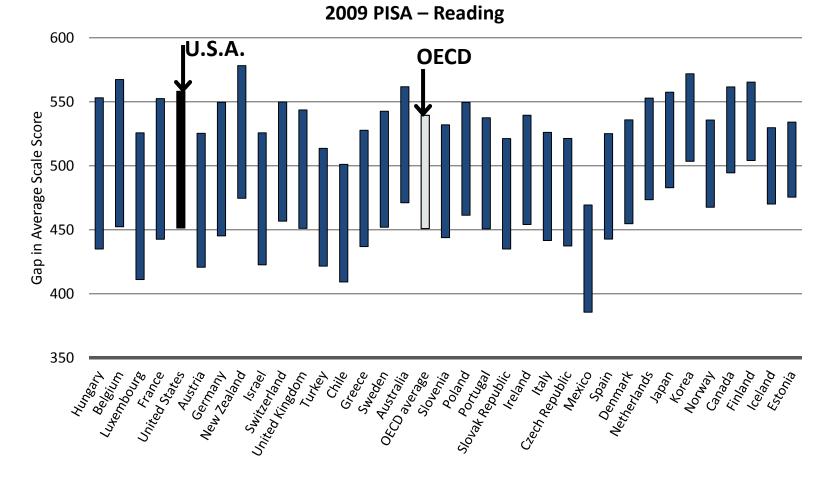
## Inequality.

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



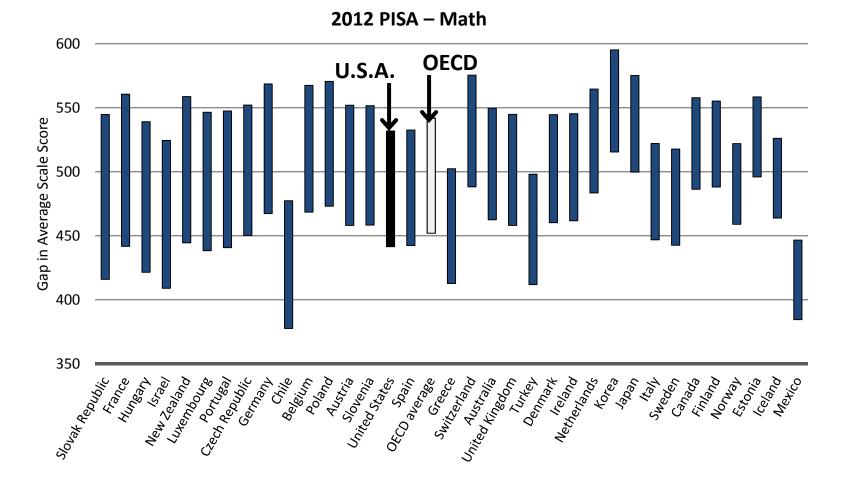
Source: PISA 2006 Results, OECD, table 4.8b

#### Among OECD Countries, U.S.A. has the 5<sup>th</sup> Largest Gap Between High-SES and Low-SES Students



Source: PISA 2009 Results, OECD, Table II.3.1

The U.S. Gap Between High-SES and Low-SES Students is Equivalent to Over Two Years of Schooling



Source: PISA 2012 Results, OECD, Annex B1, Chapter 2, Table II.2.4a

## Gaps in achievement 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 "lesses" are a result of choices that policymakers make.

Funding Gaps *Within States:* National inequities in state and local revenue per student

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

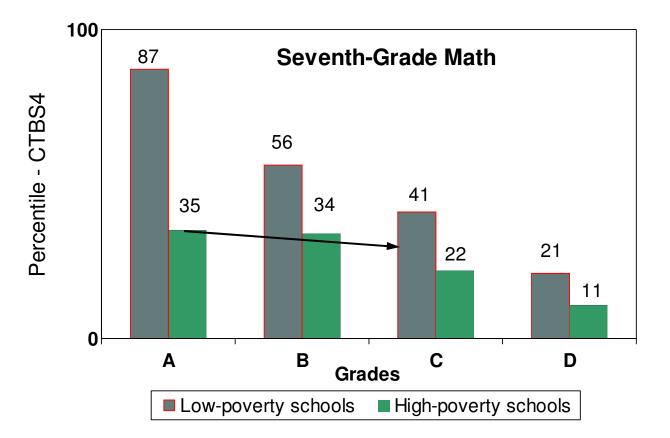
Source: Education Trust analyses of U.S. Department of Education and U.S. Census Bureau data for the 2005-06 school year.

In truth, though, some of the most devastating "lesses" are a function of choices that educators and school board members make.

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



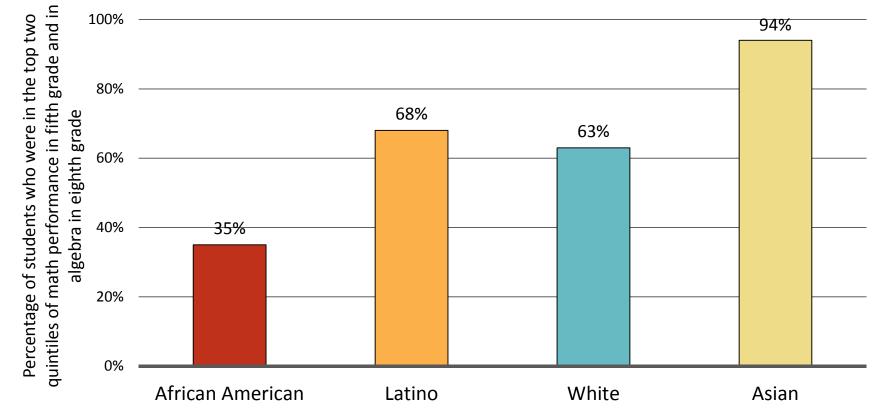
## Students in poor schools receive As for work that would earn Cs in affluent schools.



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

# Choices we make about what to teach whom...

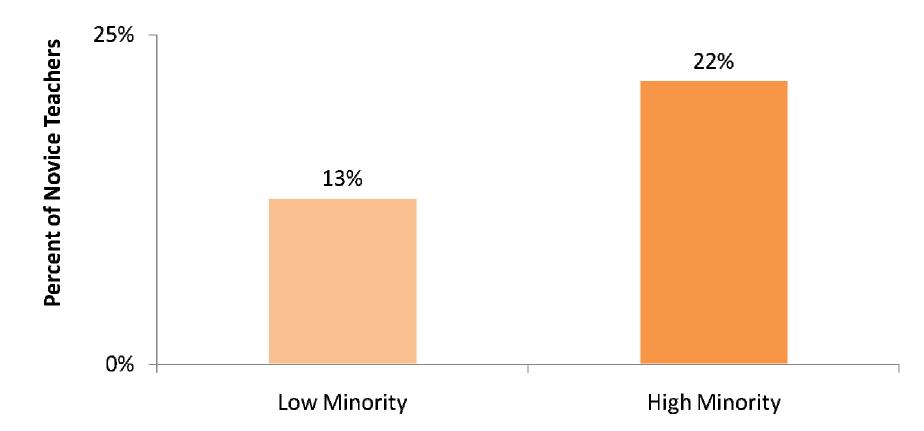
#### Even African-American students with *high math performance* in fifth grade are unlikely to be placed in algebra in eighth grade



Source: NCES, "Eighth-Grade Algebra: Findings from the Eighth-Grade Round of the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 (ECLS-K)" (2010).

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

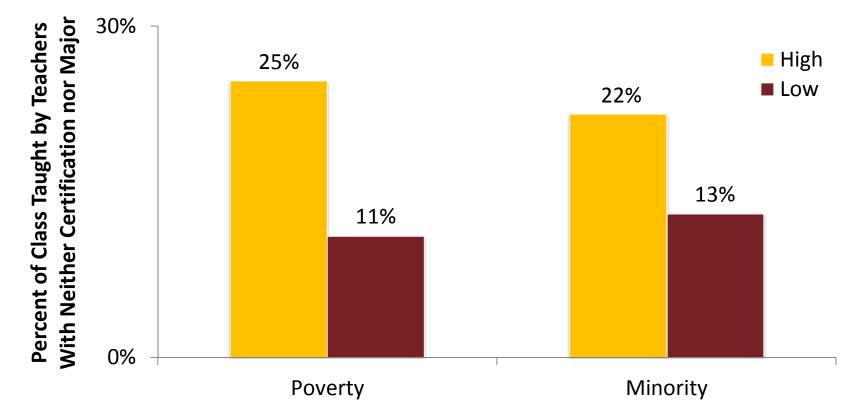
Students at high-minority schools more likely to be taught by novice\* teachers.



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.

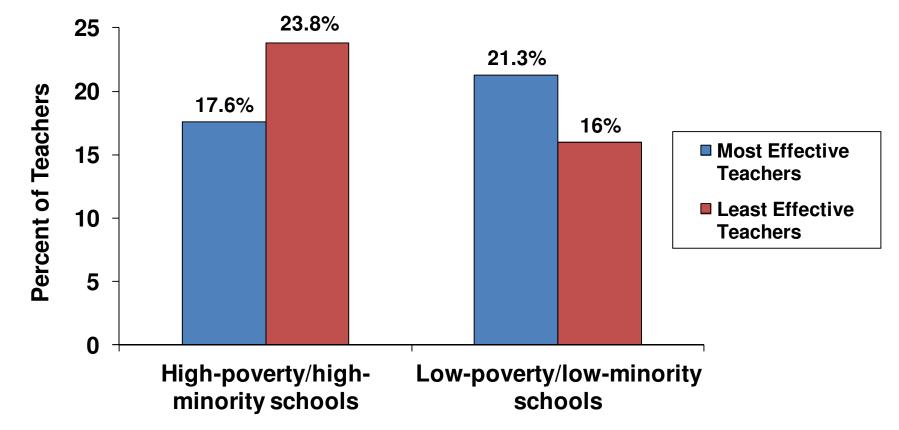
#### Math classes at high-poverty, high-minority secondary schools are more likely to be taught by out-of-field\* teachers.



Note: High-poverty school: 55 percent or more of the students are eligible for free/reduced-price lunch. Low-poverty school :15 percent or fewer of the students are eligible for free/reduced-price lunch. High-minority school: 78 percent or more of the students are black, Hispanic, American Indian or Alaskan Native, Asian or Pacific Islander. Low-minority school : 12 percent 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 the U.S. Source: Education Trust Analysis of 2007-08 Schools and Staffing Survey data.

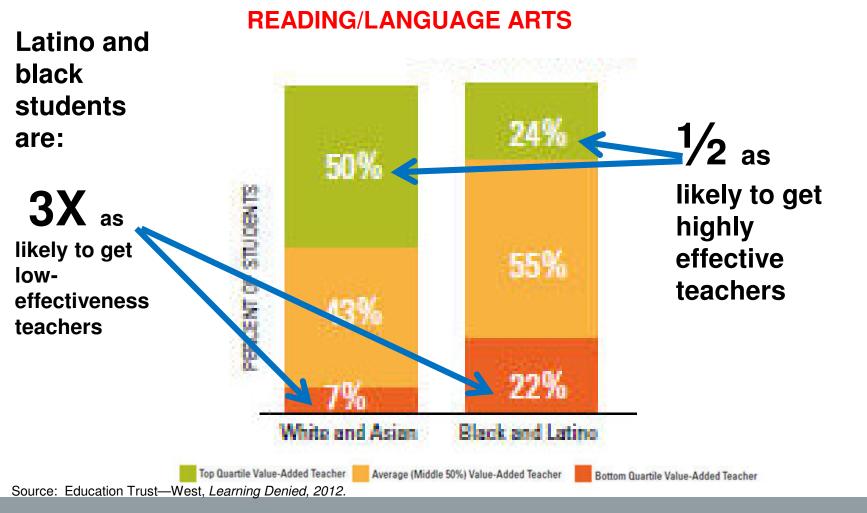
Tennessee: High-poverty/high-minority schools have fewer of the "most effective" teachers and more "least effective" teachers.



Note: High poverty/high minority means at least 75 percent of students qualify for FRPL and at least 75 percent 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.

Los Angeles: Black, Latino students have fewer highly effective teachers, more weak ones.



### The 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 Educators 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 lowincome students and students of color performing so much higher in some schools...

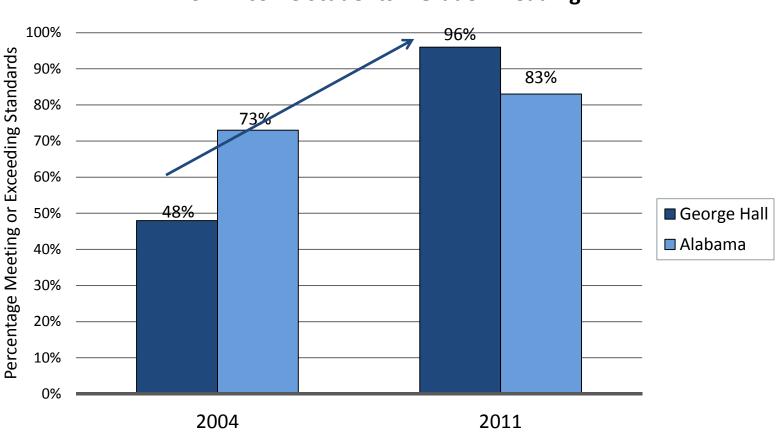
#### George Hall Elementary School Mobile, Alabama

- 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

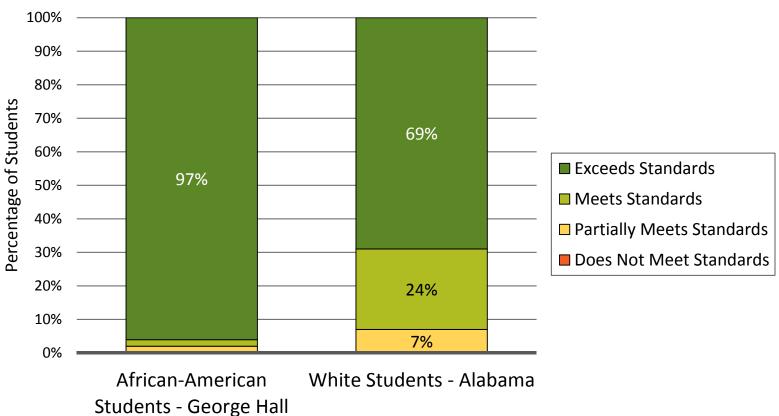
#### Big Improvement at George Hall Elementary



Low-Income Students – Grade 4 Reading

Source: Alabama Department of Education

## Exceeding Standards: George Hall students outperform white students in Alabama



Grade 5 Math (2011)

Source: Alabama Department of Education

#### Halle Hewetson Elementary School Las Vegas, NV

- 962 students in grades PK 5
  - 85% Latino
  - 7% African American
- 100% Low Income
- 71% Limited English Proficient



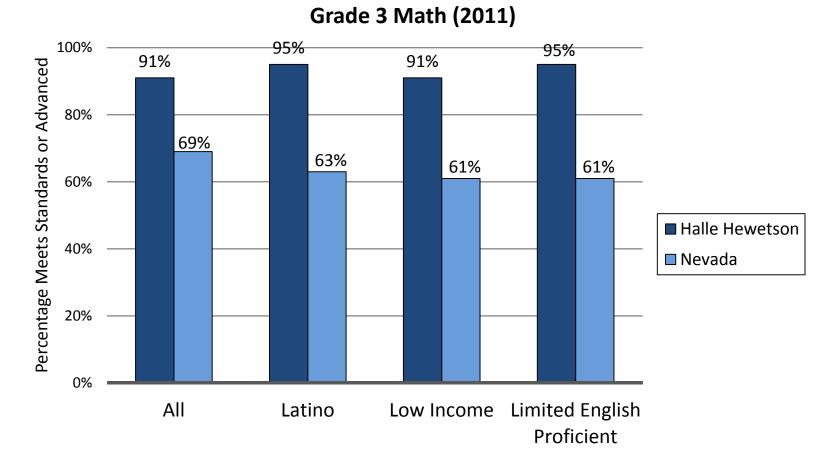
Note: Data are for 2010-2011 school year Source: Nevada Department of Education

#### Big Improvement at Halle Hewetson Elementary

Latino Students – Grade 3 Reading 100% Percentage Meets Standards and Above 78% 80% 60% 50% Hewetson Nevada 40% 26% 20% 7% 0% 2004 2010

Source: Nevada Department of Education

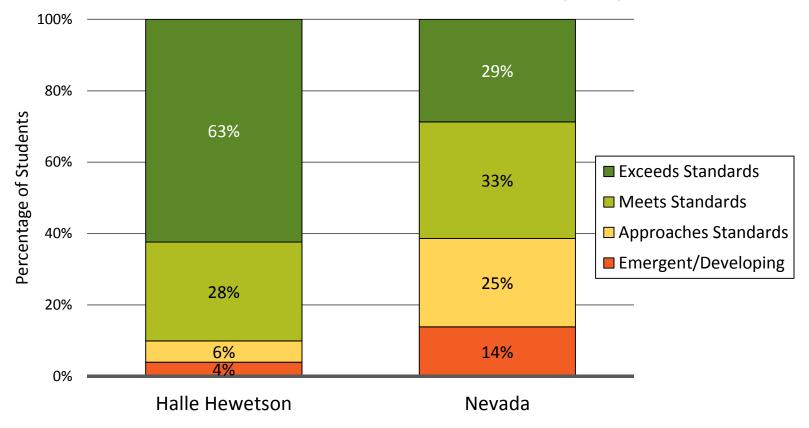
#### High Performance Across Groups at Halle Hewetson Elementary



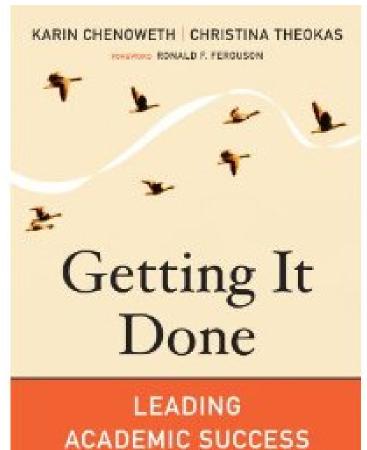
Source: Nevada Department of Education

#### Exceeding Standards at Halle Hewetson Elementary

Low-Income Students – Grade 3 Math (2011)

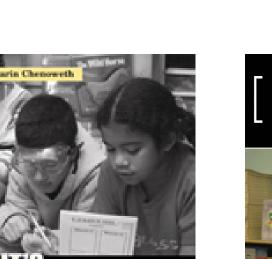


Source: Nevada Department of Education



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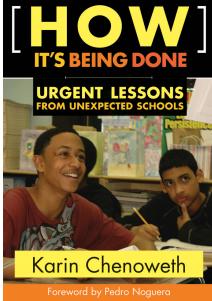
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Very big differences at district level, too—even in the performance of the "same" group of students.

#### Average Scale Scores, by District Low-Income African American Students Grade 4 – NAEP Reading (2013)

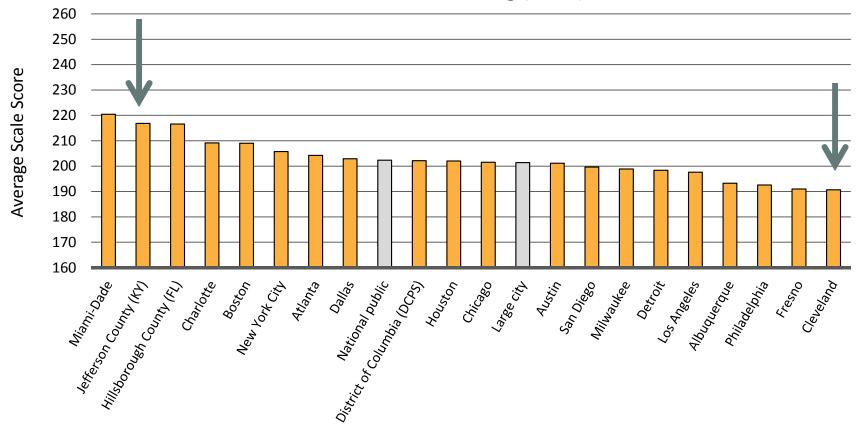
260 250 240 Average Scale Score 230 220 210 200 190 180 170 National Dublic 160 District of Columbia (DCDS) Lefferson Countr (Mr) Hillsborough County (FL) Charlotte New Lort City Wi<sub>ami.Oade</sub> San Diggo Los Angeles Baltimore City large city Philadelphia Milu autee Cleveland Boston Houston Austin Detroit Dallas Fresho

Note: Basic Scale Score = 208; Proficient Scale Score = 238

Source: NAEP Data Explorer, NCES

#### Average Scale Scores, by District Low-Income Latino Students

Grade 4 – NAEP Reading (2013)



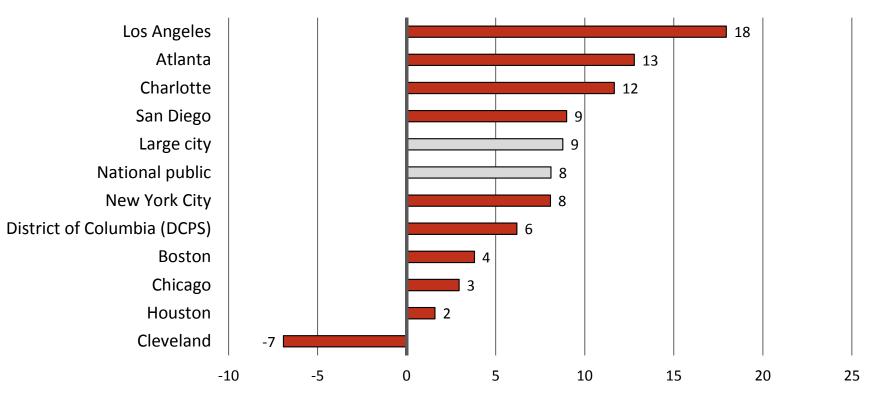
Note: Basic Scale Score = 208; Proficient Scale Score = 238

Source: NAEP Data Explorer, NCES

# Big differences in change over time, too.

#### Change in Average Scale Scores, by District Low-Income African American Students

Grade 4 – NAEP Reading (2003-2013)

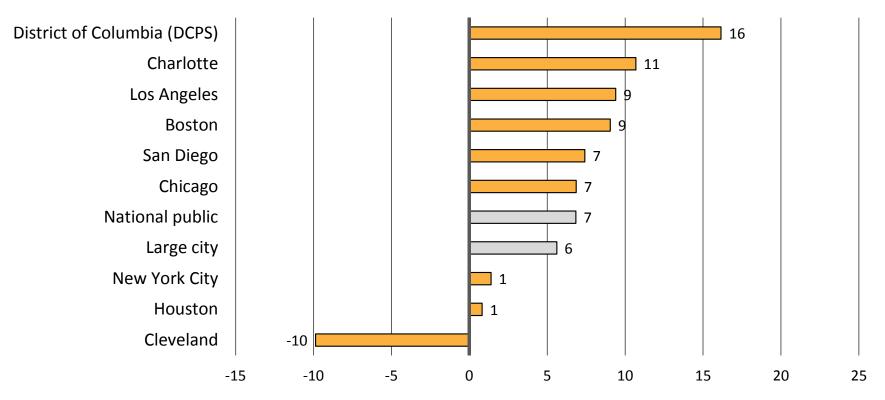


Change in Mean Scale Score, 2003-2013

Note: Chart includes only districts that participated, and had members of this specific subgroup, in both the 2003 and 2013 NAEP TUDA administrations. Source: NCES, NAEP Data Explorer

#### Change in Average Scale Scores, by District Low-Income Latino Students

Grade 4 – NAEP Reading (2003-2013)



Change in Mean Scale Score, 2003-2013

Note: Chart includes only districts that participated, and had members of this specific subgroup, in both the 2003 and 2013 NAEP TUDA administrations. Source: NCES, NAEP Data Explorer

### Bottom Line: At Every Level of Education, What We Do Matters!

### Prince William County Public Schools?

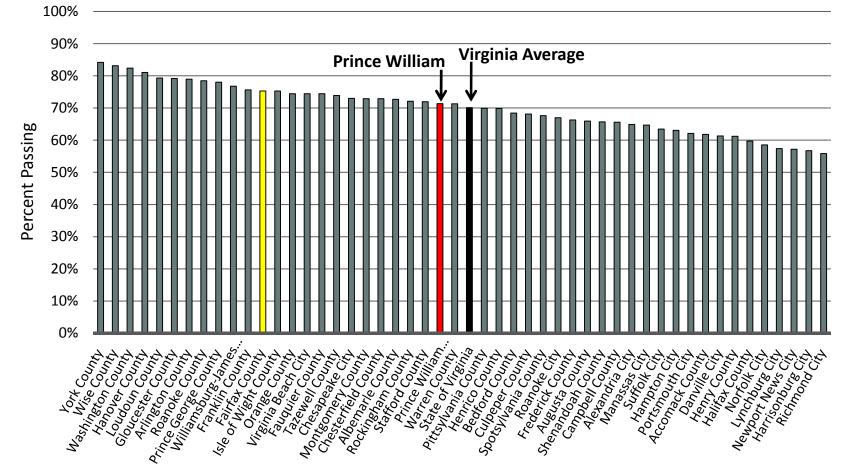
#### **Prince William County Public Schools**

- 85,451 students
  - 21% African American
  - 30% Hispanic
  - 34% White
  - 8% Asian
  - 7% multiracial
- 37% Low-Income

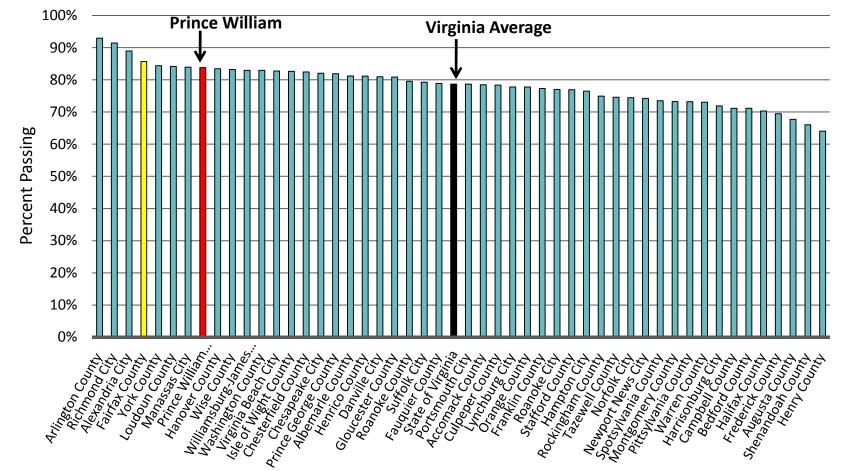
Source: Virginia Department of Education. Data are for the 2013-2014 school year.

### Prince William County in a Virginia Context

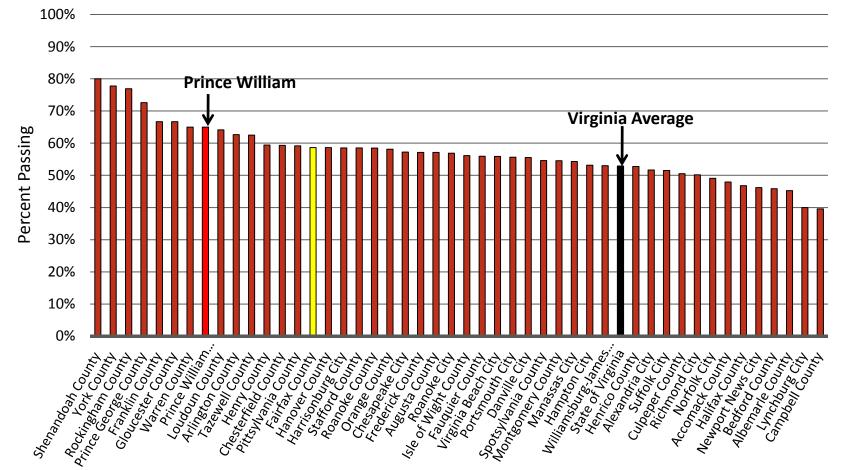
#### Average Overall Percent Passing by Virginia District 2014 Grade 4 Reading SOL



### Average White Percent Passing by Virginia District 2014 Grade 4 Reading SOL

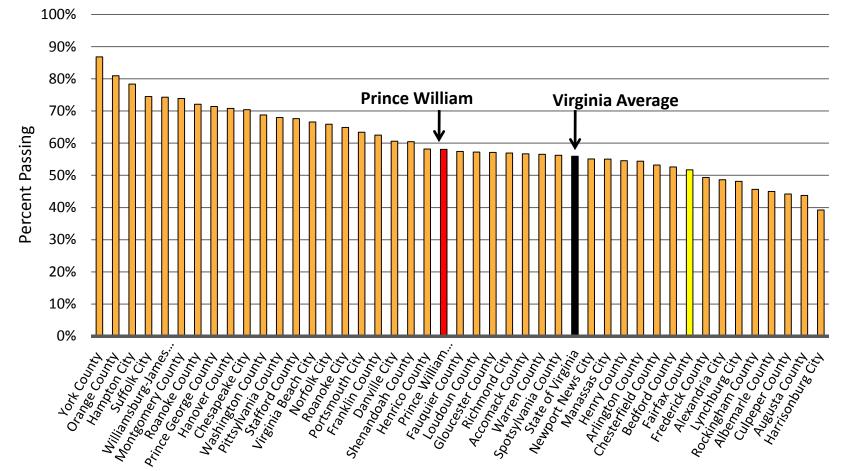


#### Average African American Percent Passing by Virginia District 2014 Grade 4 Reading SOL

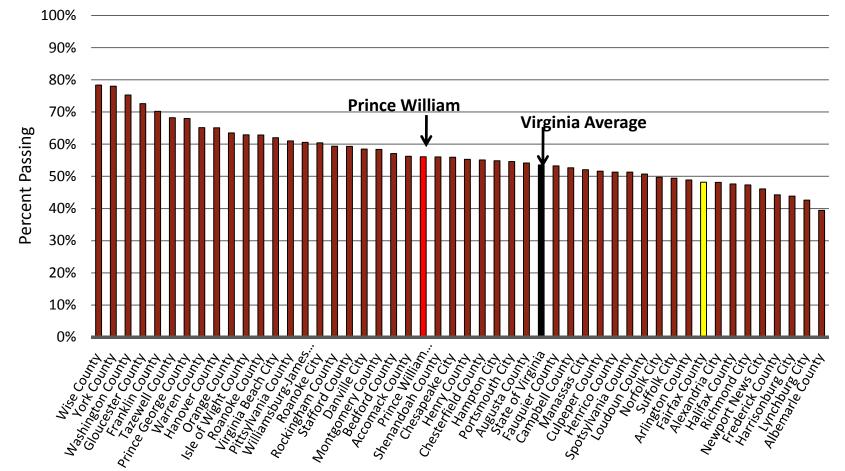


Note: Data are shown for all Virginia districts with at least 5,000 students in 2013-14. Source: https://p1pe.doe.virginia.gov/datareports/assess\_test\_result.do

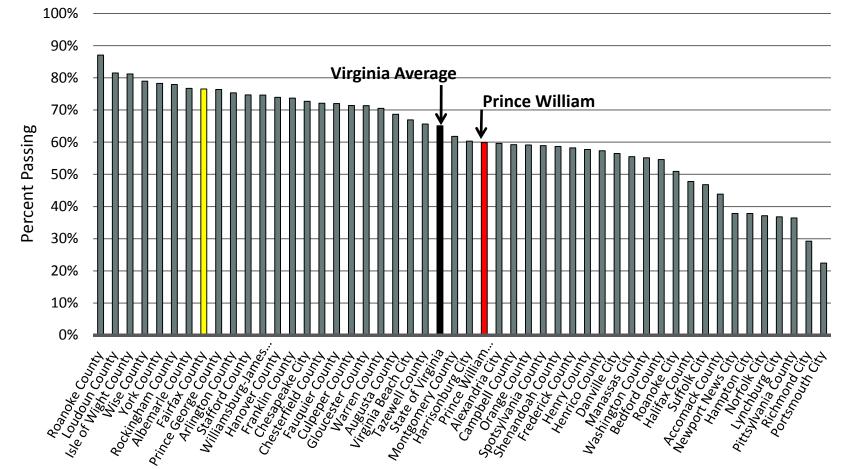
### Average Latino Percent Passing by Virginia District 2014 Grade 4 Reading SOL



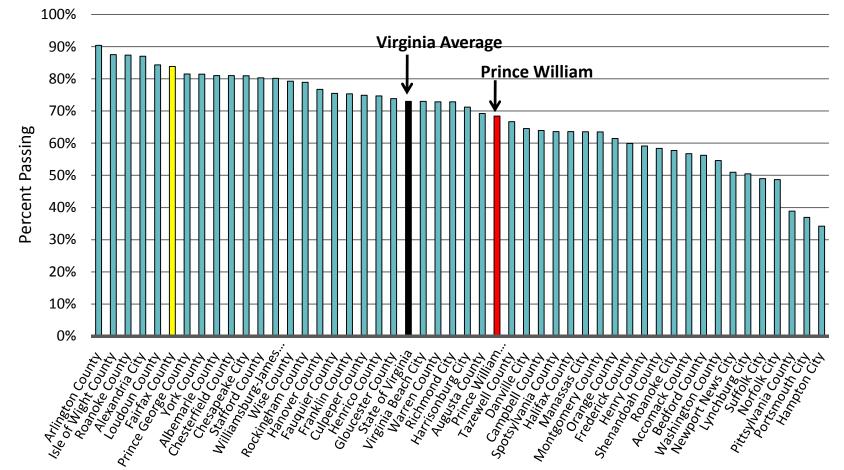
#### Average Low-Income Percent Passing by Virginia District 2014 Grade 4 Reading SOL



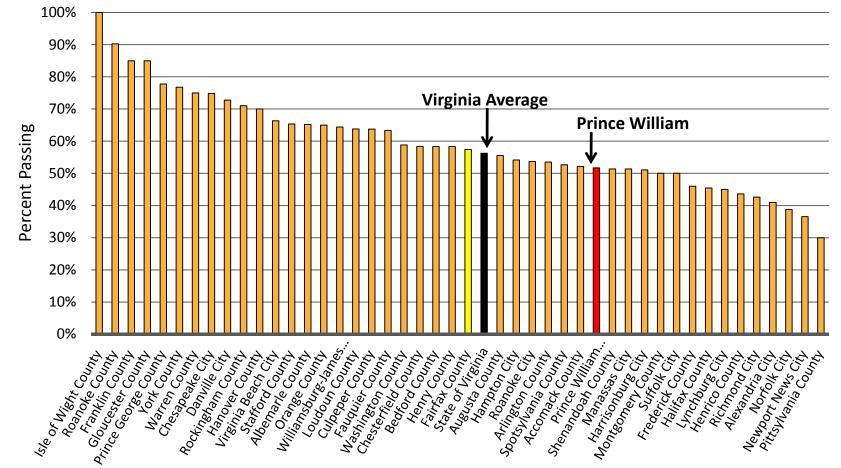
#### Average Overall Percent Passing by Virginia District 2014 Grade 7 Math SOL



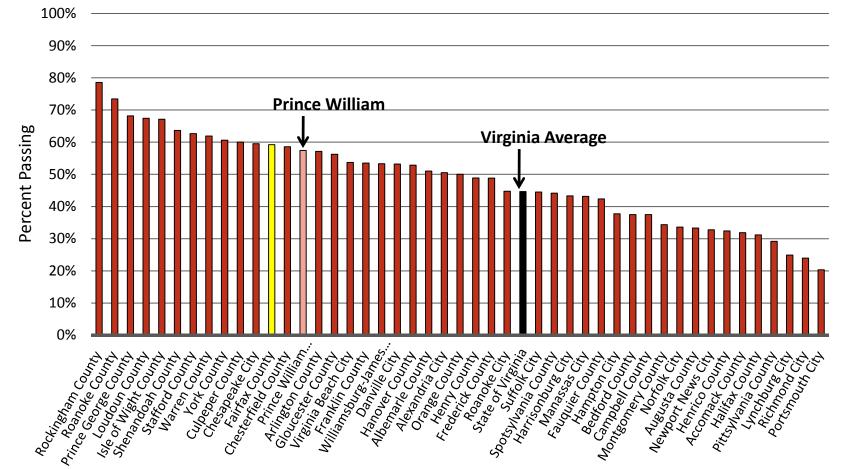
### Average White Percent Passing by Virginia District 2014 Grade 7 Math SOL



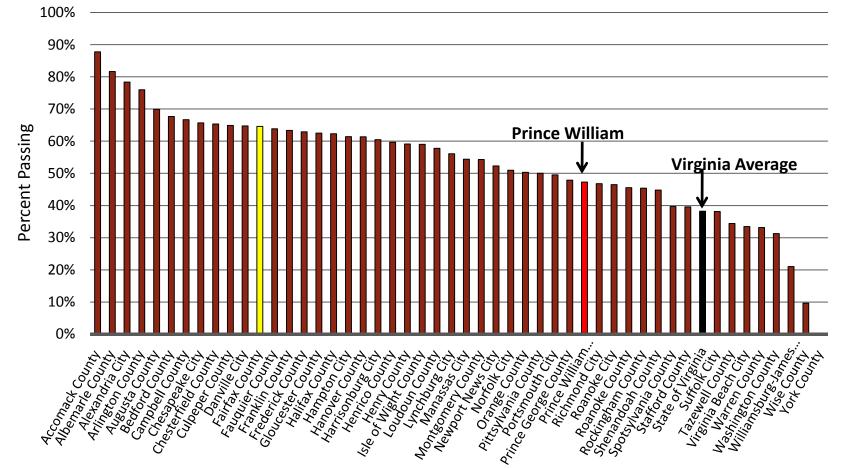
### Average Latino Percent Passing by Virginia District 2014 Grade 7 Math SOL



#### Average African American Percent Passing by Virginia District 2014 Grade 7 Math SOL

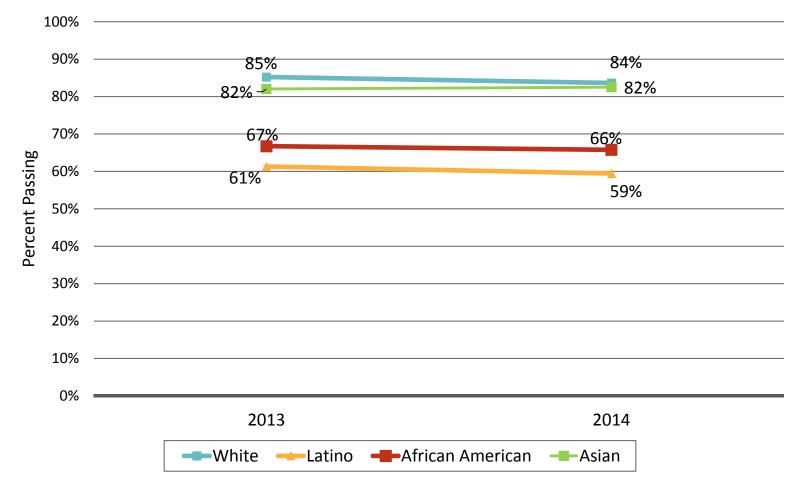


#### Average Low-Income Percent Passing by Virginia District 2014 Grade 7 Math SOL



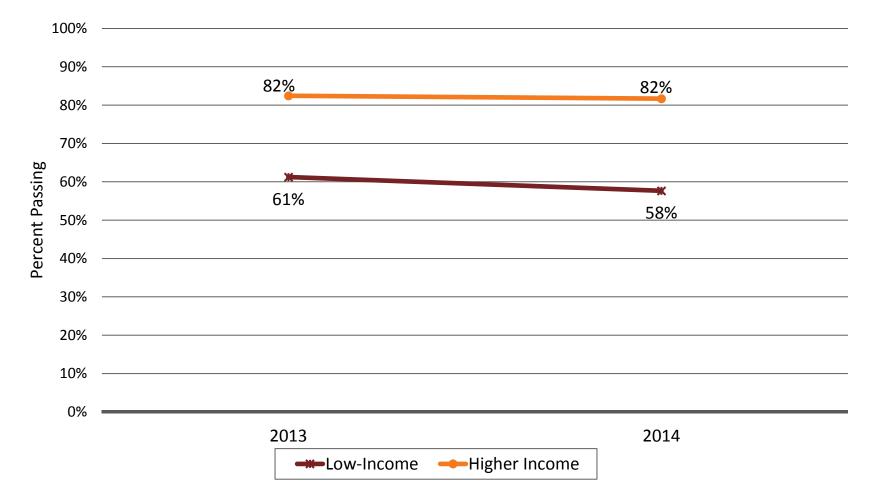
# PWCPS Over Time?

## SOL Grade 4 English: Reading By Race/Ethnicity, Prince William County



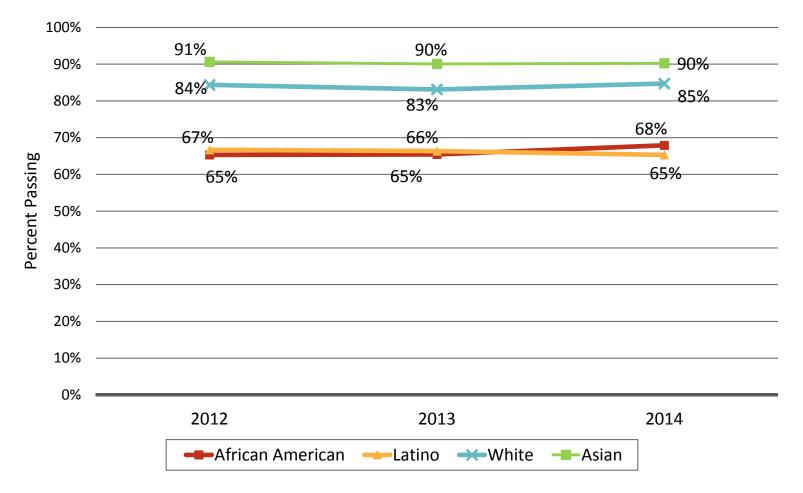
Source: Virginia Department of Education

# SOL Grade 4 English: Reading By Family Income, Prince William County



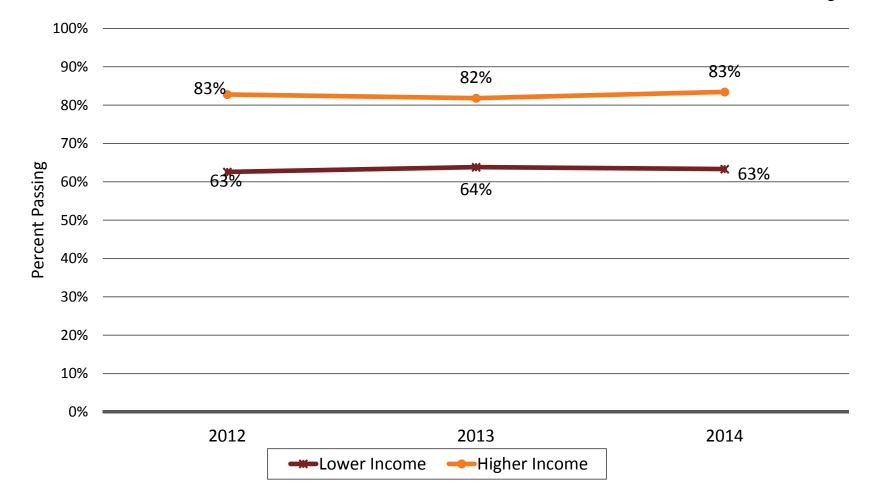
Source: Virginia Department of Education

## SOL Grade 8 Math By Race/Ethnicity, Prince William County



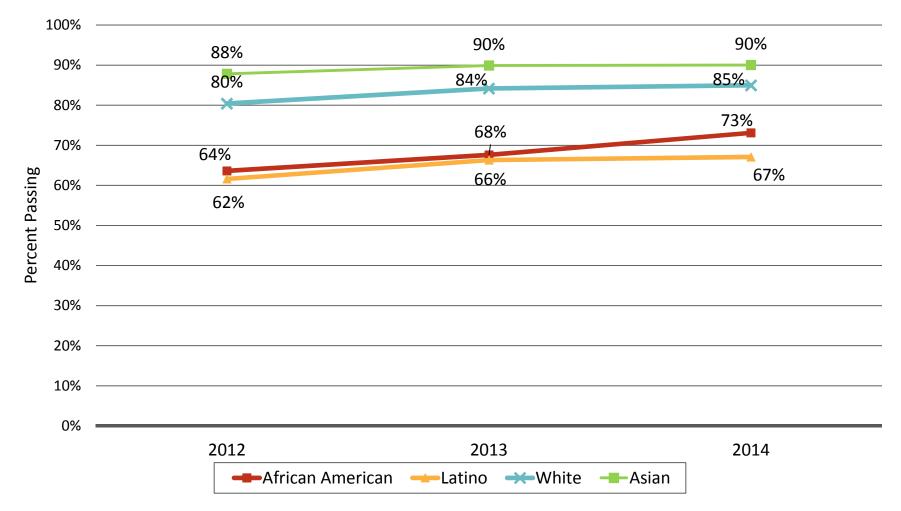
Source: Virginia Department of Education

## SOL Grade 8 Math By Family Income, Prince William County



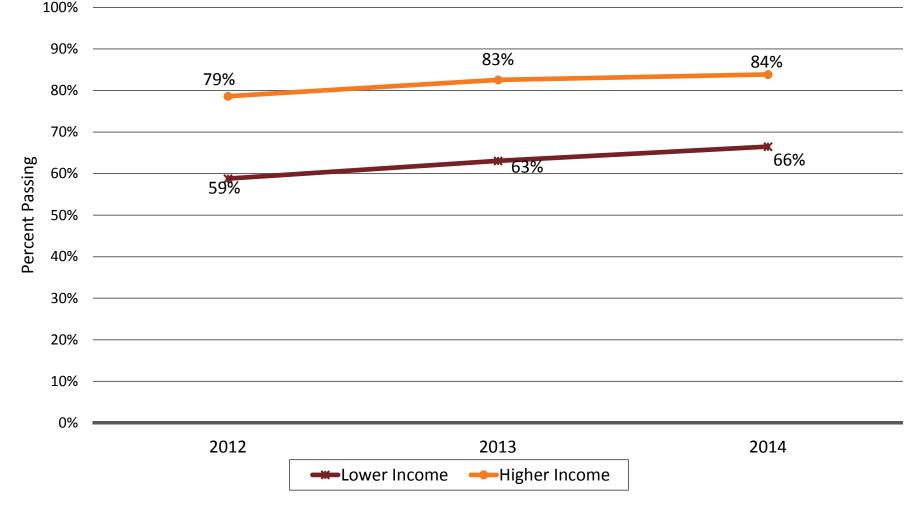
Source: Virginia Department of Education

# SOL Algebra I End-of-Course By Race/Ethnicity, Prince William County



Source: Virginia Department of Education

# SOL Algebra I End-of-Course By Family Income, Prince William County



Source: Virginia Department of Education

# What Can We Learn From Top Performers and Top Gainers?

#1. Good schools, districts don't leave anything about teaching and learning to chance.

# #2. Good schools, districts know how much teachers matter, and they <u>act</u> on that knowledge.

#3. Leading schools/districts put all kids—not just some—in a rigorous course sequence that prepares them for postsecondary education. #4. Leading schools/districts set their goals high, and don't think about closing gaps as just "bringing the bottom kids up." #5. Principals are hugely important, ever present, but NOT the only leaders in the school

## **Download this presentation and register for the EdTrust's national conference on closing the** gap, in Baltimore, November 13-14.

# www.edtrust.org



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