

Raising Achievement and Closing Gaps in Nevada

Presentation for:

Nevada Legislative Committee on Education

Las Vegas, Nevada • May 21, 2004

Craig Jerald, The Education Trust

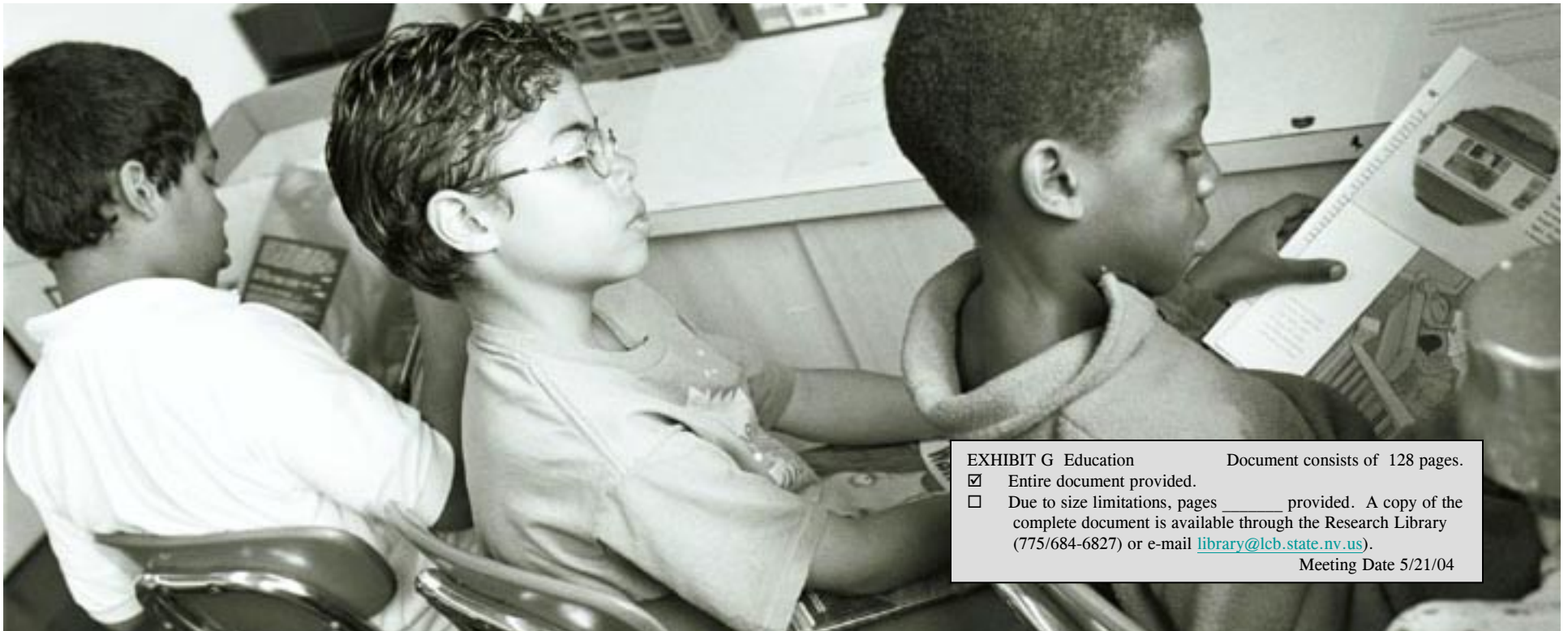


EXHIBIT G Education

Document consists of 128 pages.

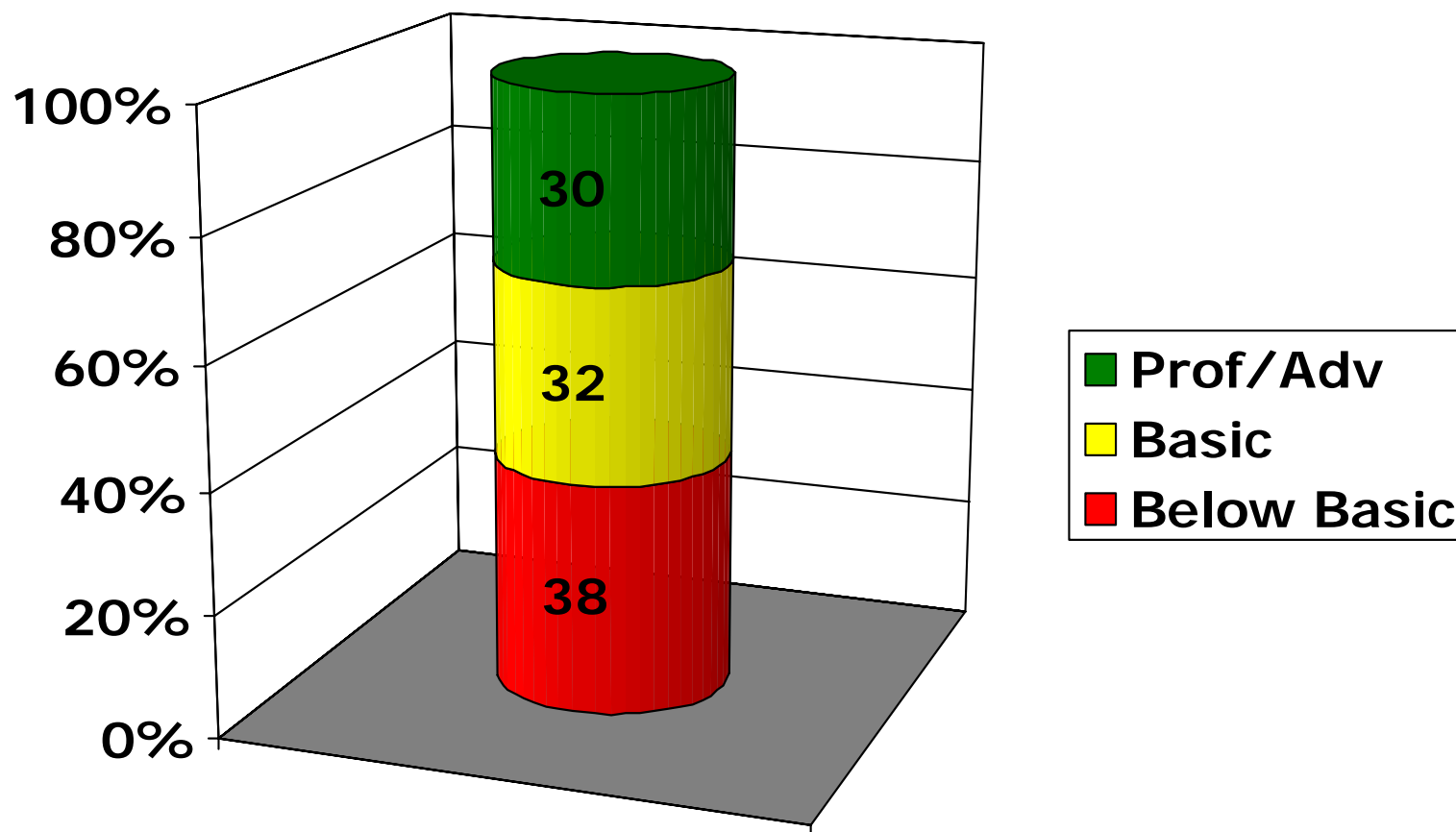
- ☒ Entire document provided.
- ☐ Due to size limitations, pages _____ provided. A copy of the complete document is available through the Research Library (775/684-6827) or e-mail library@lcb.state.nv.us.

Meeting Date 5/21/04

What Do We Know About Student Achievement?

Where Are We Now?

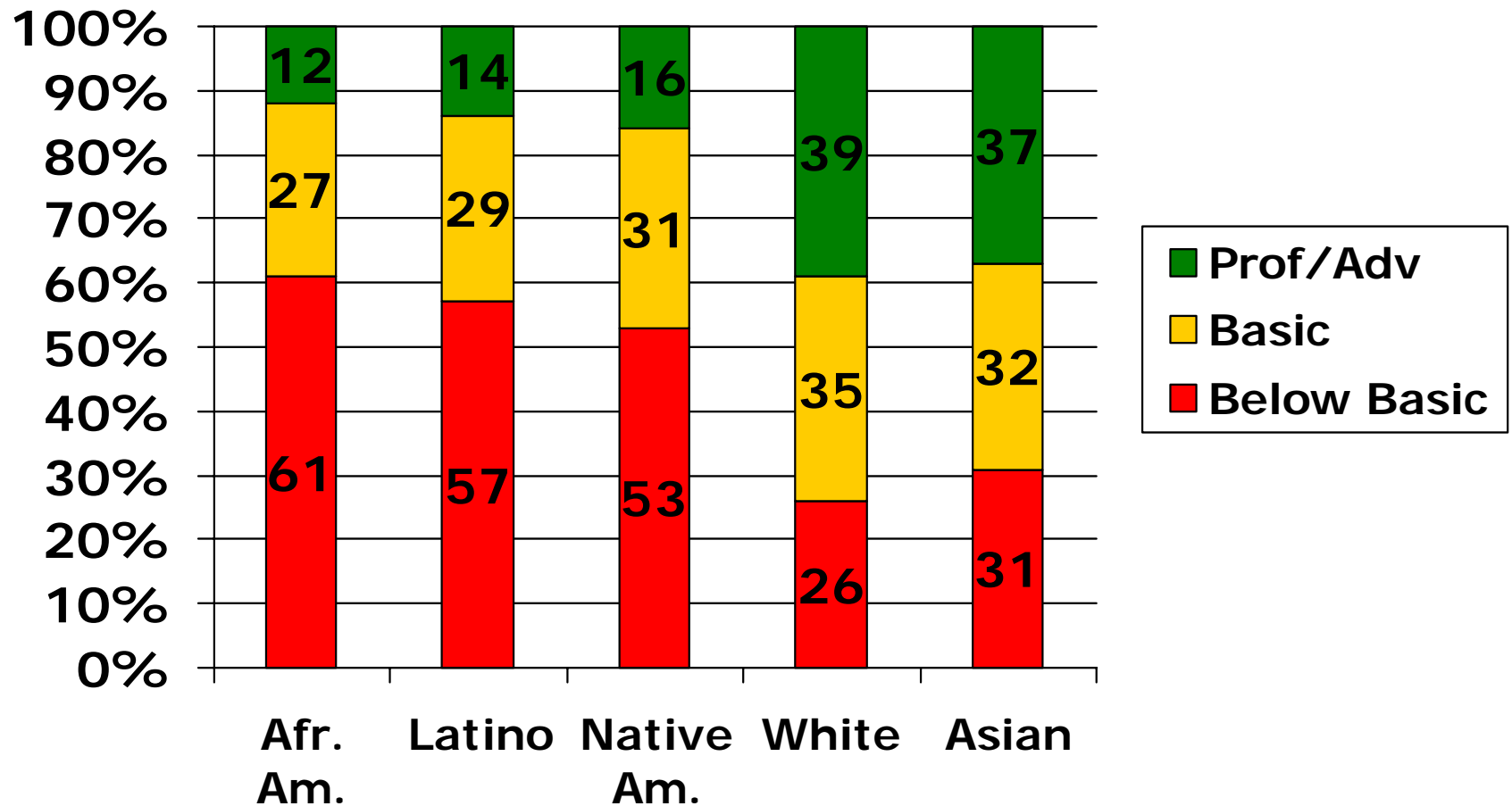
4th Grade Reading, All Students, 2003



Source: USDOE, NCES, National Assessment of Educational Progress (NAEP) Summary Data Tables

By Race/Ethnicity

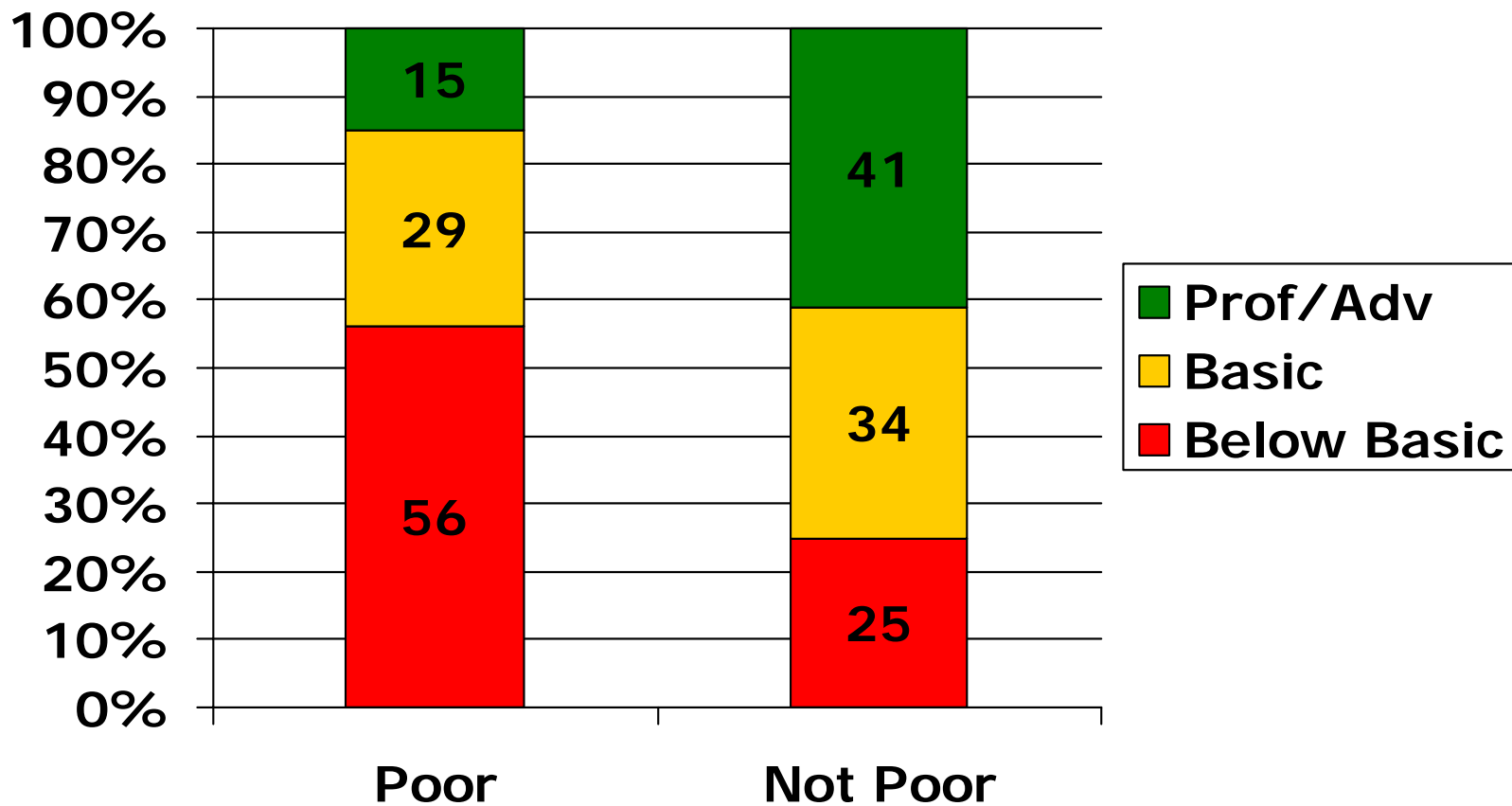
4th Grade Reading, 2003



Source: USDOE, NCES, National Assessment of Educational Progress (NAEP)

By Family Income

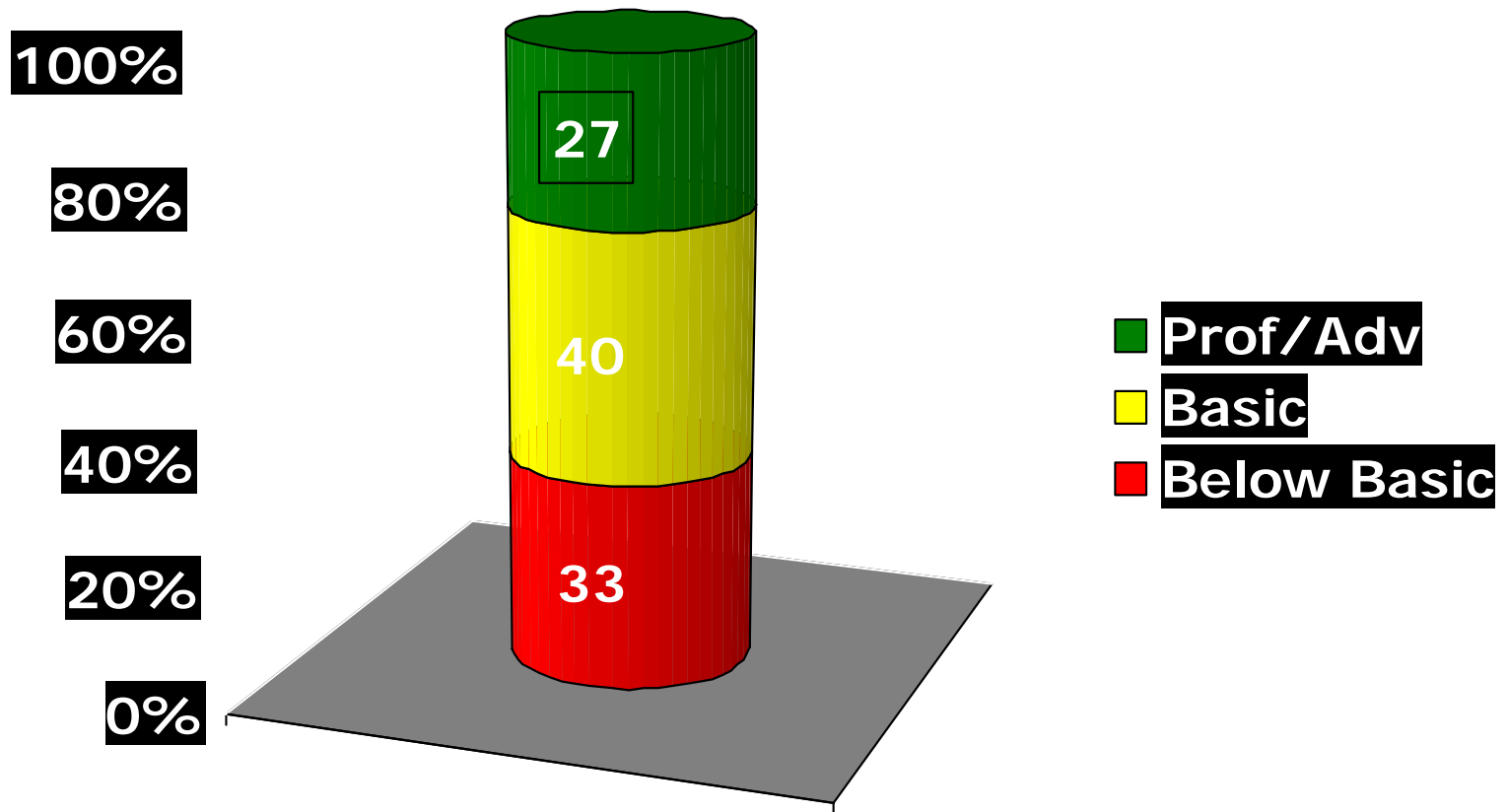
4th Grade Reading, 2003



Source: USDOE, NCES, National Assessment of Educational Progress (NAEP)

Where Are We Now?

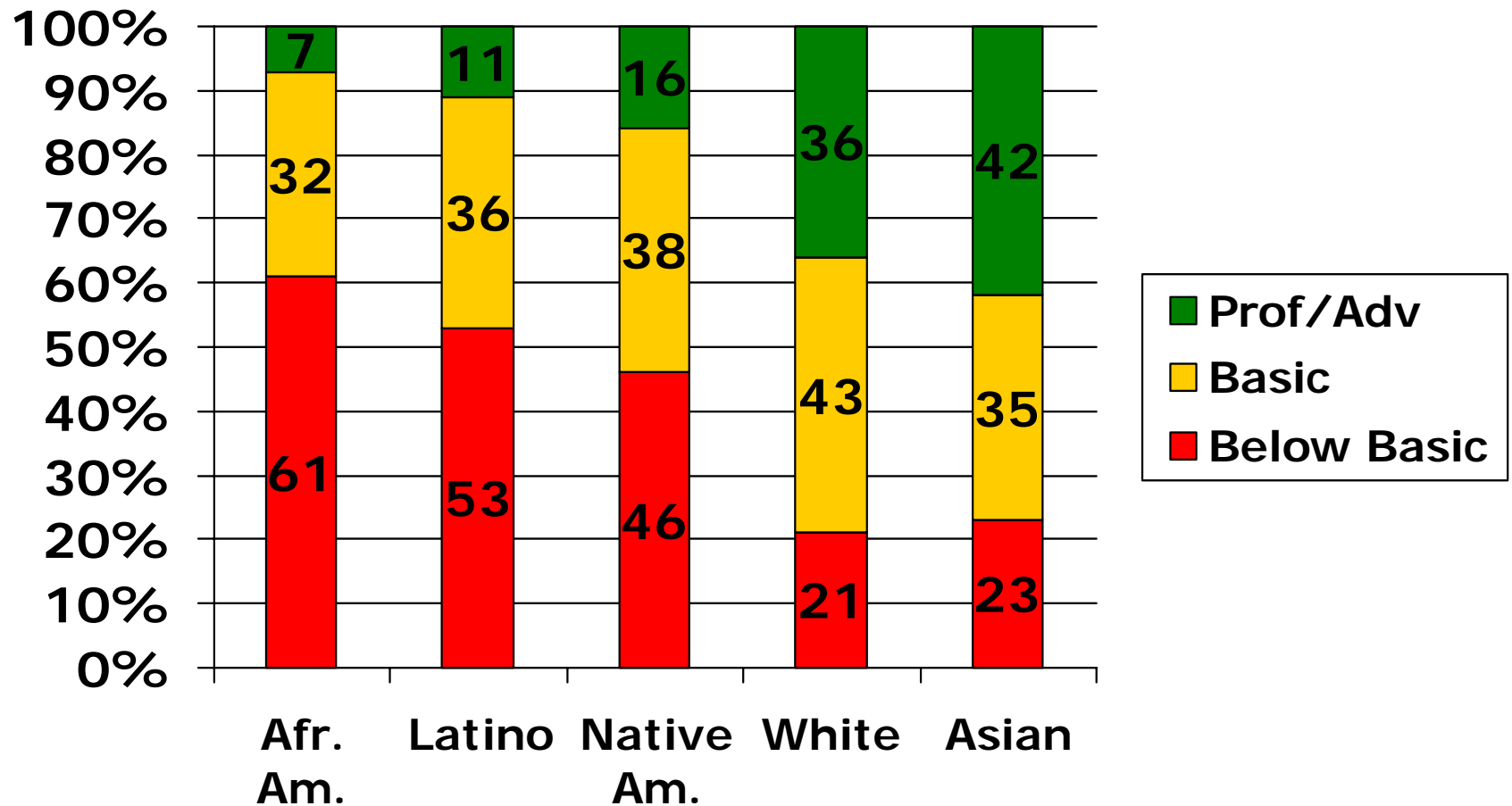
8th Grade Math All Students, 2003



Source: USDOE, NCES, National Assessment of Educational Progress (NAEP) Summary Data Tables

By Race/Ethnicity

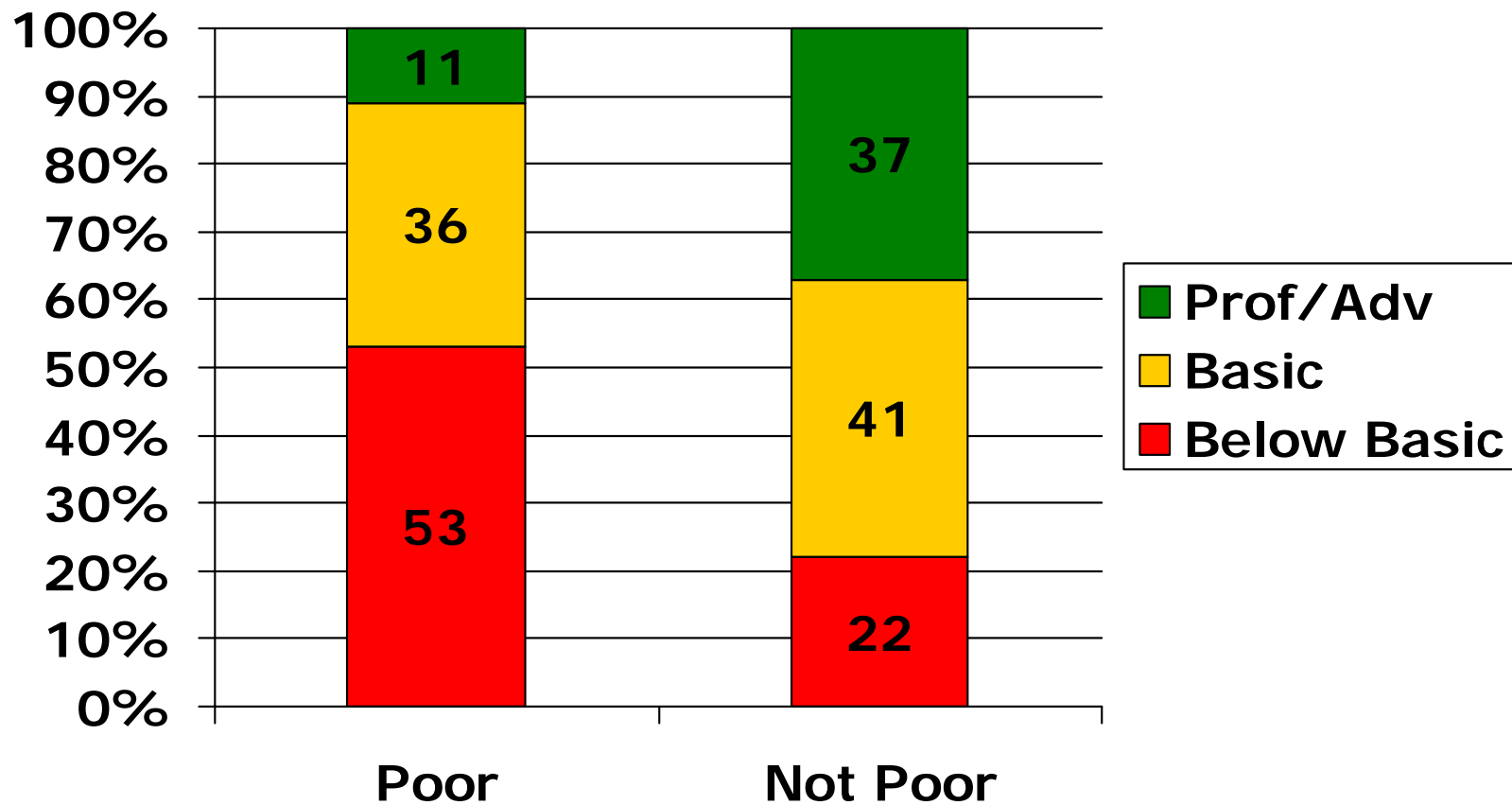
8th Grade Math, 2003



Source: USDOE, NCES, National Assessment of Educational Progress (NAEP)

By Family Income

8th Grade Math, 2003

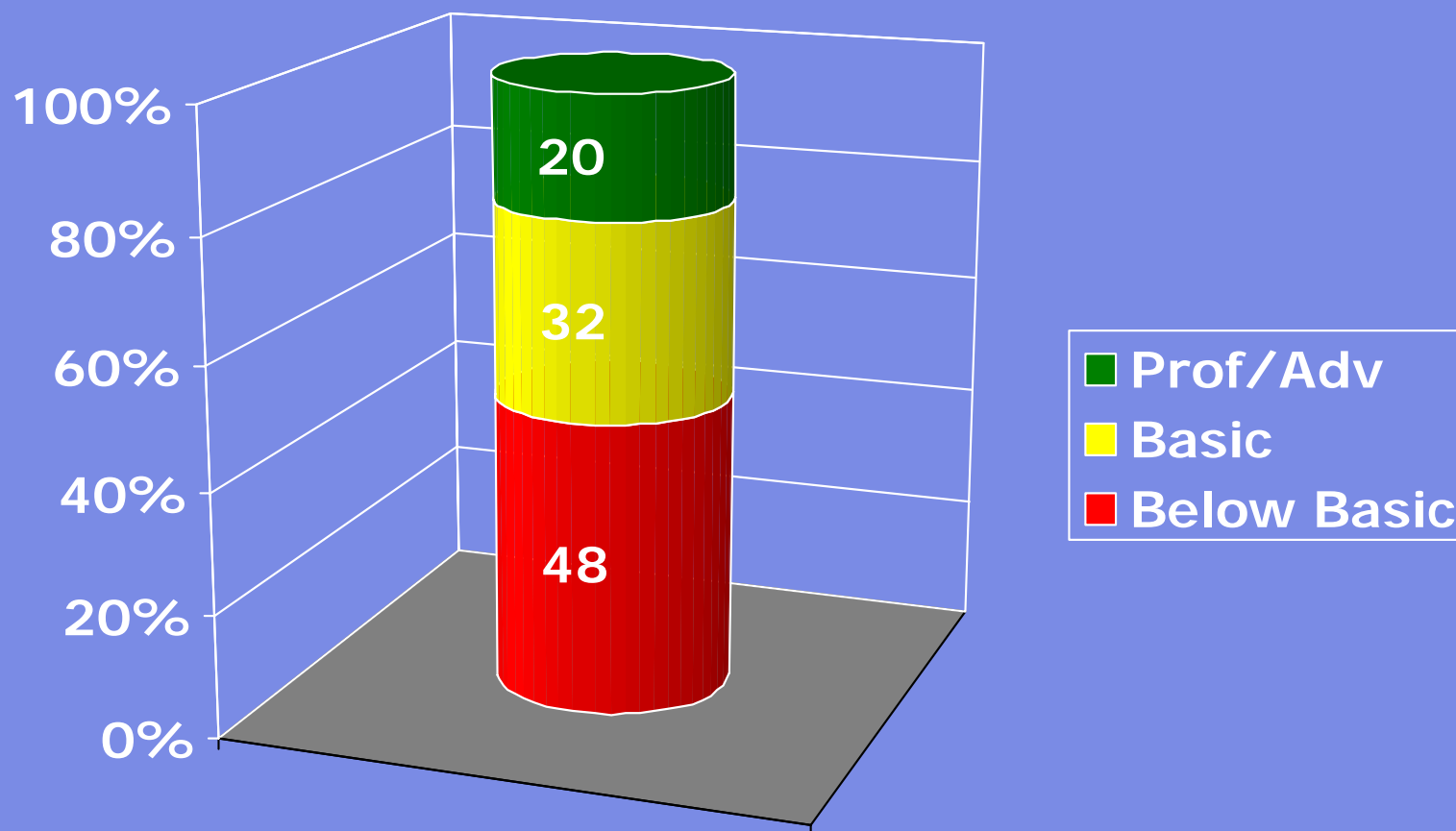


Source: USDOE, NCES, National Assessment of Educational Progress (NAEP)

Nevada?

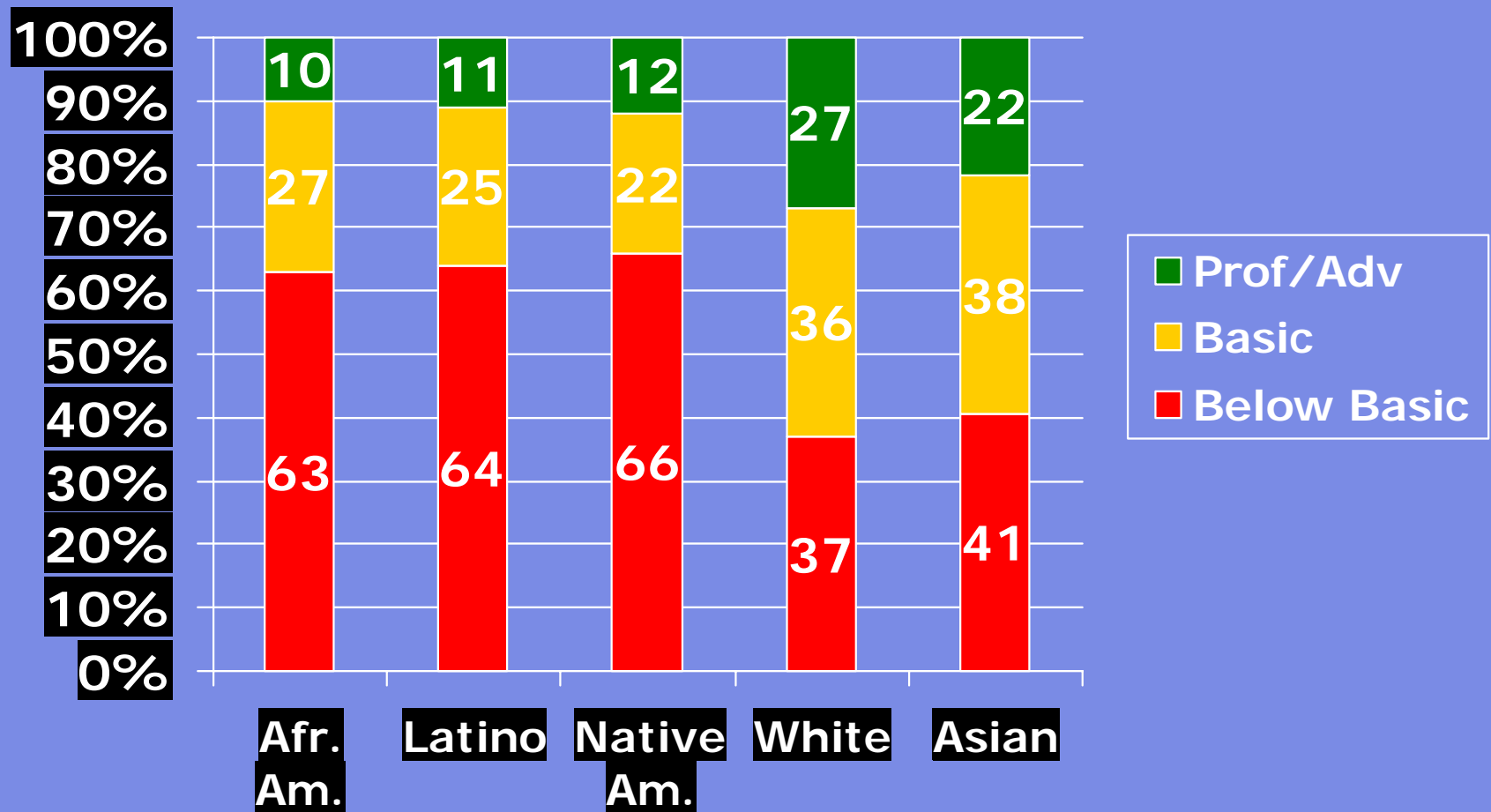
Where Is NEVADA Now?

4th Grade Reading, All Students, 2003



Source: USDOE, NCES, National Assessment of Educational Progress (NAEP) Summary Data Tables

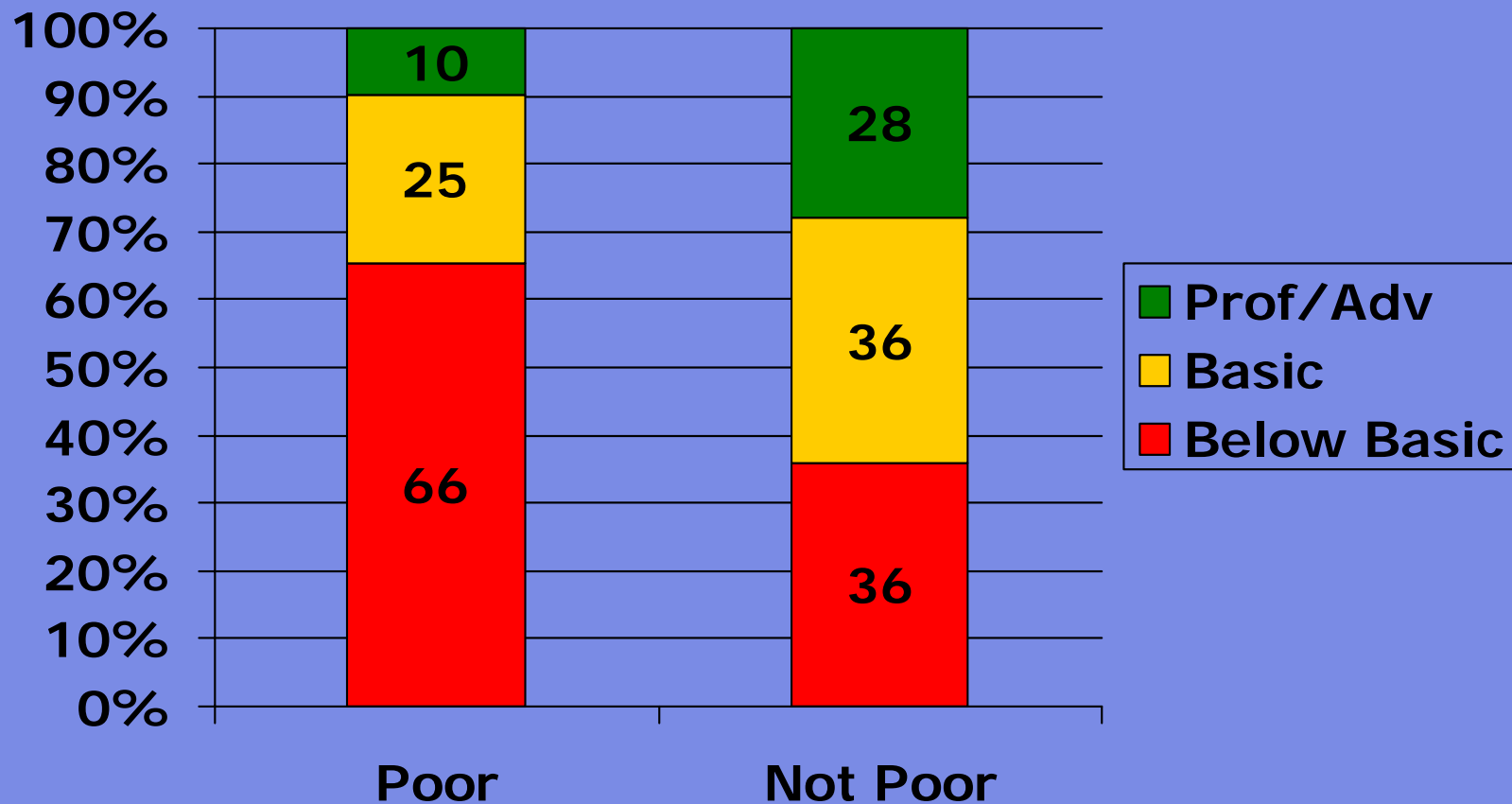
NEVADA: By Race/Ethnicity 4th Grade Reading, 2003



Source: USDOE, NCES, National Assessment of Educational Progress (NAEP)

NEVADA: By Family Income

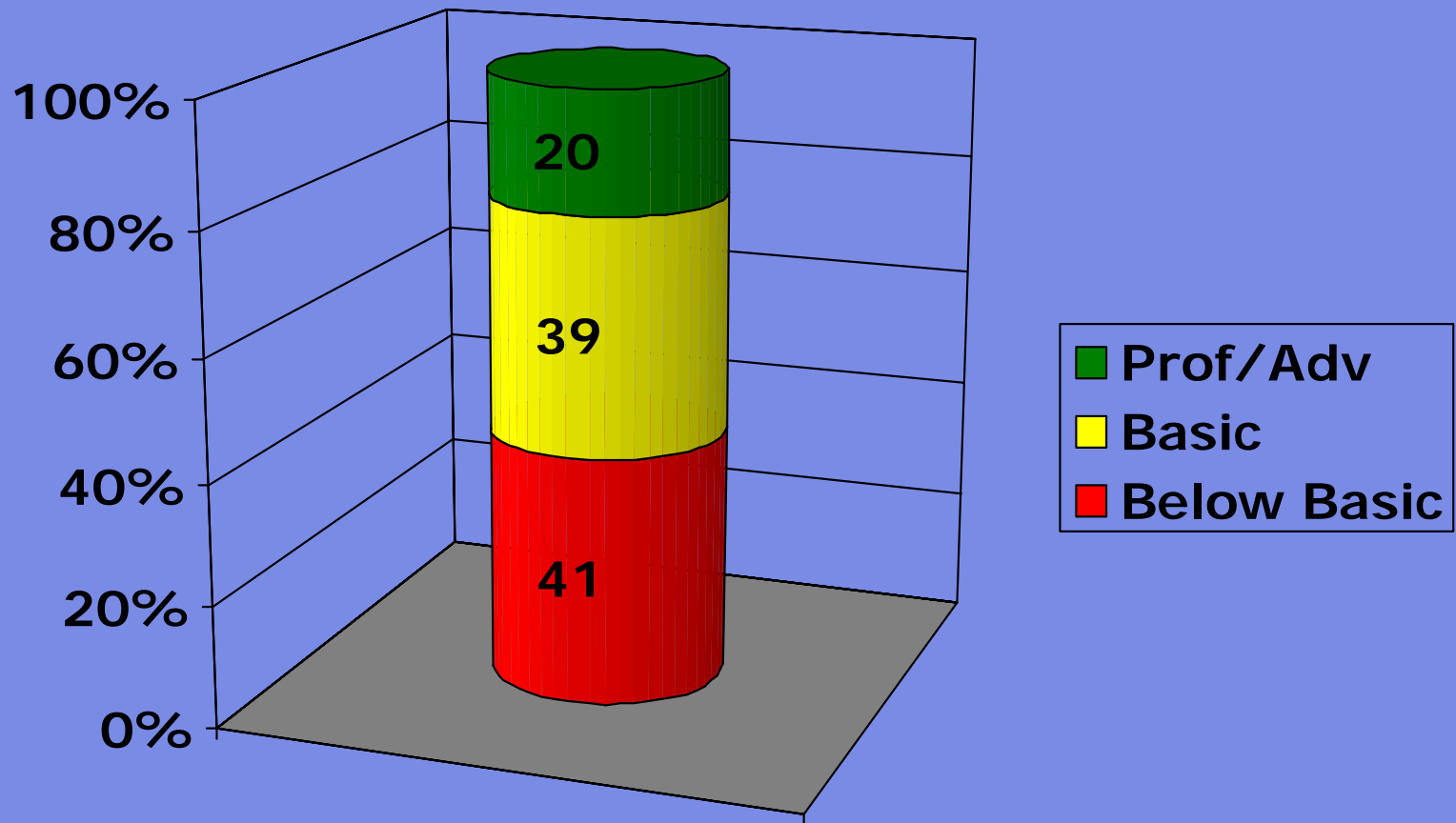
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Source: USDOE, NCES, National Assessment of Educational Progress (NAEP)

Where Is NEVADA Now?

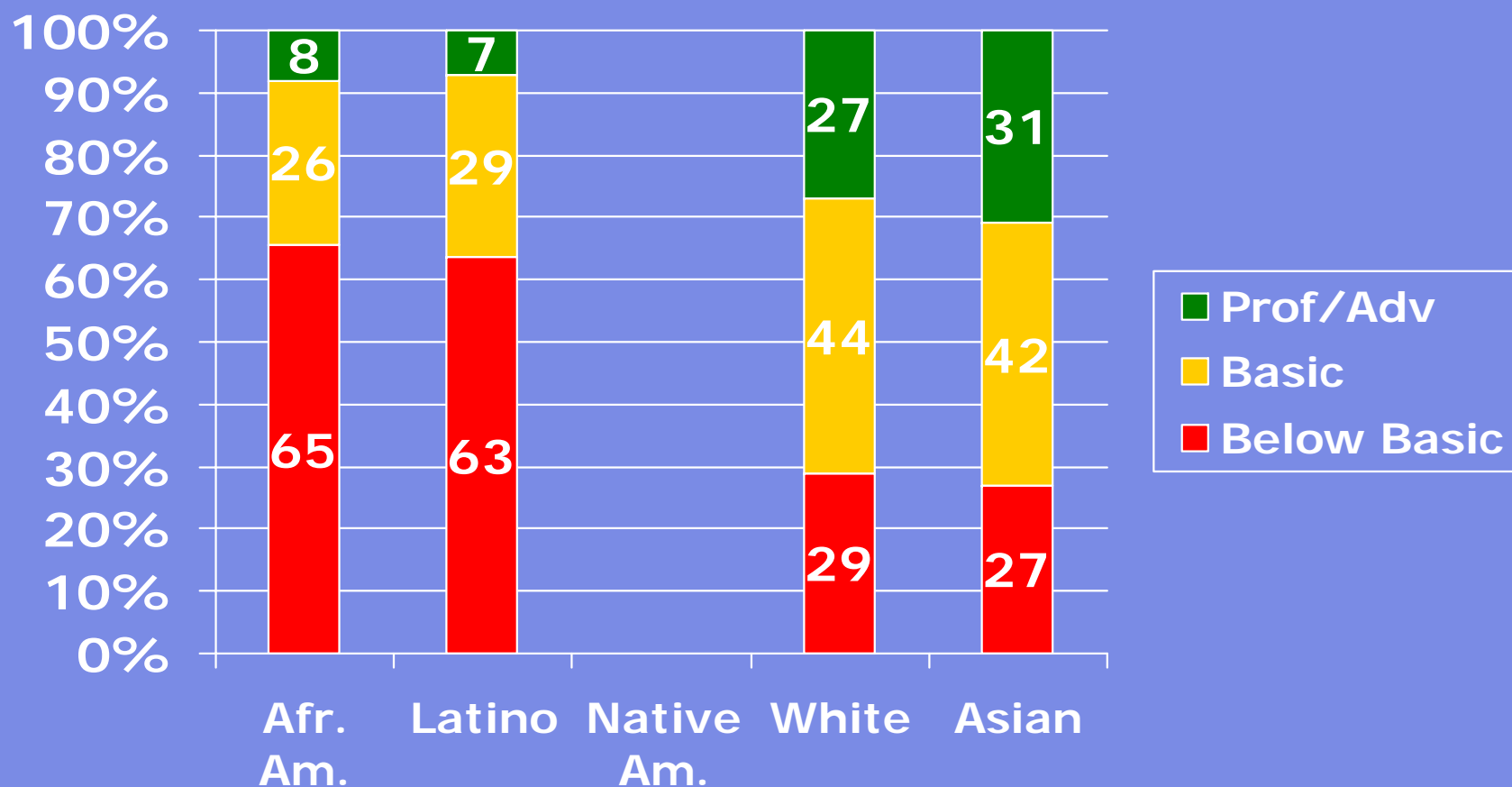
8th Grade Math, All Students, 2003



Source: USDOE, NCES, National Assessment of Educational Progress (NAEP) Summary Data Tables

NEVADA: By Race/Ethnicity

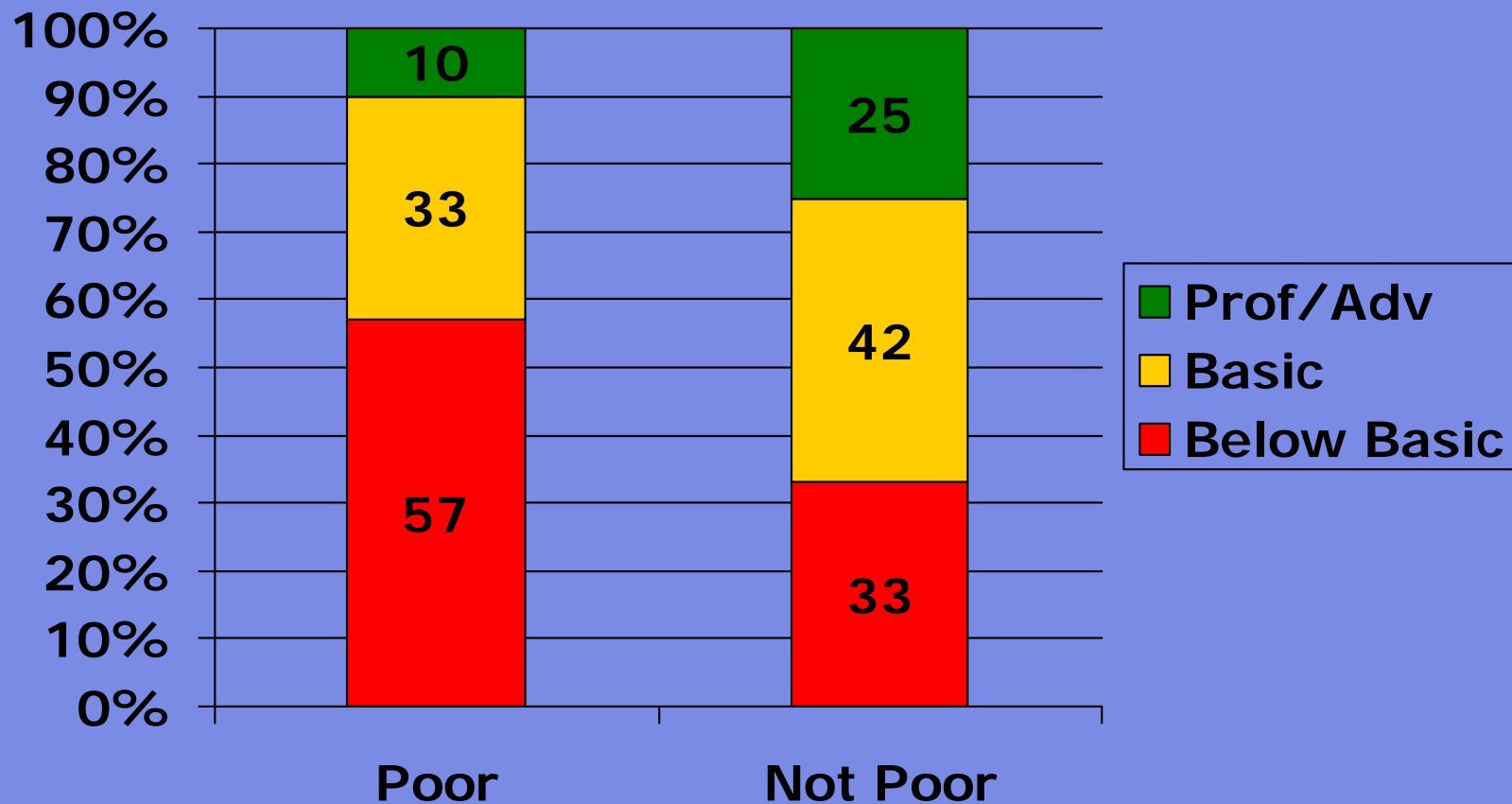
8th Grade Math, 2003



Source: USDOE, NCES, National Assessment of Educational Progress (NAEP)

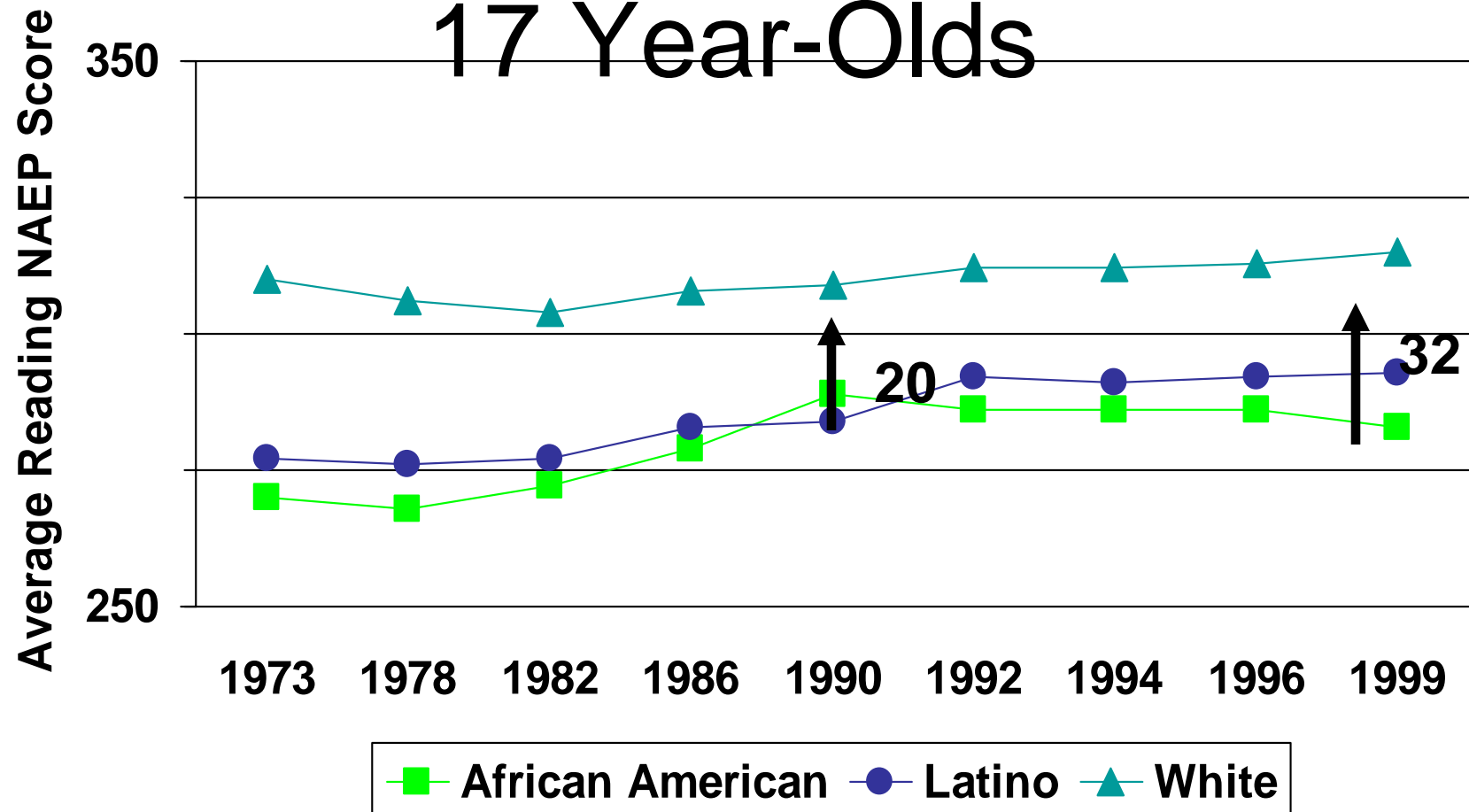
NEVADA: By Family Income

8th Grade Math, 2003



Source: USDOE, NCES, National Assessment of Educational Progress (NAEP)

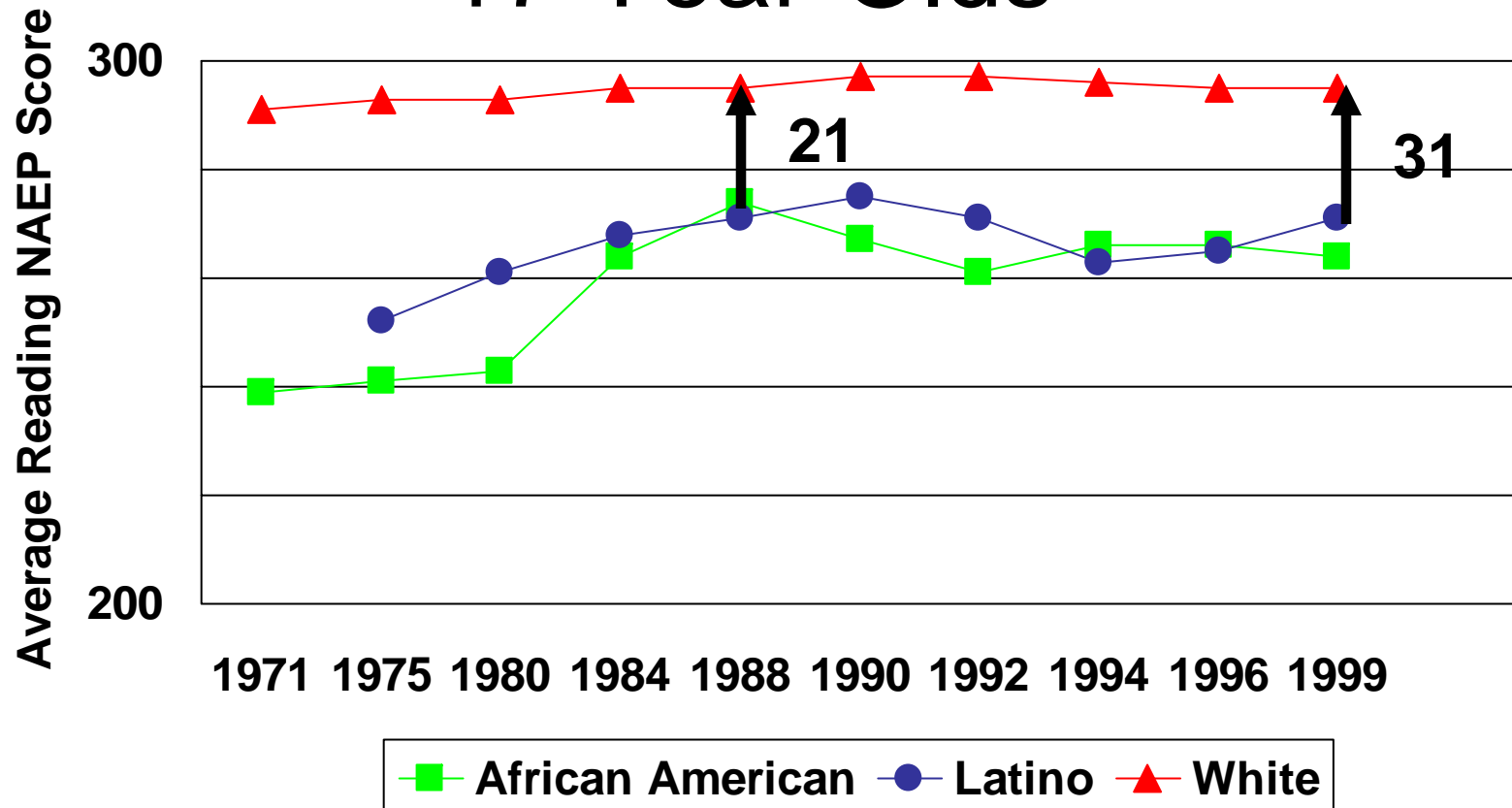
Gaps Narrow, Then Hold Steady or Widen: NAEP Math Scores, 17 Year-Olds



Source: US Department of Education, National Center for Education Statistics. *NAEP 1999 Trends in Academic Progress* (p. 108) Washington, DC: US Department of Education, August 2000

After 1988, Gaps Mostly Widen

NAEP Reading, 17 Year-Olds



Source: US Department of Education, National Center for Education Statistics. *NAEP 1999 Trends in Academic Progress* (p. 107)
Washington, DC: US Department of Education, August 2000

Too Few 17 Year-Olds Demonstrate Strong Reading Skills

	African American	Latino	White
Learn from Specialized Materials	1%	2%	8%
Understand Complicated Information	17	24	46
Partial Skills	66	68	87
Make Generalizations	95	97	98

Source: USDOE, NCES, 1999 NAEP Summary Data Tables

Too Few 17 Year-Olds Demonstrate Strong Math Skills

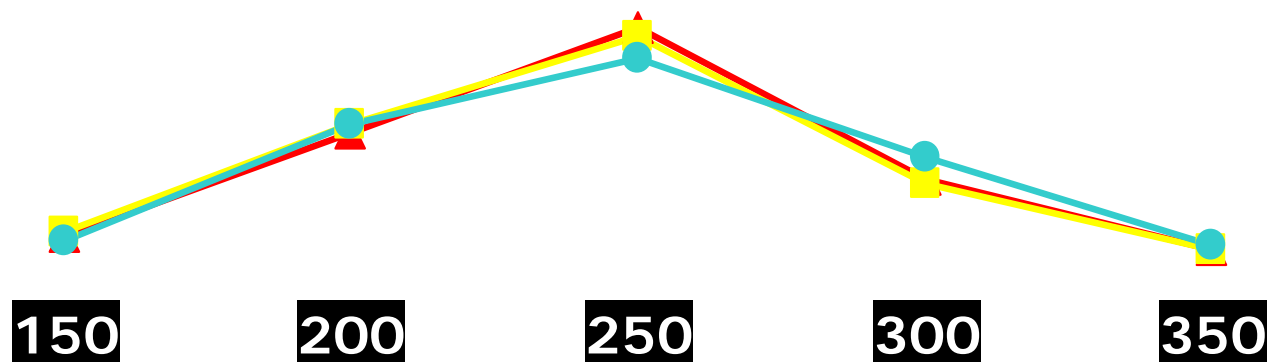
	African American	Latino	White
Multi-Step Problem Solving	1%	3%	10%
Moderately Complex Procedures	27	38	70
Numerical Operations	89	94	99

Source: USDOE, NCES, 1999 NAEP Summary Data Tables

African American and Latino 17 Year Olds Read at Same Levels as White 13 Year Olds

100%

0%



—▲ White 8th Graders

—■ African American 12th Graders

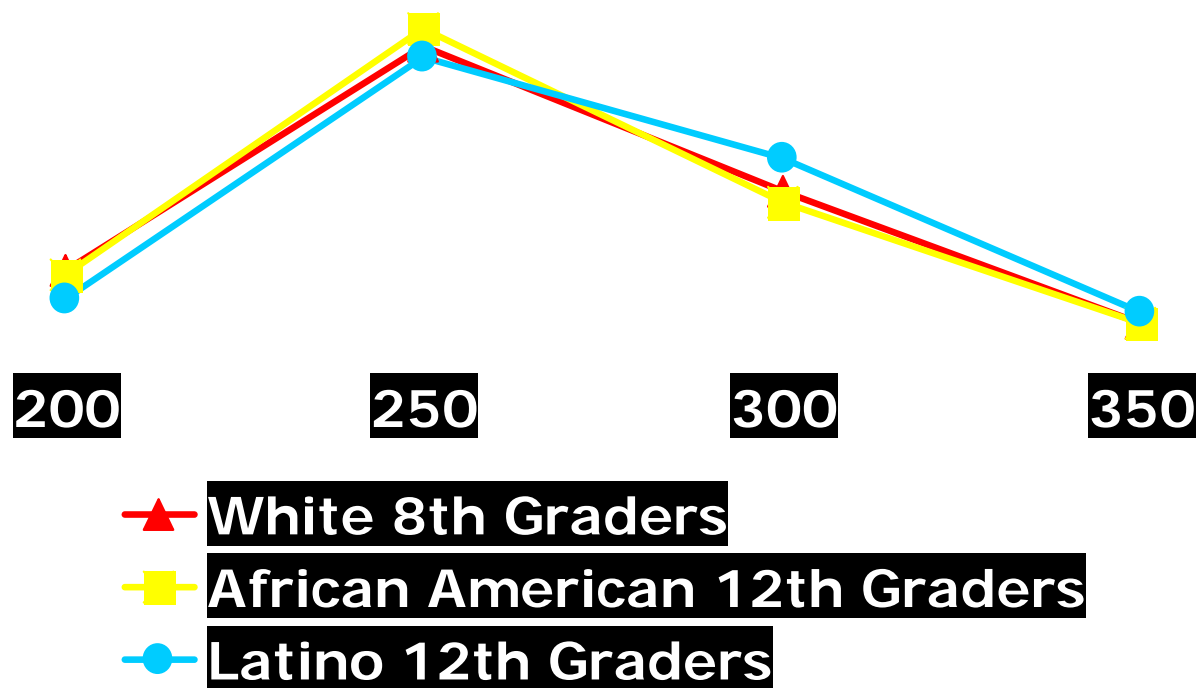
—● Latino 12th Graders

Source: Source: NAEP 1999 Long Term Trends Summary Tables (online)

African American and Latino 17 Year Olds Do Math at Same Levels As White 13 Year Olds

100%

0%

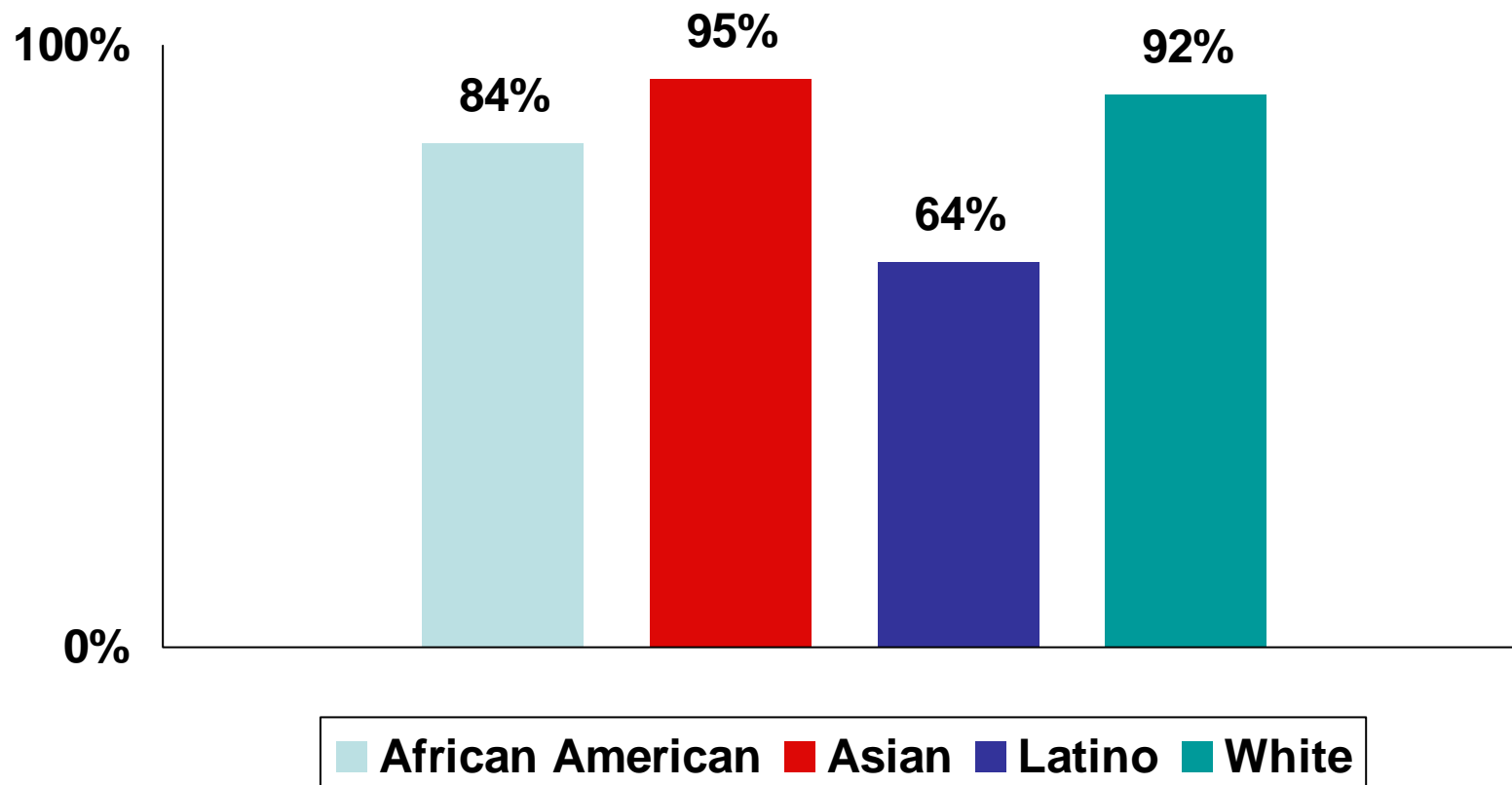


Source: NAEP 1999 Long Term Trends Summary Tables (online)

These patterns are reflected,
too, in high school completion,
college entry and college
graduation rates.

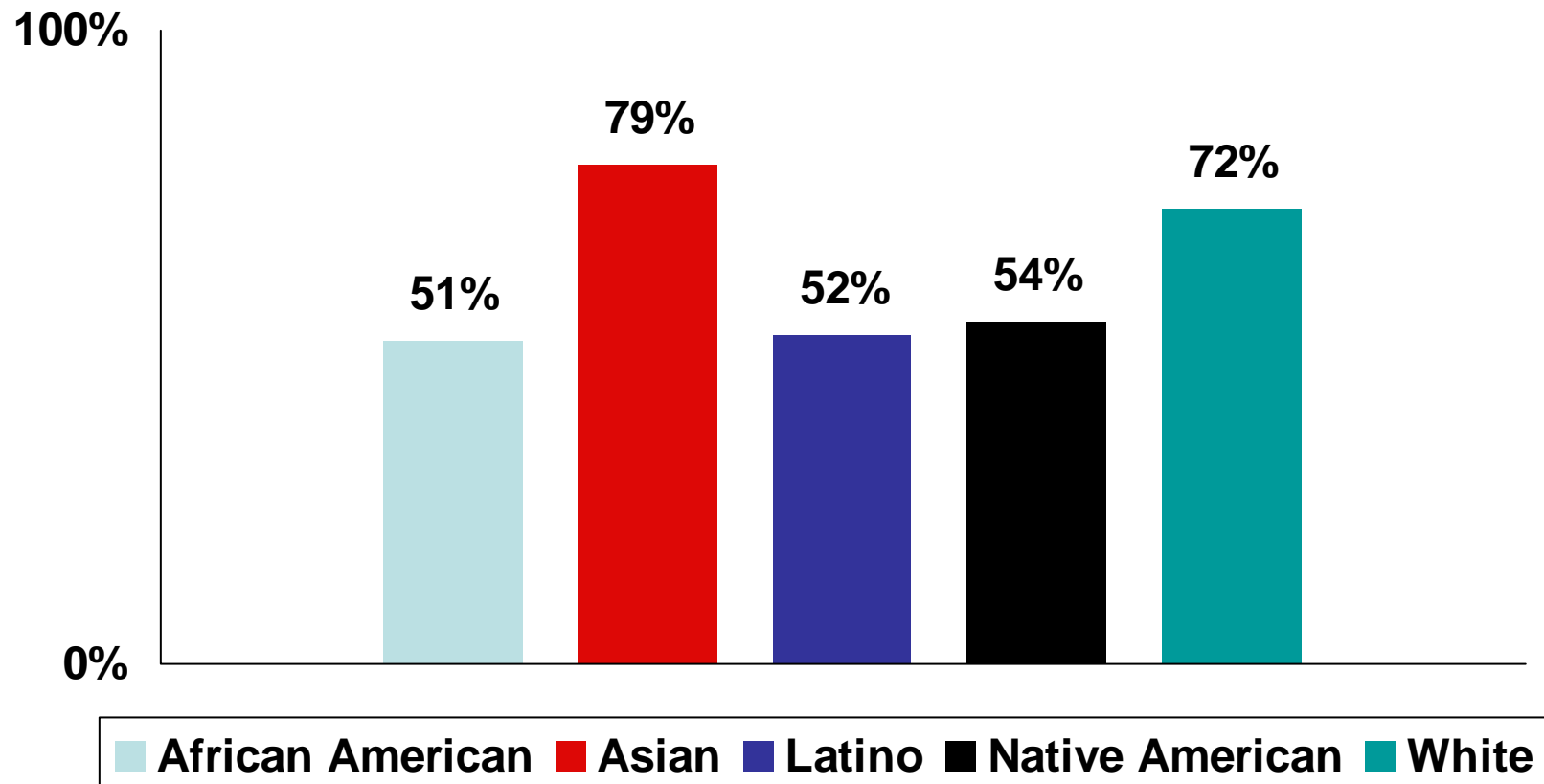
Students Complete High School At Different Rates, 2000

Age 18-24



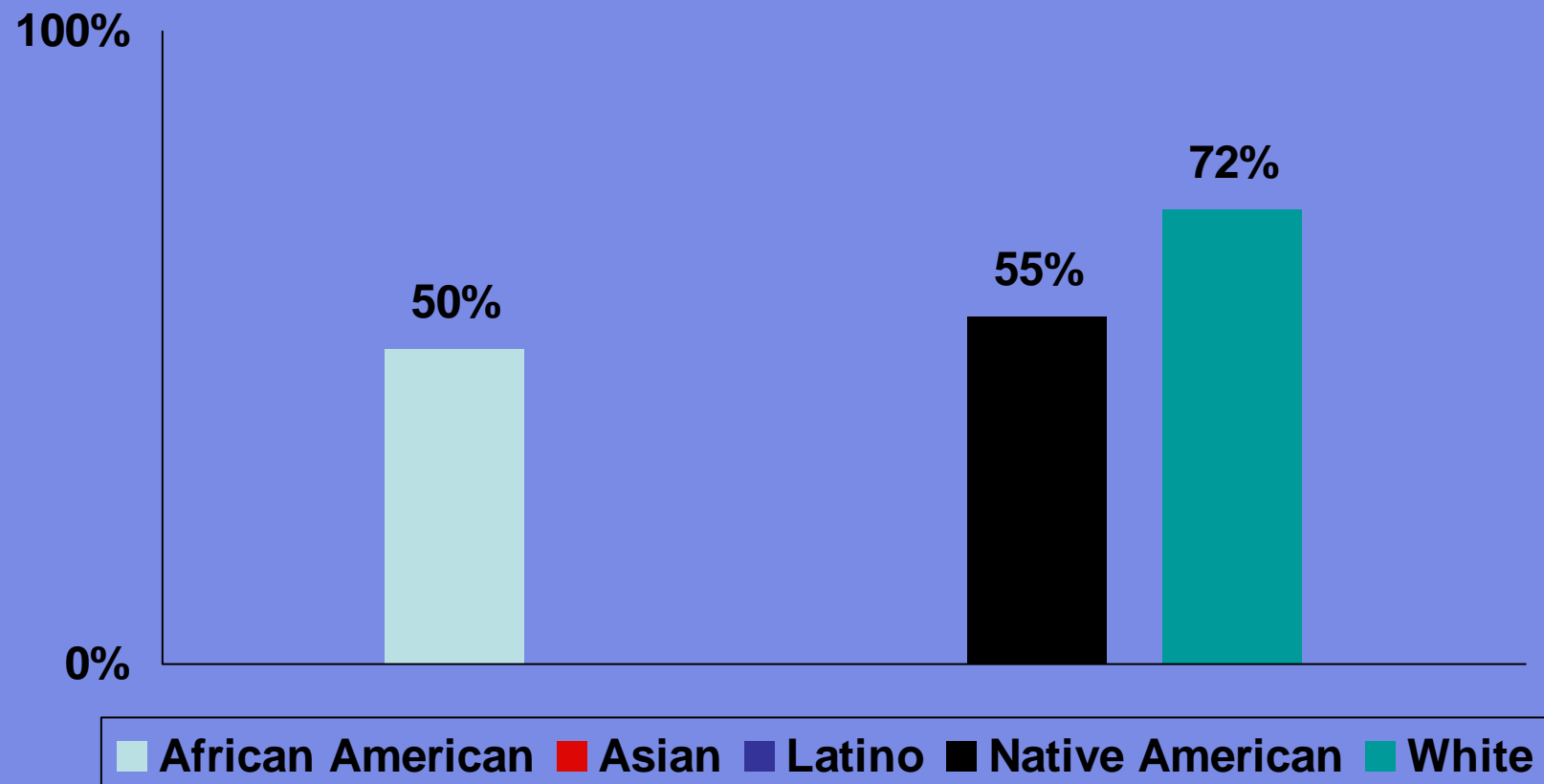
Source: US Bureau of Census, Current Population Reports, Educational Attainment in the United States: March 2000, Detailed Tables No. 2

On Time Completion of Regular H.S. Diploma, 2001



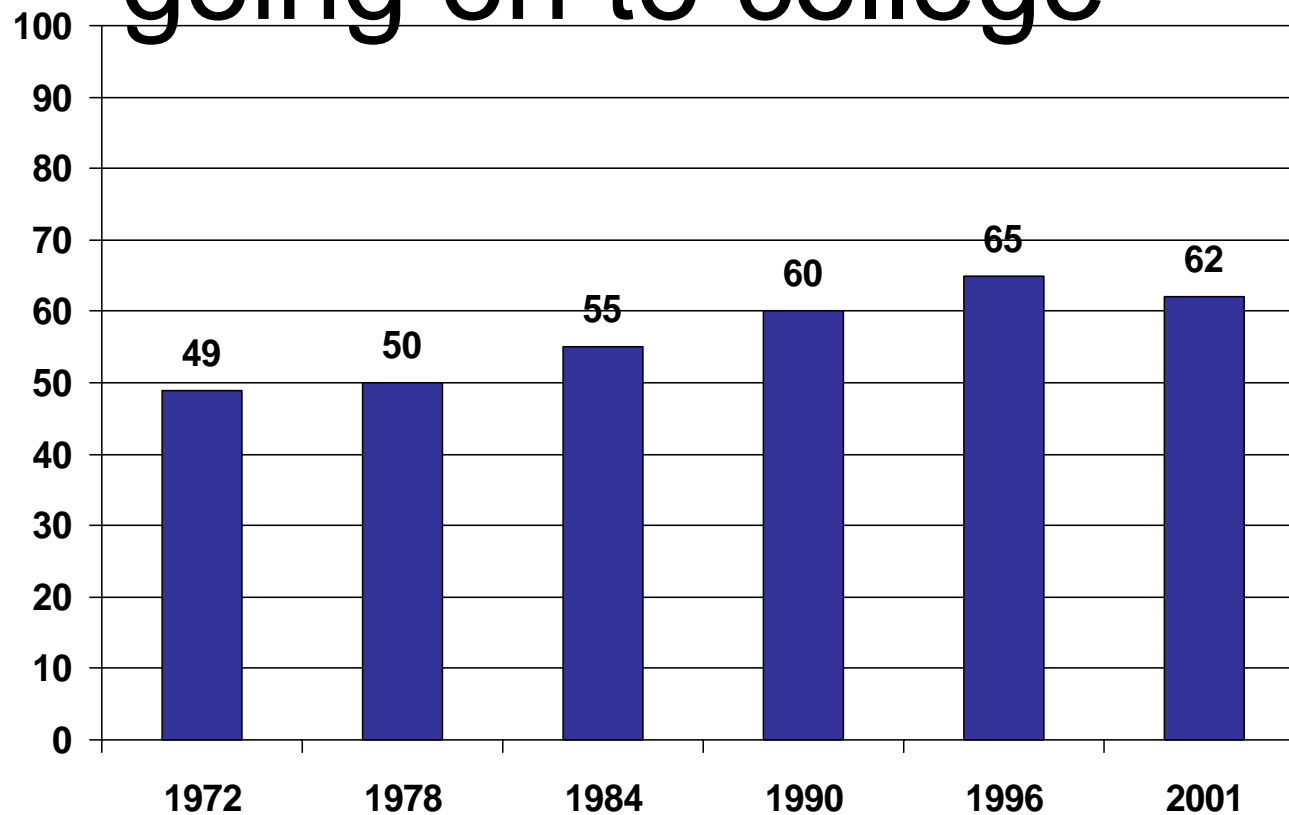
Source: Manhattan Institute, *Public High School Graduation and College Readiness Rates in the United States*.

NEVADA: On Time Completion of Regular H.S. Diploma, 2001



Source: Manhattan Institute, *Public High School Graduation and College Readiness Rates in the United States*.

More and more students going on to college



Source: *The Condition of Education 2003.*

Most high school grads go on to postsecondary within 2 years

Entered Public 2-Year Colleges	26%
Entered 4-Year Colleges	45%
Other Postsecondary	4%
Total	75%

Source: NELS: 88, Second (1992) and Third (1994) Follow up; in, USDOE, NCES, "Access to Postsecondary Education for the 1992 High School Graduates," 1998, Table 2.

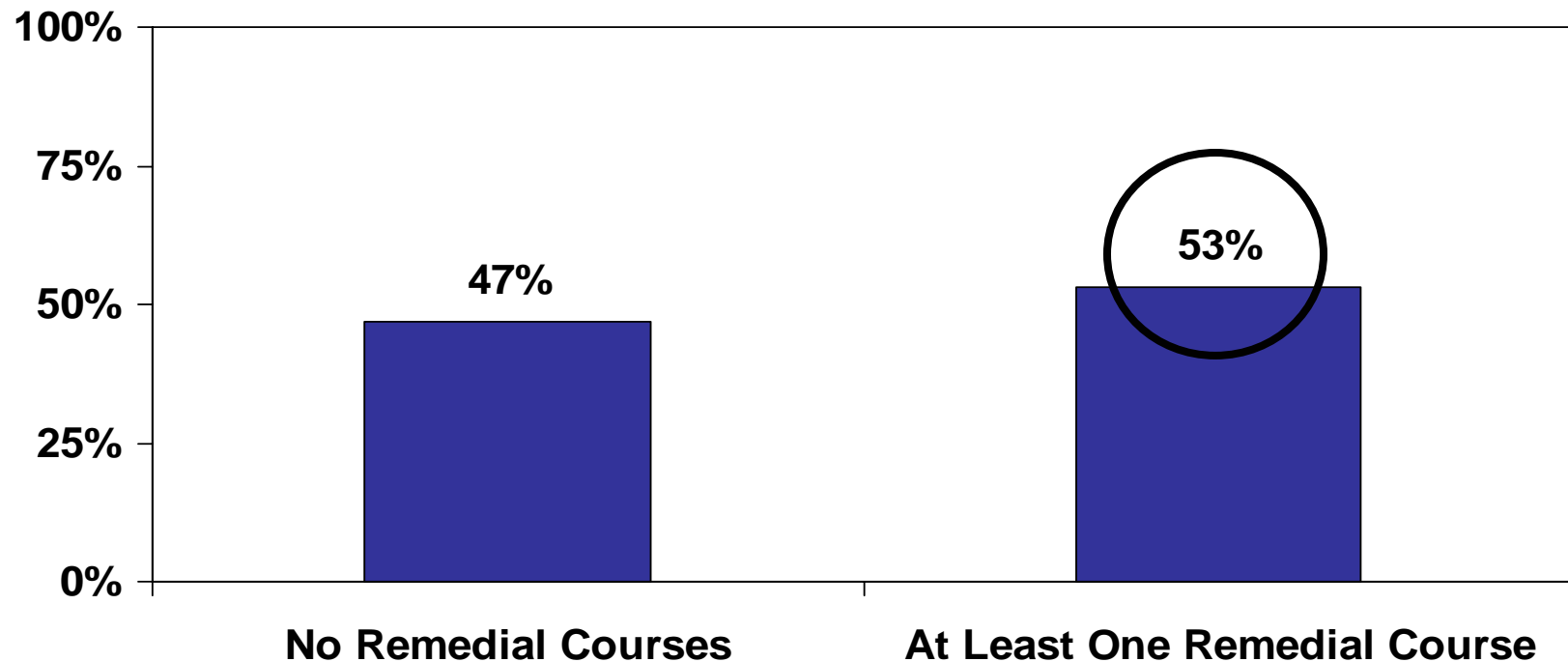
Half of Low Achieving Grads Go On To 2- or 4-Year Institutions

High School Achievement Level	% Entering Postsecondary
Low	49%
Middle	71%
High	91%
Overall	72%

Source: NELS: 88, Second (1992) and Third Follow up (1994); in, USDOE, NCES, Condition of Education 1997, p. 64

What happens when
they get there?

Unfortunately, when these new freshmen arrive in college, many must take remedial (high-school) level courses

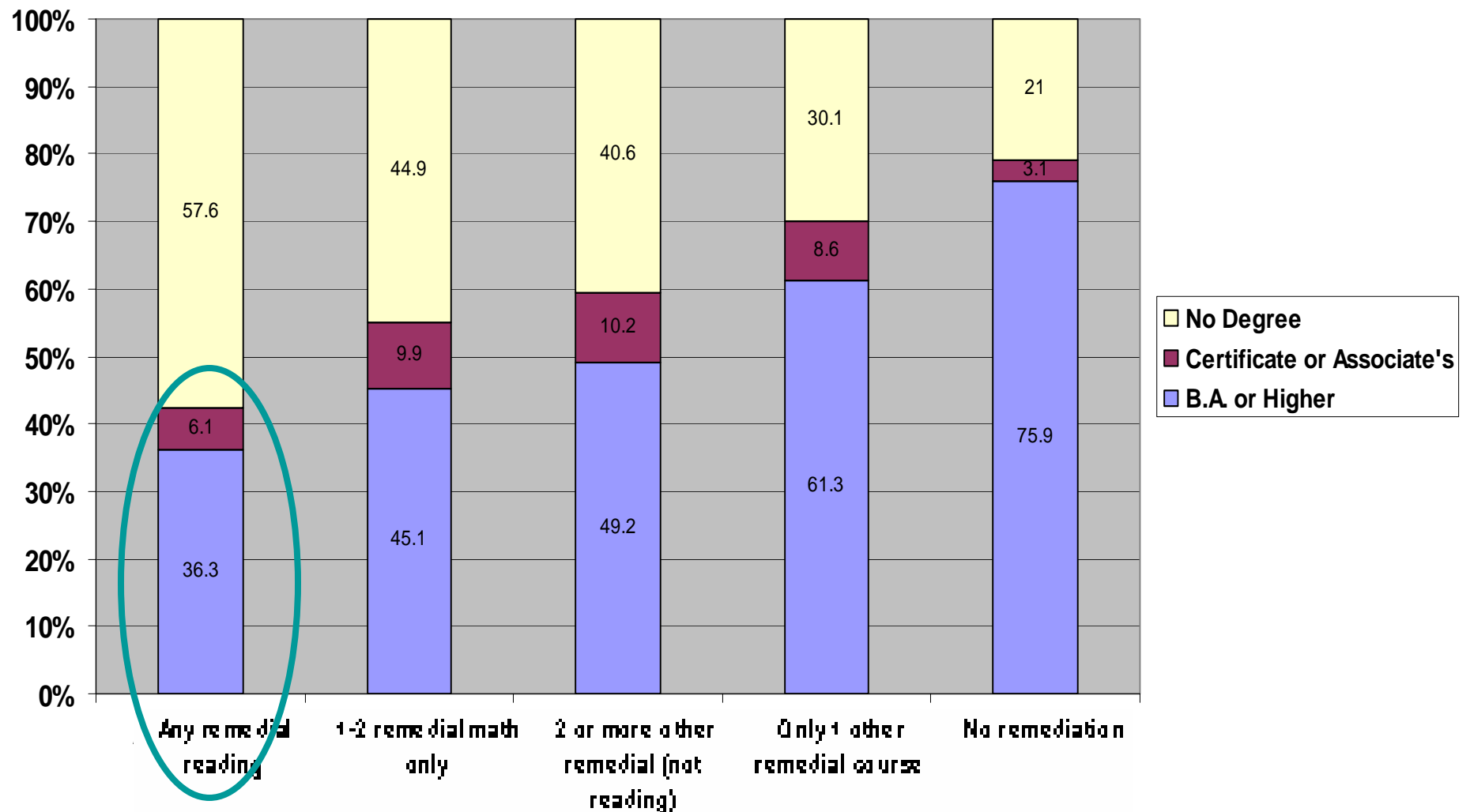


Source: National Center for Public Policy and Higher Education,

Do they get caught up?

Postsecondary Remediation and Completion

Remediation and Higher Education Attainment
Highest Degree Earned by 1992 12th Graders Who First Enrolled at a 4-year College or University



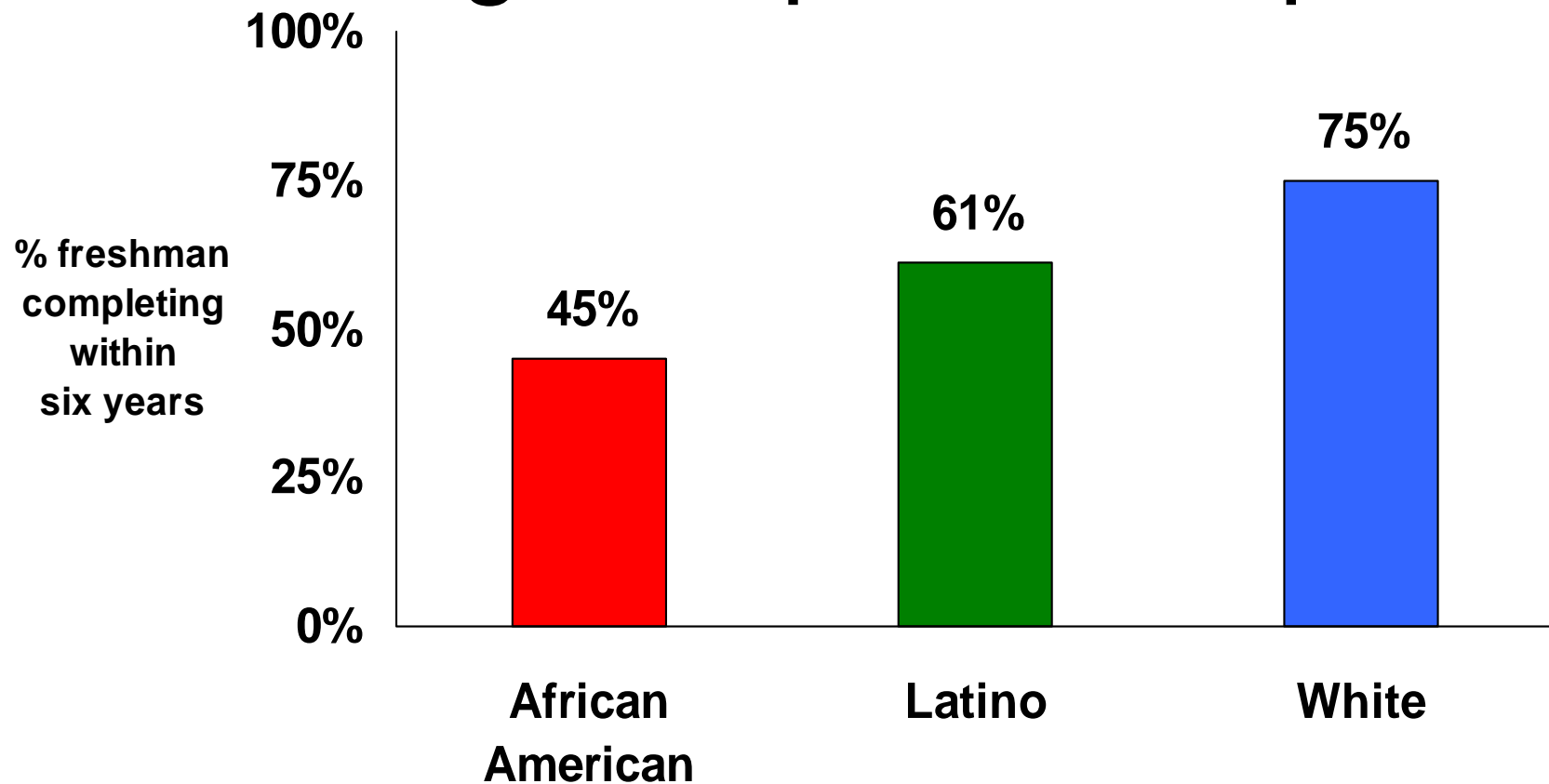
Source: National Education Longitudinal Survey (NELS:88), Calculations by Clifford Adelman, U.S. Department of Education

College Freshmen Not Returning for Sophomore Year

4 year Colleges	26%
2 year Colleges	45%

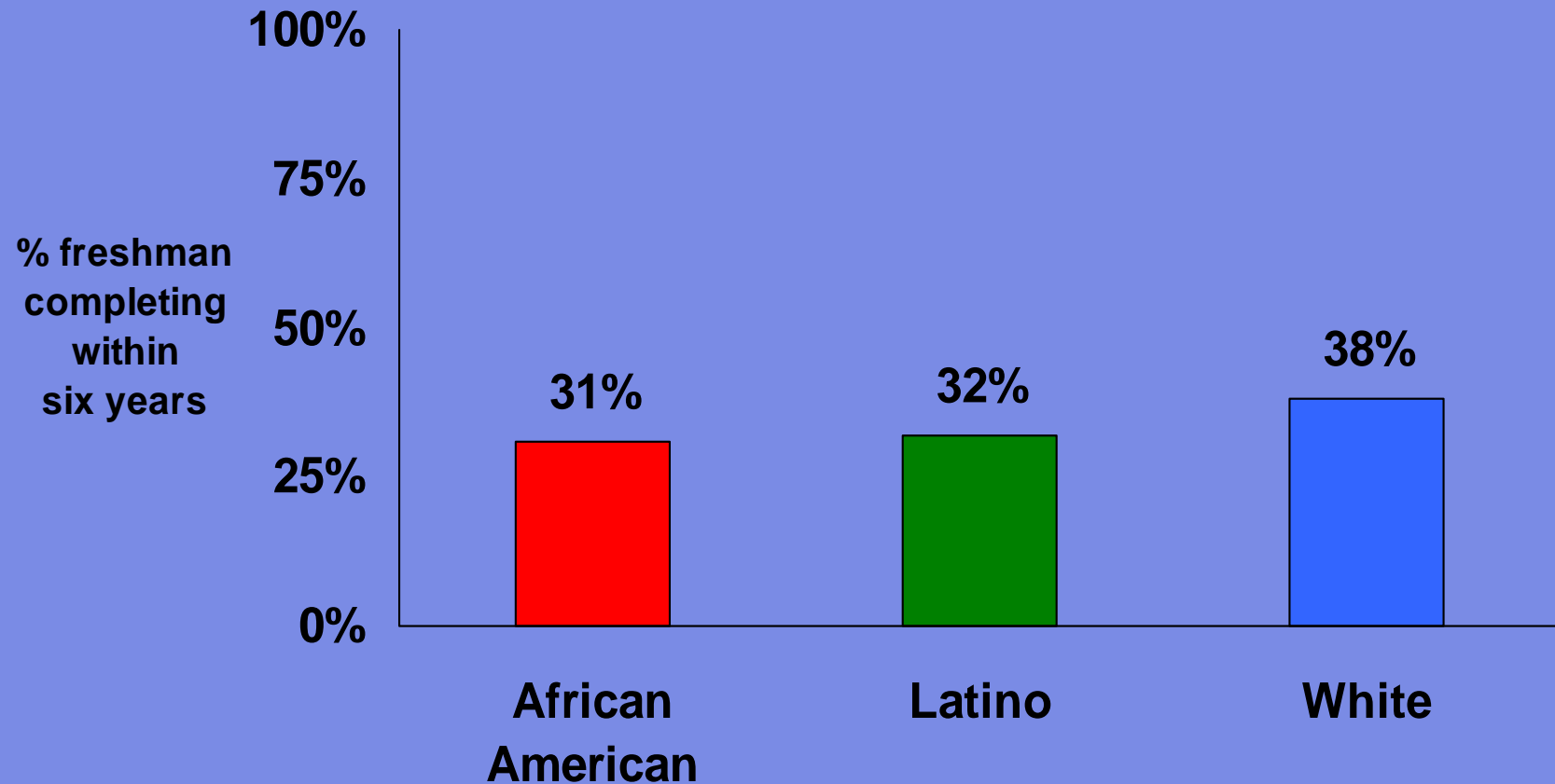
Source: Tom Mortensen, Postsecondary Opportunity, No. 89, November 1999

Low College Completion Rates and Big Completion Gaps



Source: Adapted from Adelman, Clifford, U.S. Department of Education, “Answers in the Toolbox,” 1999.

NEVADA: 6-Yr Grad Rates at Largest State University (UNLV)



Source: U.S. Department of Education, IPEDS Graduation Rate Survey. Reported by institution.

Of Every 100 White Kindergartners:

- 93** Graduate from high school
- 65** Complete at least some college
- 33** Obtain at least a Bachelor's Degree

(25-to 29-Year-Olds)

Source: US Department of Commerce, Bureau of the Census. March Current Population Surveys, 1971-2001, in The Condition of Education 2002.

Of Every 100 African American Kindergartners:

- 87** Graduate from High School
- 50** Complete at Least Some College
- 18** Obtain at Least a Bachelor's Degree

(25-to 29-Year-Olds)

Of Every 100 Latino Kindergartners:

63 Graduate from
high school

32 Complete at least
some college

11 Obtain at least a
Bachelor's Degree

(25-to 29-Year-Olds)

Source: US Department of Commerce, Bureau of the Census. March Current Population Surveys, 1971-2001, In The condition of Education 2002.

Of Every 100 American Indian/Alaskan Native Kindergartners:

58 Graduate from High
School

7 Obtain at least a
Bachelor's Degree

(24 Year Olds)

College Graduates by Age 26

Young People From High Income Families	60%
Young People From Low Income Families	7%

Source: Tom Mortenson, Research Seminar on Public Policy Analysis of Opportunity for Post Secondary, 1997.

Nevada: Educational Attainment Profile Shows Room to Grow

Participation and Persistence in Postsecondary

	Nevada	Top States*
H.S. freshmen enrolling in any U.S. college w/in 4 years	28%	52%
1st year Community College students returning their 2nd year	49%	61%
Freshmen at 4 year colleges returning their sophomore year	73%	84%
First-time full-time freshmen completing a BA w/in 6 years	44%	64%

*Top States= median of top 5 performing states

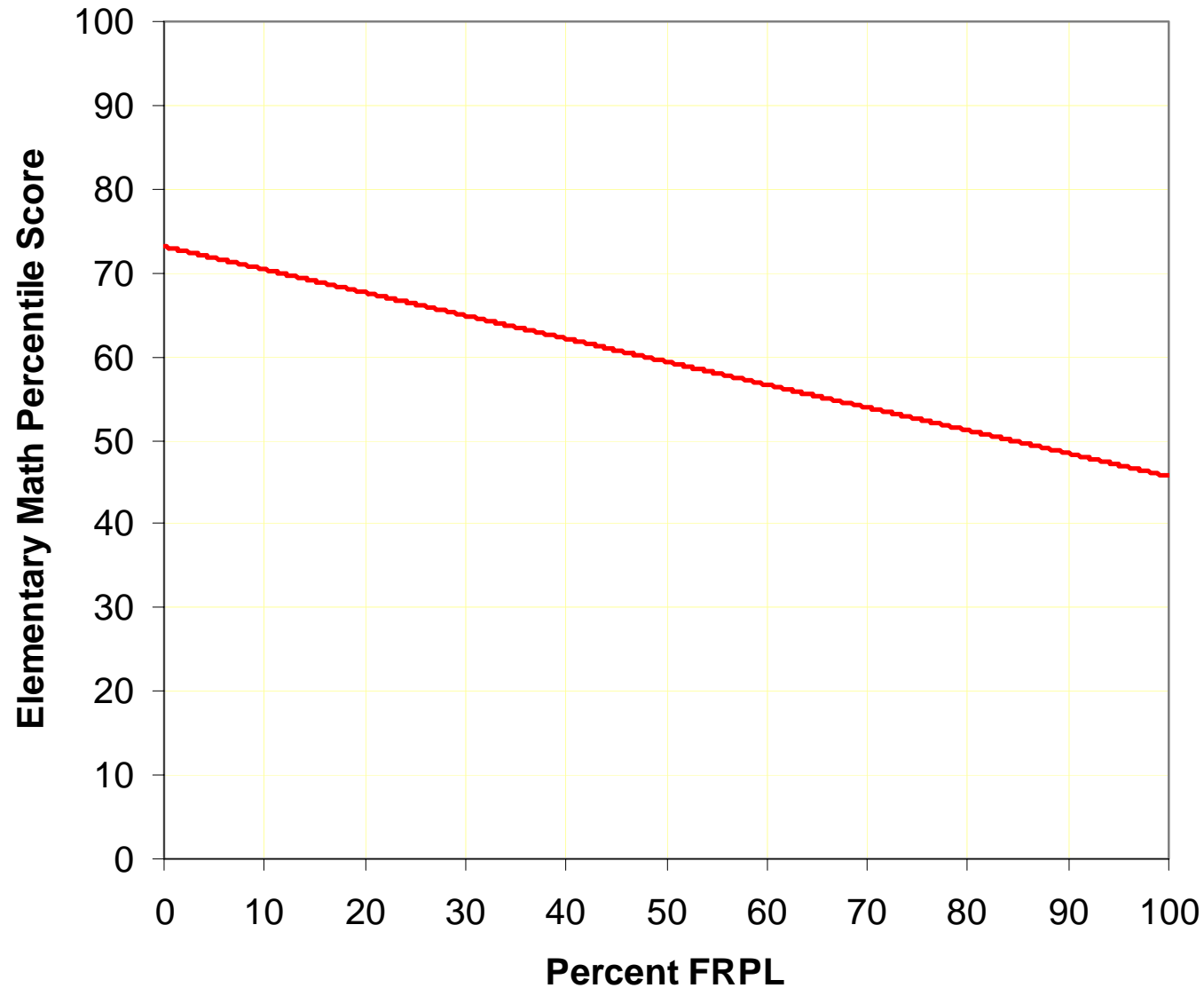
Source: The Education Trust, Education Watch State Reports, Spring 2004. www.edtrust.org

SO, WHAT CAN WE DO?

A Few Things Worth Thinking
About

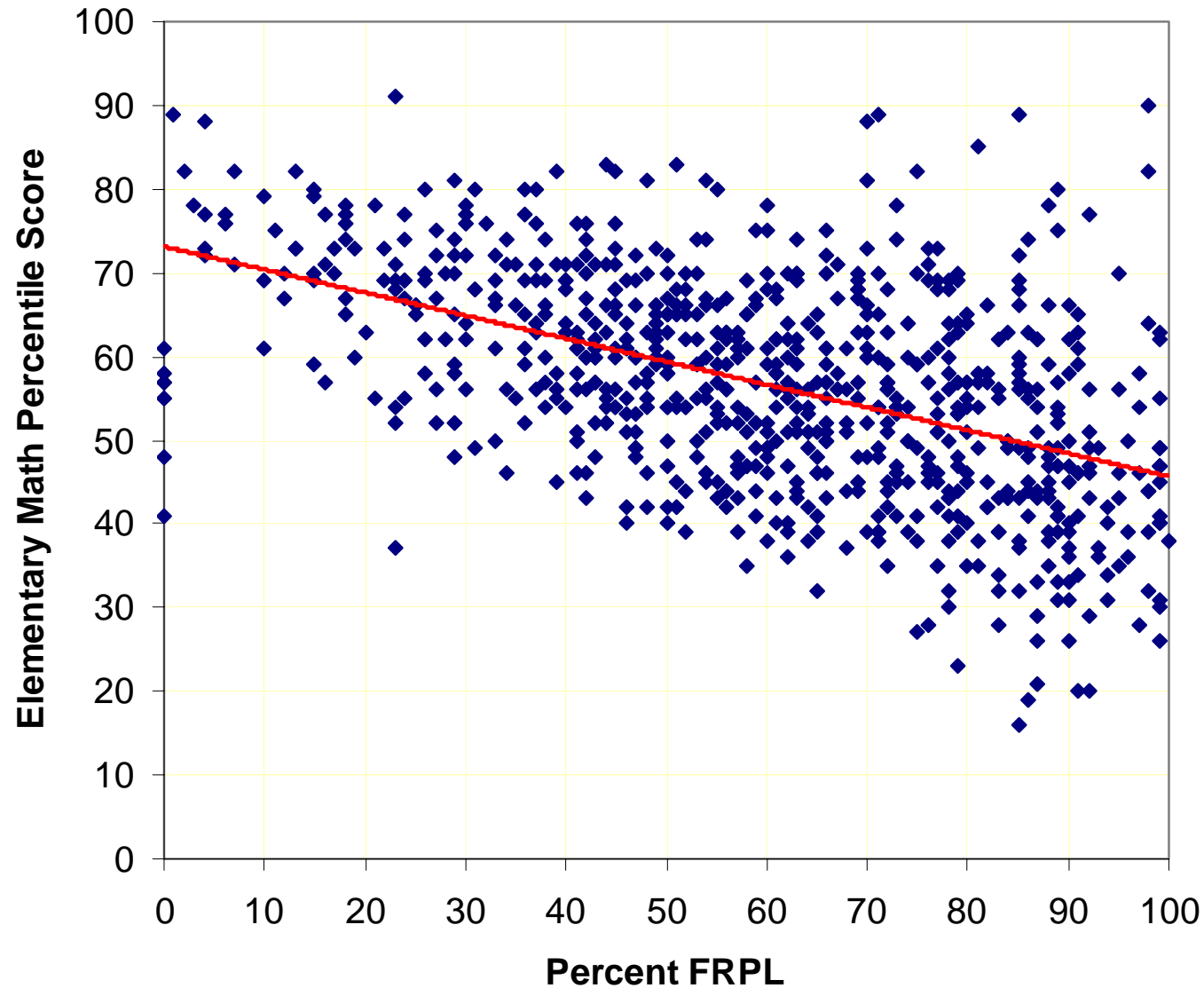
1. Get beyond the regression line.

Poverty vs. Achievement in Kentucky Elementary Schools



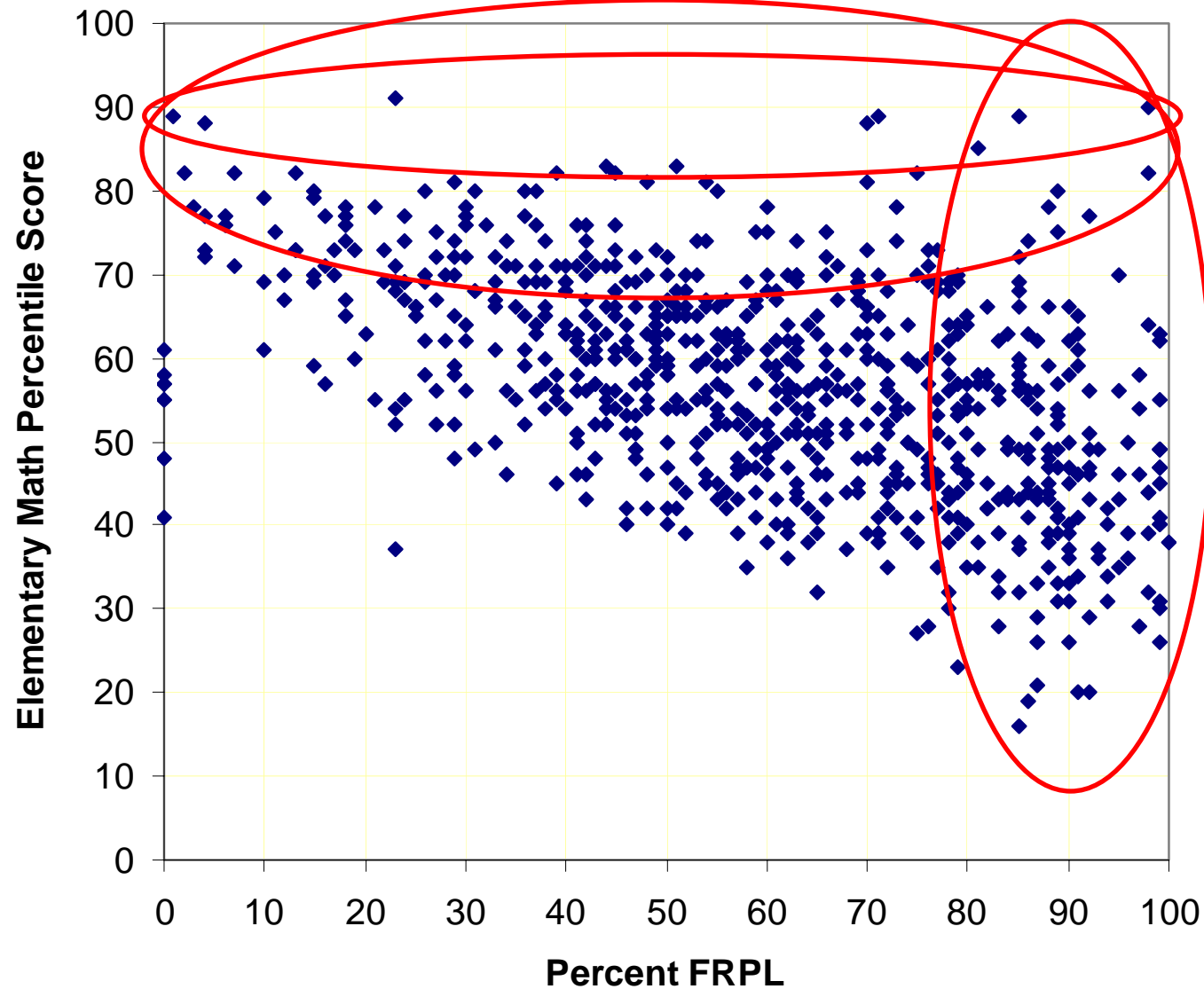
Source: Education Trust
analysis of data from
*National School-Level
State Assessment Score
Database*
(www.schooldata.org).

Poverty vs. Achievement in Kentucky Elementary Schools



Source: Education Trust
analysis of data from
*National School-Level
State Assessment Score
Database*
(www.schooldata.org).

Poverty vs. Achievement in Kentucky Elementary Schools



Source: Education Trust
analysis of data from
*National School-Level
State Assessment Score
Database*
(www.schooldata.org).

Centennial Place Elementary School

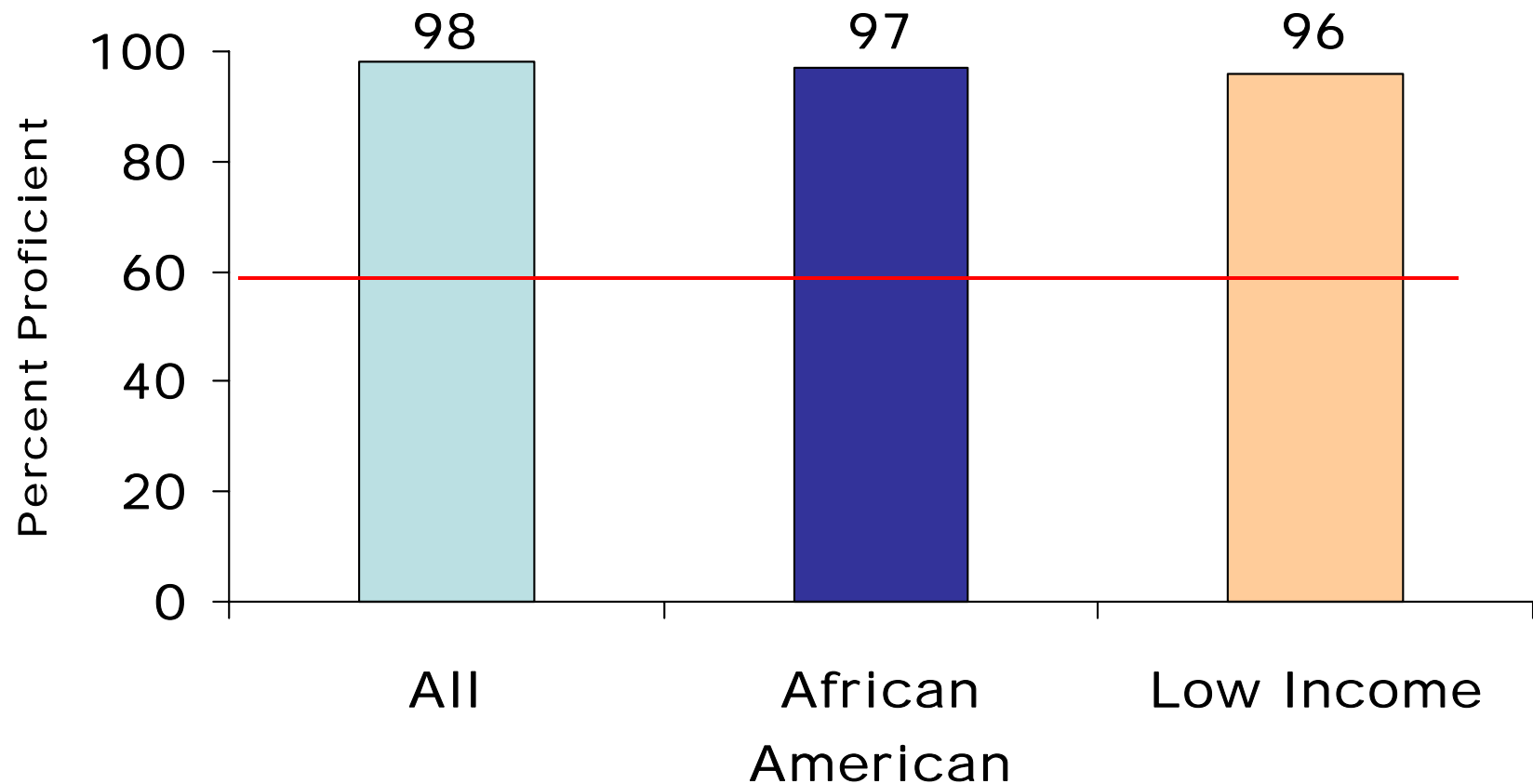
Atlanta Public Schools

- 91% African American
- 79% Low Income
- In 2002, performed as well or better than 88% of Georgia schools in 4th grade math
- In 2002, performed as well or better than 93% of Georgia schools in 4th grade reading
- Made AYP for 2002-03

Source: Georgia Department of Education, <http://www.doe.k12.ga.us>

Dispelling the Myth Online, <http://www.edtrust.org>

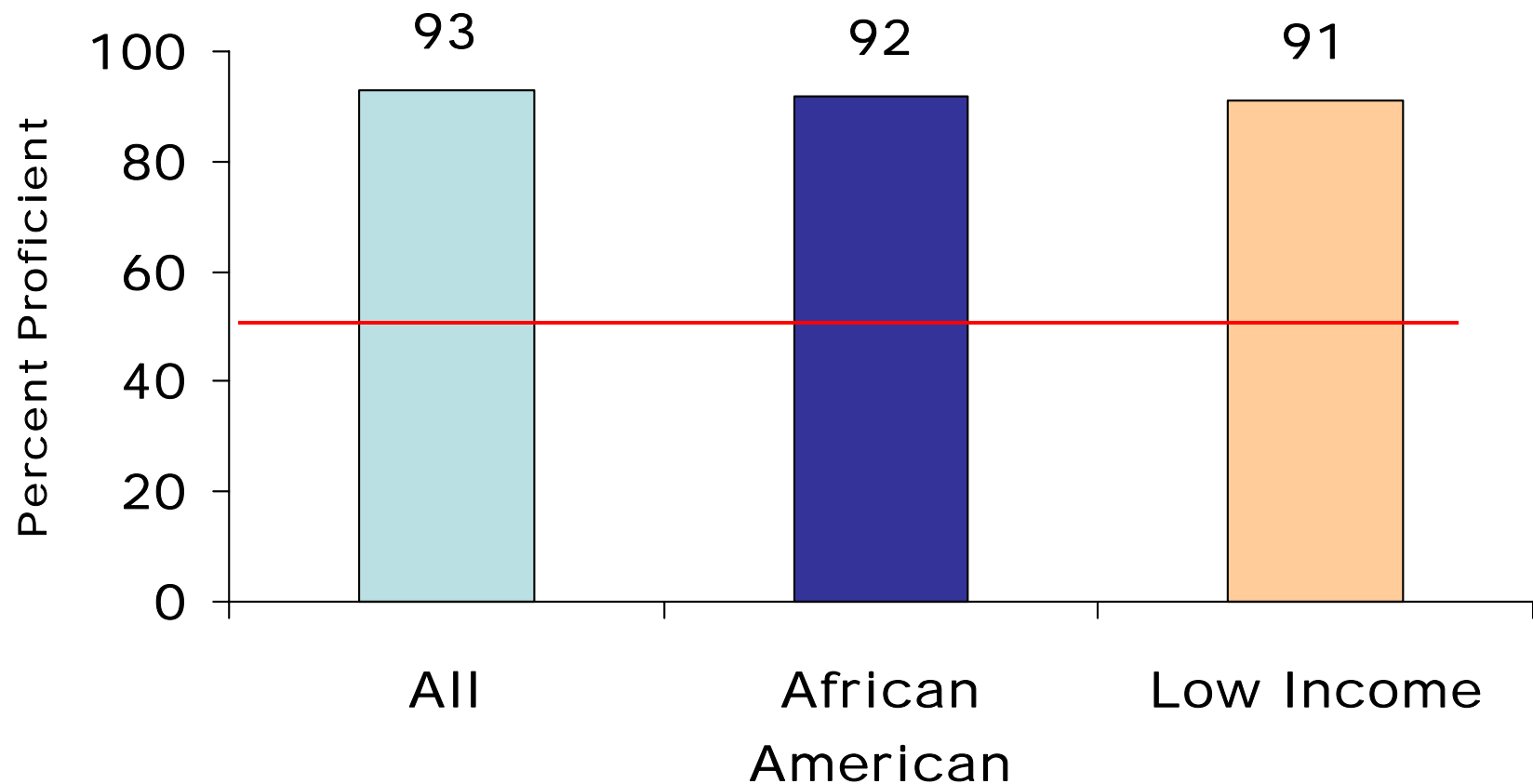
High Achievement at Centennial Place 2003 Reading Composite



AYP Target= 60%

High Achievement at Centennial Place

2003 Math Composite



AYP Target= 50%

Samuel W. Tucker Elementary

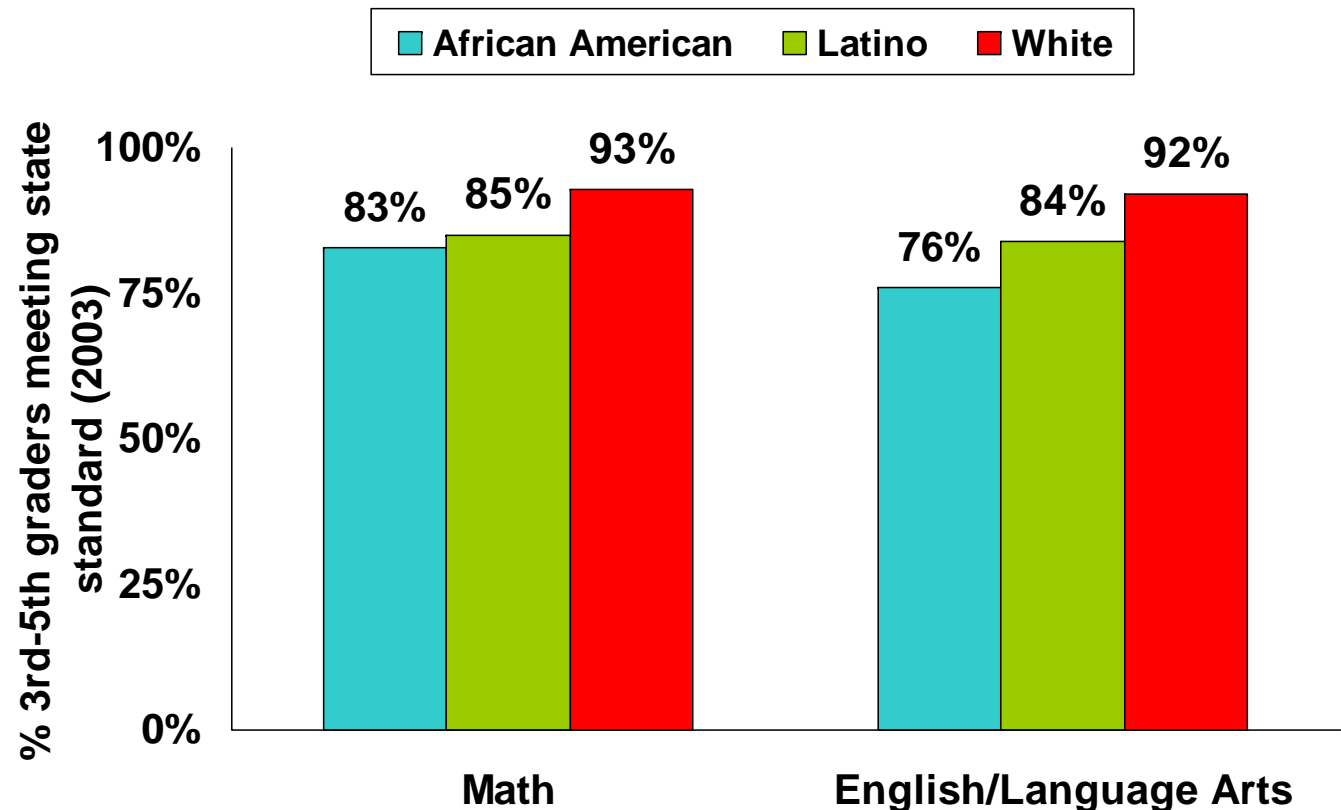
Alexandria, VA

► 68% African American and Latino

► 53% low-income

★ Outperformed 2/3 of VA elem. schools in both reading and math for two years in a row (2001-2).

★ In 2002, outperformed 92% of VA elem. schools in reading and 86% in math.



Source: Virginia Department of Education

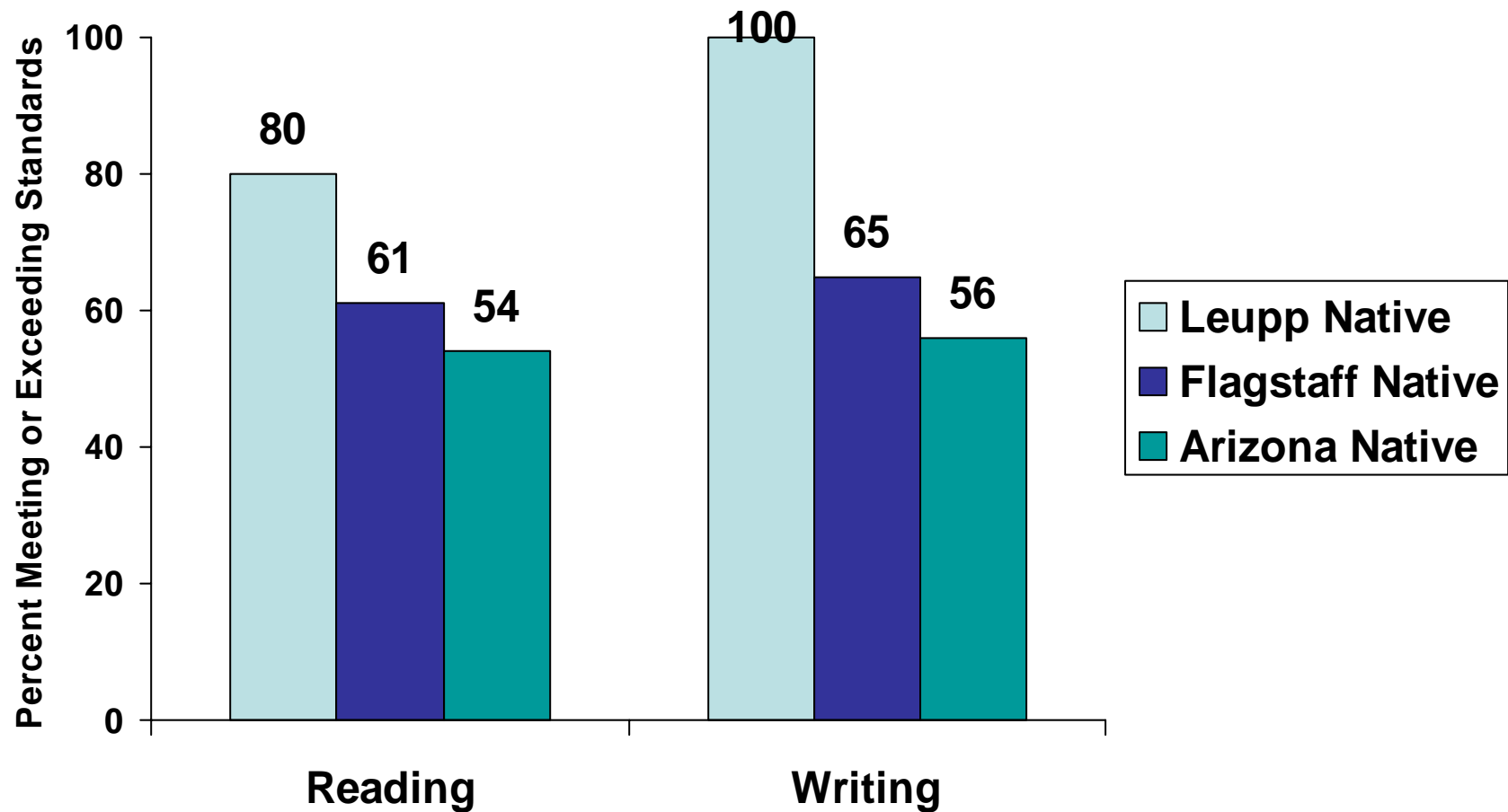
Leupp Public School Flagstaff, Arizona

- 100% Native American
- Performed as well or better than 83% of all Arizona schools in 5th grade math in 2001.
- Performed as well or better than 68% of all Arizona schools in 8th grade math in 2001.
- Made AYP for 2002-03.

Source: Arizona Department of Education, <http://www.ade.state.az.us>

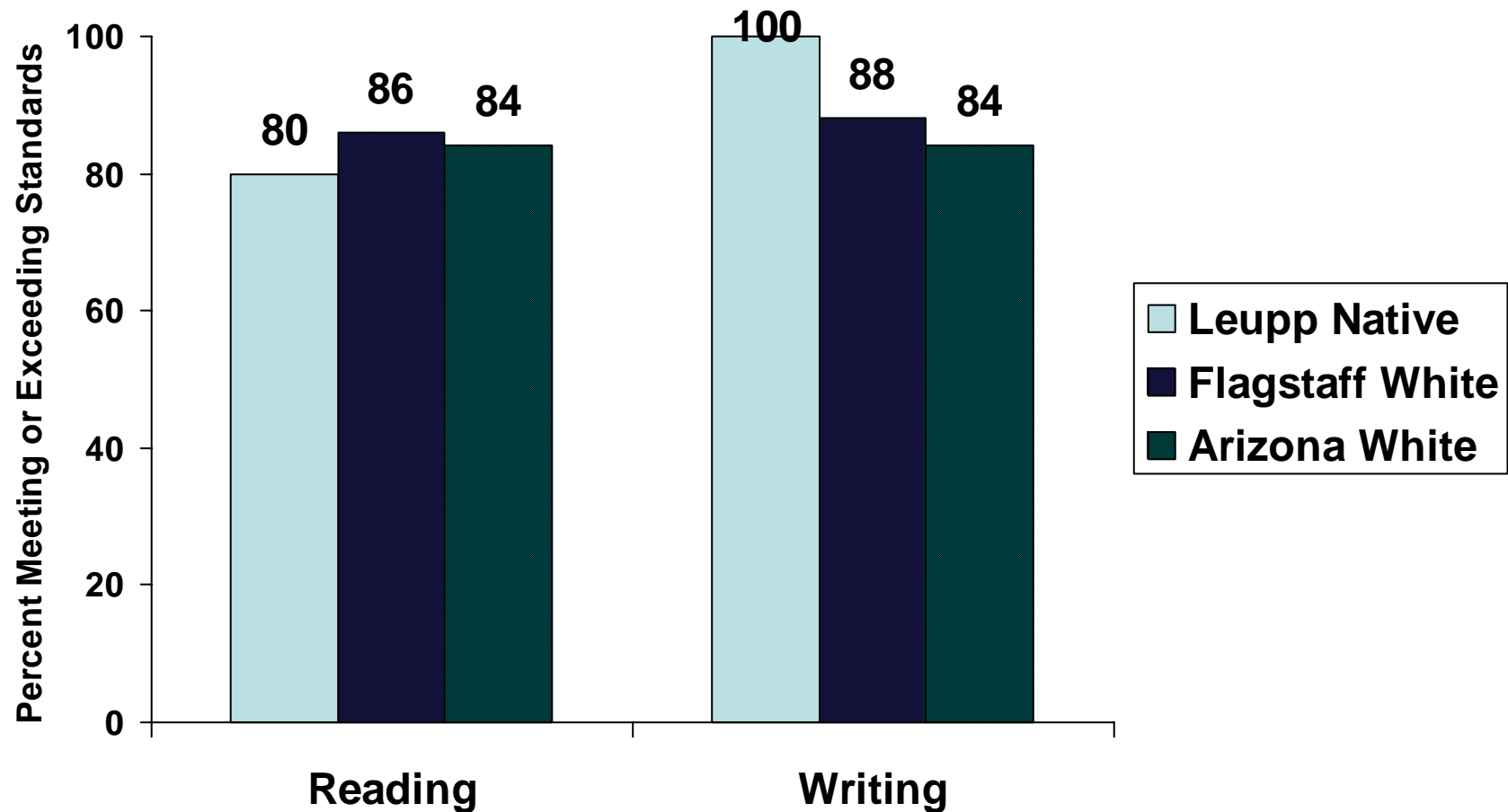
Dispelling the Myth Online, <http://www.edtrust.org>

3rd Grade Language Arts: Leupp Students Far Outperform Other Native American Students in District and State (2003)

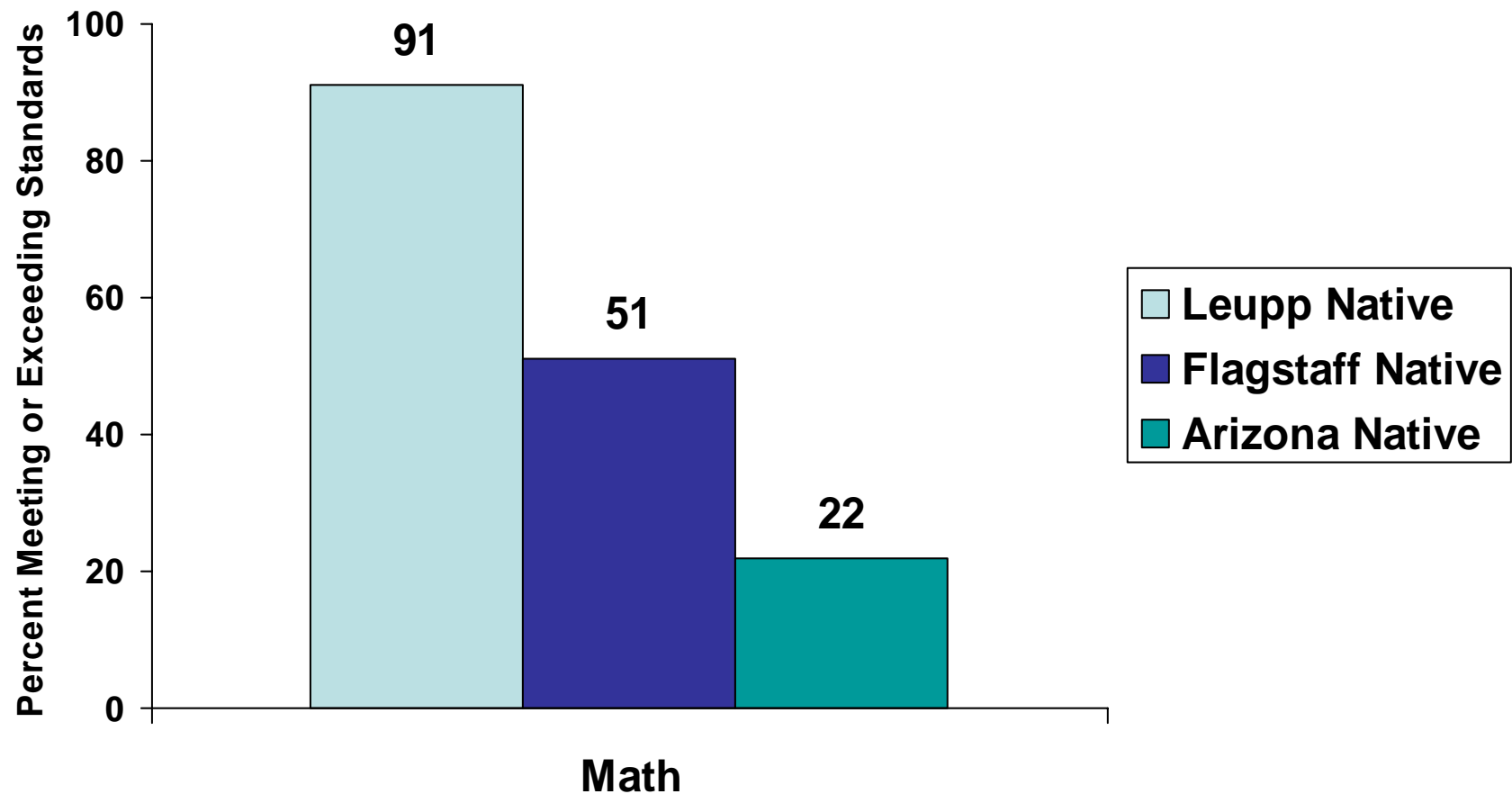


Source: Arizona Department of Education, <http://www.ade.state.az.us>

3rd Grade Language Arts: Leupp Students are Closing the Gap with White Students in District and State (2003)

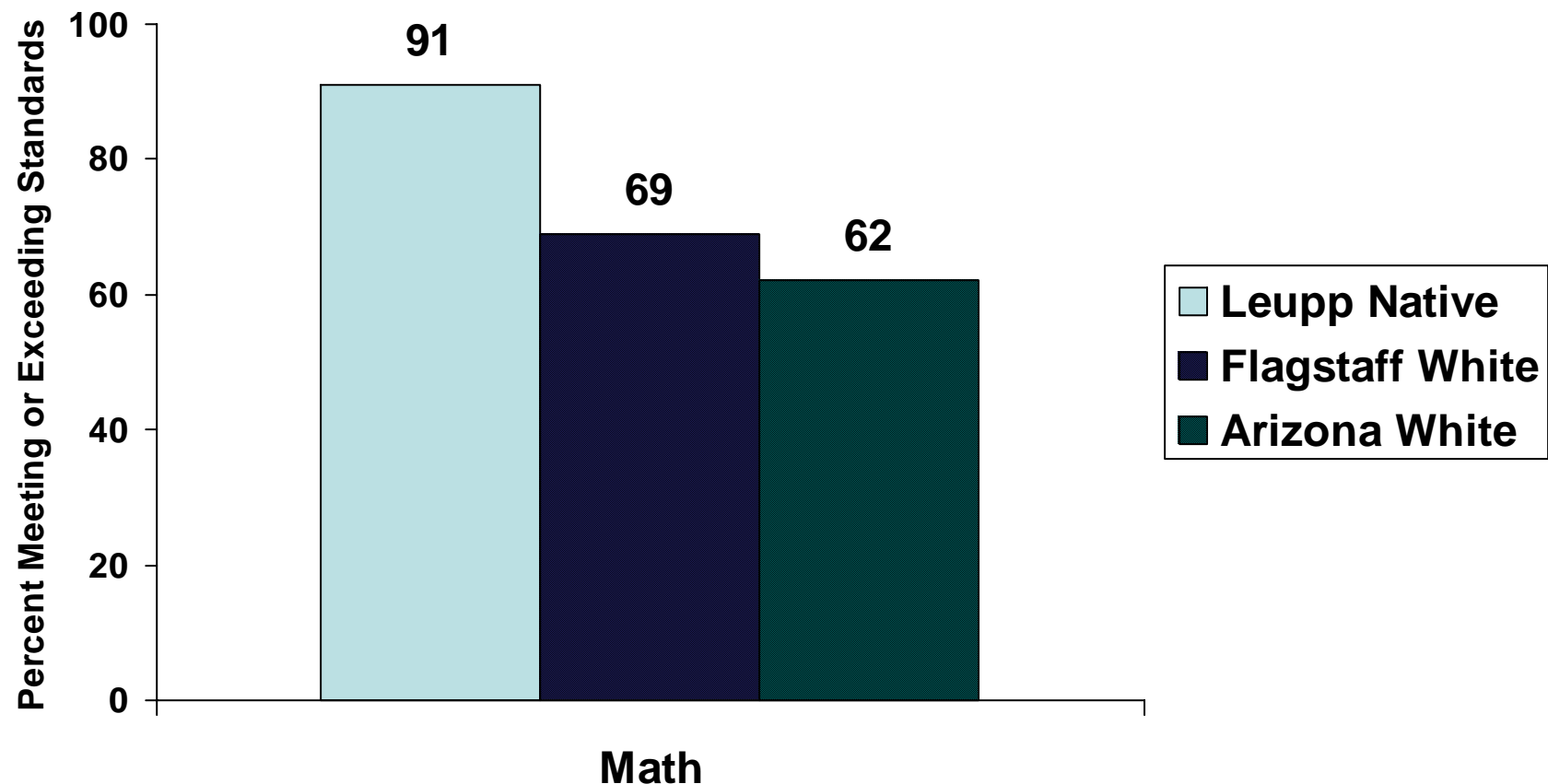


5th Grade Math: Leupp Students Far Outperform Other Native American Students in District and State (2003)



Source: Arizona Department of Education, <http://www.ade.state.az.us>

5th Grade Math: Leupp Students are Closing the Gap with White Students in District and State (2003)



Beck Elementary School, Washoe County, NV

- 99% Low Income
- Outperformed 95% of other Nevada schools in 4th grade reading for three years in a row (2000-2002).

What about secondary schools?

Hambrick Middle School, Aldine, TX

- 94% African American and Latino (state = 56%)
- 85% low-income (state = 50%)
- Has performed in the top fifth of all Texas middle schools in both reading and math in both 7th and 8th grades over a 3-year period.

Inman Middle School, Atlanta, GA

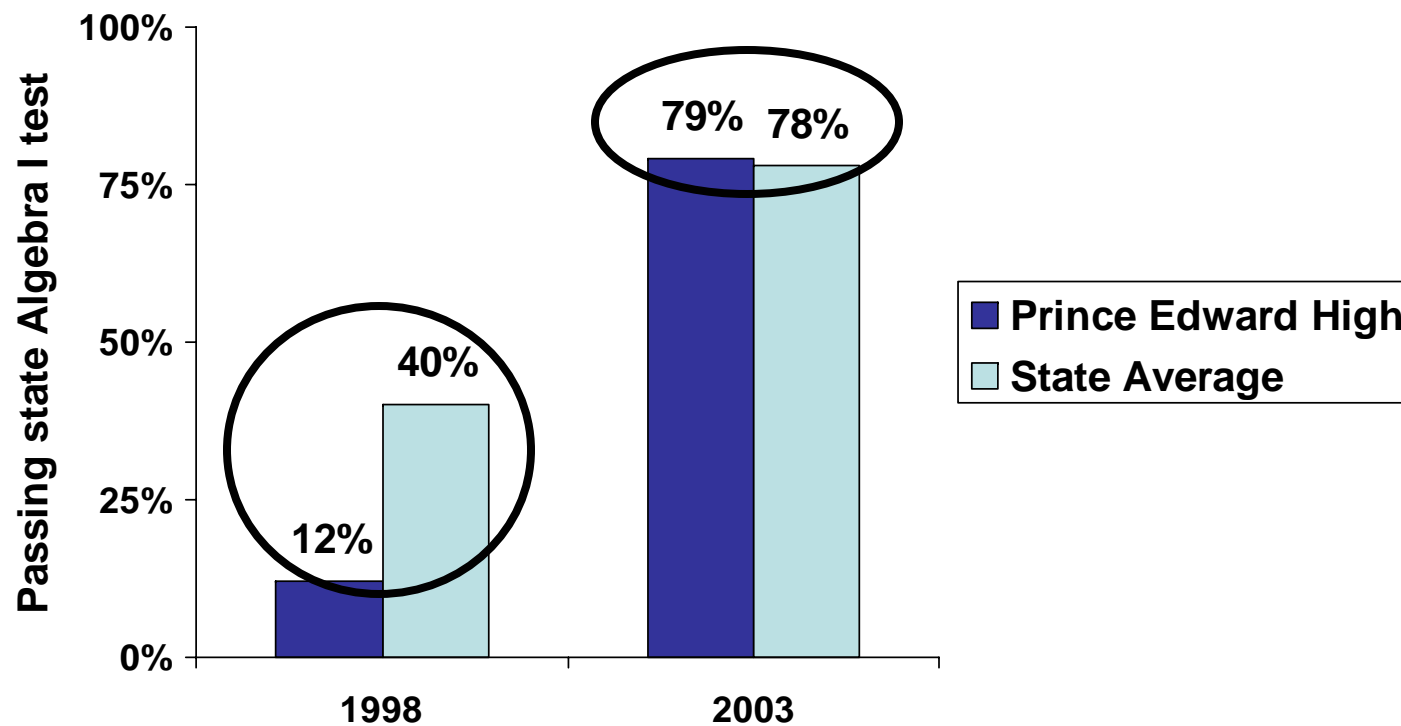
- 60% Low Income
- 60% African American and Latino
 - *(58% African American and 2% Latino)*
- Outperformed about 95% of other GA schools on average* in both 2001 and 2002.
- Over 90% of 6th graders, 7th graders, and 8th graders met state standard in reading in 2002.

Johnson County Middle School, Kentucky

- 95% Low Income
- Outperformed 2/3 of other Kentucky middle schools in both math and reading for three years in a row (2000-2002).
- In 2002, performed better than about 90% of all KY middle schools in both math and reading.

Prince Edward County High, VA

(715 students – 55% African American and Latino)



Sources: Virginia Department of Education Web site,
<http://www.pen.k12.va.us/VDOE/Assessment/2002SOLpassrates.html>.

Ramsay High School Birmingham, Alabama

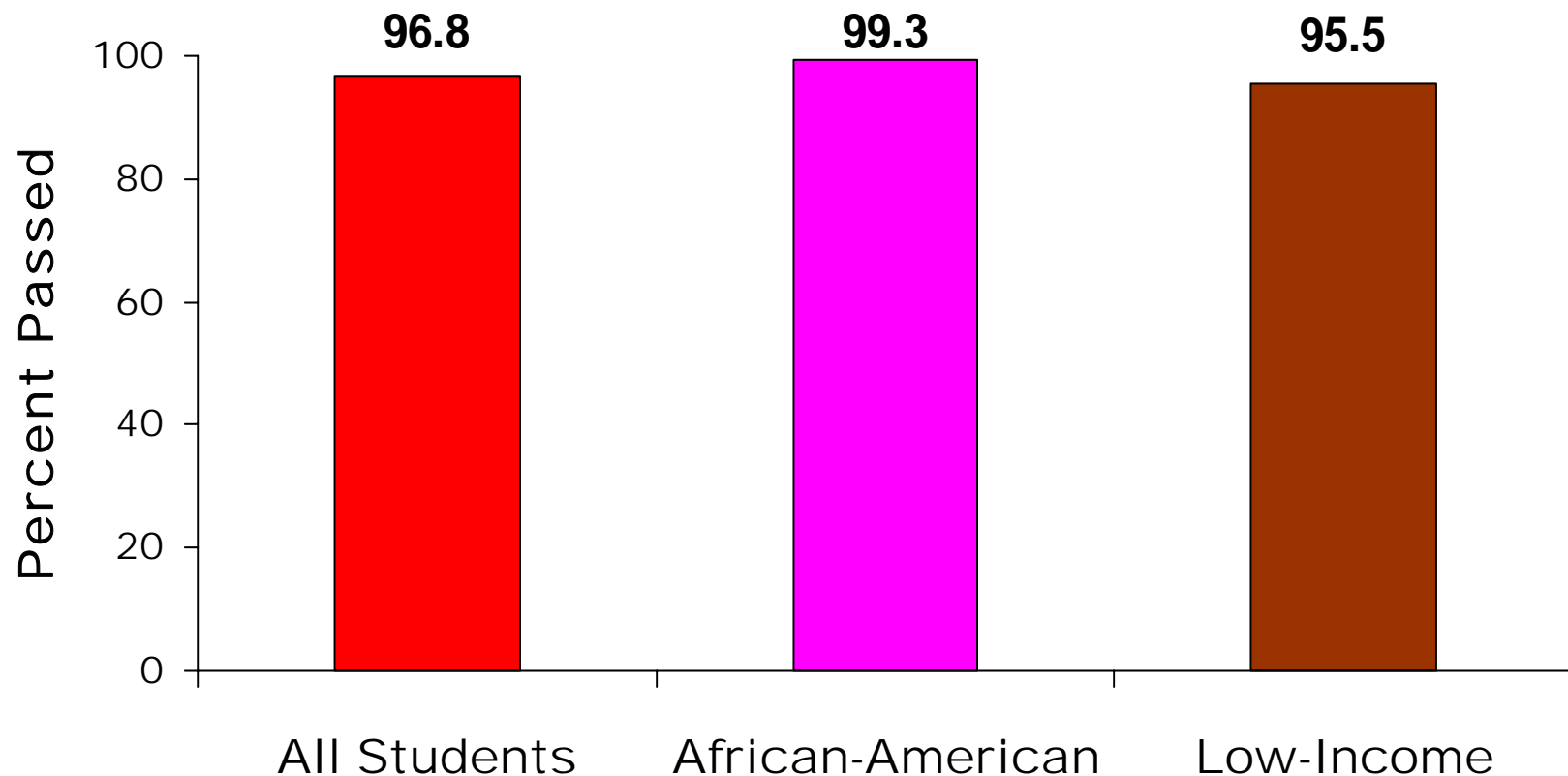


- Total Enrollment - 687
- 90% African American
- 2% Asian
- 4% Latino
- 4% White
- 34 % Low Income

✓ **Student achievement in top 10 percent of high schools in the state for three consecutive years.**

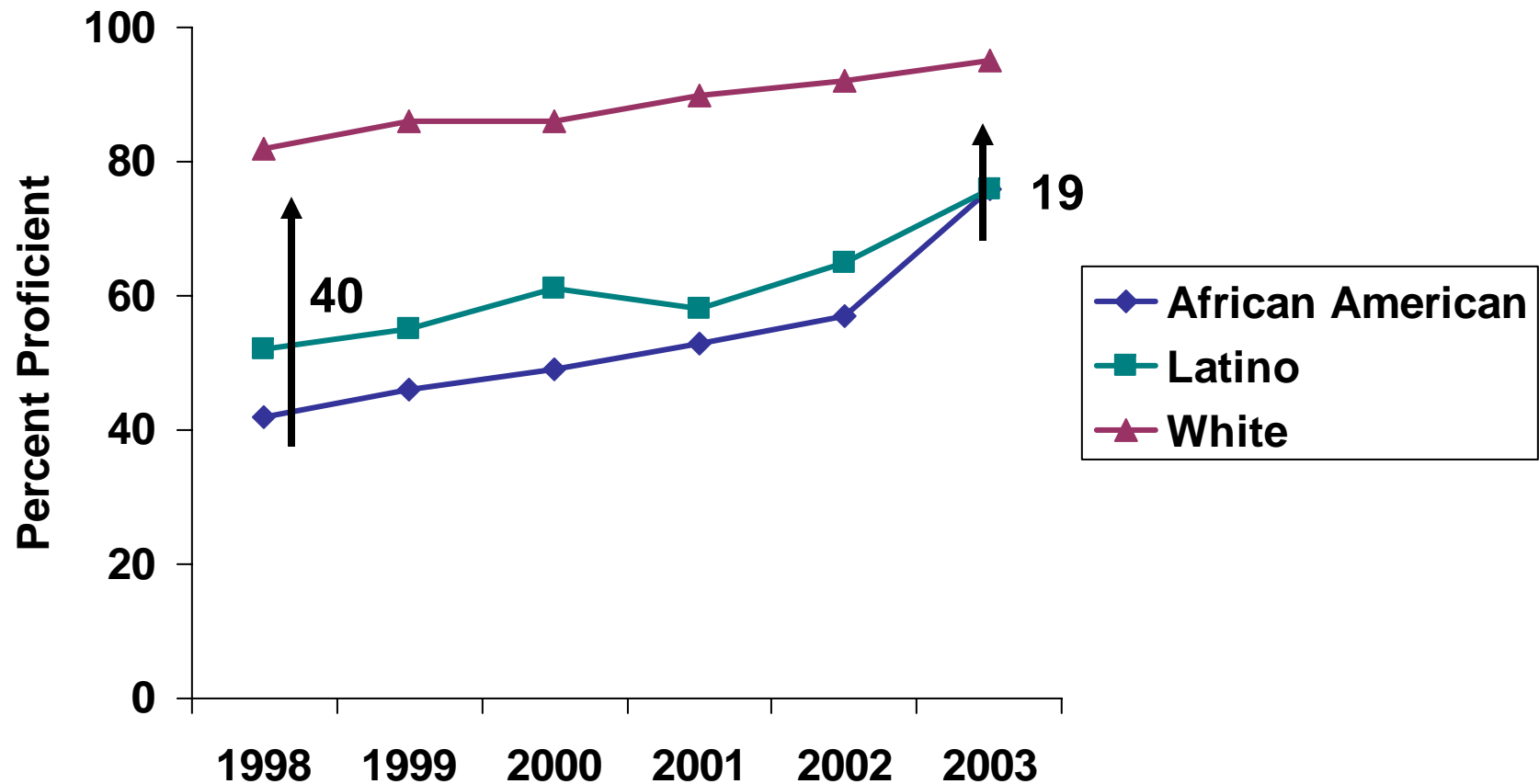
High Performance at Ramsay High

2003 Math Alabama High School Graduation Exam

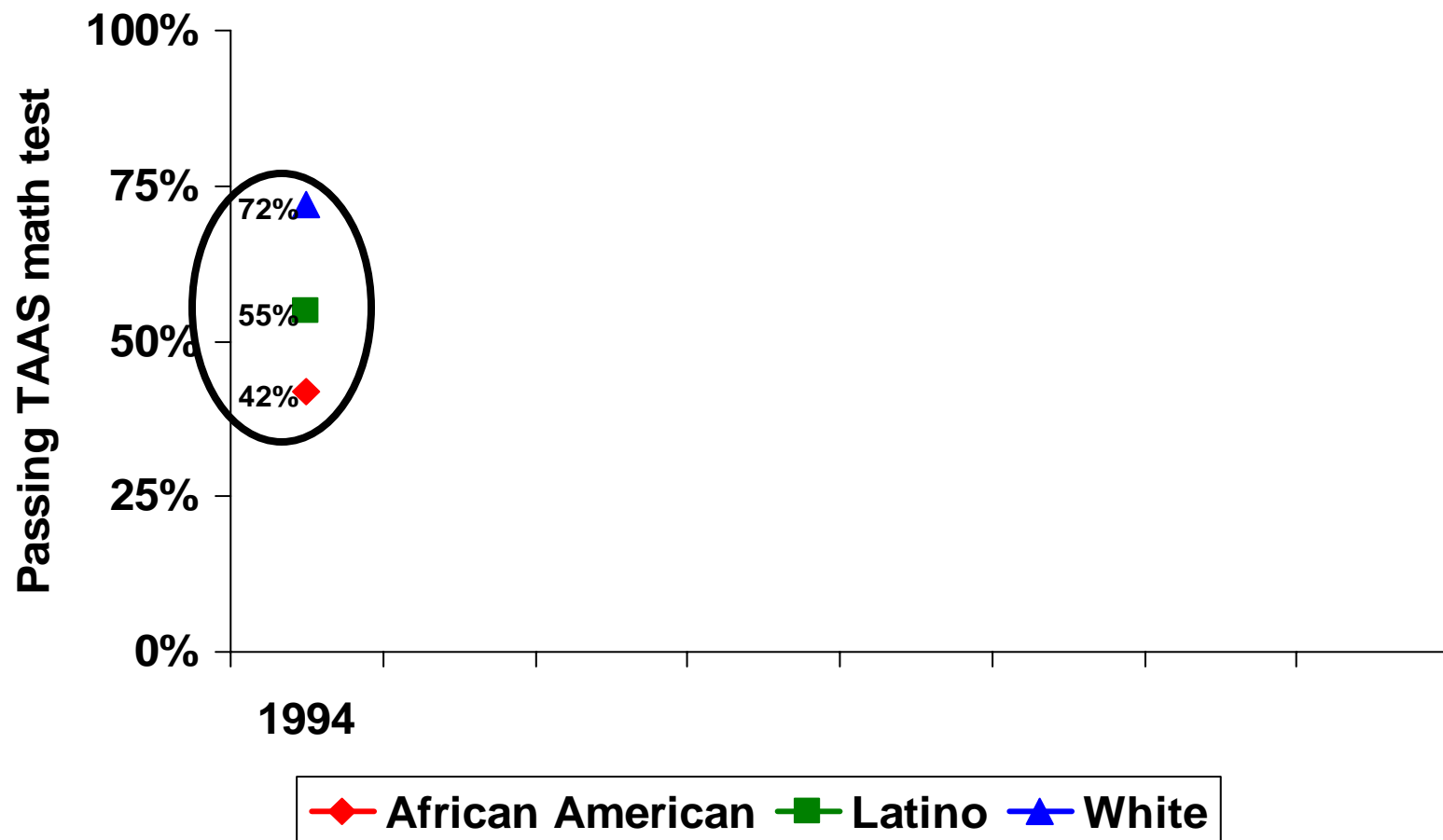


Sure, everyone can point to some good schools. But what about whole school systems and whole states?

Charlotte-Mecklenburg Raising Achievement, Closing Gaps Grade 3 Math

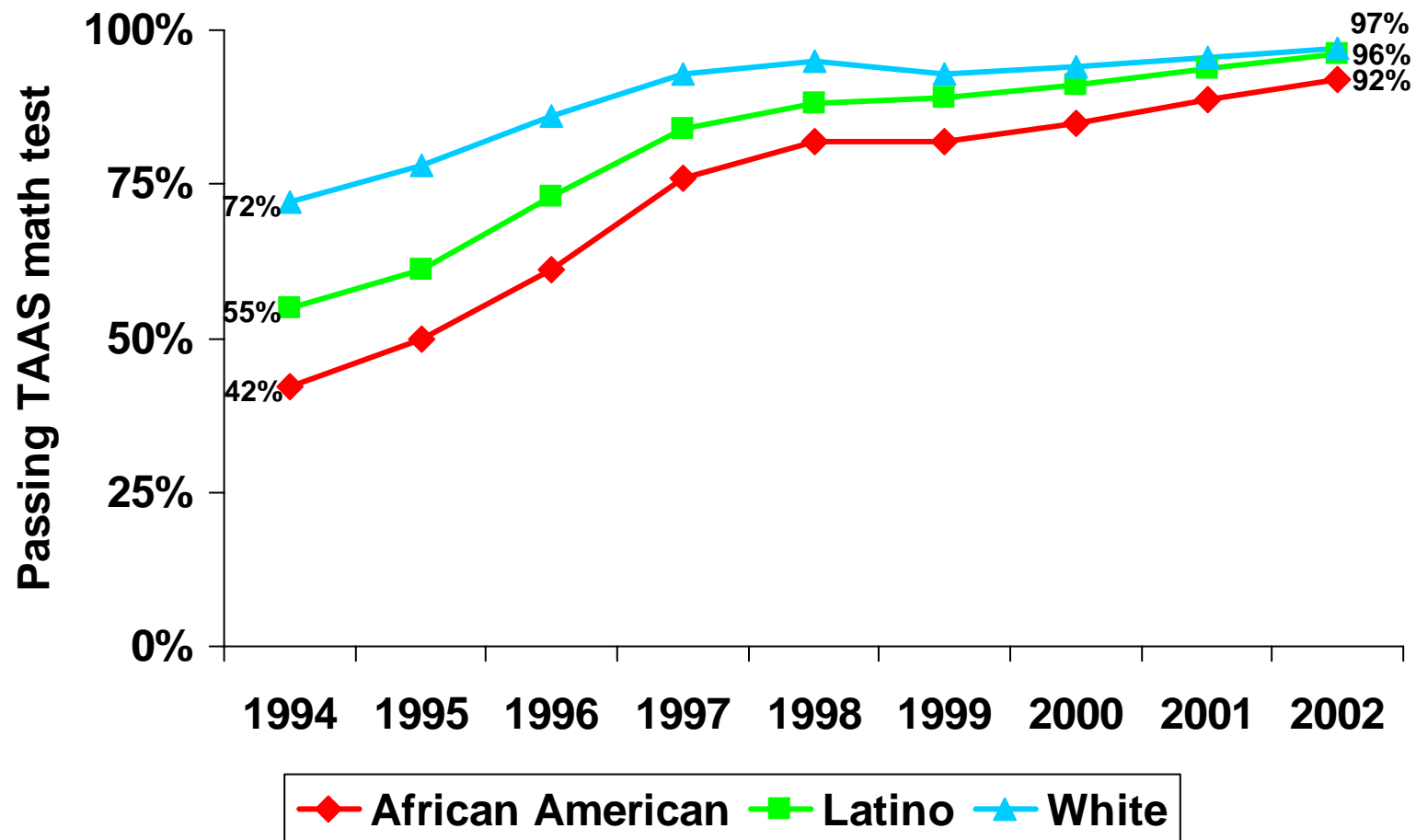


Aldine, TX: Raising Achievement for All While Narrowing Gaps



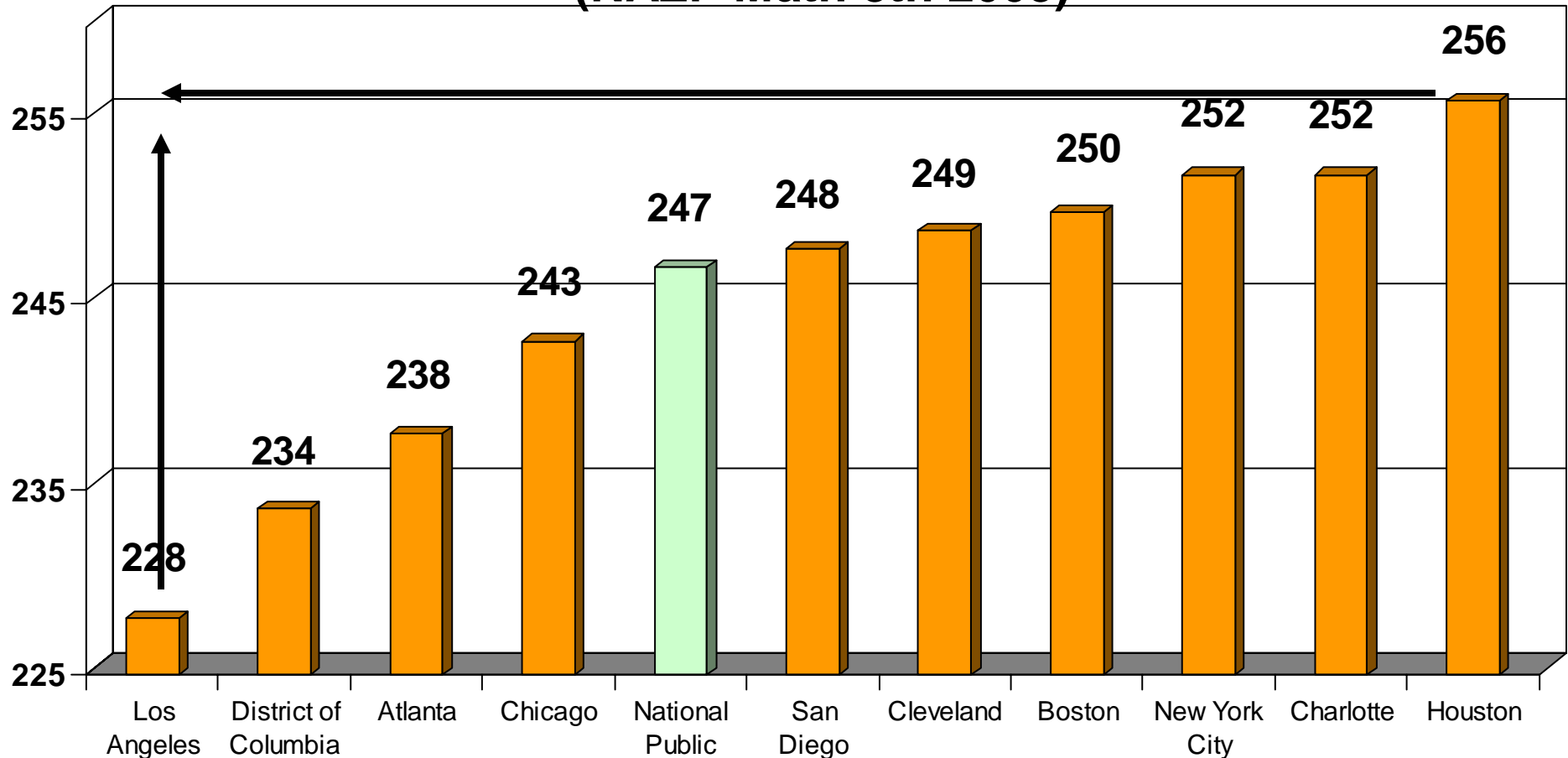
Source: Texas Education Agency-Academic Excellence Indicator System Report 1994 through 2001.

Aldine, TX: Raising Achievement for All While Narrowing Gaps



Source: Texas Education Agency-Academic Excellence Indicator System Report 1994 through 2001.

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

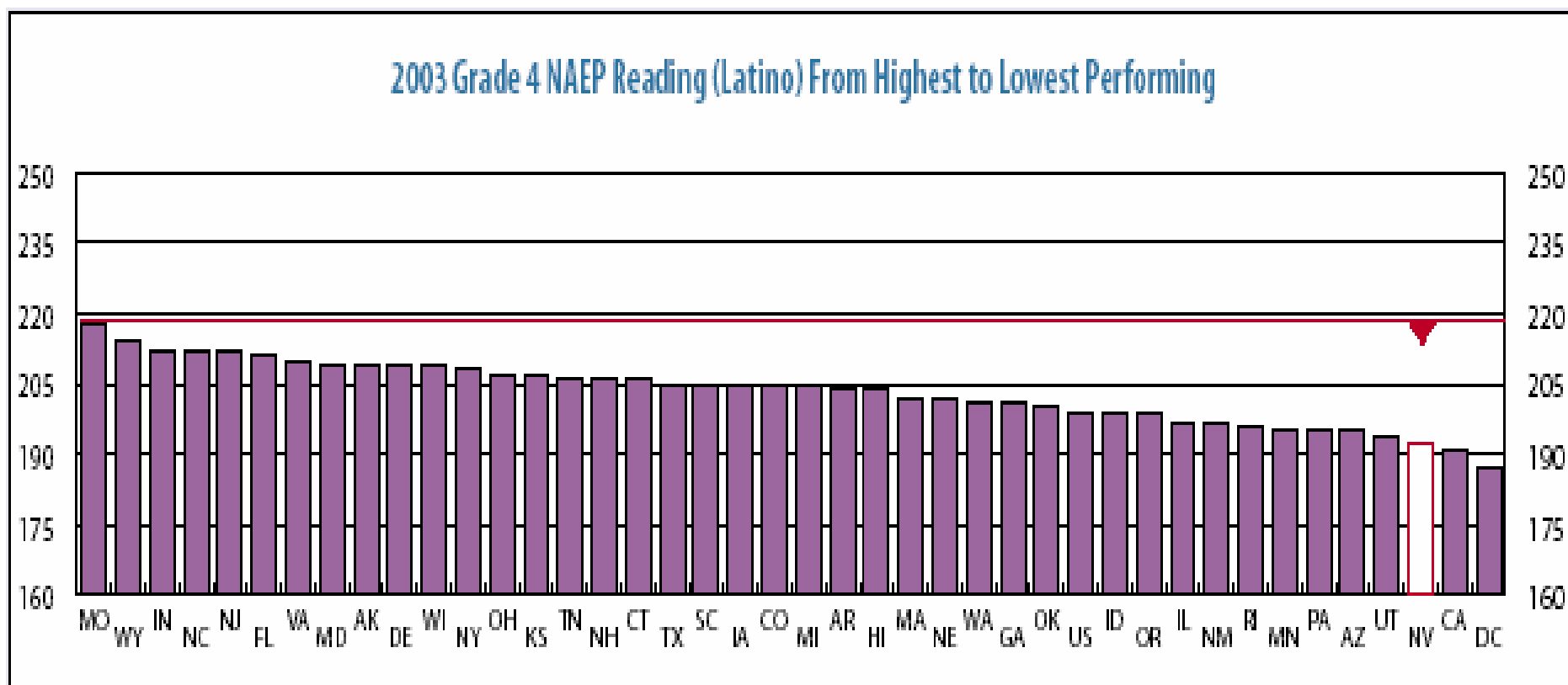


*** There is a 28 point gap between Poor African American 8th graders in Los Angeles and Houston (roughly equivalent to almost 3 years' worth of learning)**

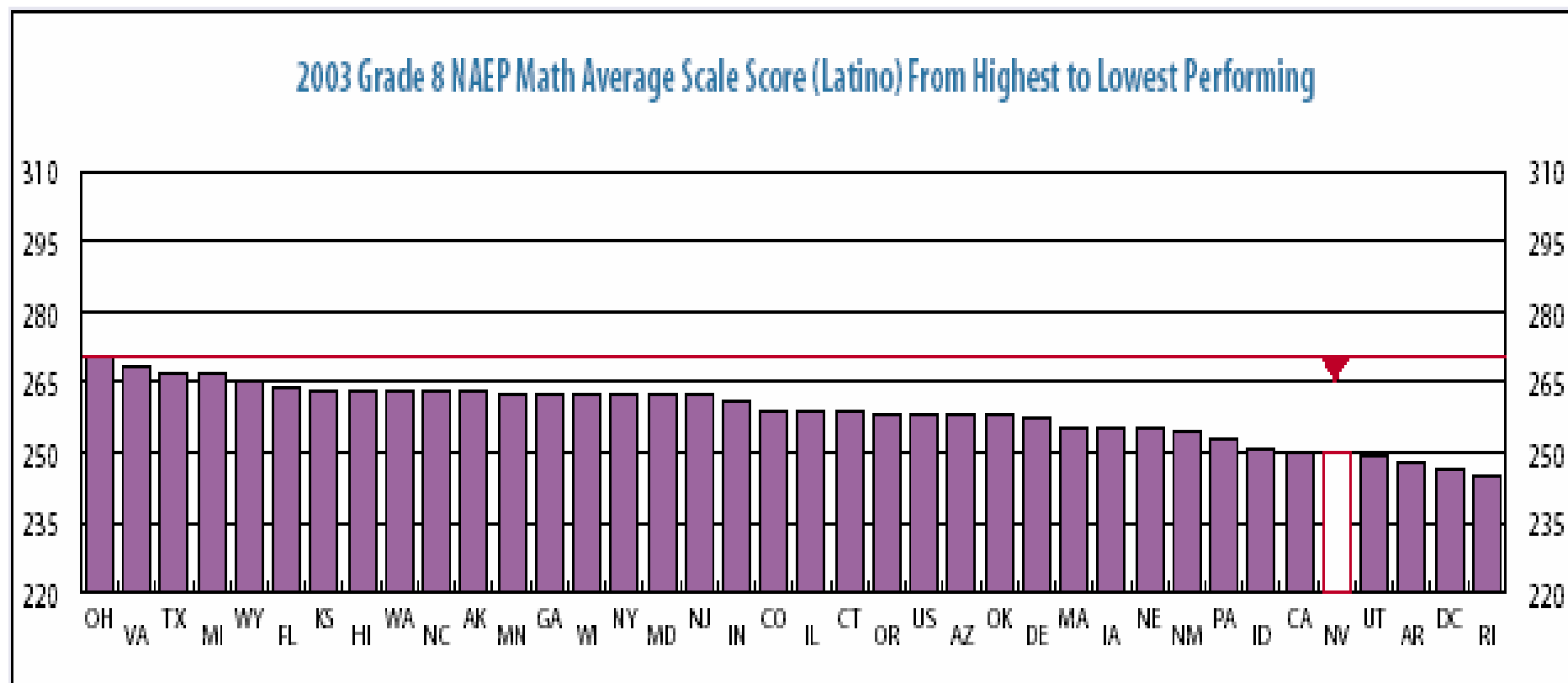
Big Differences Among States
in the Performance of the
“Same” Group.

Take a look...

Latino Scores on 2003 NAEP 4th Grade Reading



Latino Scores on 2003 NAEP 8th Grade Math



Improvement doesn't have to
take forever, either.

Jessie Rouse Elementary Saginaw, Michigan

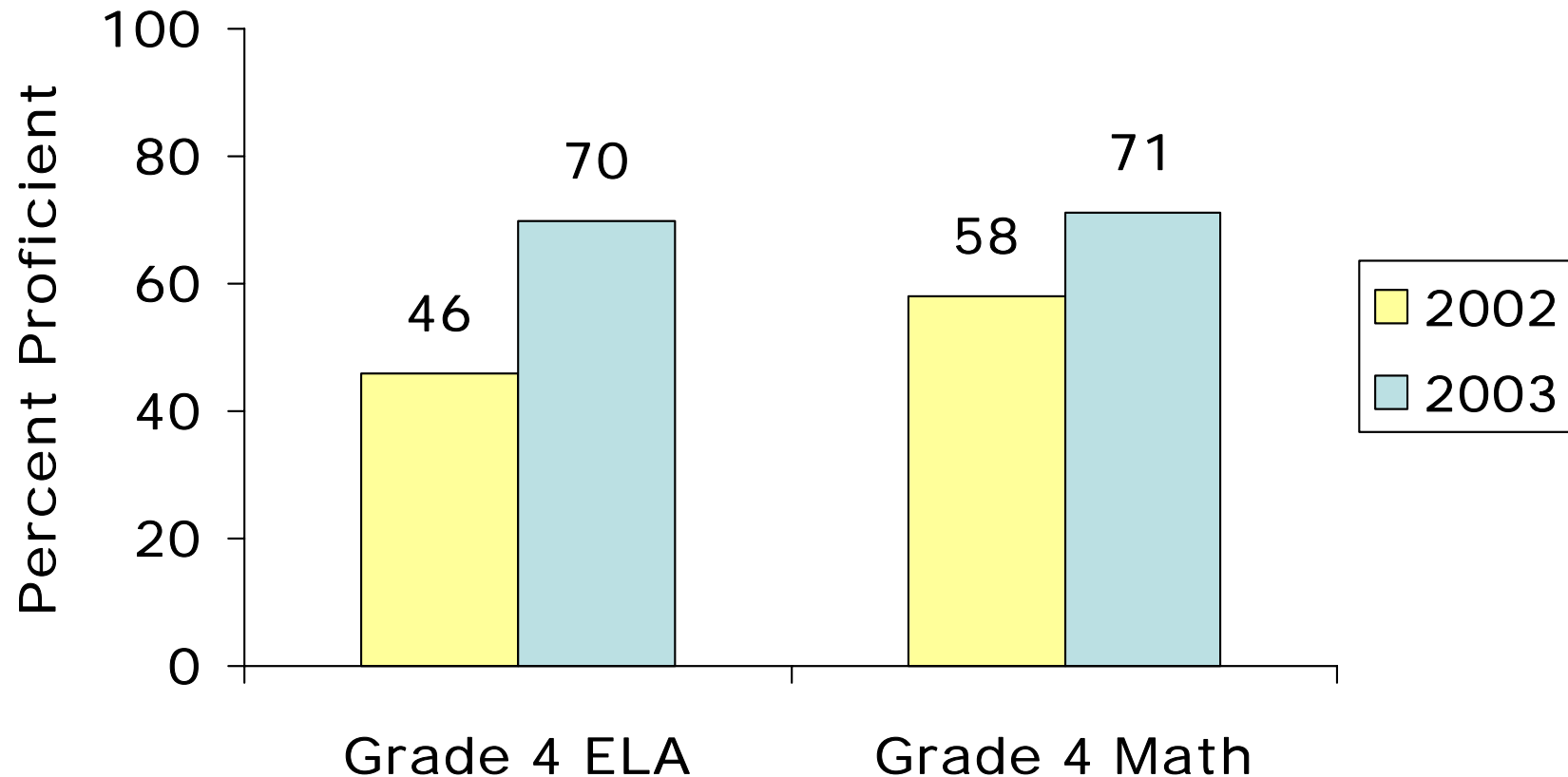
- 55% African American
- 38% Latino
- 97% Low Income
- Made AYP for 2002-03

Source: Michigan Department of Education, <http://www.michigan.gov/mde>

Dispelling the Myth Online, <http://www.edtrust.org>

Improvement at Jessie Rouse

2002 to 2003 Grade 4 ELA and Math

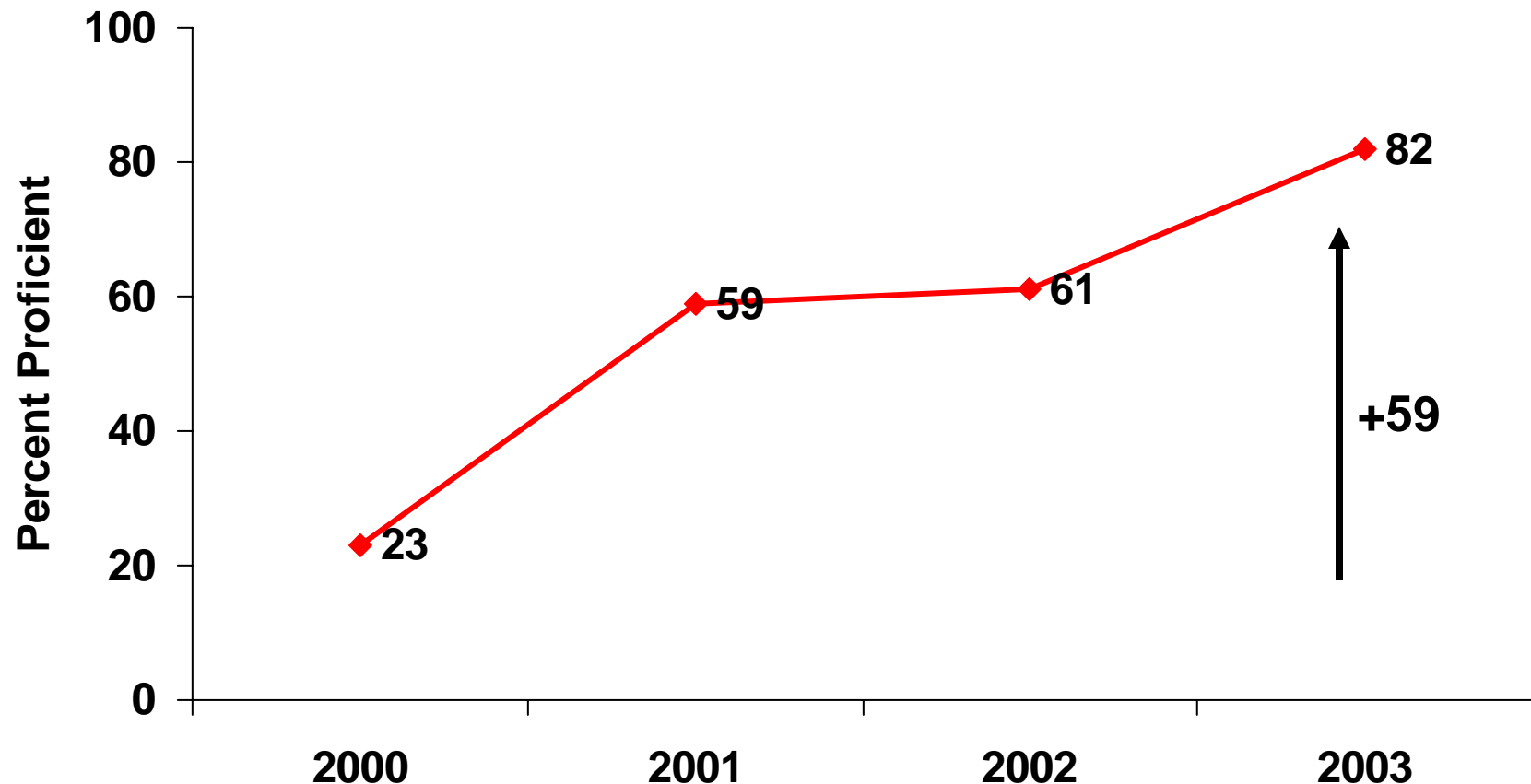


Source: Michigan Department of Education, <http://www.michigan.gov/mde>

Laclede Elementary St. Louis, Missouri

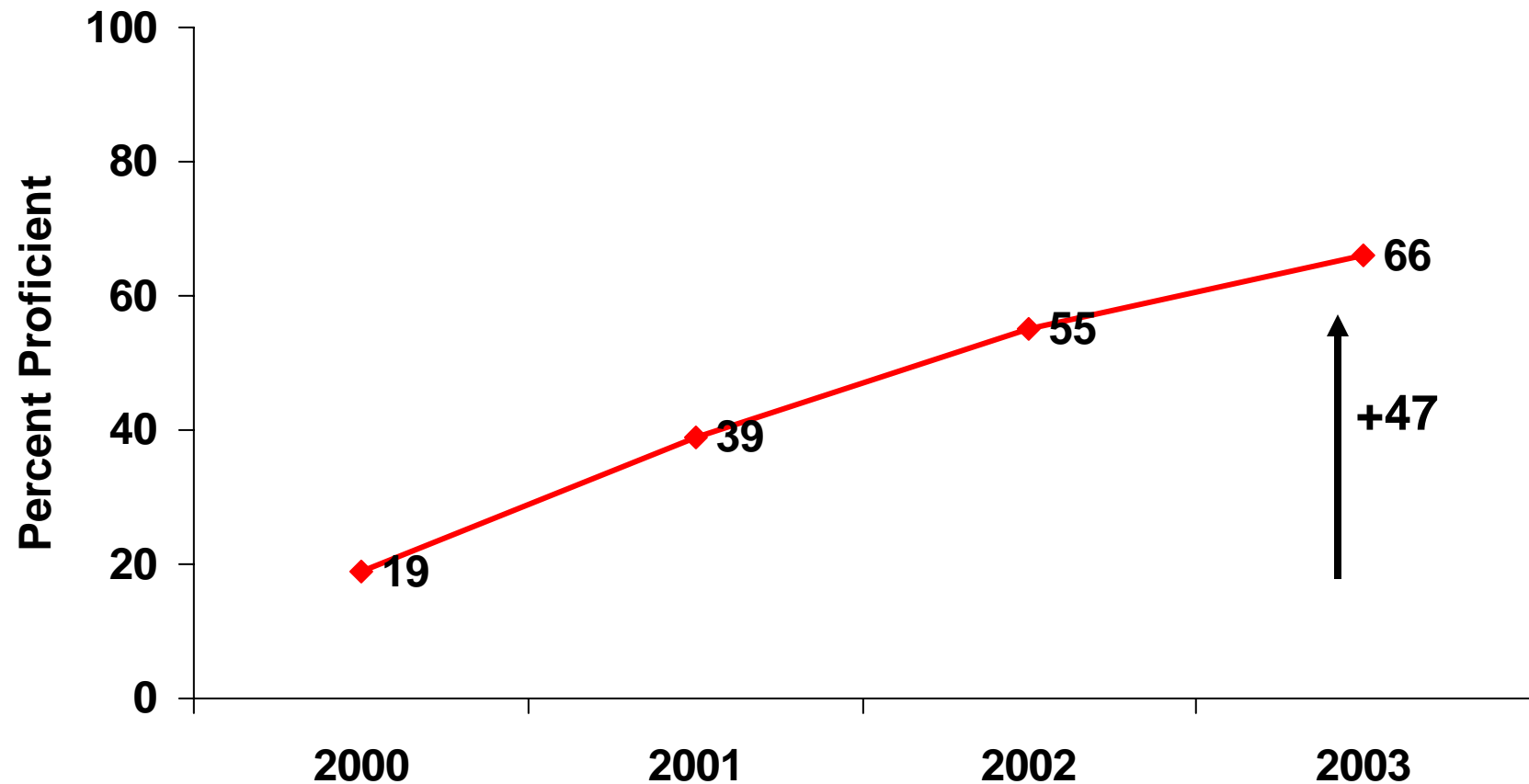
- 100% African American
- 100% Low Income
- Made AYP for 2002-03

Rapid Improvement at Laclede Grade 3 Communication Arts



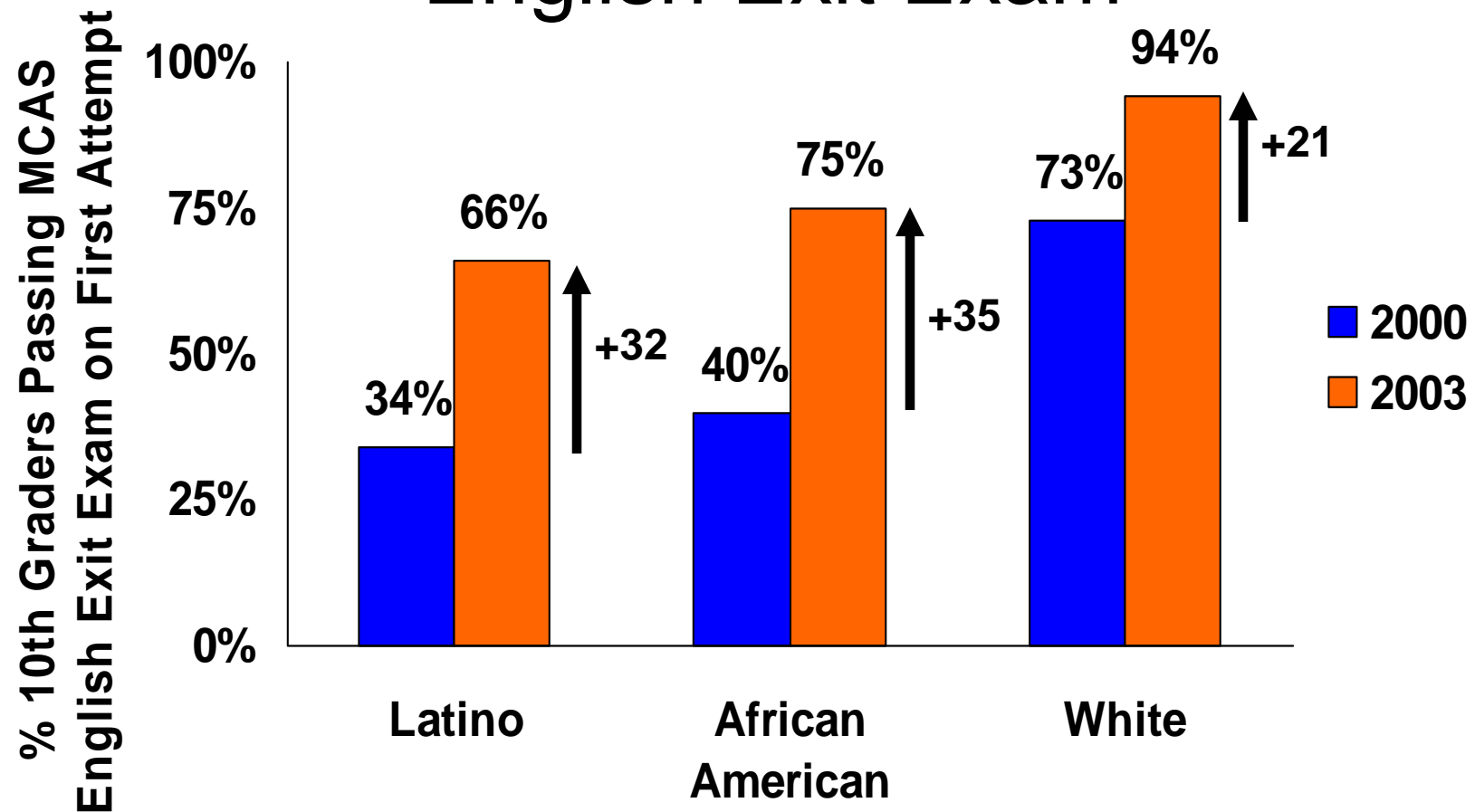
Source: Missouri Department of Elementary and Secondary Education, <http://www.dese.state.mo.us>

Rapid Improvement at Laclede Grade 4 Math



Source: Missouri Department of Elementary and Secondary Education, <http://www.dese.state.mo.us>

Massachusetts: Raising First-Time Pass Rates & Narrowing Gaps on English Exit Exam



Source: Massachusetts Department of Education Web site.

CAN we close these
achievement gaps?

Yes, we CAN close the
achievement gap!

2. Get clear on accountability
goals and how we define
success.

NCLB can help!

NCLB Statement of Purpose

“Closing the achievement gap between high- and low-performing children, especially the achievement gaps between minority and nonminority students, and between disadvantaged children and their more advantaged peers.”

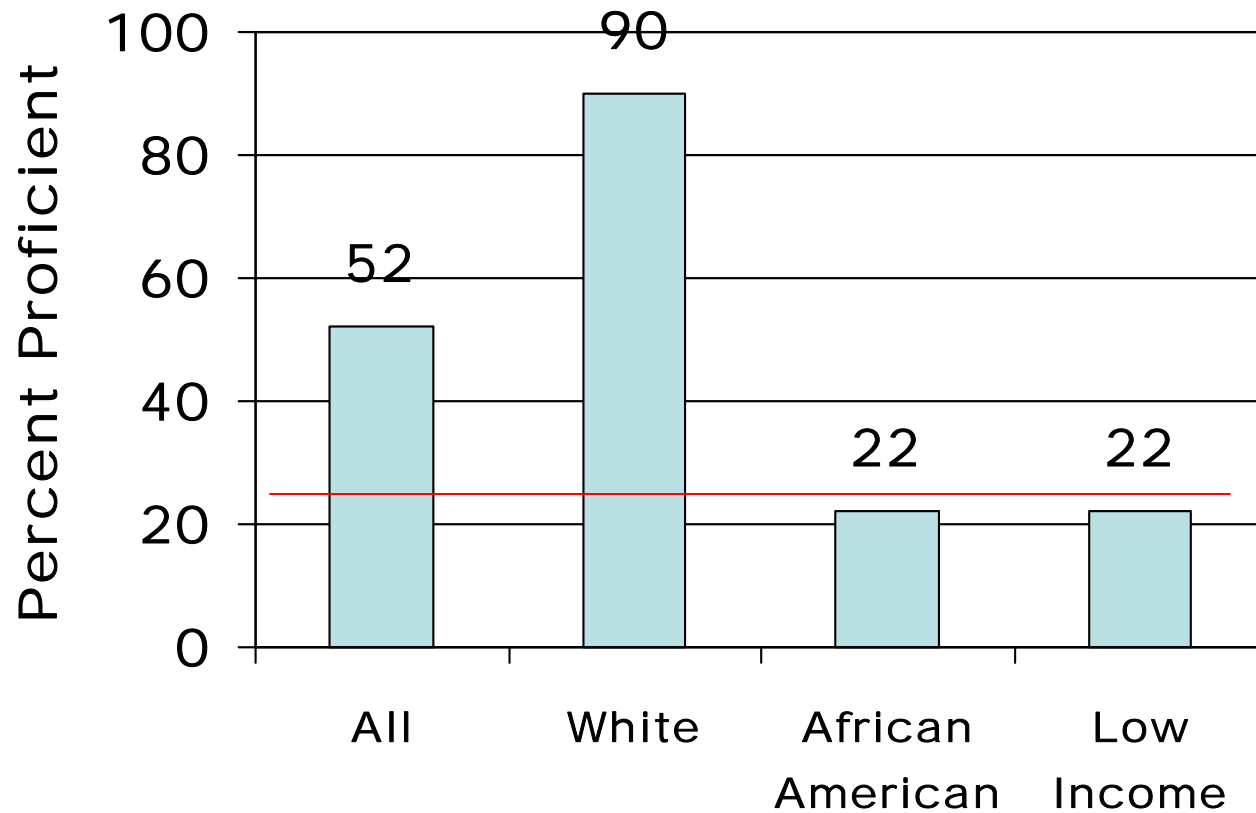
20 U.S.C. § 6301

Abraham Lincoln Middle School

Alachua, Florida

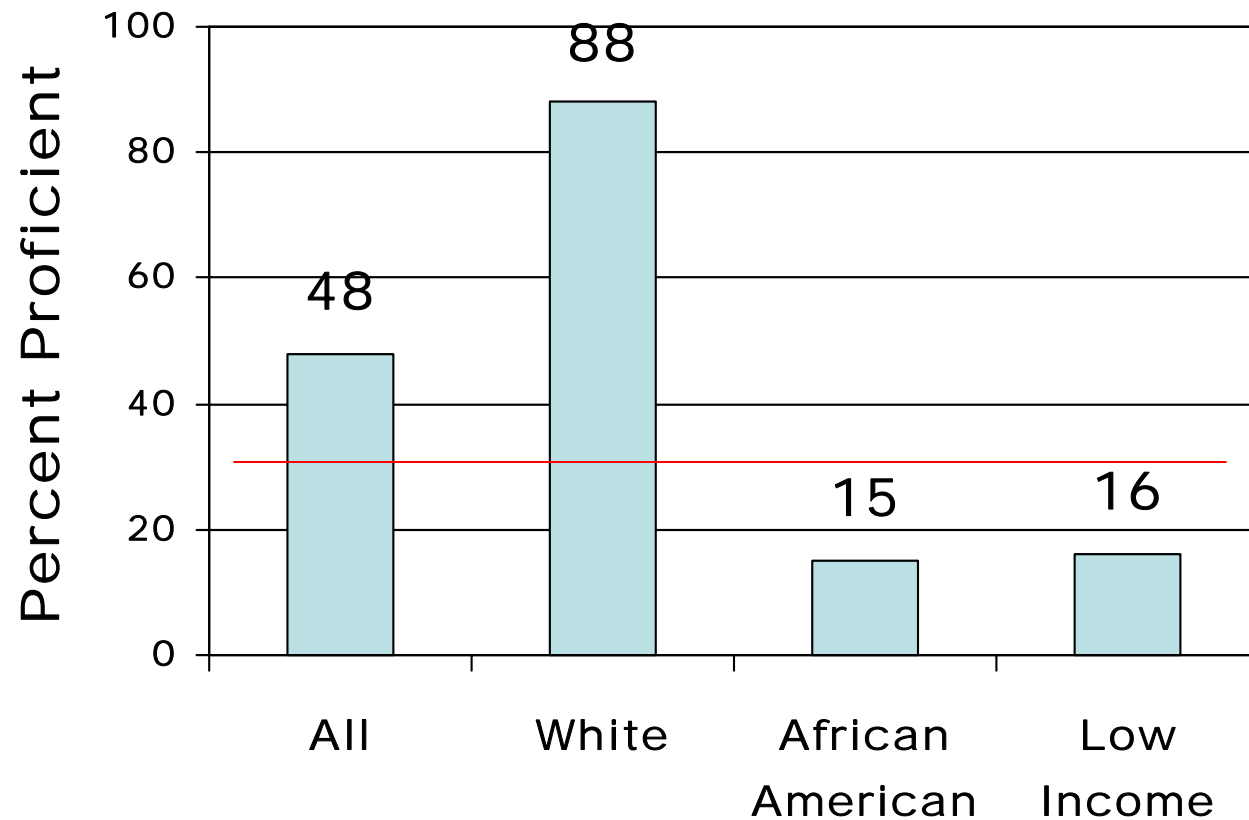
- 31% White
- 59% African American
- 57% Low Income
- An “A” school under the Florida accountability model

Achievement Gaps at Lincoln 2002-03 Reading



AYP Target= 31%

Achievement Gaps at Lincoln 2002-03 Math



AYP Target= 38%

Alexis I du Pont High School

Red Clay, Delaware

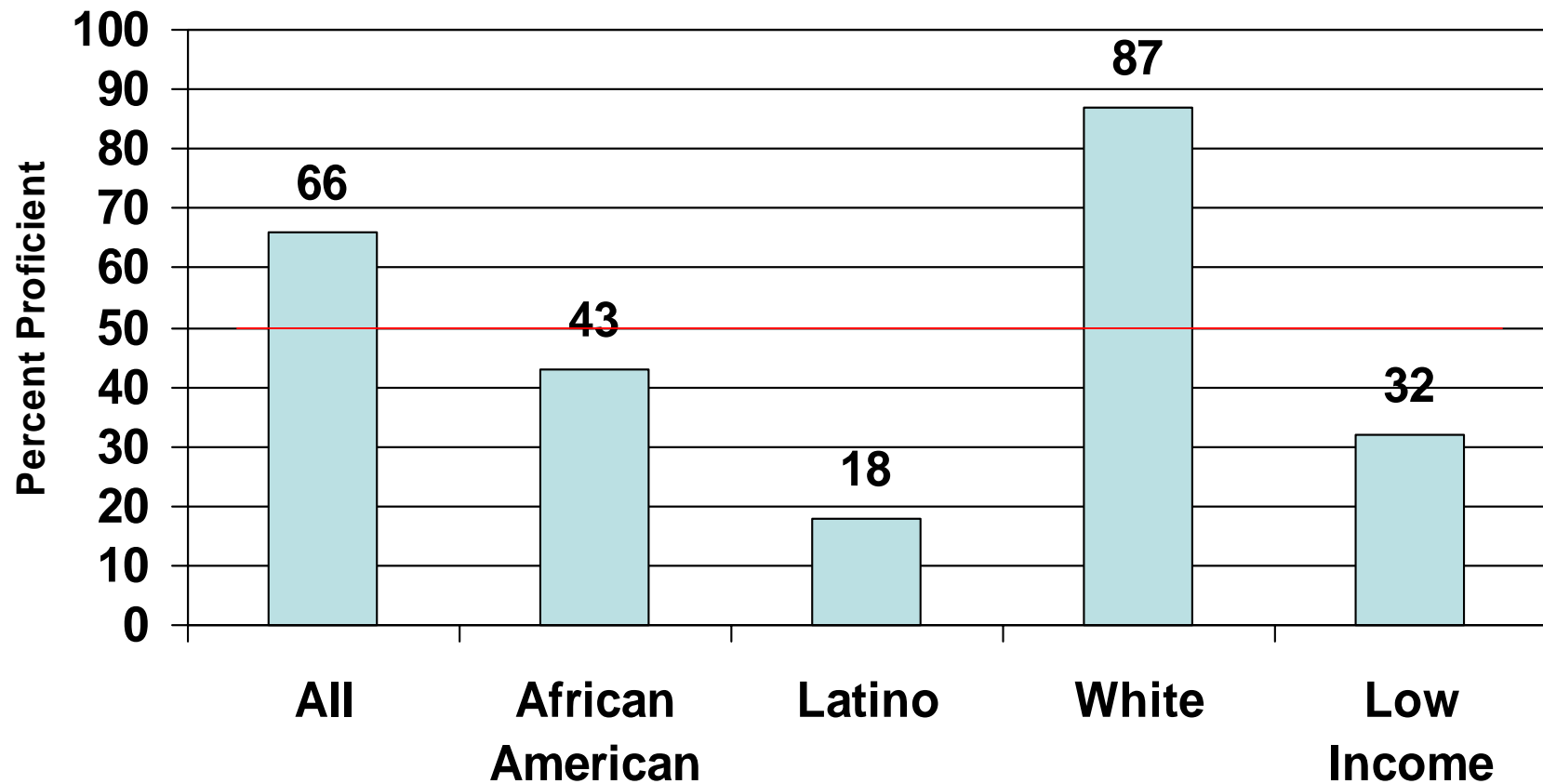
- 49% White
- 24% African American
- 21% Latino
- 31% Low Income
- Named “One of America’s Best High Schools” by Newsweek Magazine

Source: Delaware Department of Education, <http://www.doe.state.de.us>

Newsweek Magazine, June 2, 2003

Achievement Gaps at du Pont

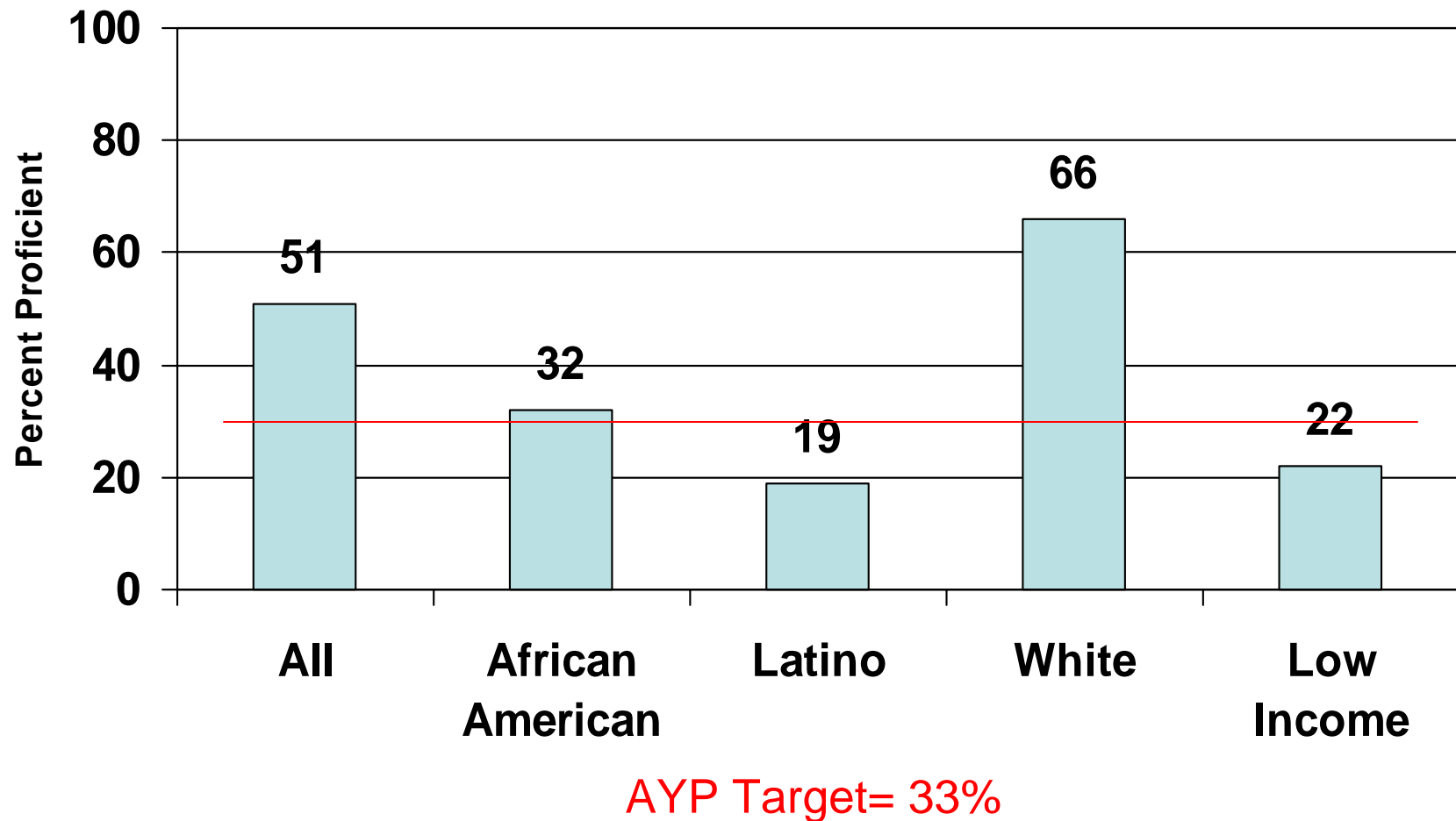
2003 English/Language Arts 10th Grade



AYP Target= 57%

Achievement Gaps at du Pont

2003 Math 10th Grade

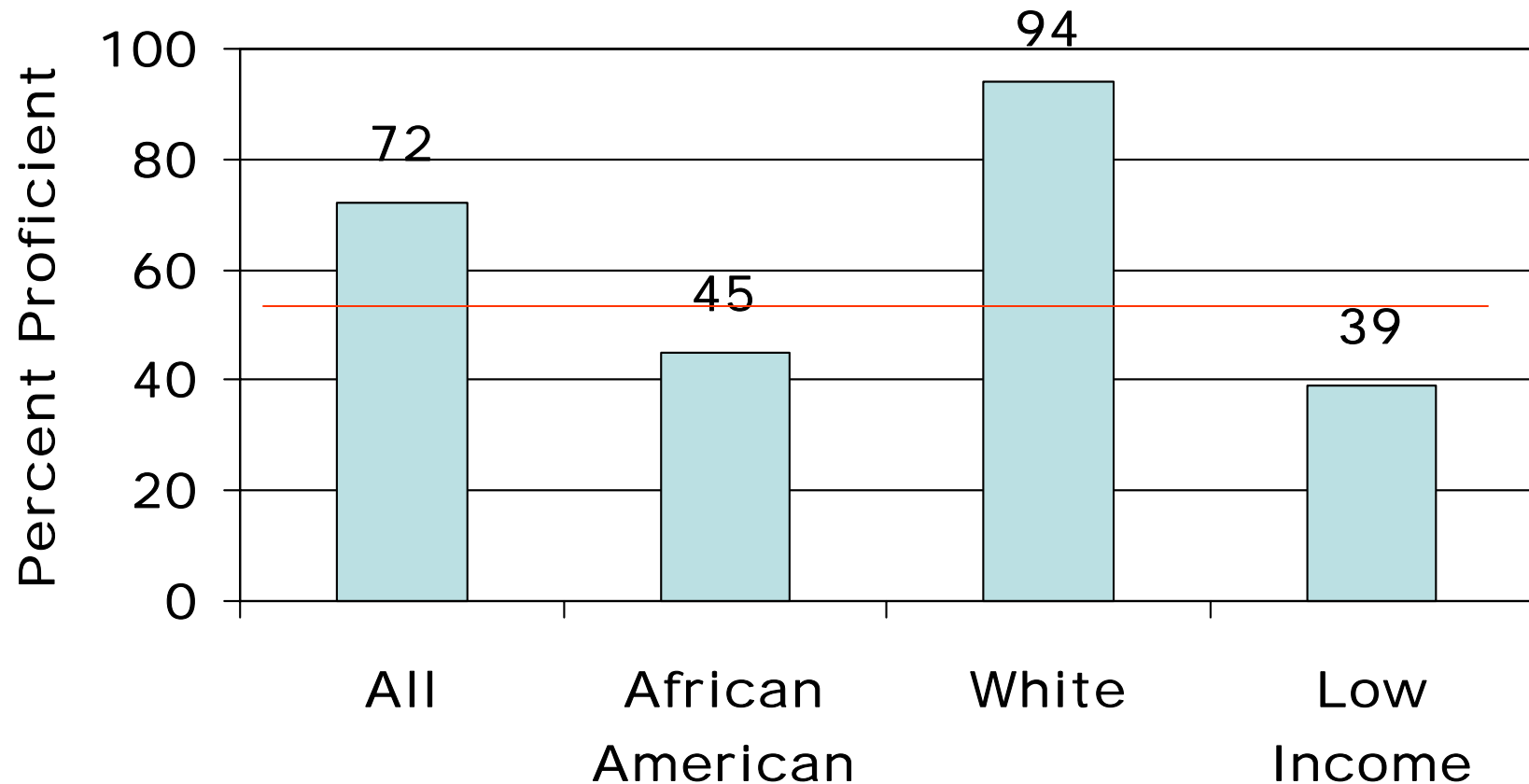


- # B.C. Charles Elementary
- ## Newport News City Public Schools
- 37% African American
 - 56% White
 - 33% Low Income
 - Fully Accredited Under Virginia Accountability System
 - Did Not Make AYP for 2002-03

Source: Dispelling the Myth Online, <http://www.edtrust.org>

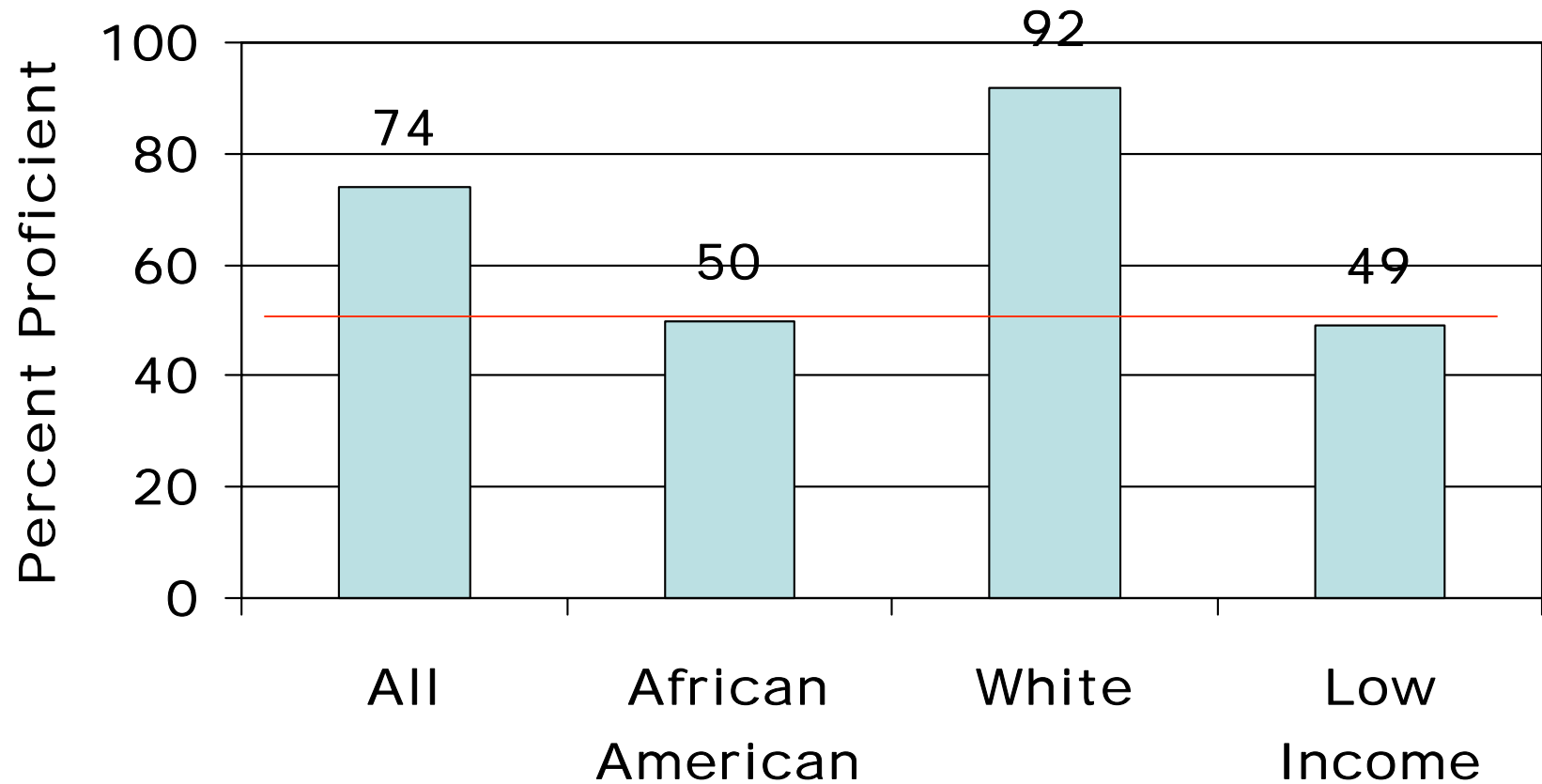
Virginia Department of Education, <http://www.pen.k12.va.us>

Achievement Gaps at B.C. Charles 2003 Reading/Language Arts



AYP Target= 61%

Achievement Gaps at B.C. Charles 2003 Math



AYP Target= 59%

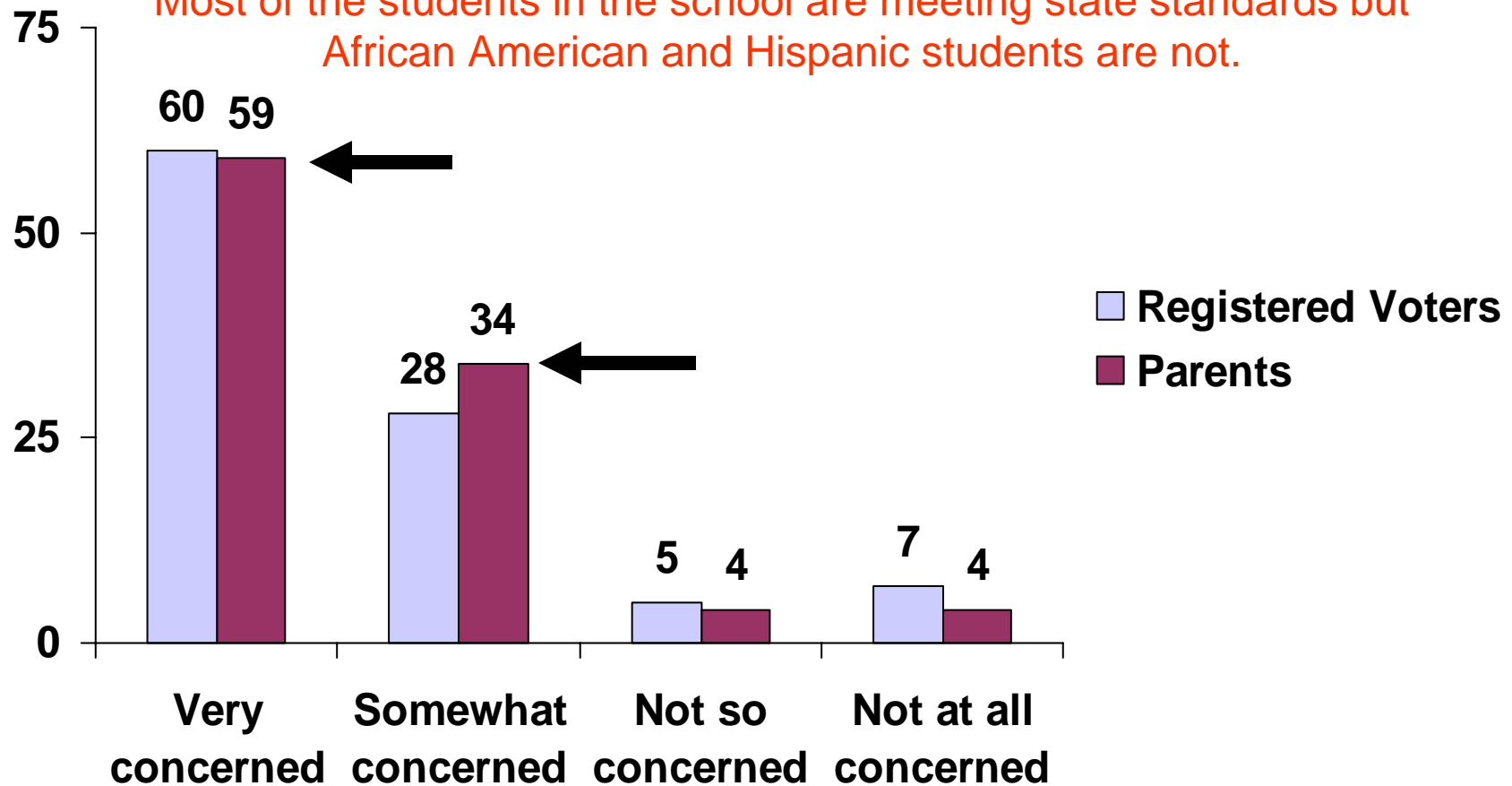
NCLB has changed what it means to be considered a “good enough” school:

Now, to be good, a school has to be good for every group of students it serves.

Public Supports that Definition of “Good School”

How concerned would you be about (the schools in your area/your child’s school) under the following circumstances?

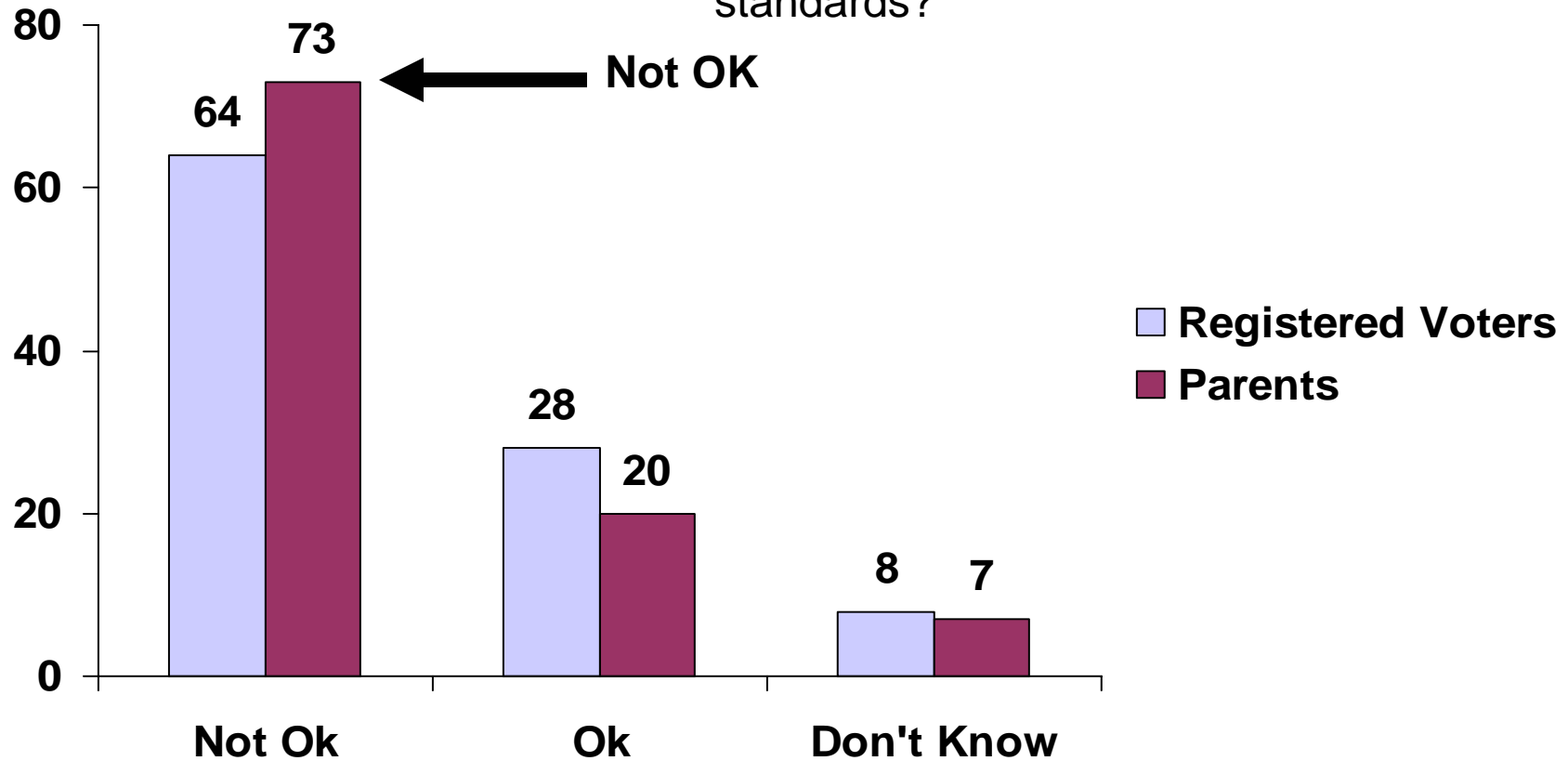
Most of the students in the school are meeting state standards but African American and Hispanic students are not.



SOURCE: Business Roundtable Survey conducted by SDS (June 2003).

Public Supports that Definition of “Good School”

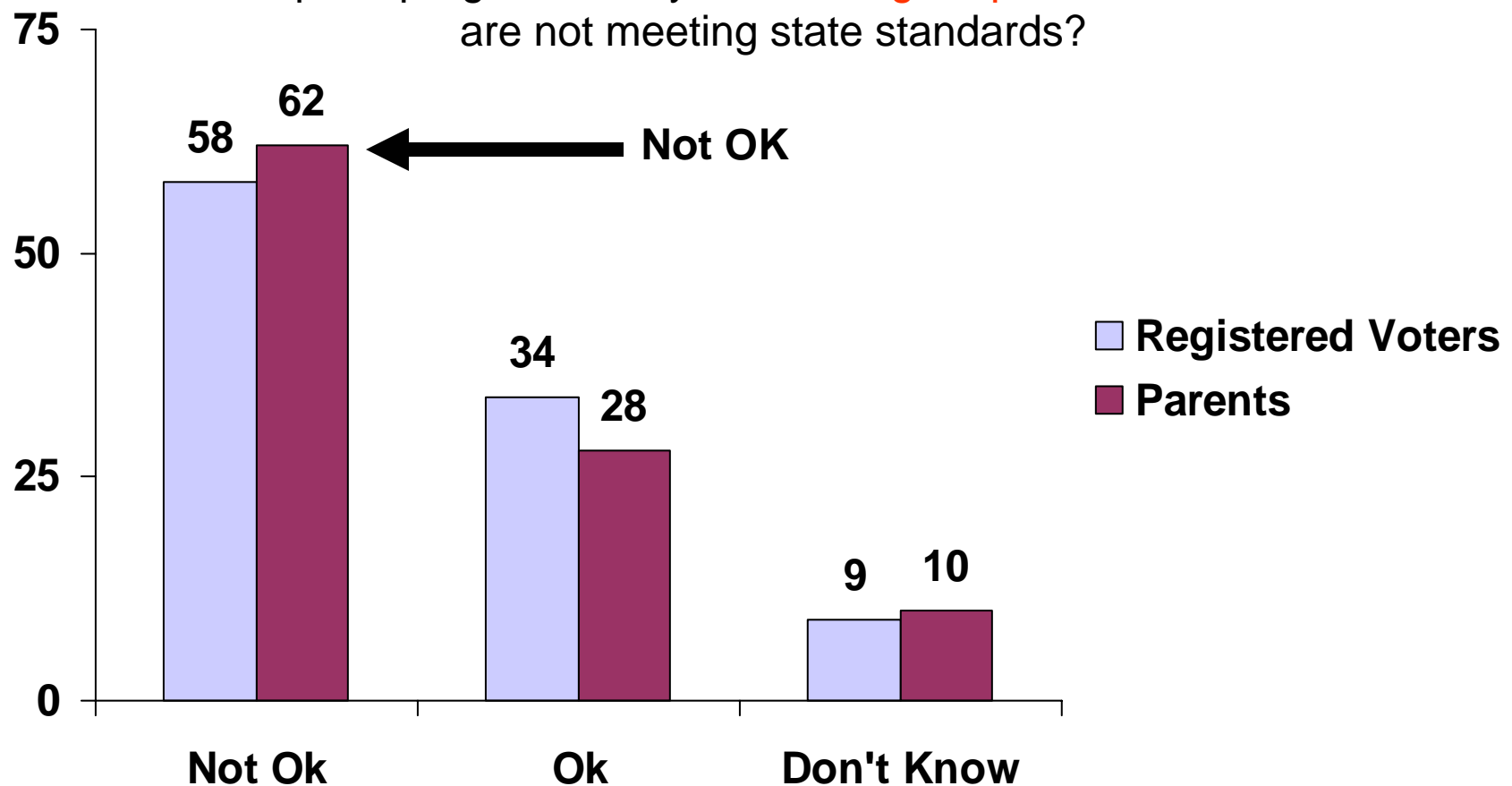
Is it “OK” or “Not OK” to consider a school to be making adequate progress if only **special education students** are not meeting state standards?



SOURCE: Business Roundtable Survey conducted by SDS (June 2003).

Public Supports that Definition of “Good School”

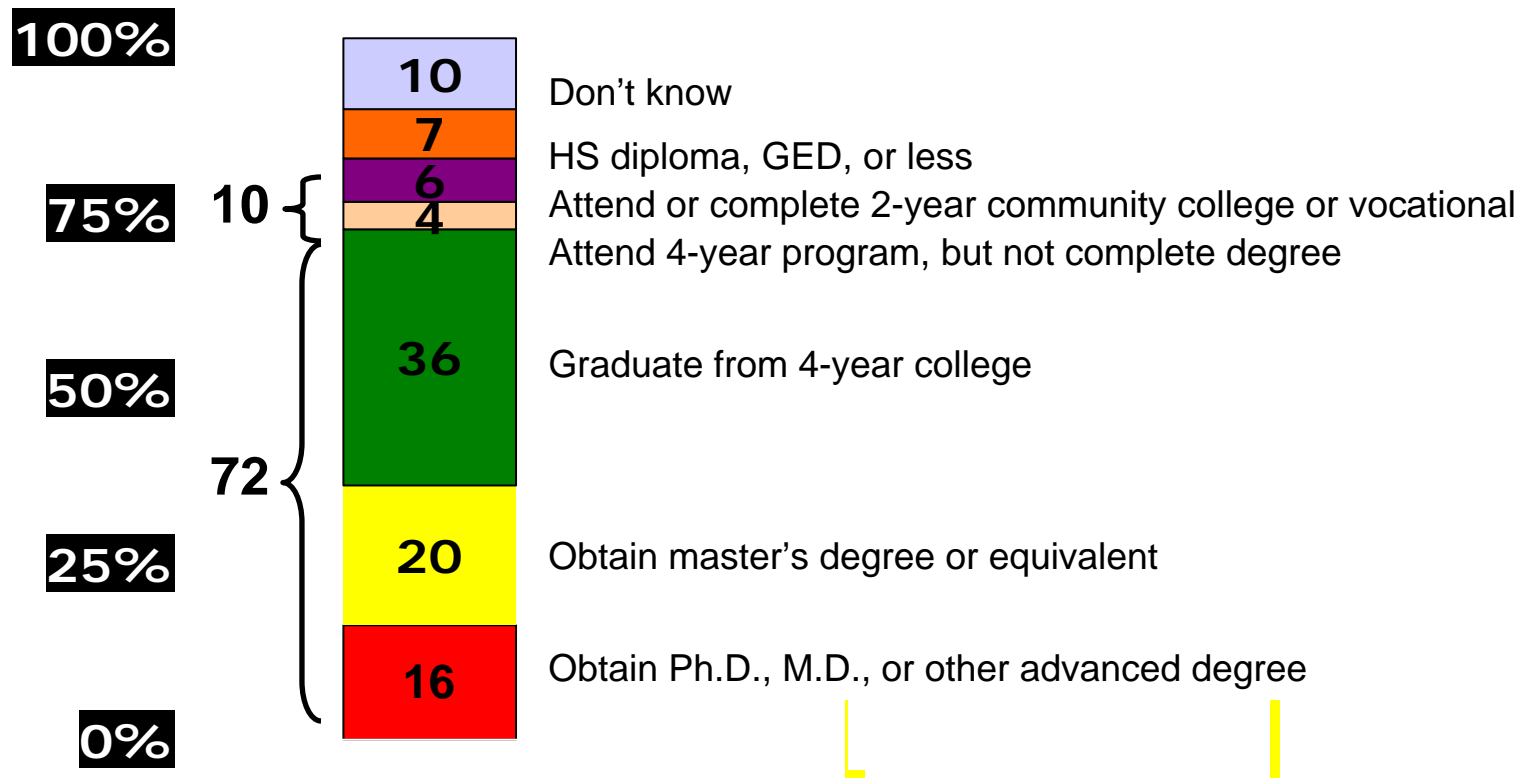
Is it “OK” or “Not OK” to consider a school to be making adequate progress if only **limited English proficient students** are not meeting state standards?



SOURCE: Business Roundtable Survey conducted by SDS (June 2003).

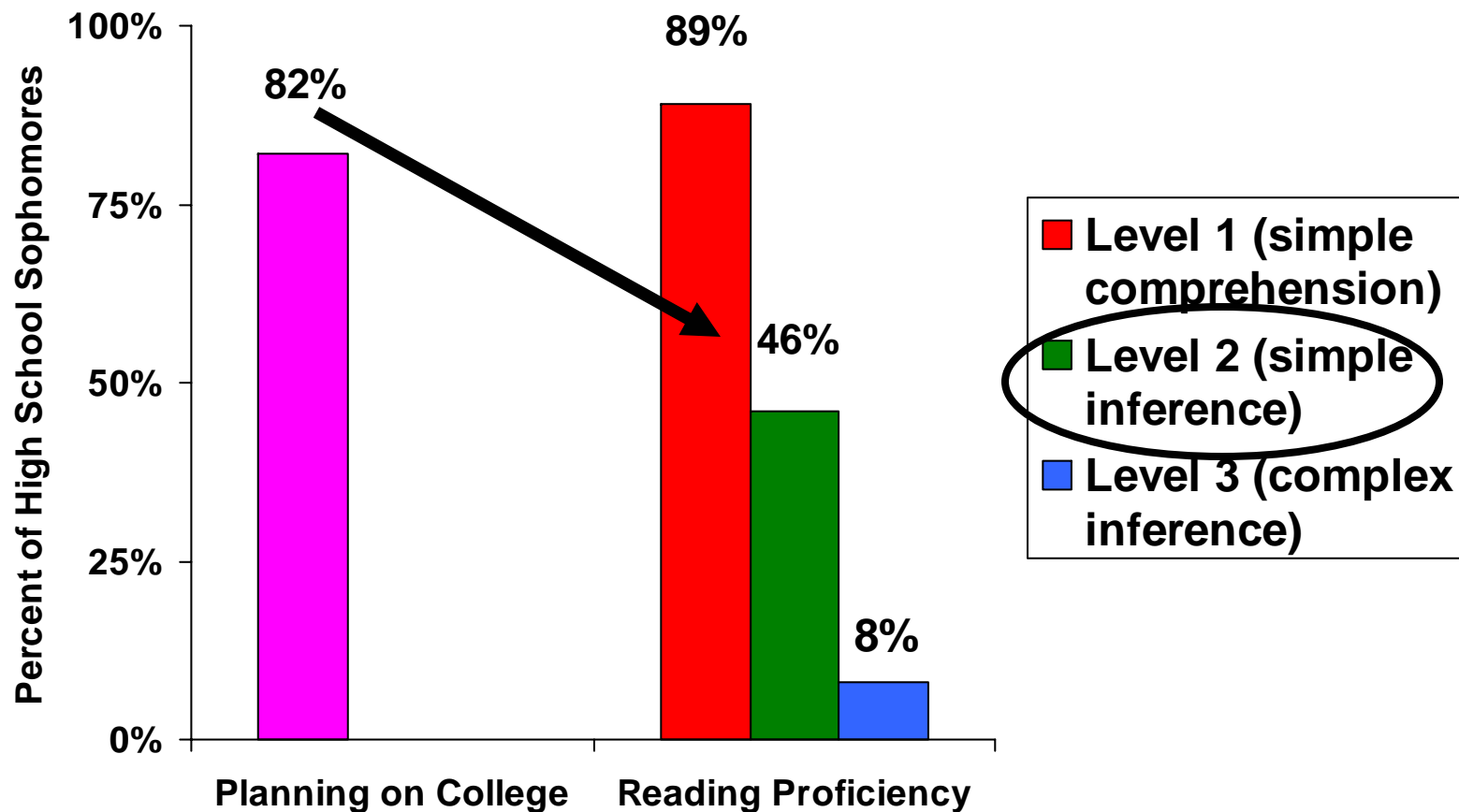
High schools?

Sophomore Class of 2002: Expectations for Higher Ed



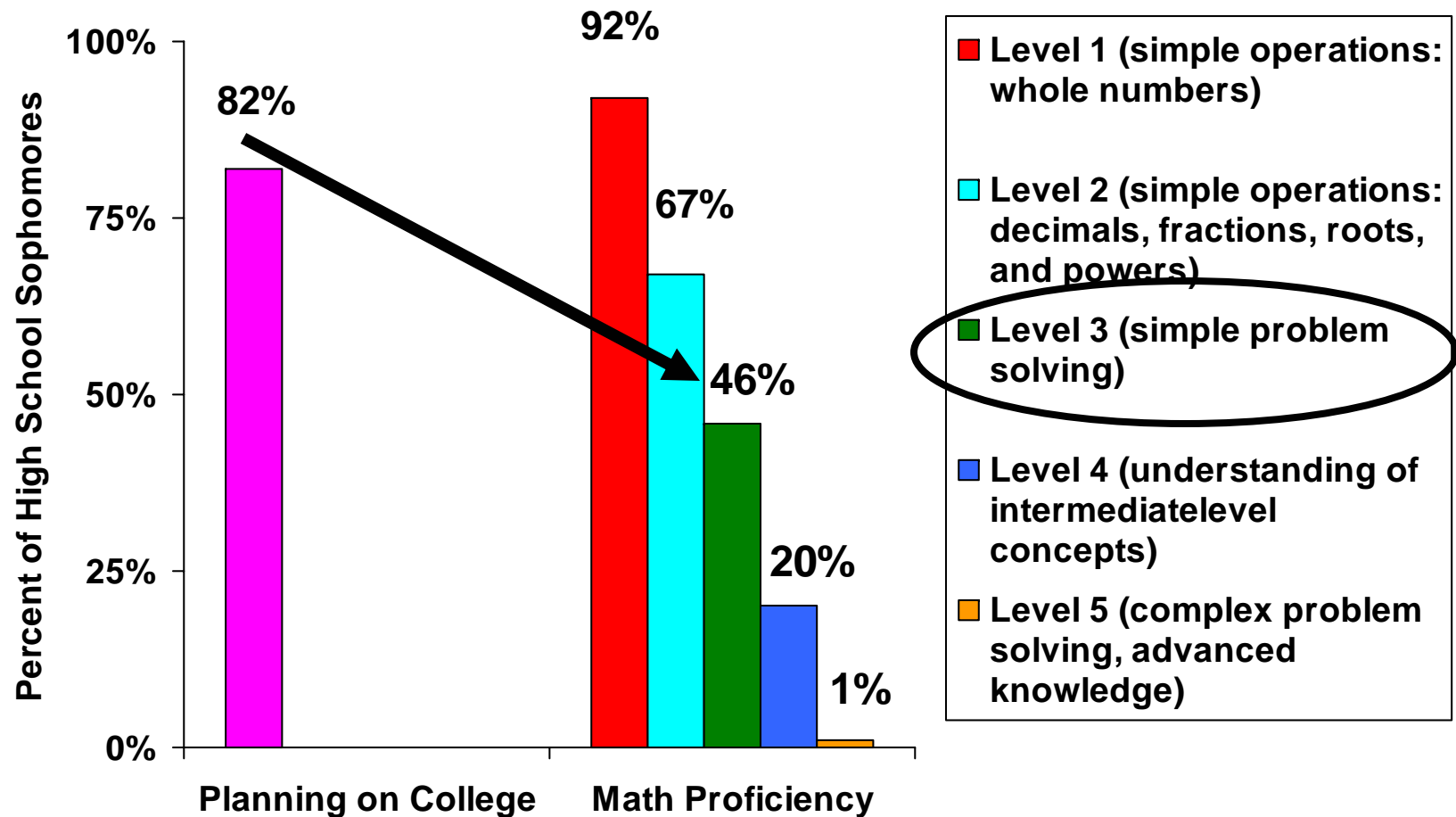
Source: USDOE, NCES, *The High School Sophomore Class of 2002: A Demographic Description*, April 2004.

H.S. Sophomores: Postsecondary Expectations Vs. Reading Skills



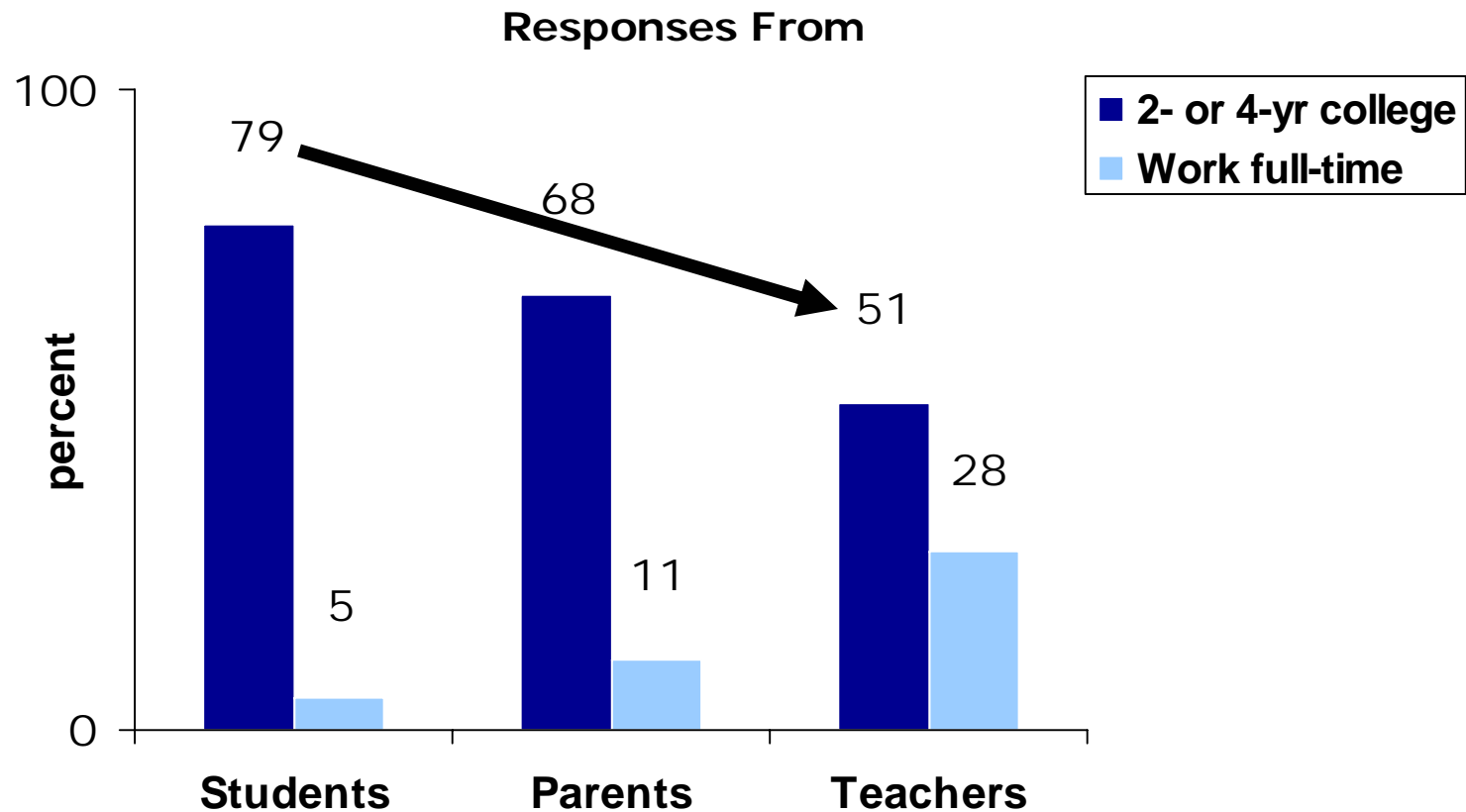
Source: USDOE, NCES, *The High School Sophomore Class of 2002: A Demographic Description*, April 2004.

H.S. Sophomores: Postsecondary Expectations Vs. Math Skills



Source: USDOE, NCES, *The High School Sophomore Class of 2002: A Demographic Description*, April 2004.

Expectations Differ: Plans For Students After High School



Source: "Metropolitan Life, Survey of the American Teacher 2000: Are We Preparing Students for the 21st Century?," September 2000.

Setting a new goal for all high schools:

There is a common core of knowledge and skills essential to success in both higher ed and the workplace.

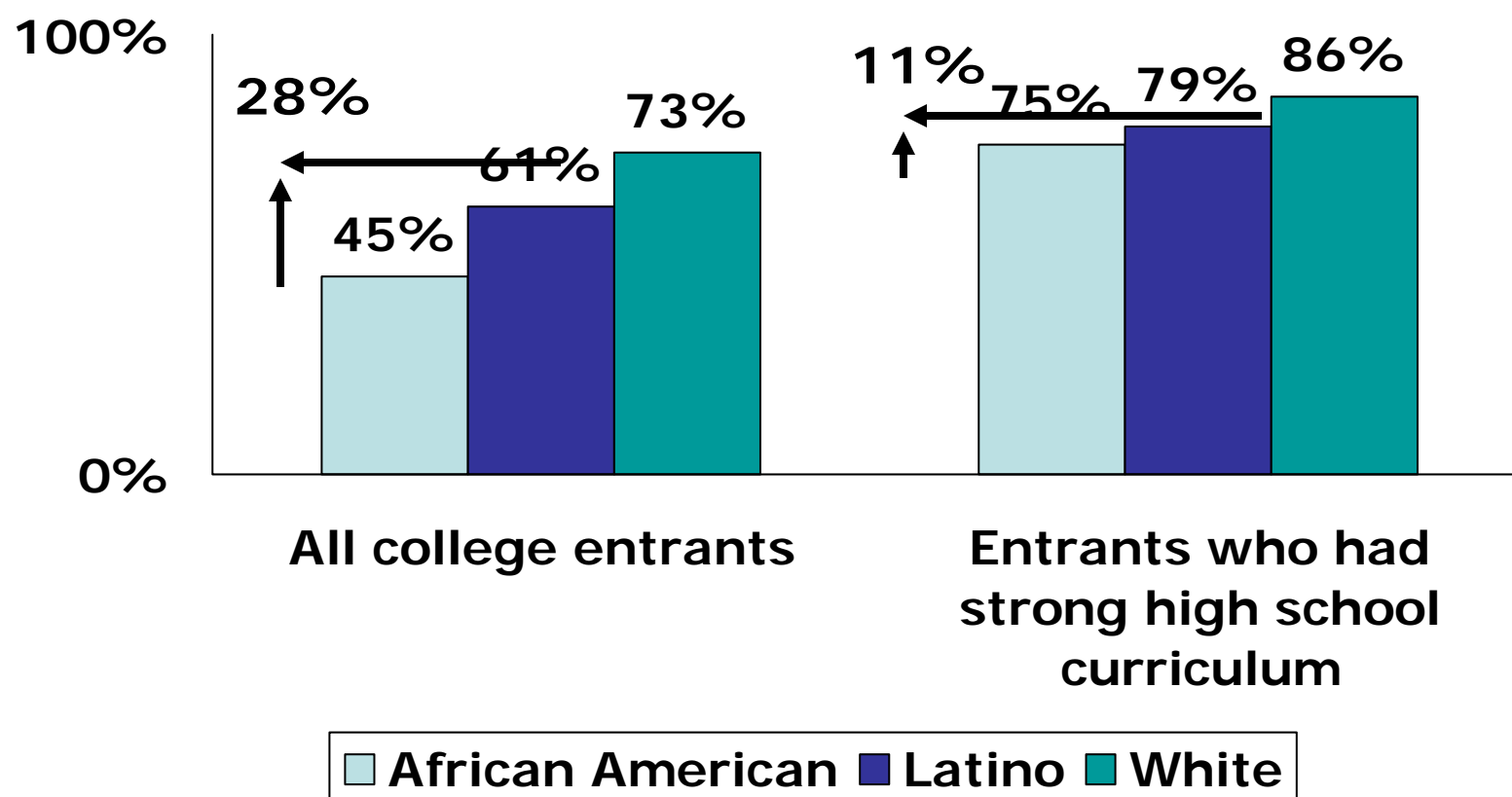
ALL students must graduate from high school ready for postsecondary education, which also means ready for ***work***.

3. Enroll students in high-level courses and make sure every class incorporates rigorous a curriculum.

Transcript Study: single biggest
predictor of college success is
**QUALITY AND INTENSITY OF
HIGH SCHOOL CURRICULUM**

Cliff Adelman, *Answers in the Tool Box*, U.S. Department of
Education.

Better alignment has major benefits: A strong h.s. curriculum* improves college completion and narrows gaps



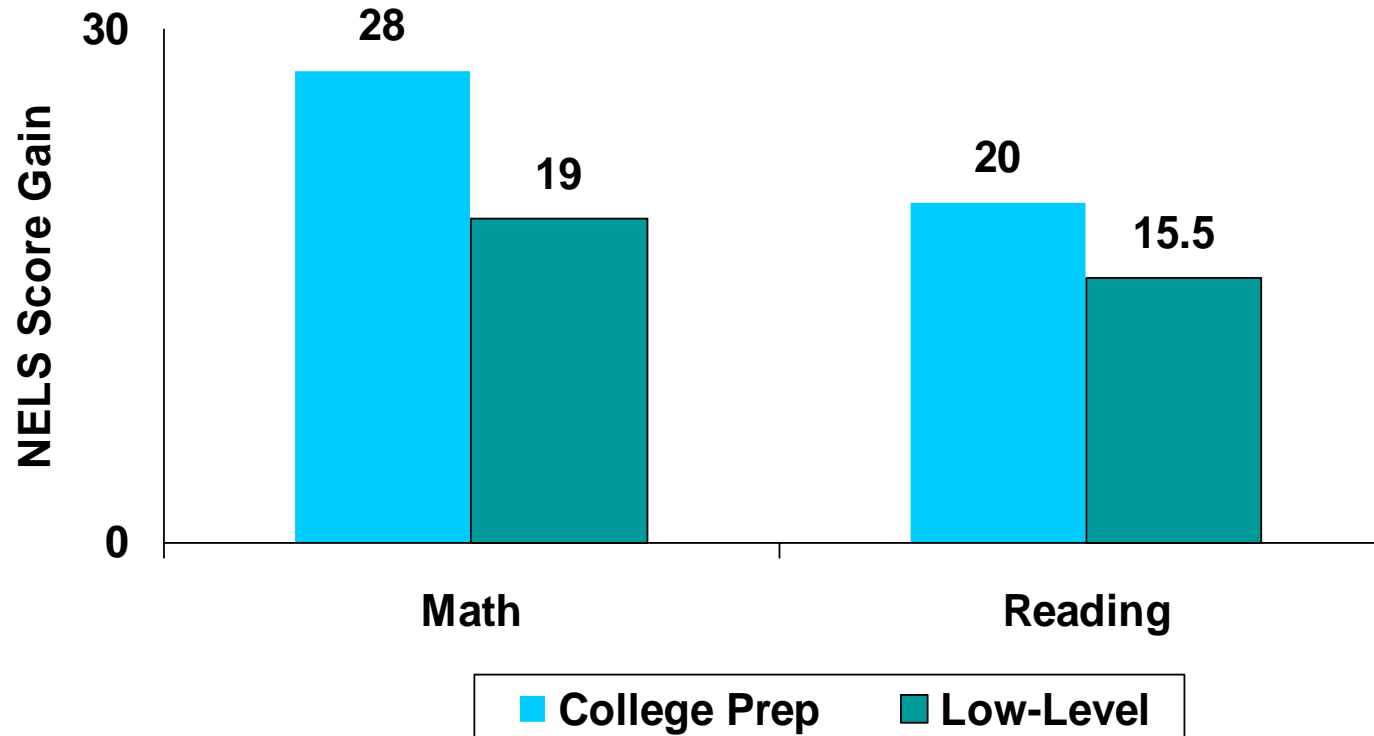
***Completing at least “Algebra II” plus other courses.**

Source: Adapted from Adelman, Clifford, U.S. Department of Education, *Answers in the Toolbox*, 1999.

But rigorous “readiness”
curriculum has benefits far
beyond college.

Students of all sorts will learn
more...

Low Quartile Students Gain More From College Prep Courses*



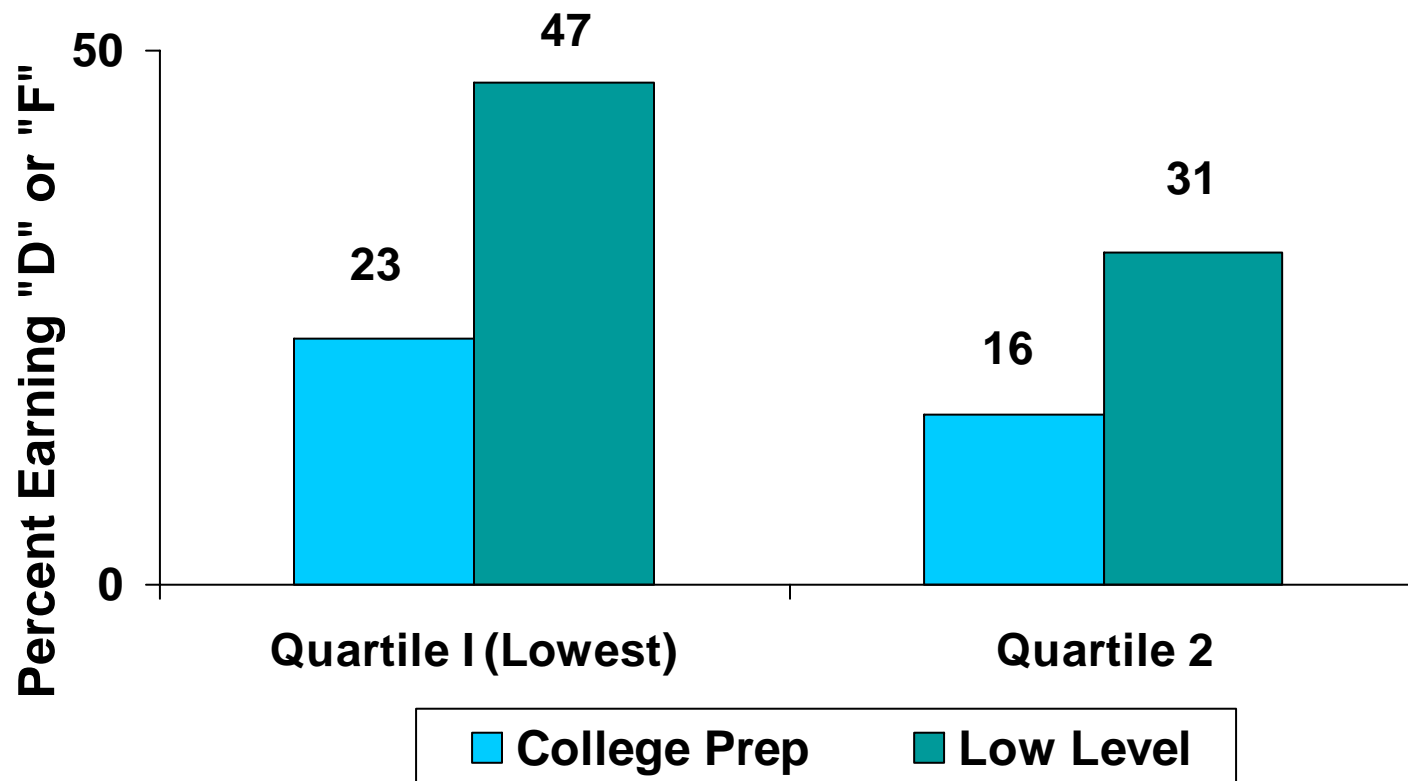
***Grade 8-grade 12 test score gains based on 8th grade achievement.**

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 earn
higher grades ...

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.

Take Manufacturing, for
example...

Requirements for Tool and Die Makers

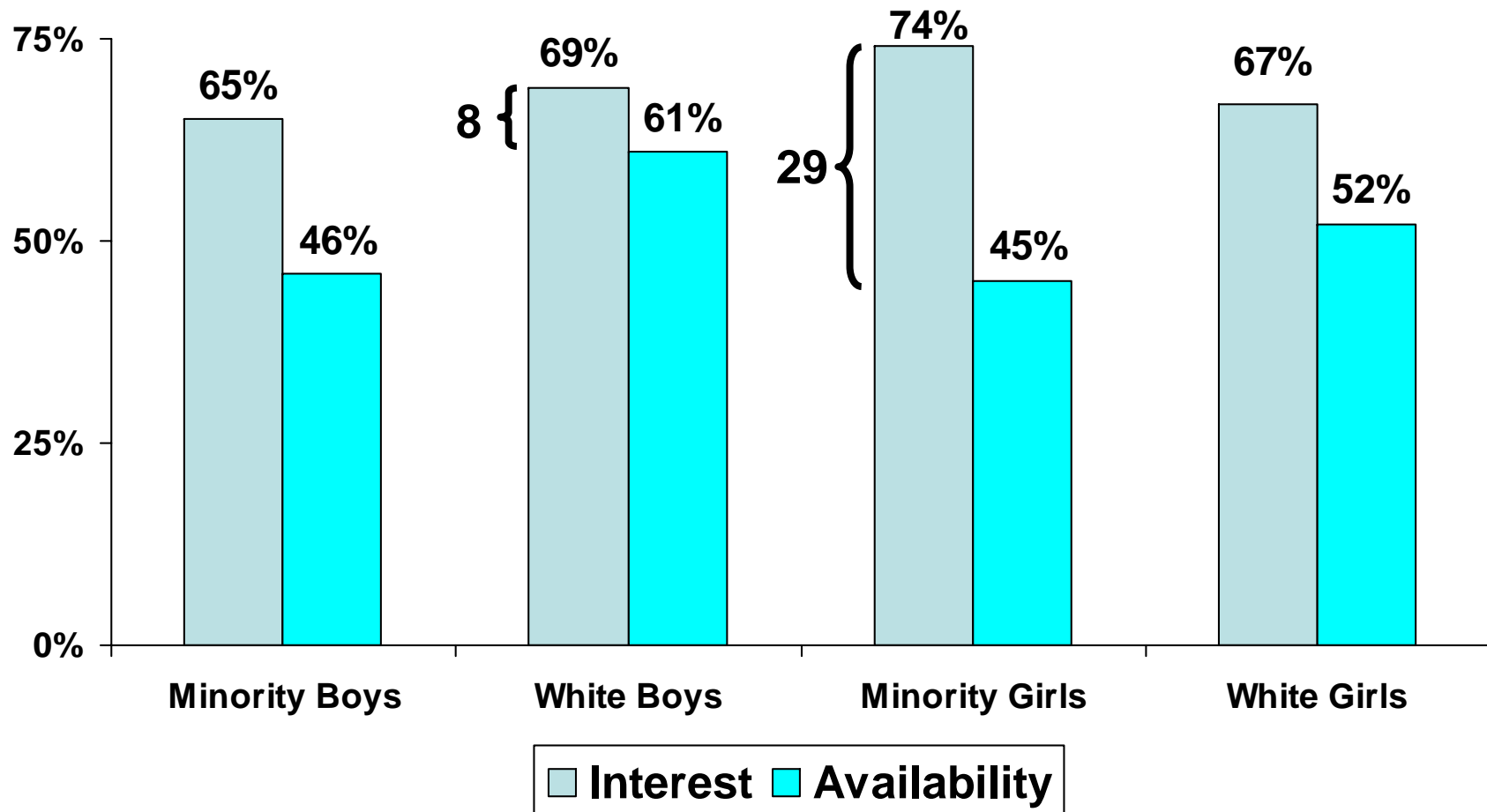
- Four or five years of apprenticeship and/or postsecondary training;
- Algebra, geometry, trigonometry and statistics;
- Average earnings: \$40,000 per year.

Requirements for Sheet Metal Workers

- Four or five years of apprenticeship;
- Algebra, geometry, trigonometry and technical reading;

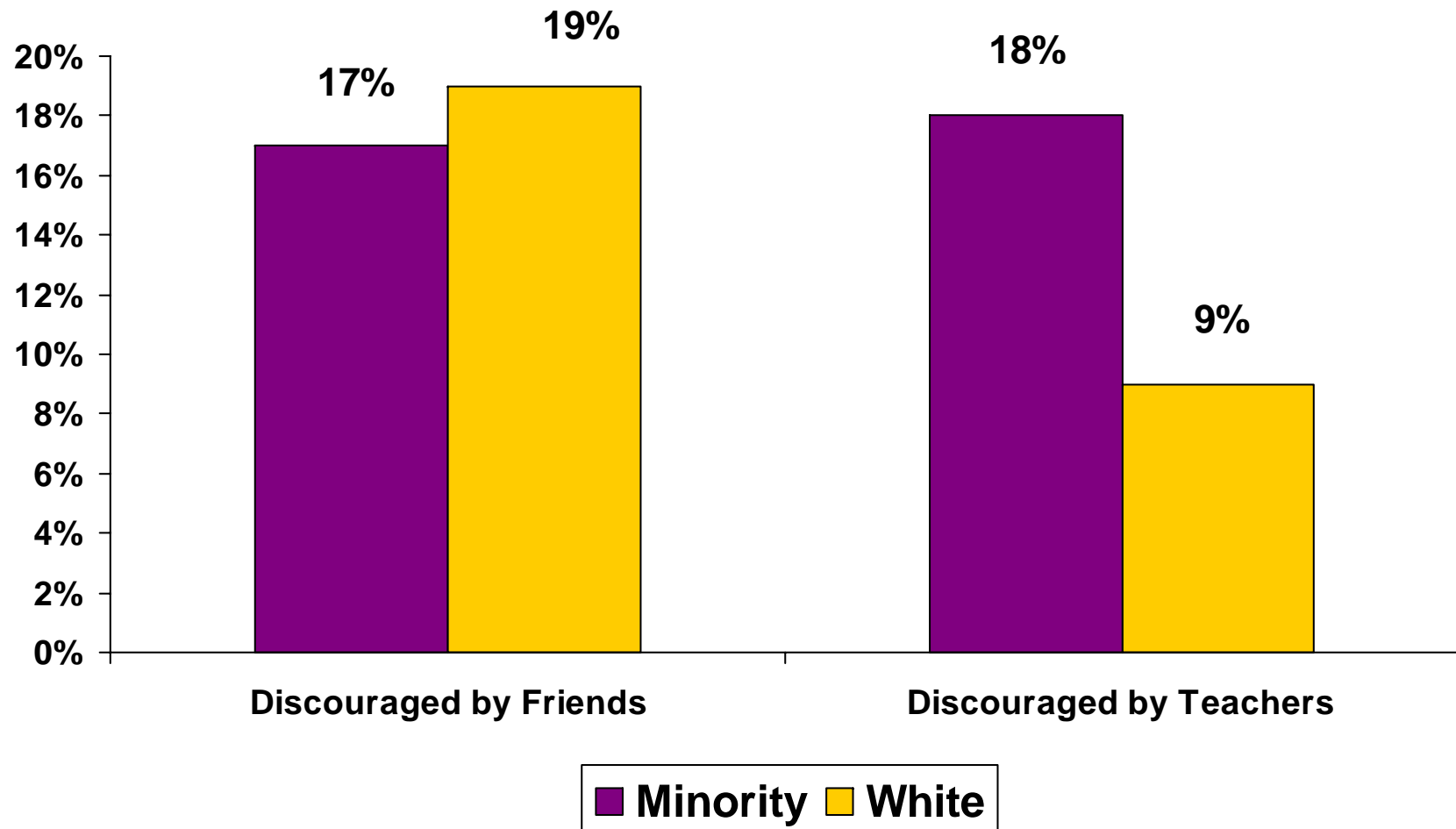
“But,” we hear, “isn’t it also a matter of ambition?”

Advanced Math Classes: Minority Interest Far Exceeds Availability



Source: National Action Council for Minorities in Engineering, *Progress Toward Power: A Follow-Up Survey of Children's and Parents' Attitudes About Math and Science*. Research Letter, October 2001. Survey conducted by Harris Interactive, 1999.

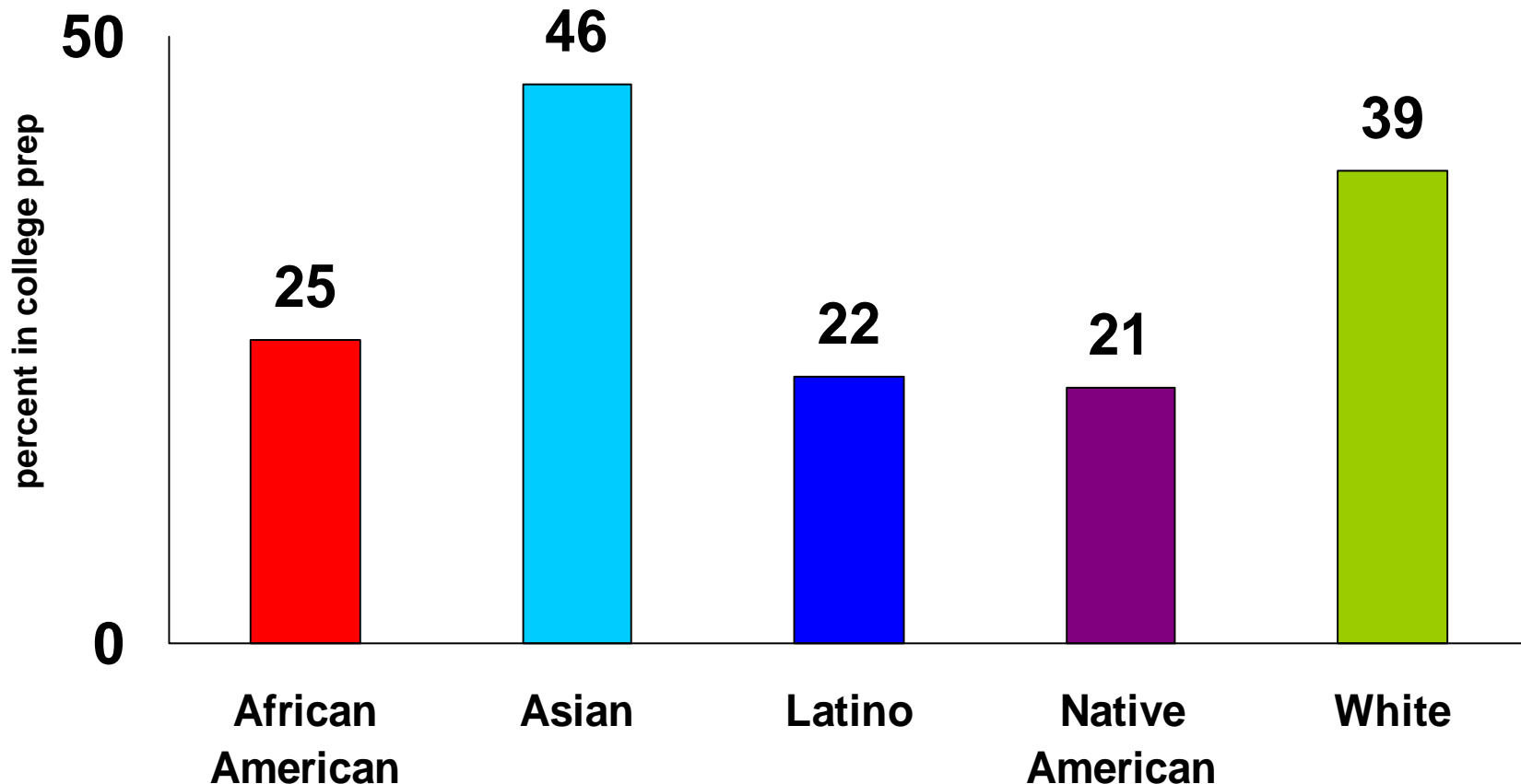
Who's Discouraging Students from Taking Advanced Math?



Source: National Action Council for Minorities in Engineering, *Progress Toward Power: A Follow-Up Survey of Children's and Parents' Attitudes About Math and Science*. Research Letter, October 2001. Survey conducted by Harris Interactive, 1999..

Yet ...

African American, Latino & Native American youth are less likely to be enrolled in full college prep track




SOURCE: Jay P. Greene, Public High School Graduation and College Readiness Rates in the United States, Manhattan Institute, September 2003. Table 8. 2001 high school graduates with college-prep curriculum.

Nevada: Coursetaking Profile Shows Room to Grow

High Level Course-Taking, 2002

Course-taking is an indicator of the amount of access students have to challenging subject matter. States should examine differences in access for different student groups.

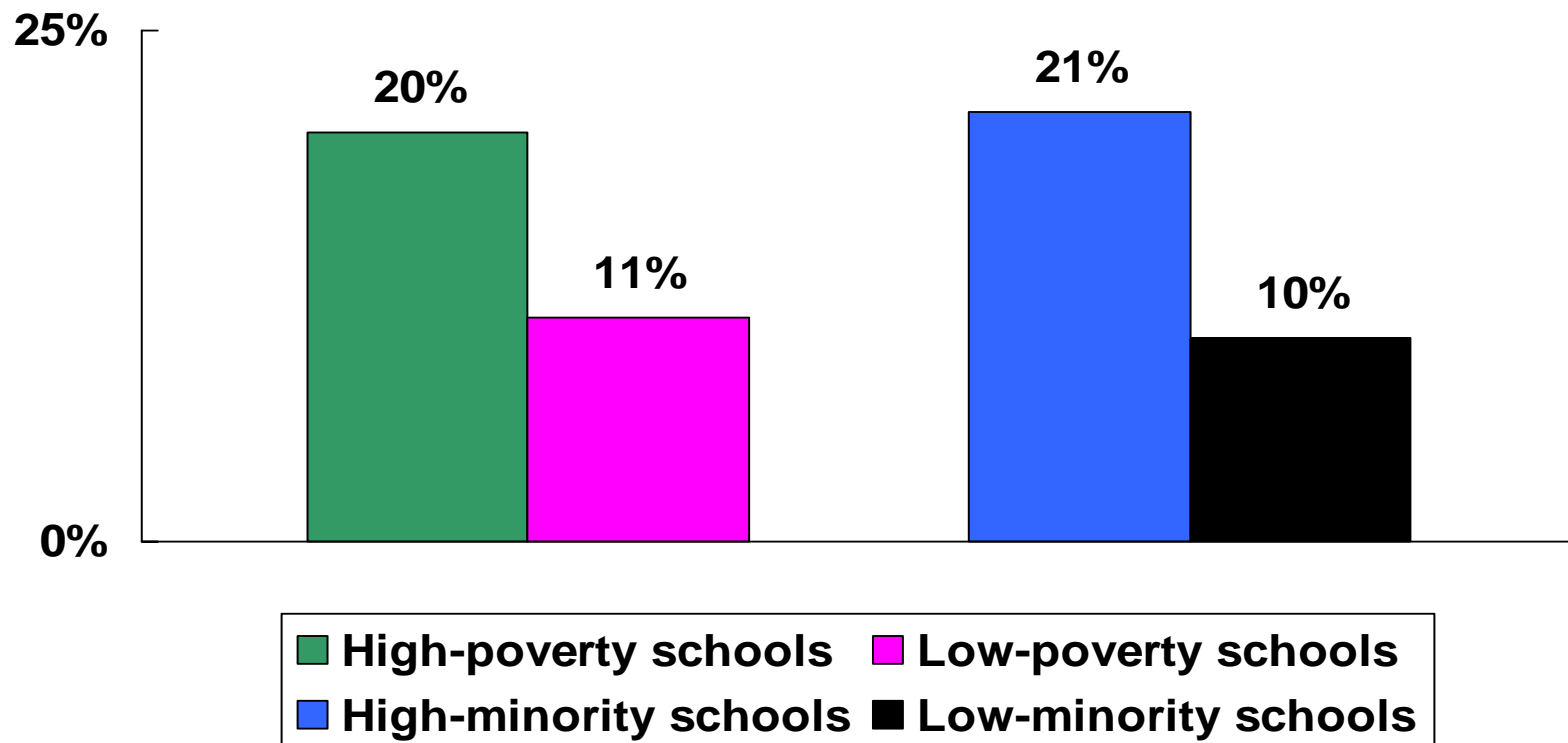
	Nevada	Top States*
8th graders taking Algebra	13% 	35%
9th-12th graders taking at least 1 upper-level math course	32% 	59%
9th-12th graders taking at least 1 upper-level science course	20% 	41%

*Top States= median of top 5 performing states

Source: The Education Trust, Education Watch State Reports, Spring 2004. www.edtrust.org

4. Provide our most qualified,
effective teachers to the students
who need them the most.

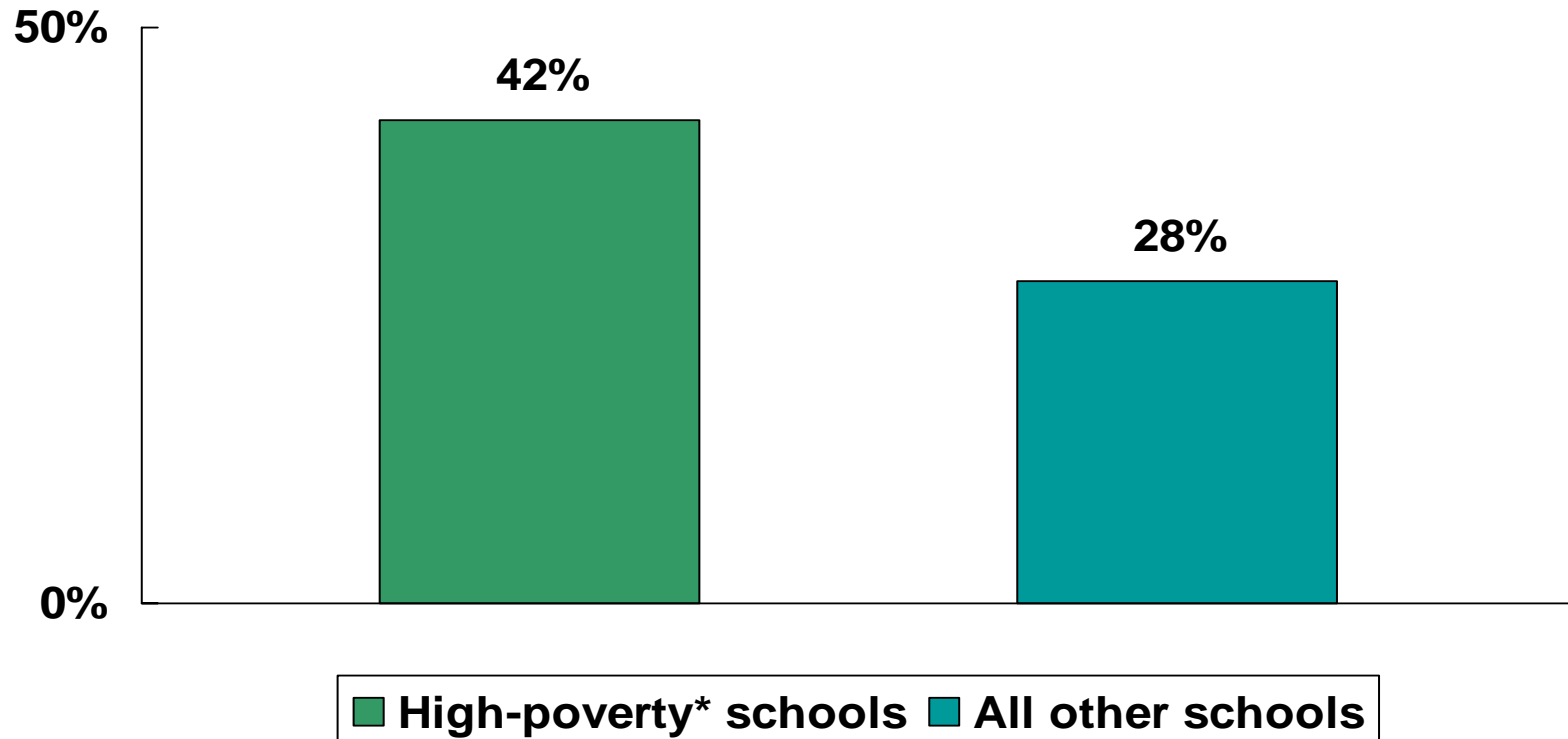
Poor and Minority Students Get More Inexperienced* Teachers



***Teachers with 3 or fewer years of experience. “High” and “low” refer to top and bottom quartiles.**

Source: National Center for Education Statistics, “Monitoring Quality: An Indicators Report,” December 2000.

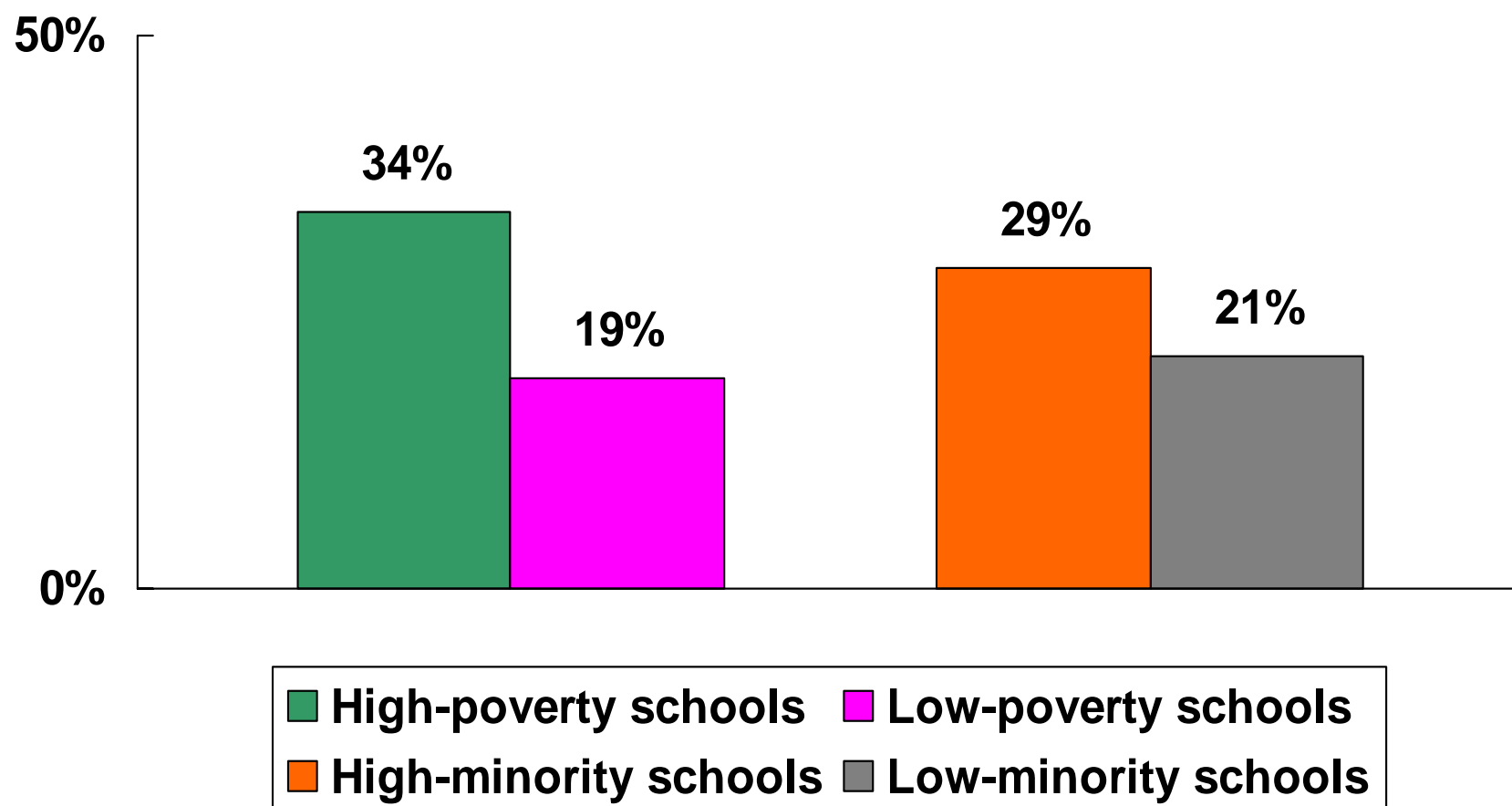
High-Poverty Schools Get More Low-Scoring* Teachers



***Teachers scoring in the bottom quartile on on SAT/ACT. “High-poverty” schools have 2/3 or more students eligible for reduced-price lunch.**

Source: *Education Week*, “Quality Counts 2001,” January 2001.

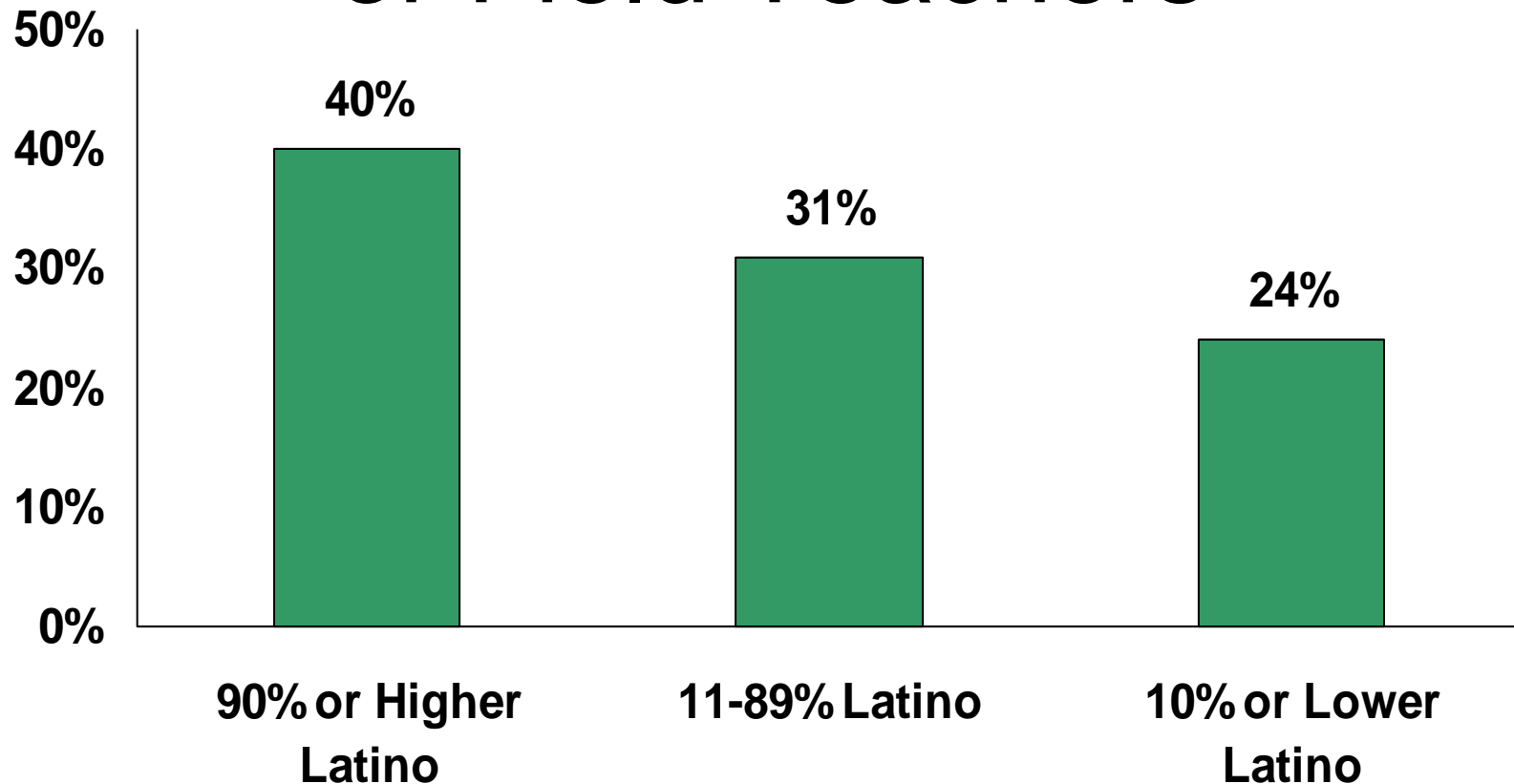
More Classes in High-Poverty, High-Minority Schools Taught by Out-of-Field* Teachers



***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.

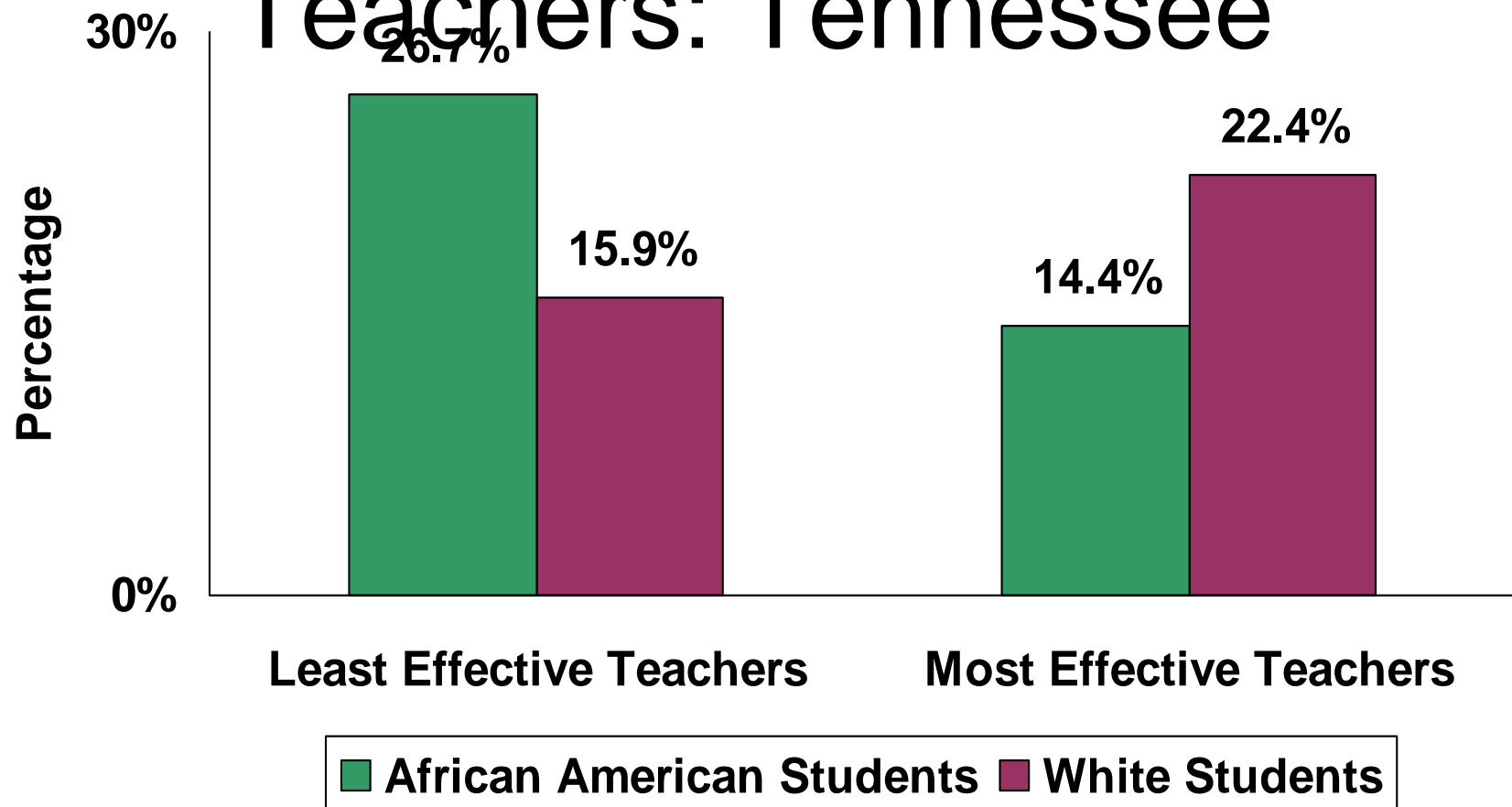
More Courses in High-Latino High Schools Taught by Out-of-Field Teachers



***Teachers lacking a college major in the field. Data for high school core academic classes only.**

Source: Richard M. Ingersoll, University of Pennsylvania. Unpublished data from original analysis for the Ed Trust of 1999-2000 Schools and Staffing Survey.

African American Students More Likely To Have Ineffective Teachers: Tennessee



Source: Sanders, William L. and Rivers, June C. "Cumulative And Residual Effects of Teachers on Future Student Academic Achievement," 1996

What if we had the courage to
change just this one pattern?

“[Our] estimates of teacher performance suggest that having five years of good teachers* in a row could overcome the average seventh-grade mathematics achievement gap [...].”

* “1.0 standard deviation above average, or at the 85th quality percentile”

SOURCE: Eric A. Hanushek and Steven G. Rivkin, “How to Improve the Supply of High-Quality Teachers,” In *Brookings Papers on Education Policy: 2004*,” Diane Ravitch, ed., Brookings Institution Press, 2004. Estimates based on research using data from Texas described in “Teachers, Schools, and Academic Achievement,” Working Paper Number 6691, National Bureau of Economic Research, revised July 2002.

The Education Trust

For More Information . . .

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