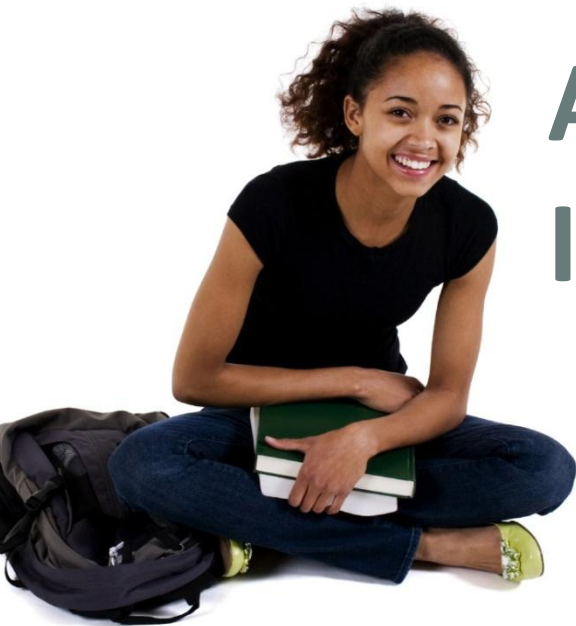


ACHIEVEMENT IN AMERICA:

A Fast Briefing and Four
Issues to Chew On



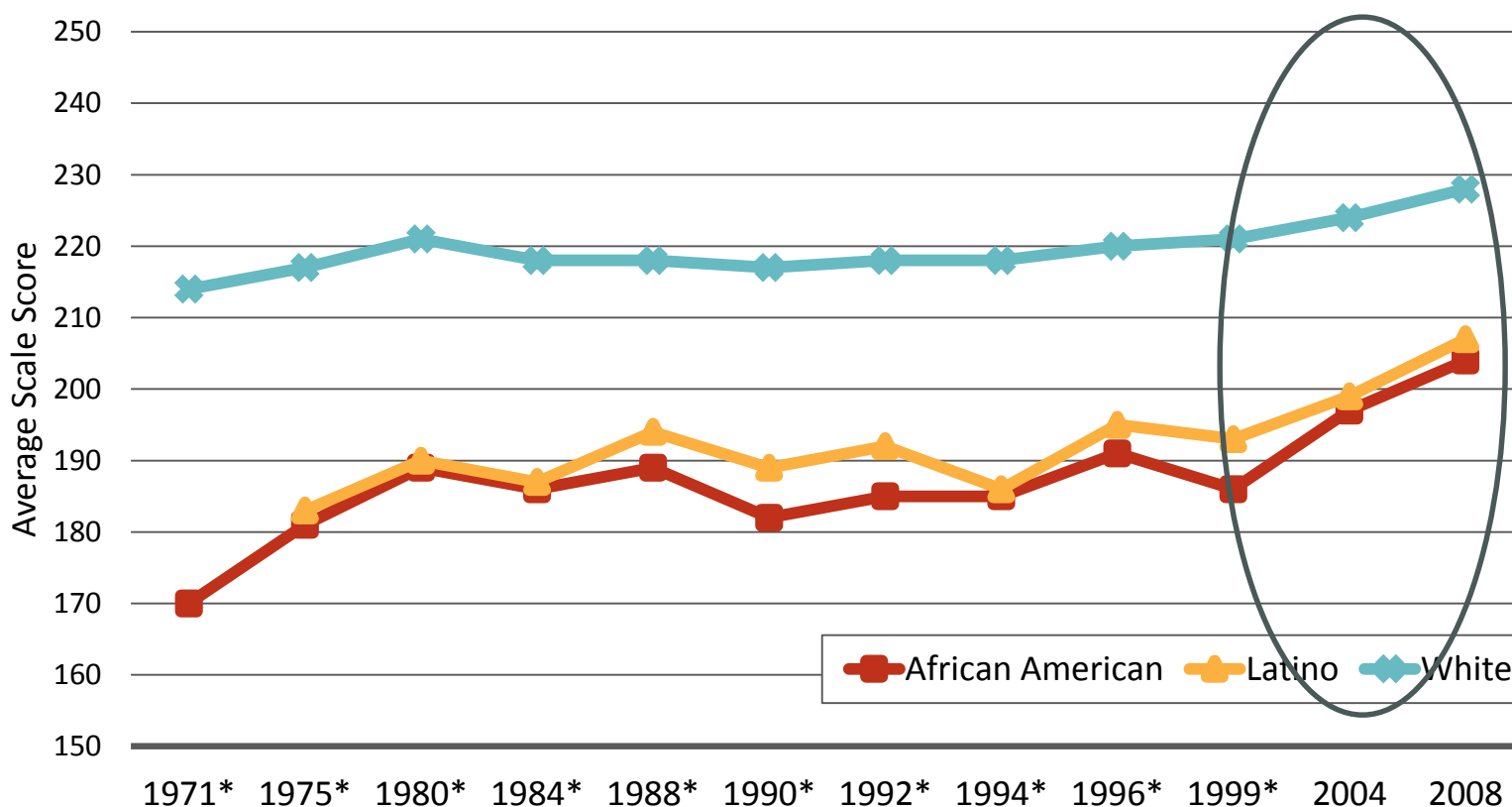
The Education Trust

Wallace-Knight Fellow
University of Michigan
Ann Arbor, MI

February, 2011

4th Grade Reading: Record Performance with Gap Narrowing

9 Year Olds – NAEP Reading

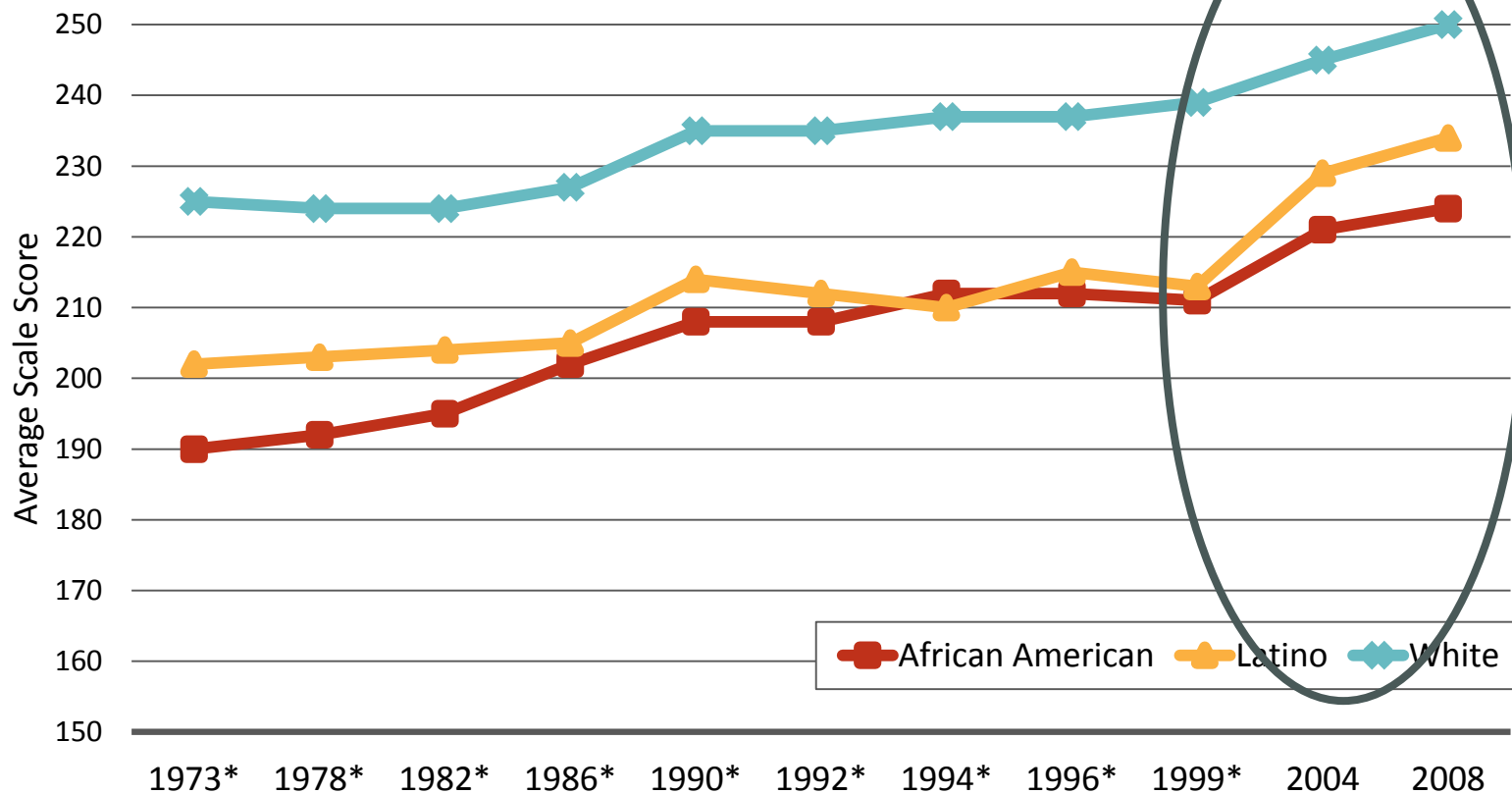


*Denotes previous assessment format

Source: NAEP 2008 Trends in Academic Progress, NCES

4th Grade Math: Record Performance with Gap Narrowing

9 Year Olds – NAEP Math

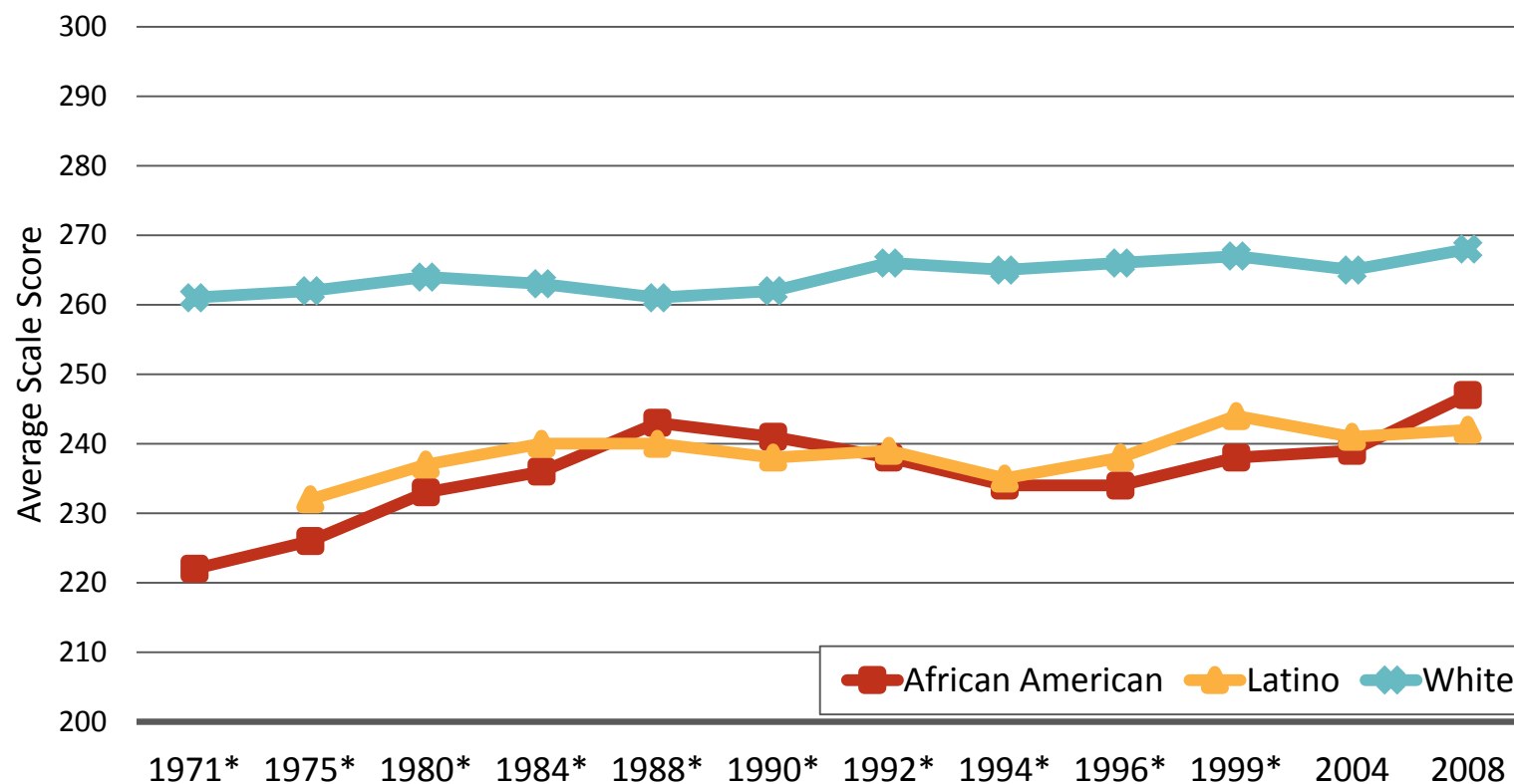


*Denotes previous assessment format

Source: NAEP 2008 Trends in Academic Progress, NCES

8th Grade Reading: Recent Gap Narrowing for Blacks, Less for Latinos

13 Year Olds – NAEP Reading

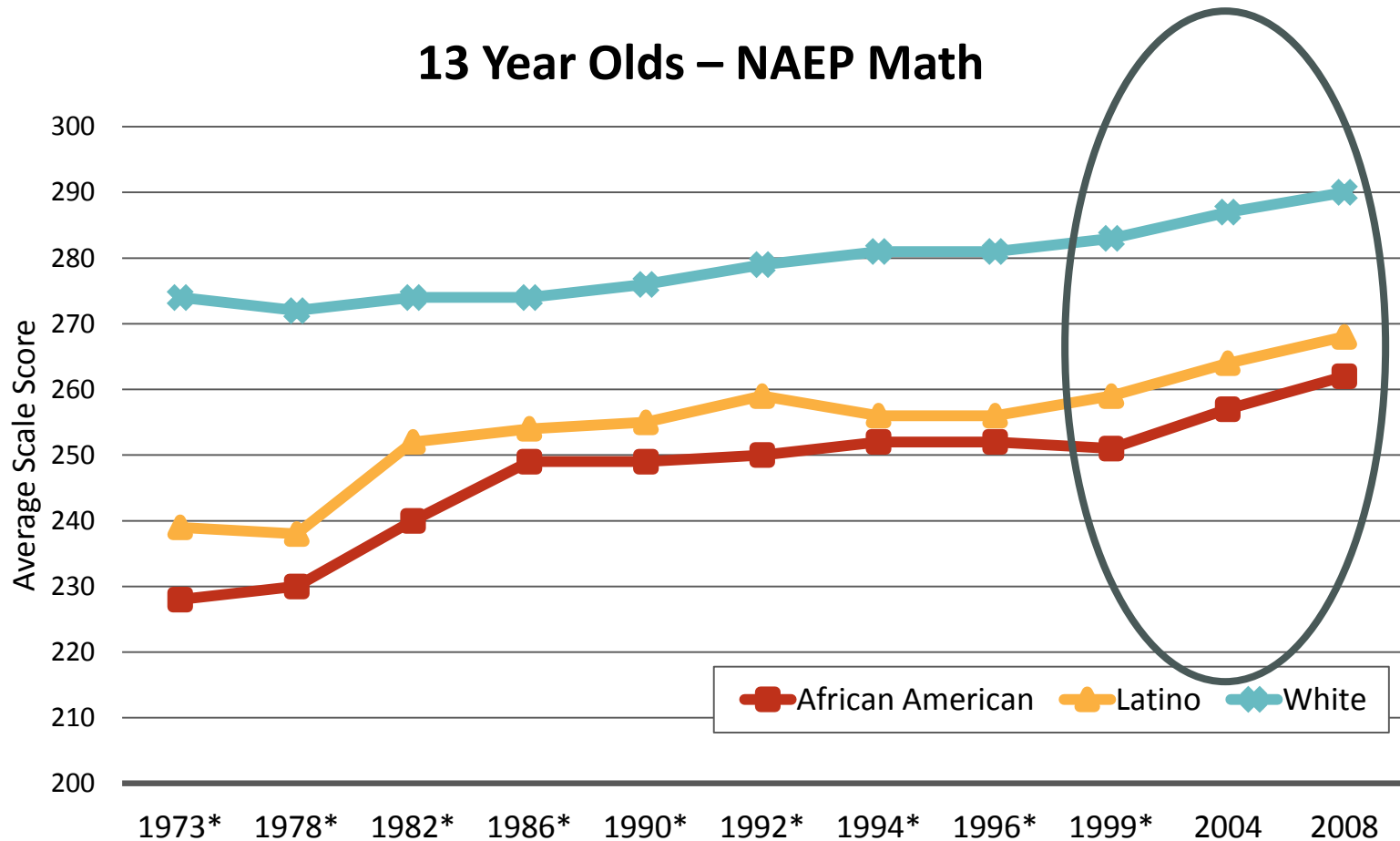


*Denotes previous assessment format

Source: NAEP 2008 Trends in Academic Progress, NCES

8th Grade Math: Progress for All Groups, Some Gap Narrowing

13 Year Olds – NAEP Math

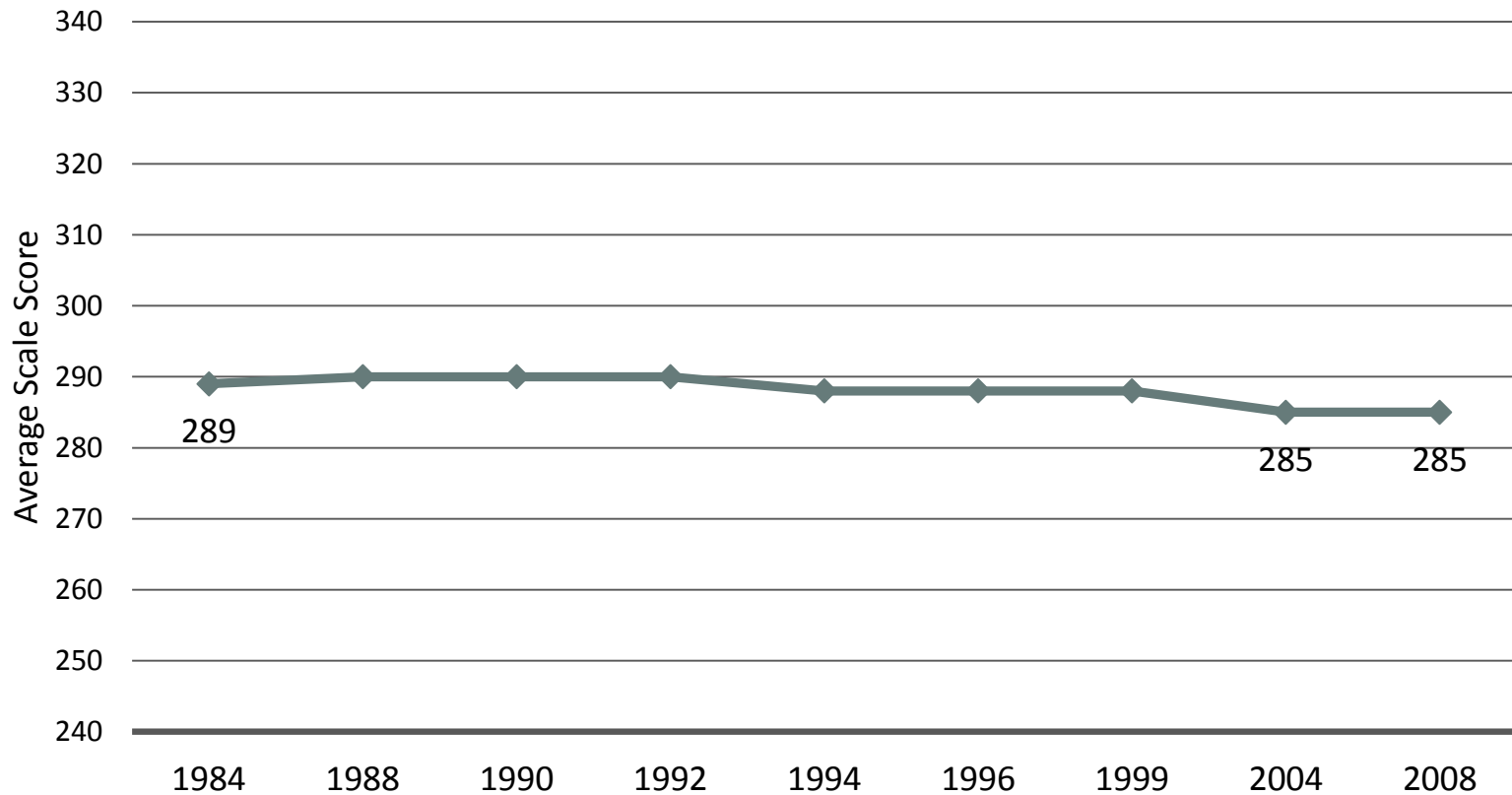


*Denotes previous assessment format

Source: NAEP 2008 Trends in Academic Progress, NCES

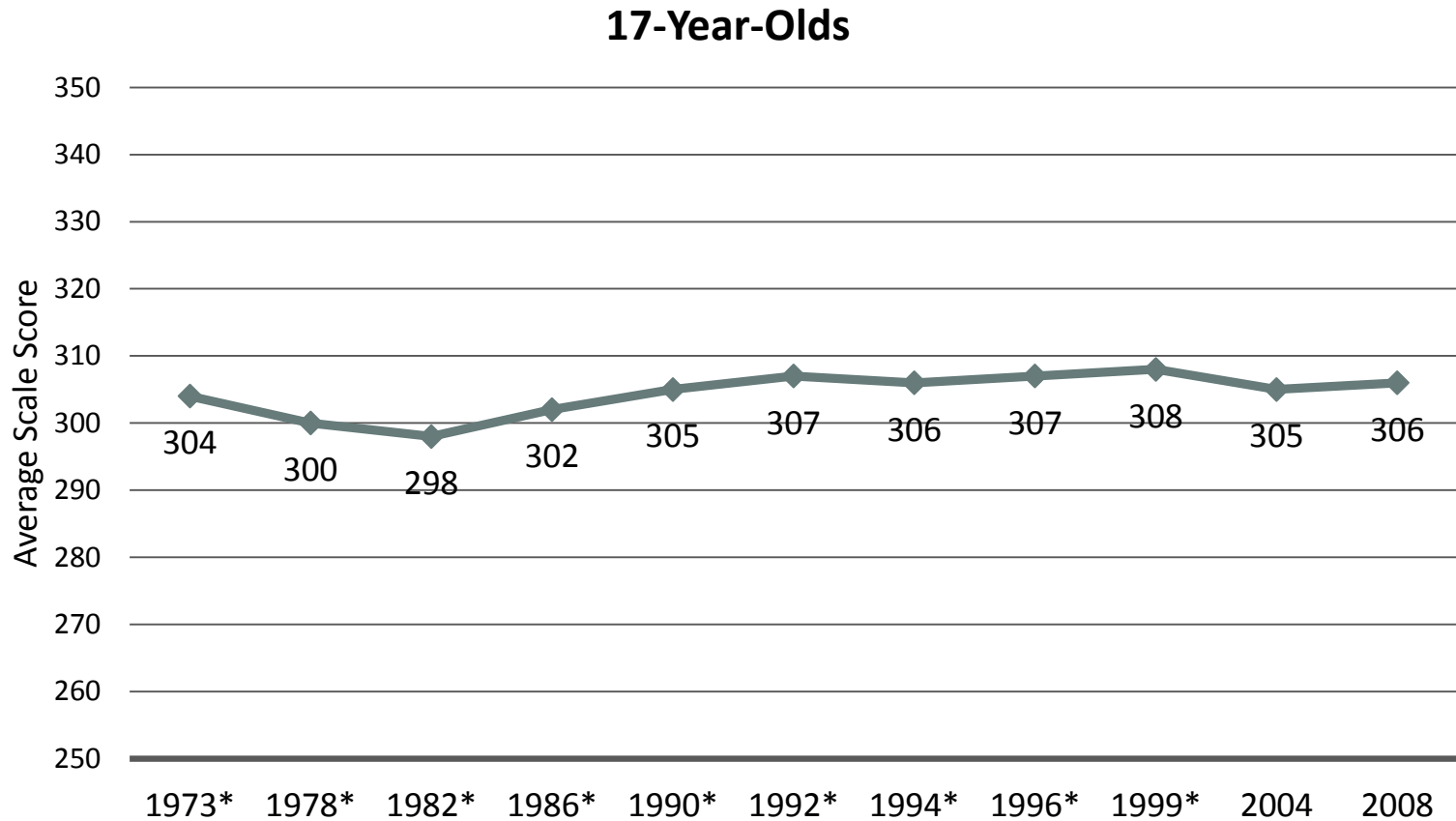
Achievement Flat in Reading

17 Year Olds Overall - NAEP



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

Math achievement flat over time

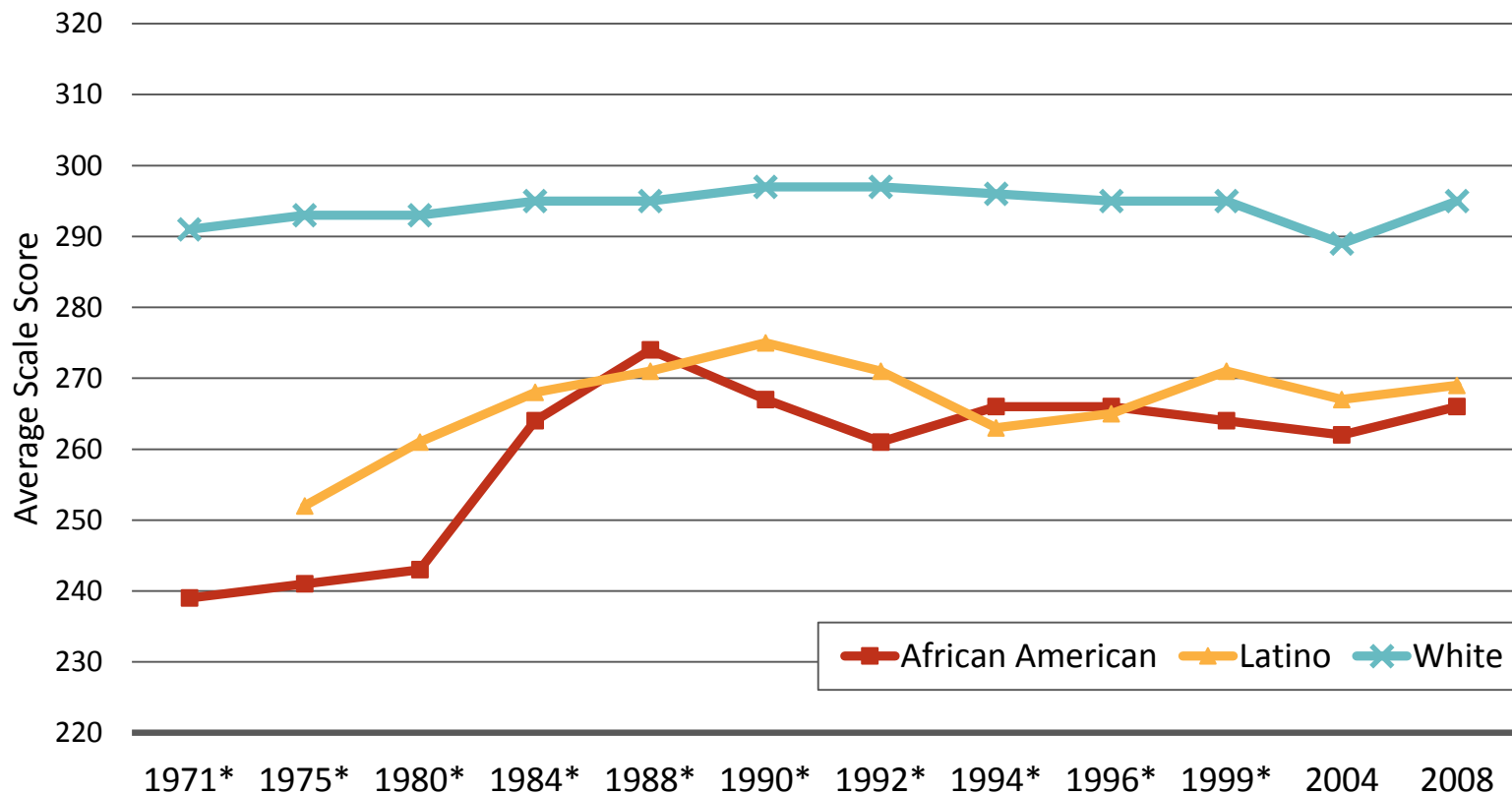


* Denotes previous assessment format

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

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

17 Year Olds – NAEP Reading

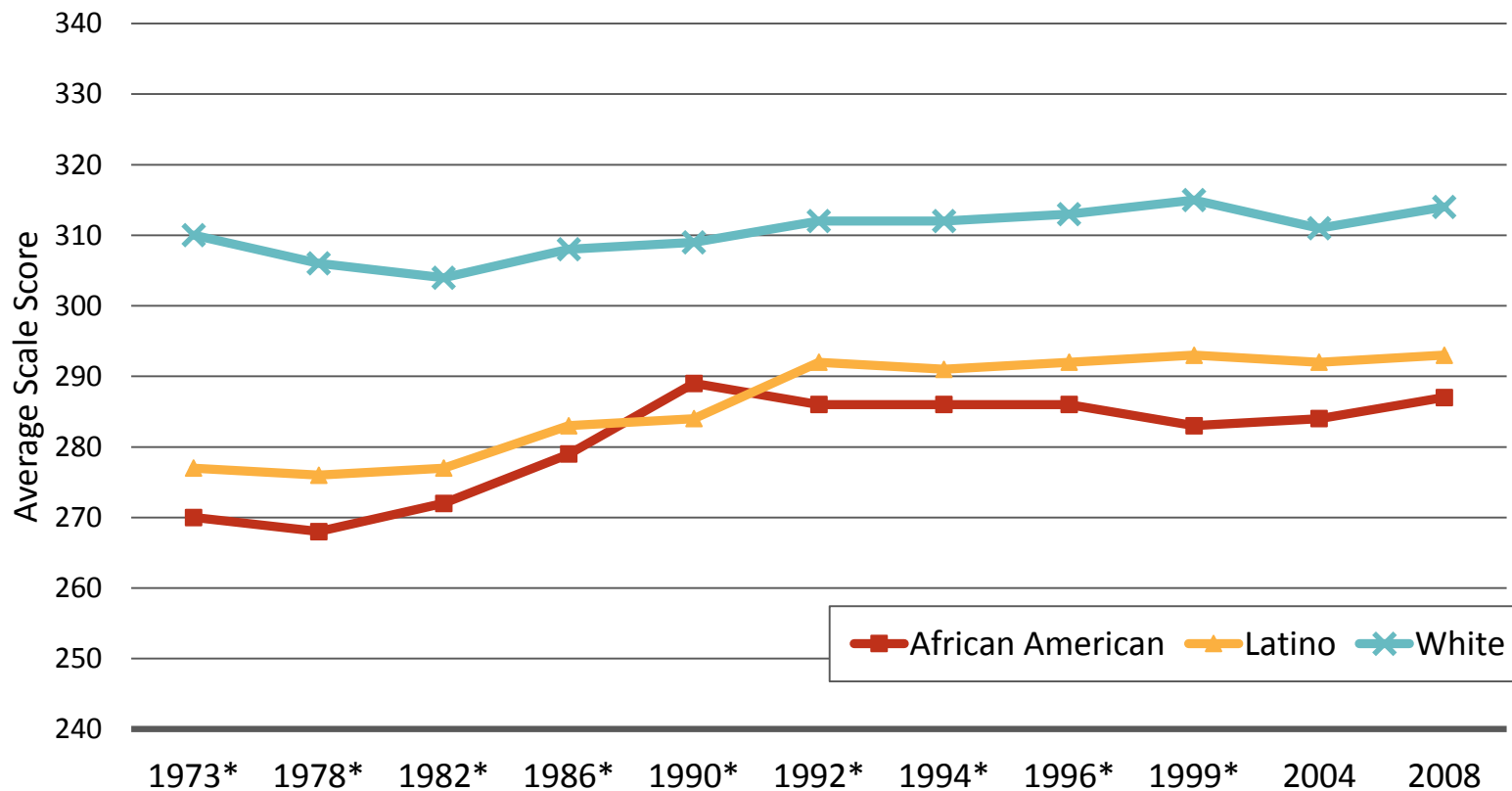


*Denotes previous assessment format

Source: NAEP 2008 Trends in Academic Progress, NCES

12 Grade Math: Results Mostly Flat Gaps Same or Widening

17 Year Olds – NAEP Math

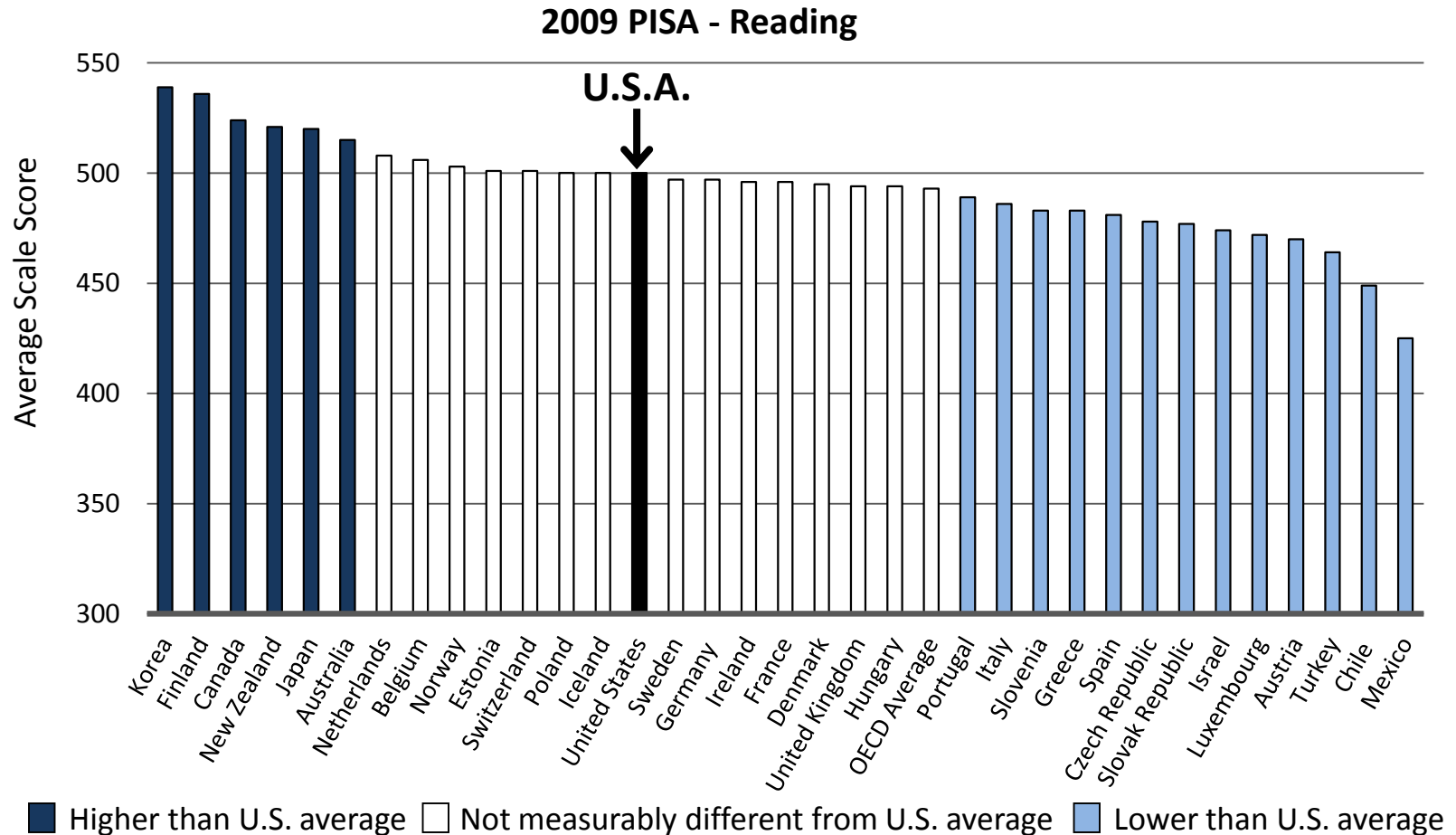


*Denotes previous assessment format

Source: NAEP 2008 Trends in Academic Progress, NCES

Compared to other countries?

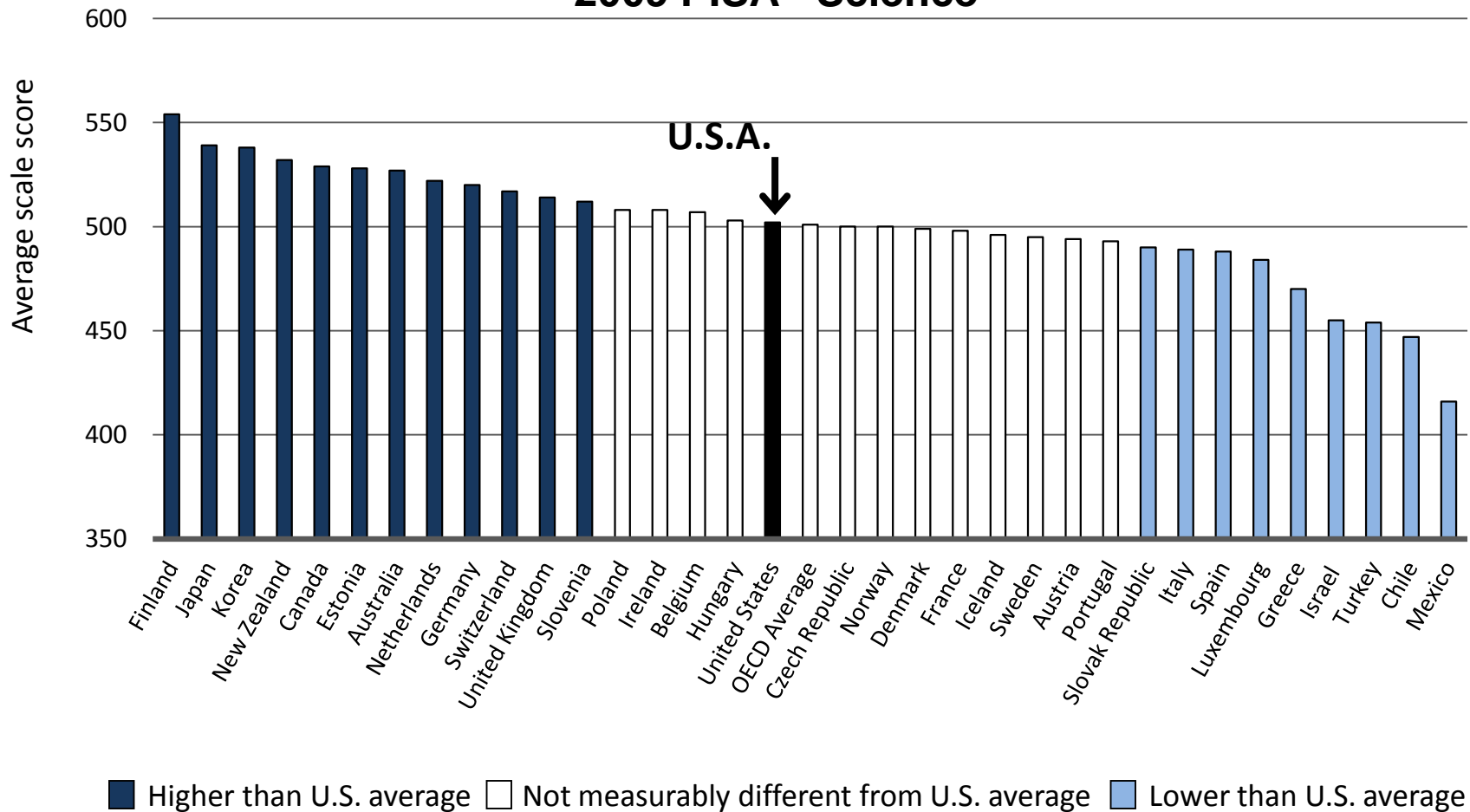
Of 34 OECD Countries, U.S.A. Ranks 12th in Reading Literacy



Source: "Highlights from PISA 2009," NCES, 2010

Of 34 OECD Countries, U.S.A. Ranks 17th in Science

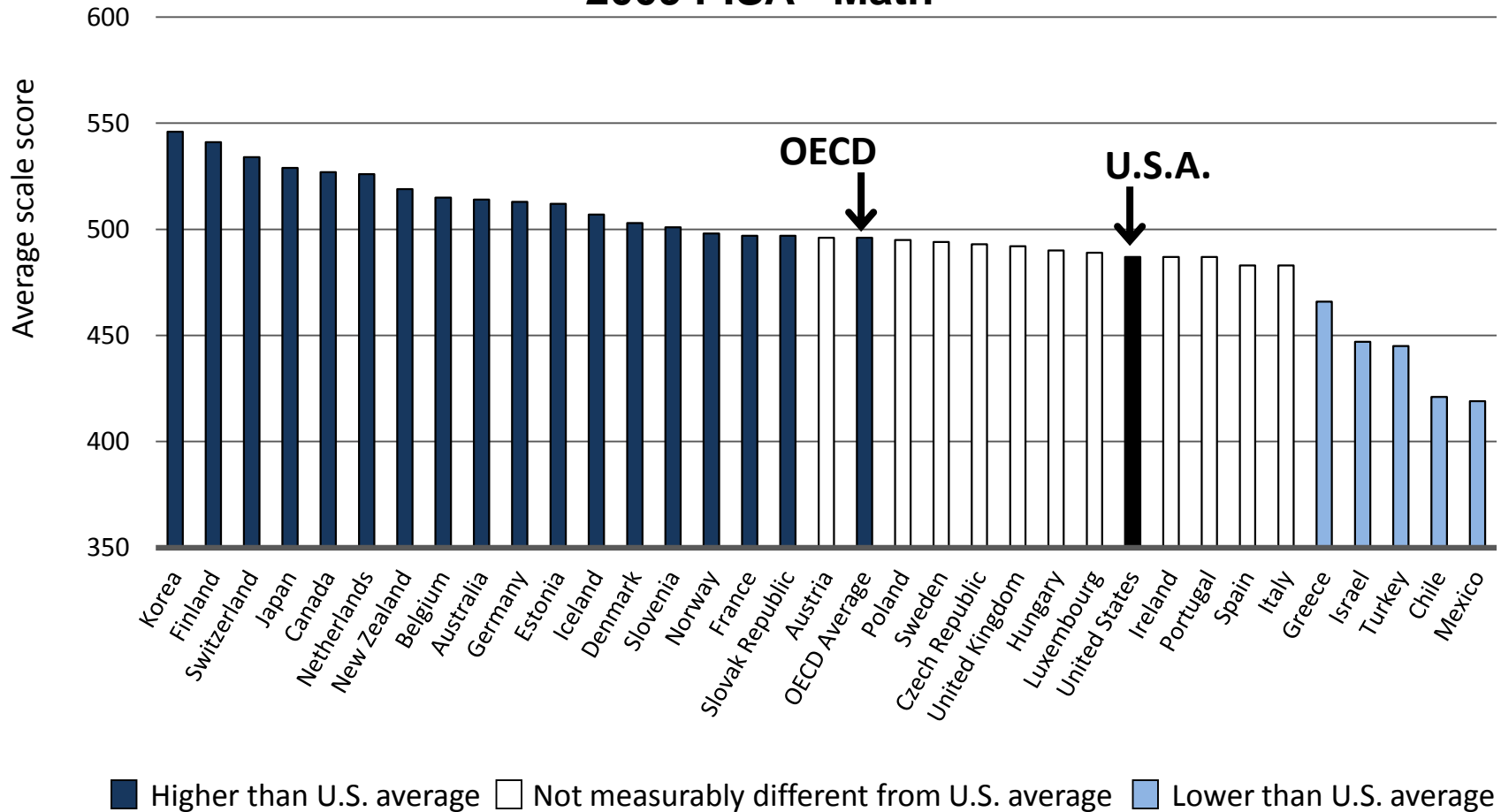
2009 PISA - Science



Source: "Highlights from PISA 2009," NCES, 2010

Of 34 OECD Countries, U.S.A. Ranks 25th in Math

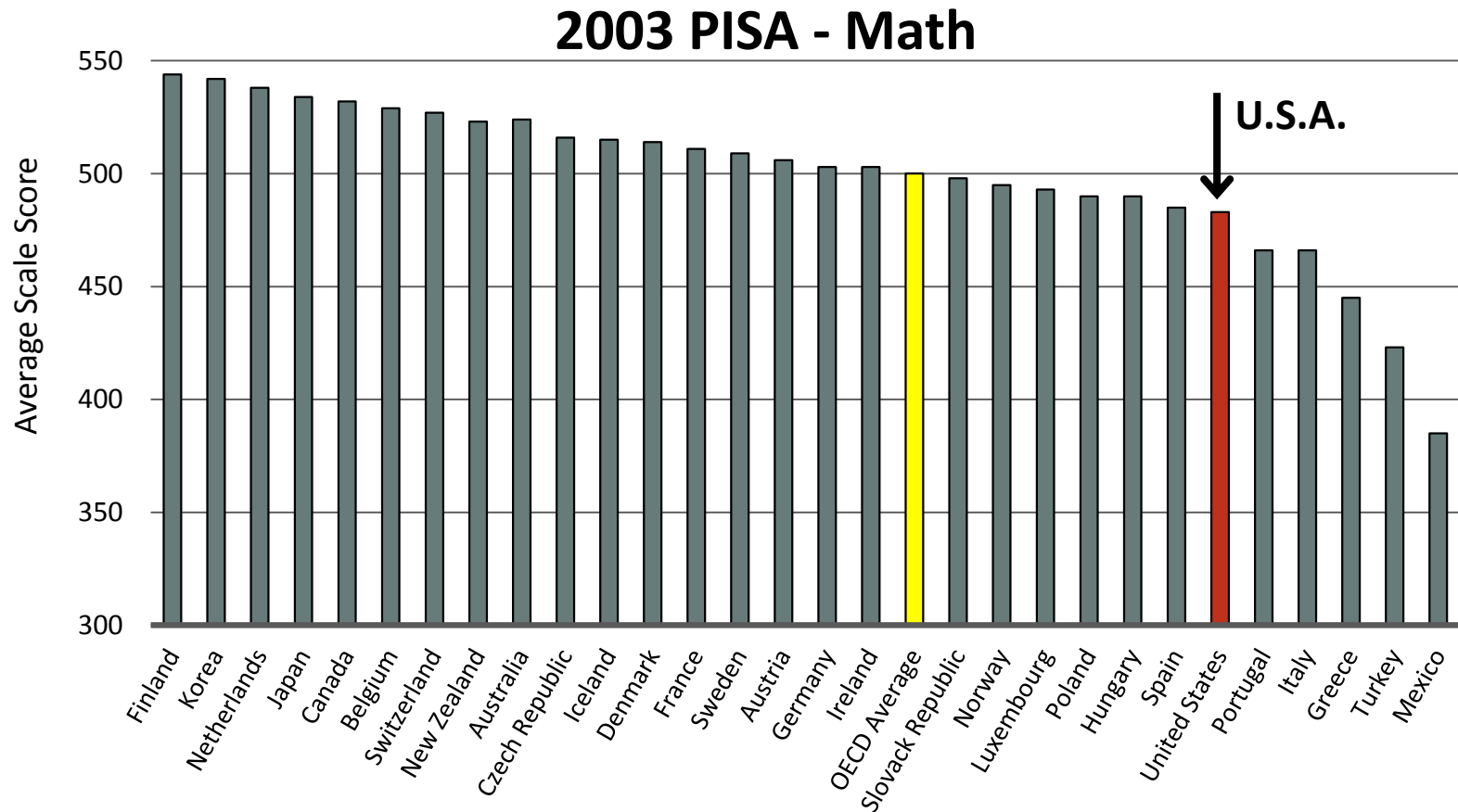
2009 PISA - Math



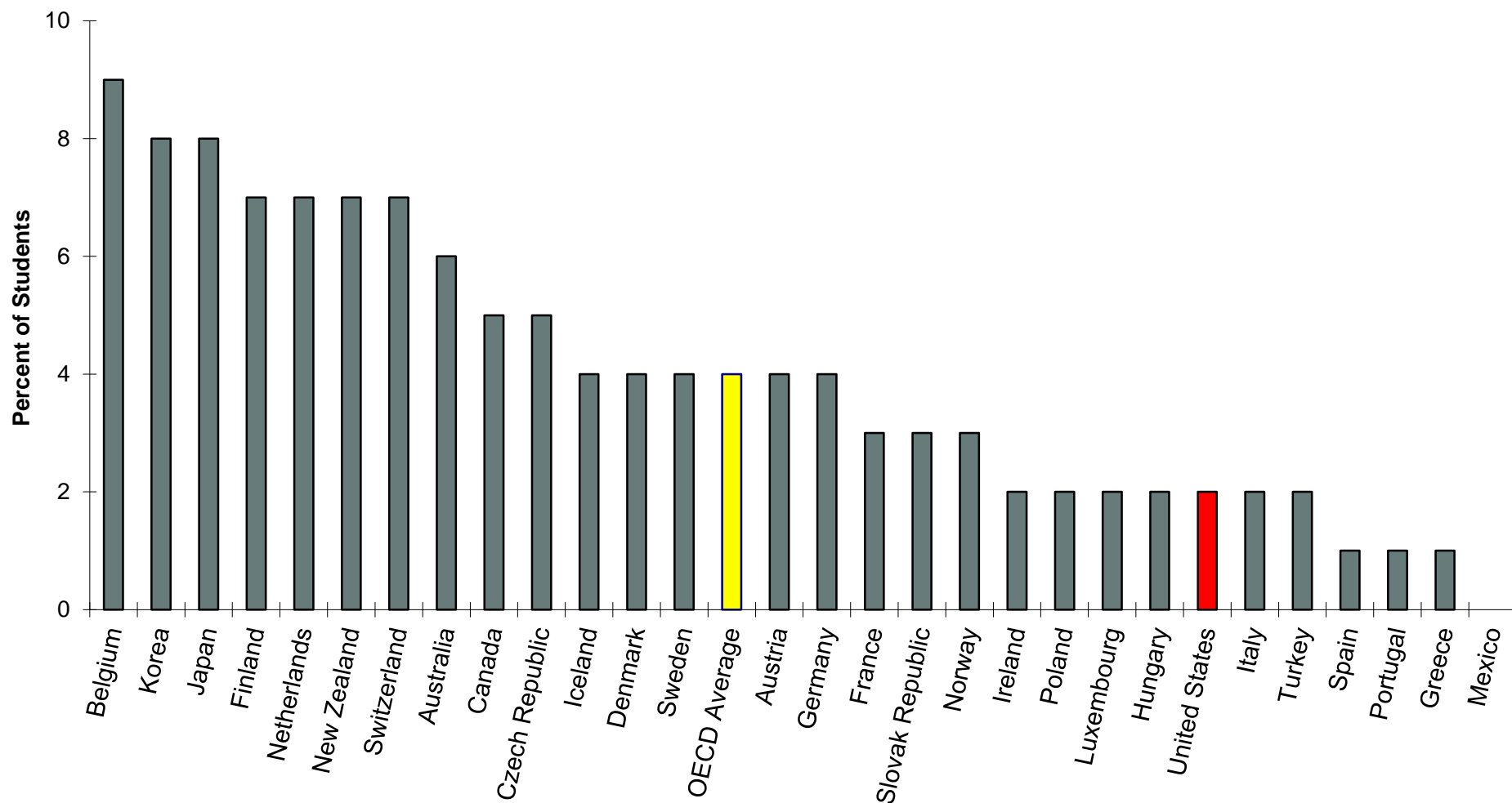
Source: "Highlights from PISA 2009," NCES, 2010

A closer look at math

Of 29 OECD Countries, U.S.A. Ranked 24th



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

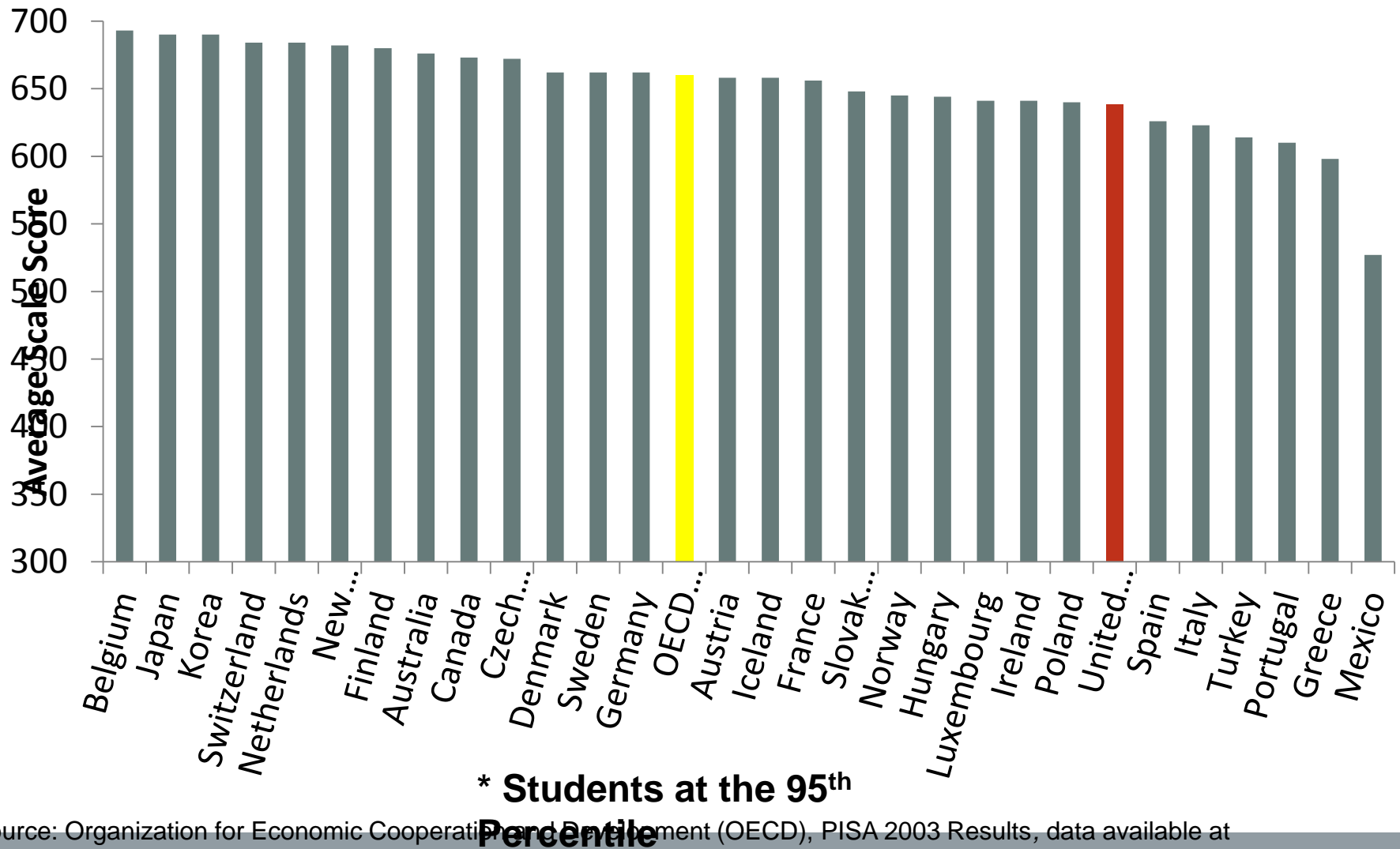


Source: Organization for Economic Cooperation and Development (OECD), PISA 2003 Results, data available at

<http://www.oecd.org/>

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U.S. Ranks 23rd out of 29 OECD Countries in the Math Achievement of the Highest-Performing Students*

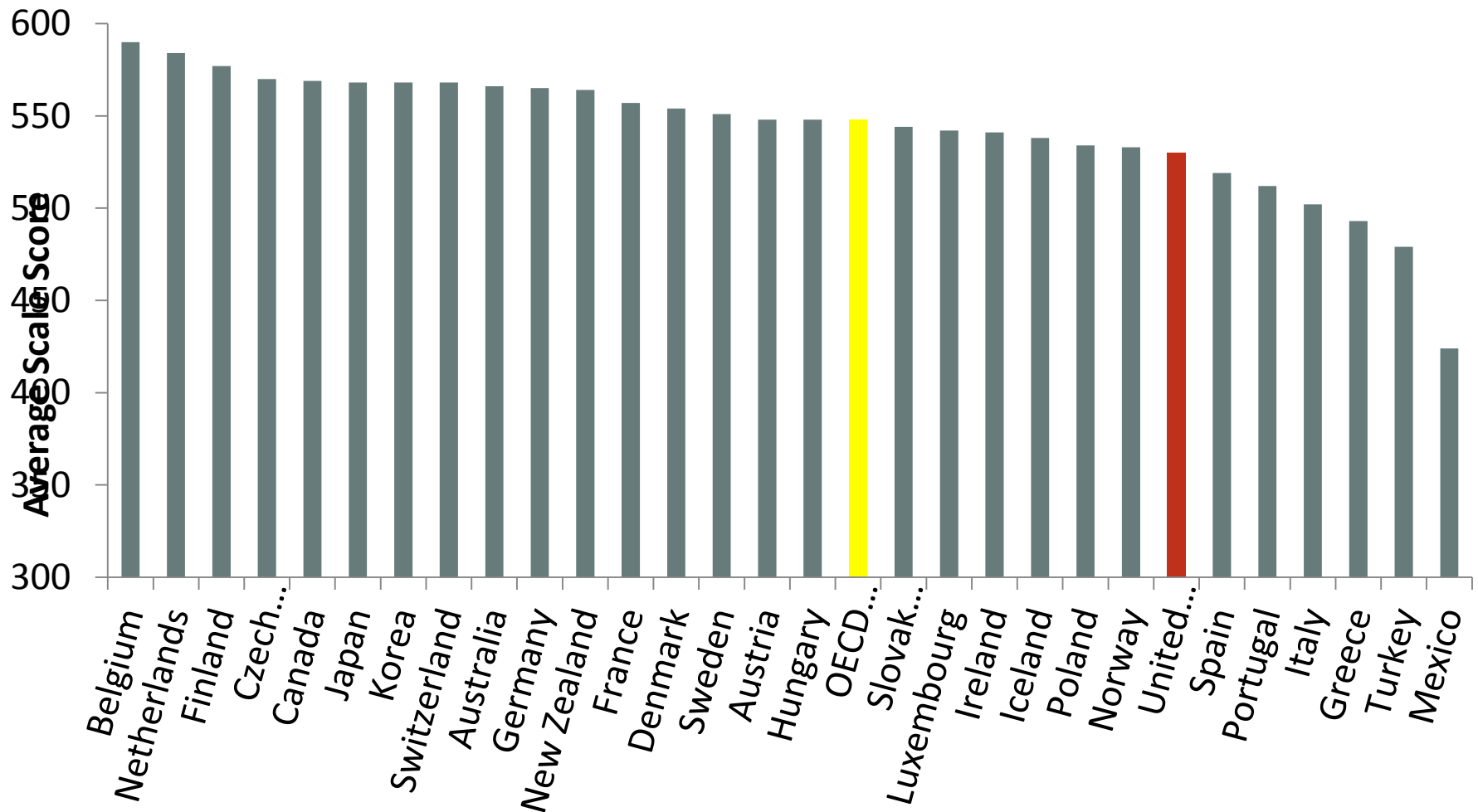


Source: Organization for Economic Cooperation and Development (OECD), PISA 2003 Results, data available at

<http://www.oecd.org/>

U.S. Ranks 23rd out of 29

OECD Countries in the Math Achievement of High-SES Students

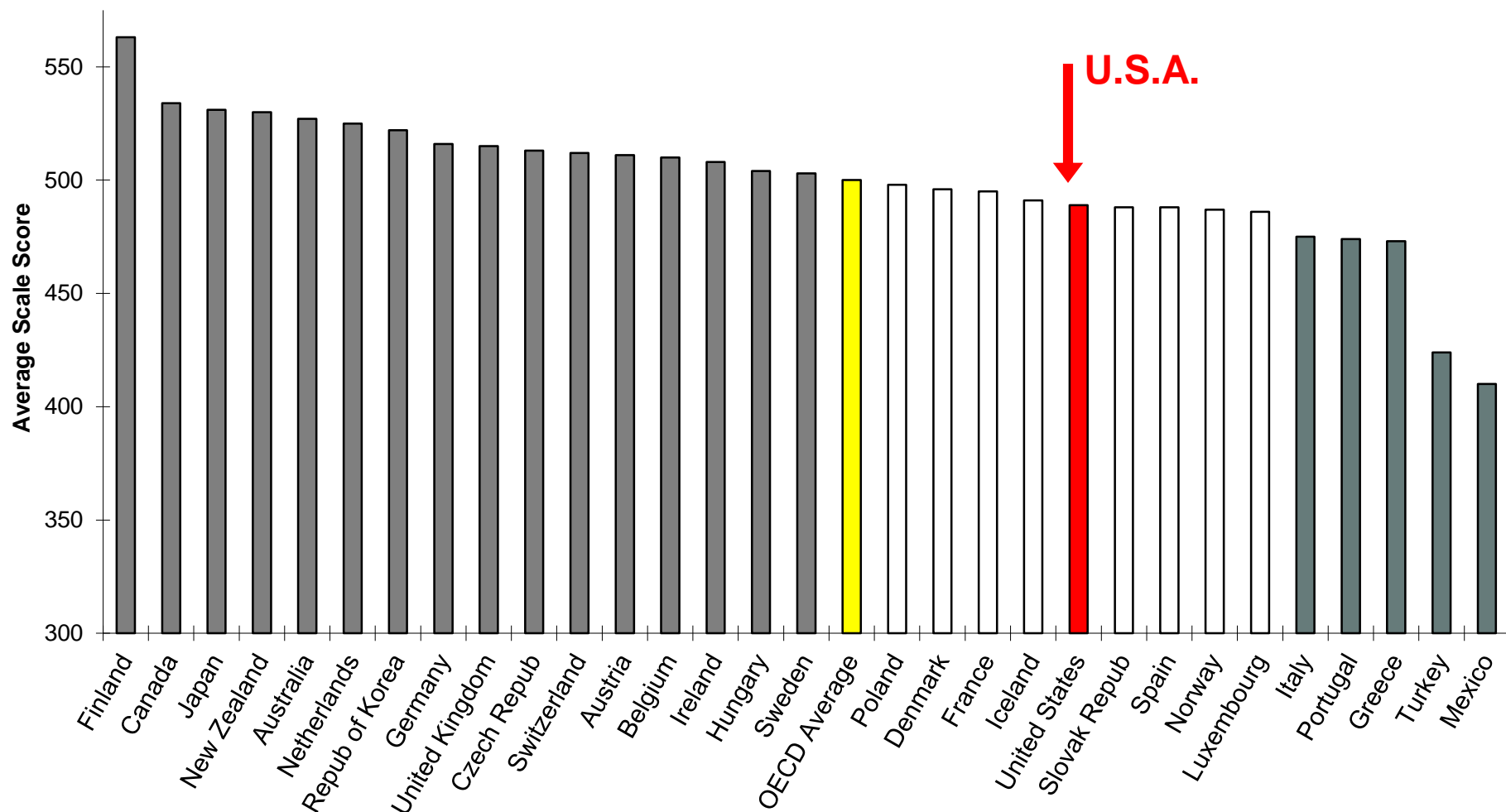


Source: Organization for Economic Cooperation and Development (OECD), PISA 2003 Results, data available at

<http://www.oecd.org/>

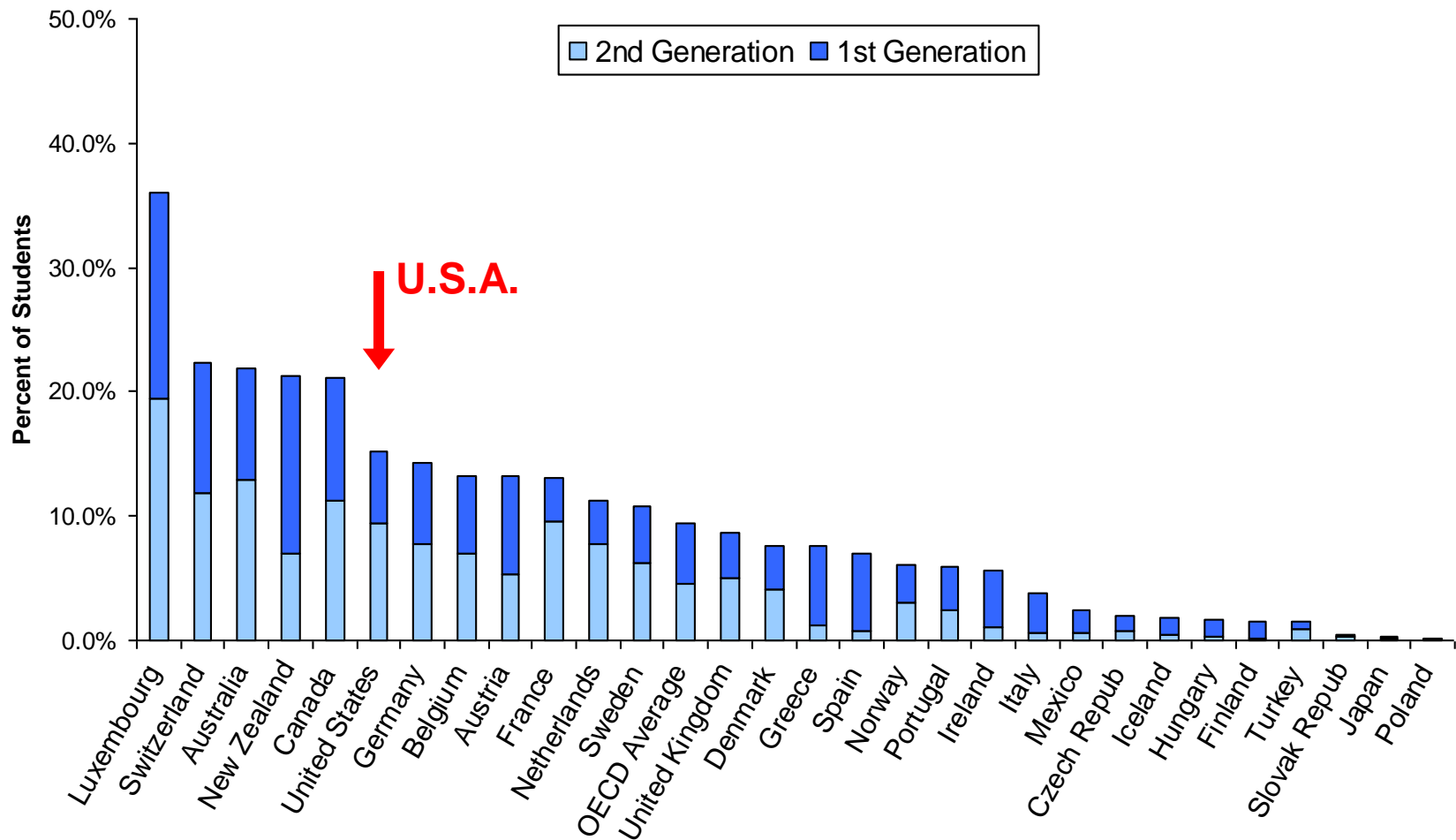
PISA 2006 Science

Of 30 OECD Countries, U.S.A. Ranked 21st



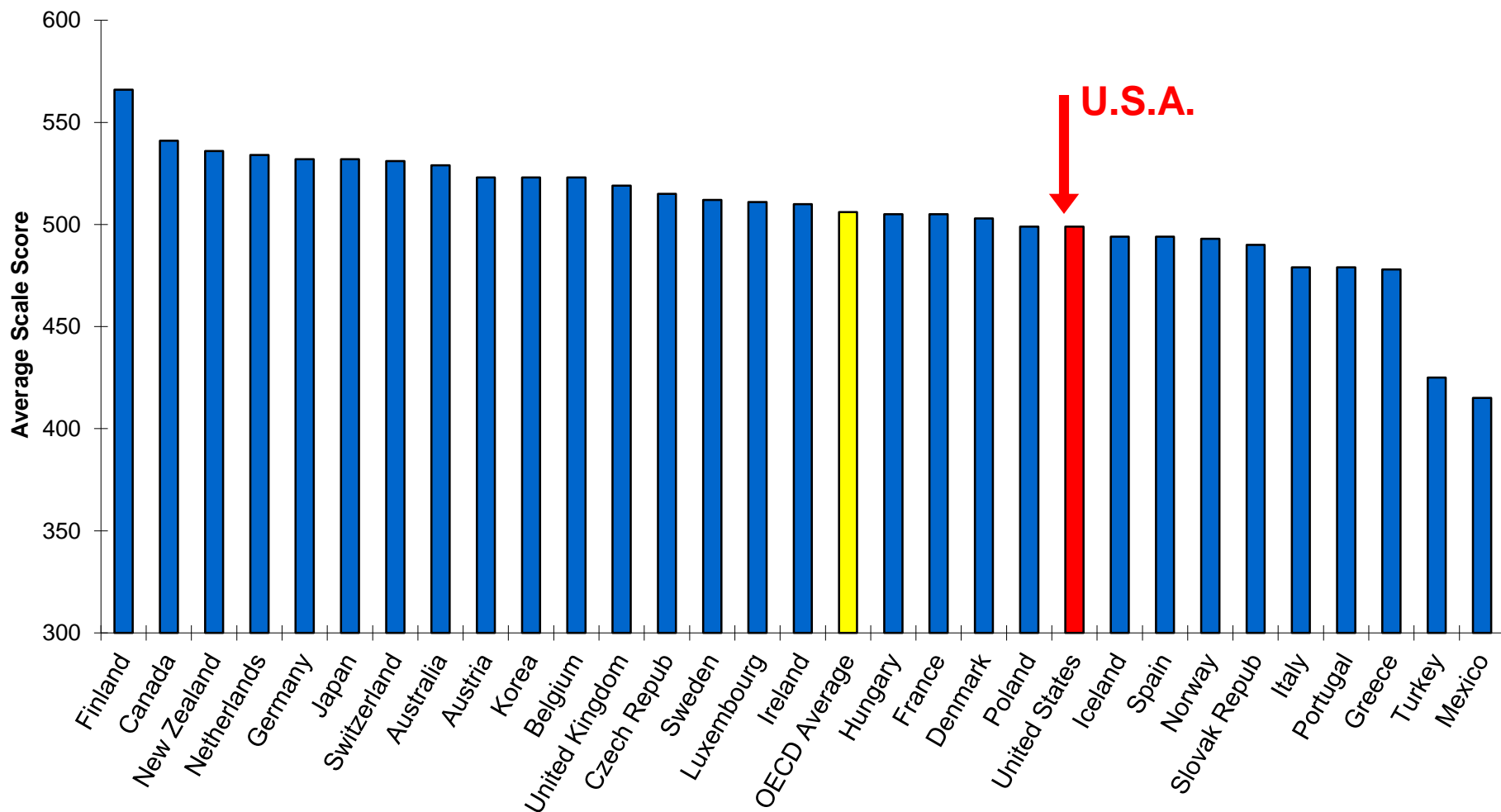
Higher than U.S. average
 Not measurably different from U.S. average
 Lower than U.S. average

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



But ranks 21st out of 30 OECD countries when only
taking into account native student* scores

PISA 2006 Science

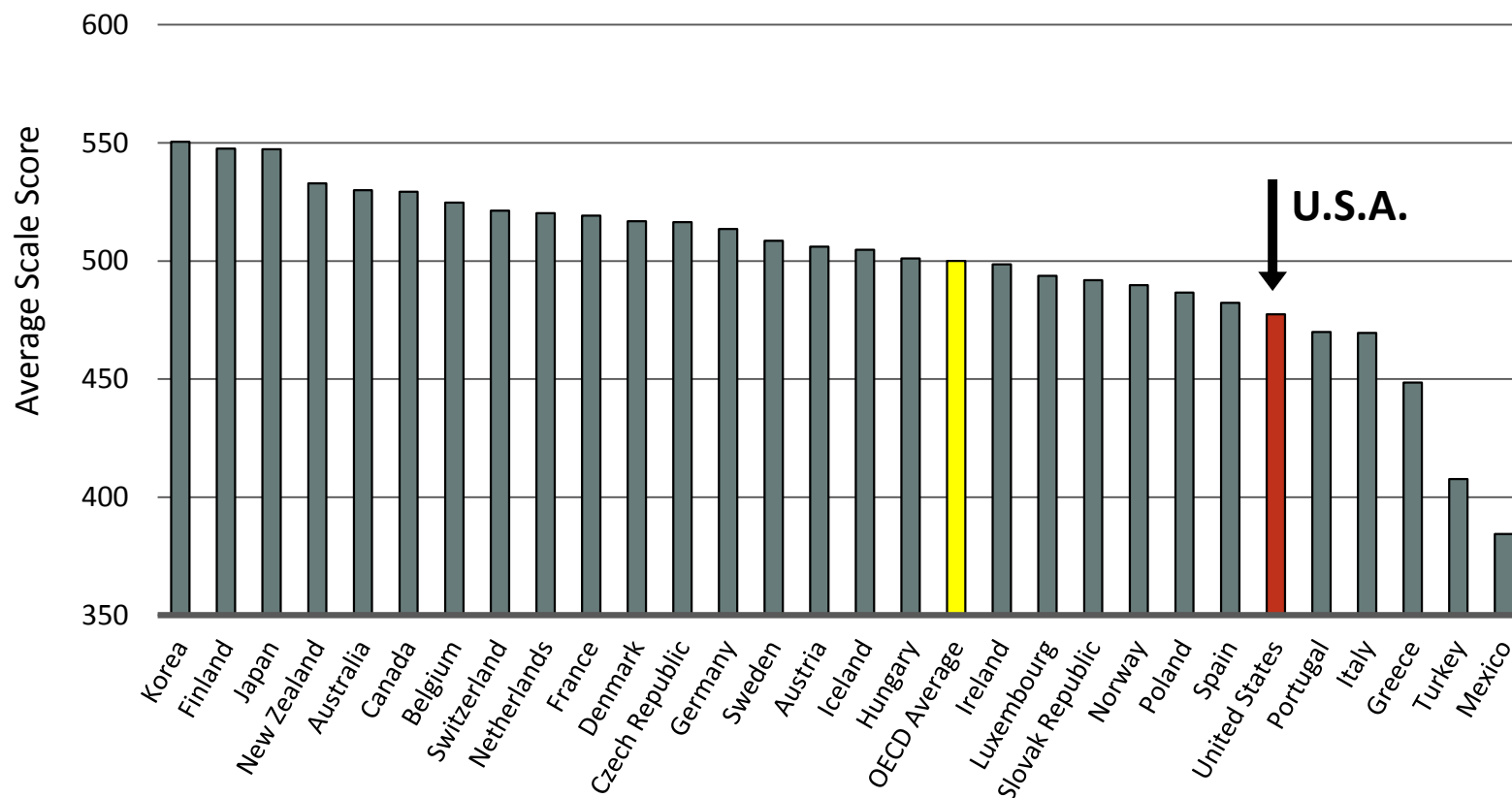


*Students born in the country of assessment with at least one parent born in the same country

Source: OECD, PISA 2006 Results, table 4.2c, <http://www.oecd.org/>

U.S.A. Ranks 24th Out of 29 OECD Countries in Problem-Solving

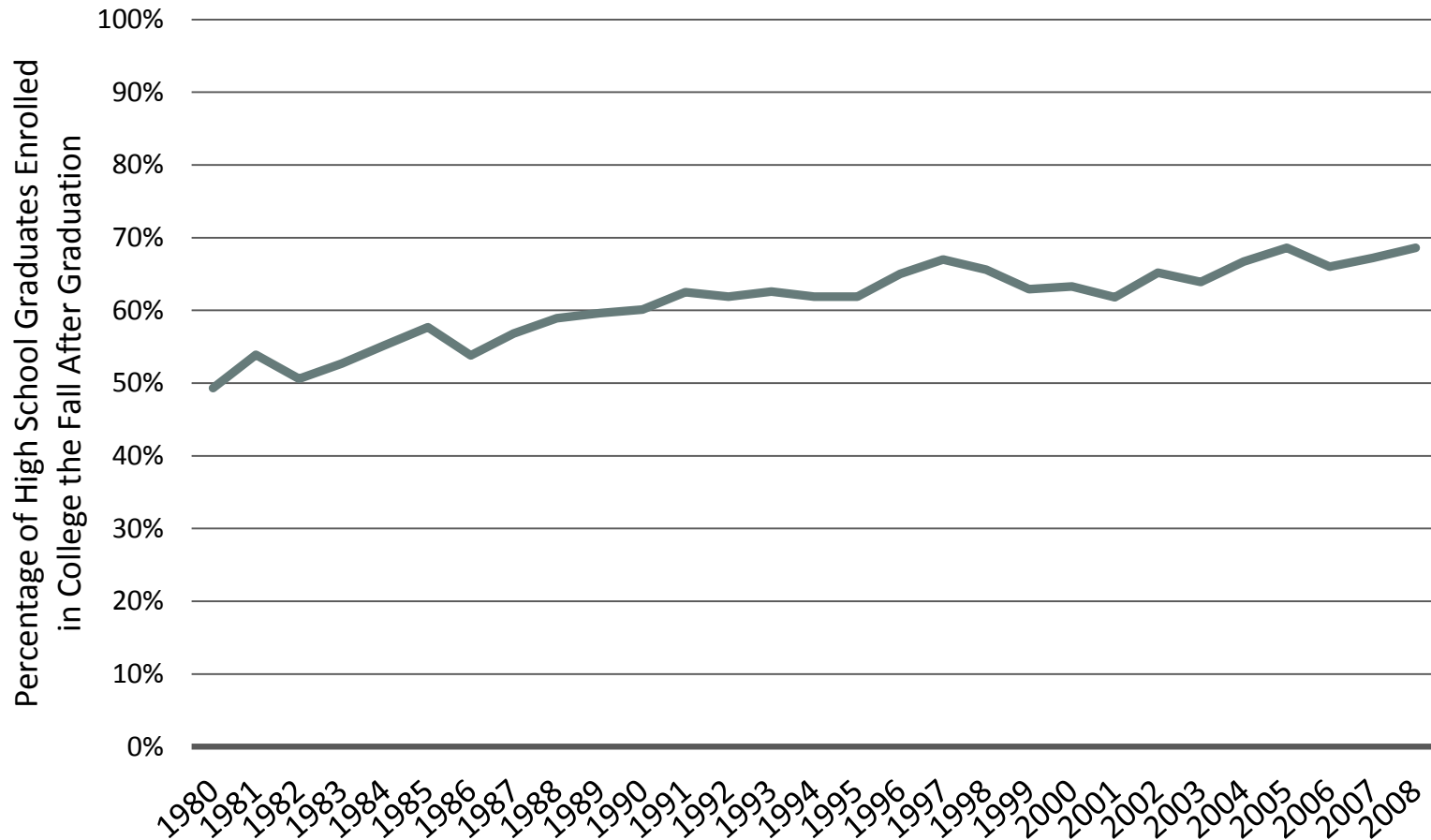
2003 PISA



Source: PISA 2003 Results, OECD

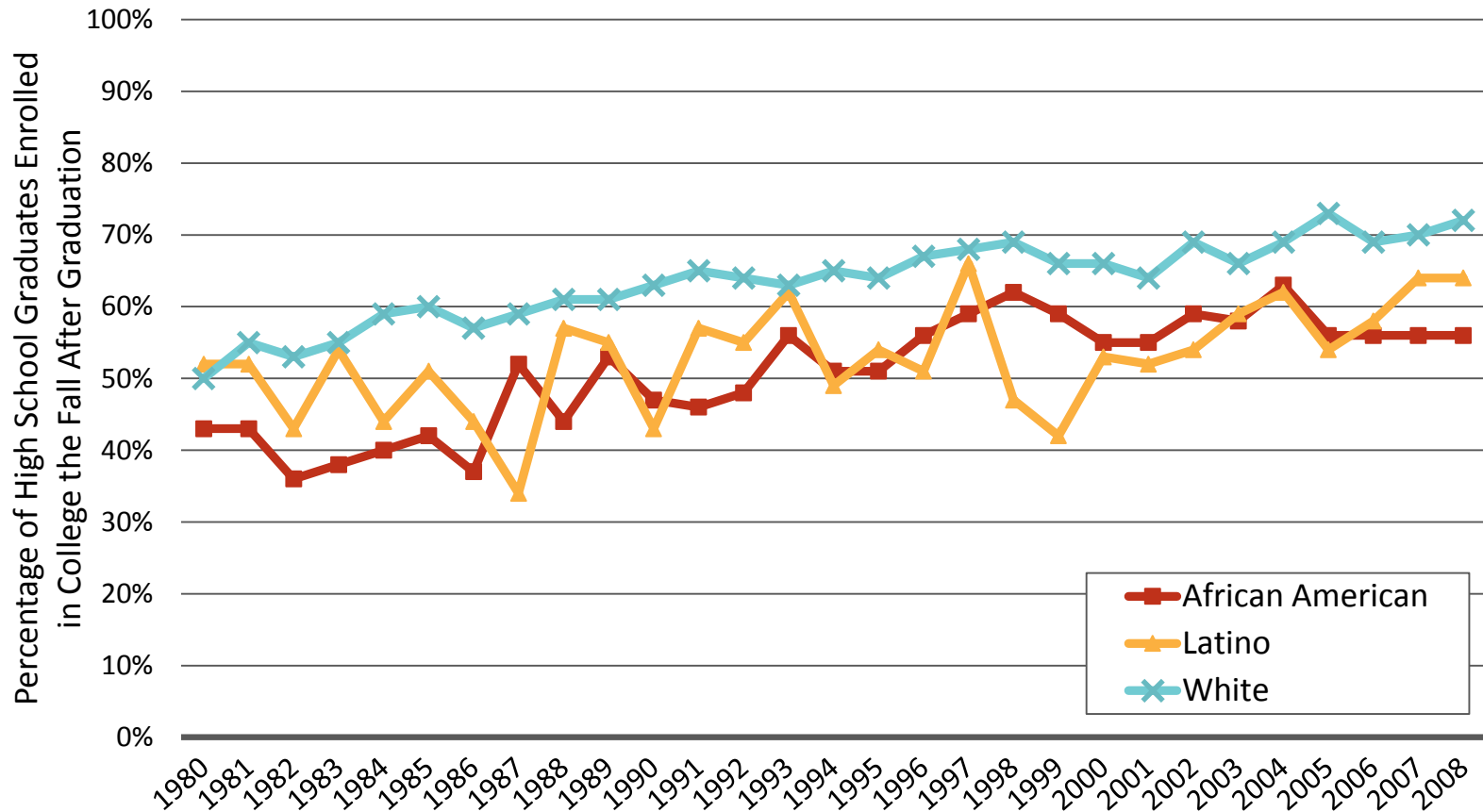
We used to make up for some of this by sending more of our young people to college.

Immediate College-Going Up



Source: NCES, *The Digest of Education Statistics 2009*, Table 201.

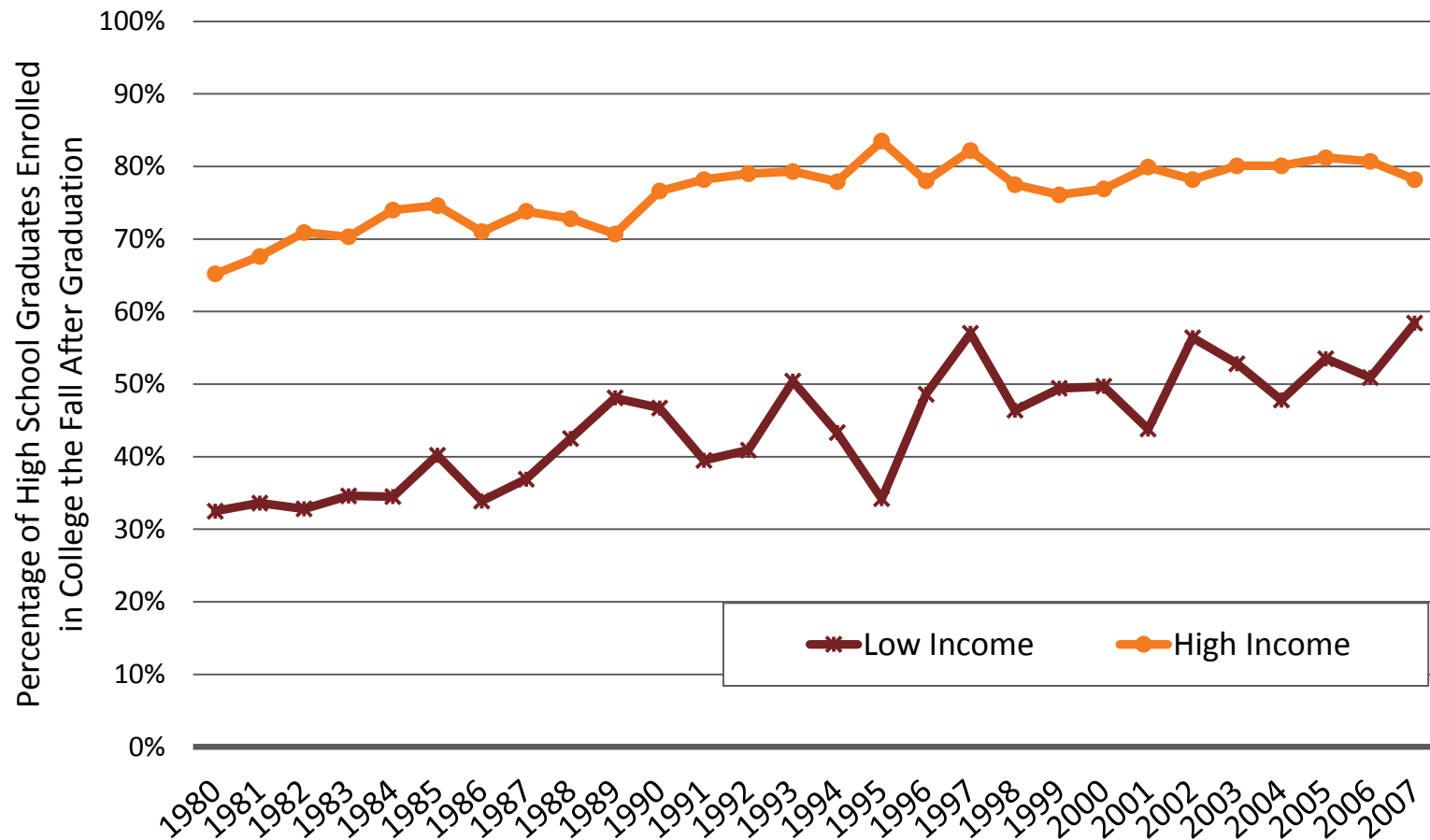
Immediate* College-Going Increasing for All Racial/Ethnic Groups: 1980 to 2008



*Percent of high school completers who were enrolled in college the October after completing high school

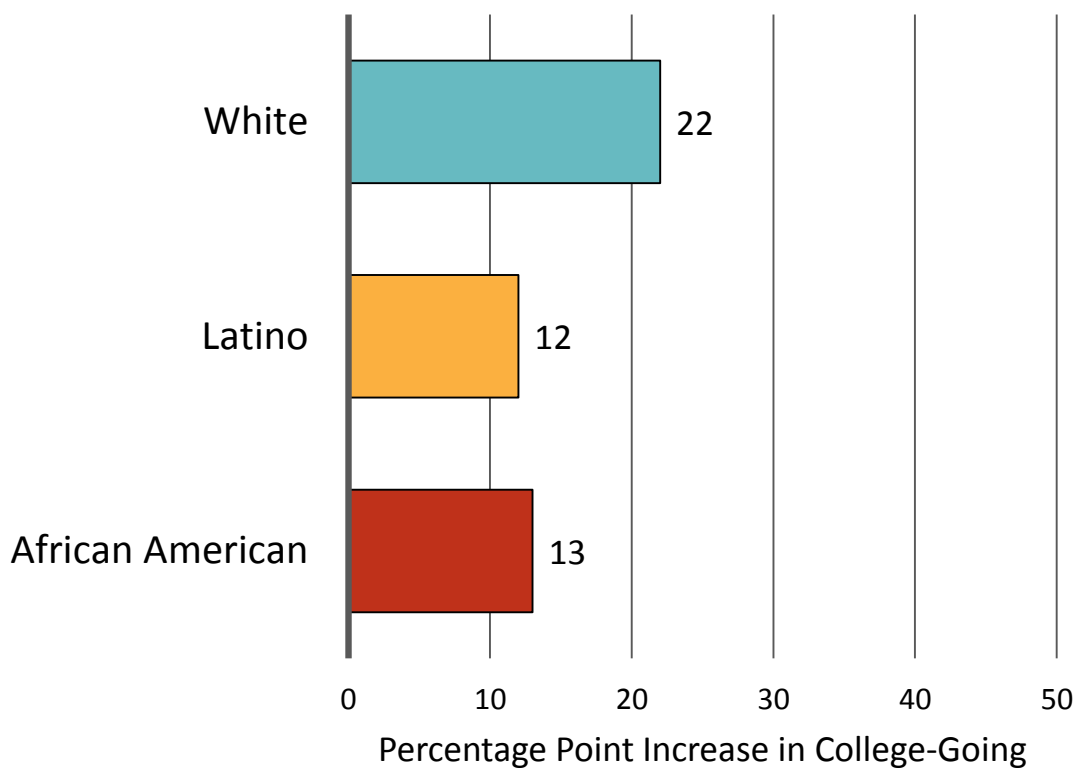
Source: NCES, *The Digest of Education Statistics 2009*, Table 201.

College-Going Generally Increasing for All Income Groups



Source: NCES, The Condition of Education, 2009- Indicator 21: Supplemental Table A-21-1.

All Groups Up in College-Going from 1980 to 2008, But Gaps Also Increase



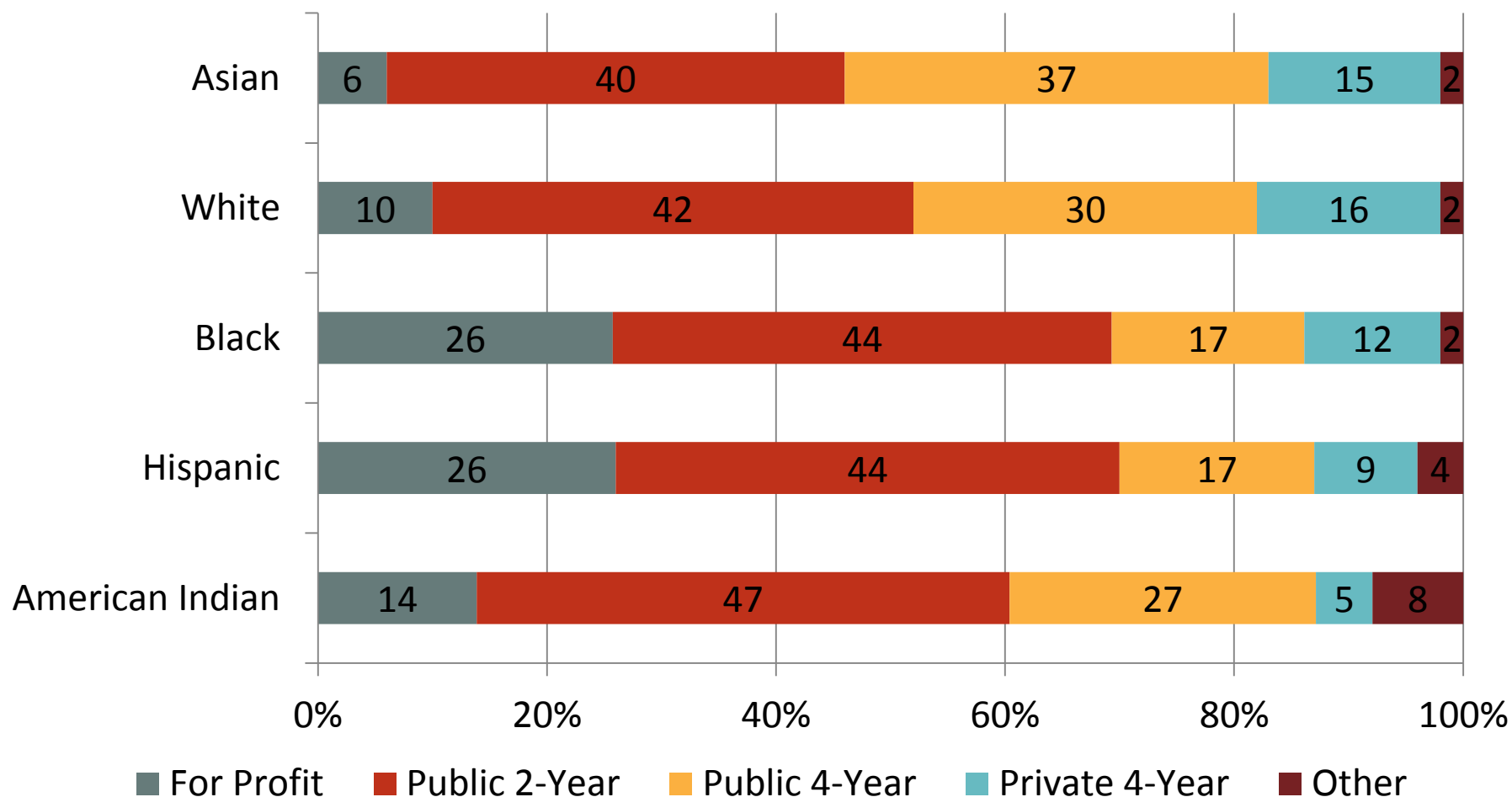
Source: NCES, *The Digest of Education Statistics 2009*, Table 201.

College-Going Rates by Family Income

Year	Low Income	Middle Income	High Income
1977	28%	44%	66%
1987	37%	50%	74%
1997	57%	61%	82%
2007	58%	63%	78%

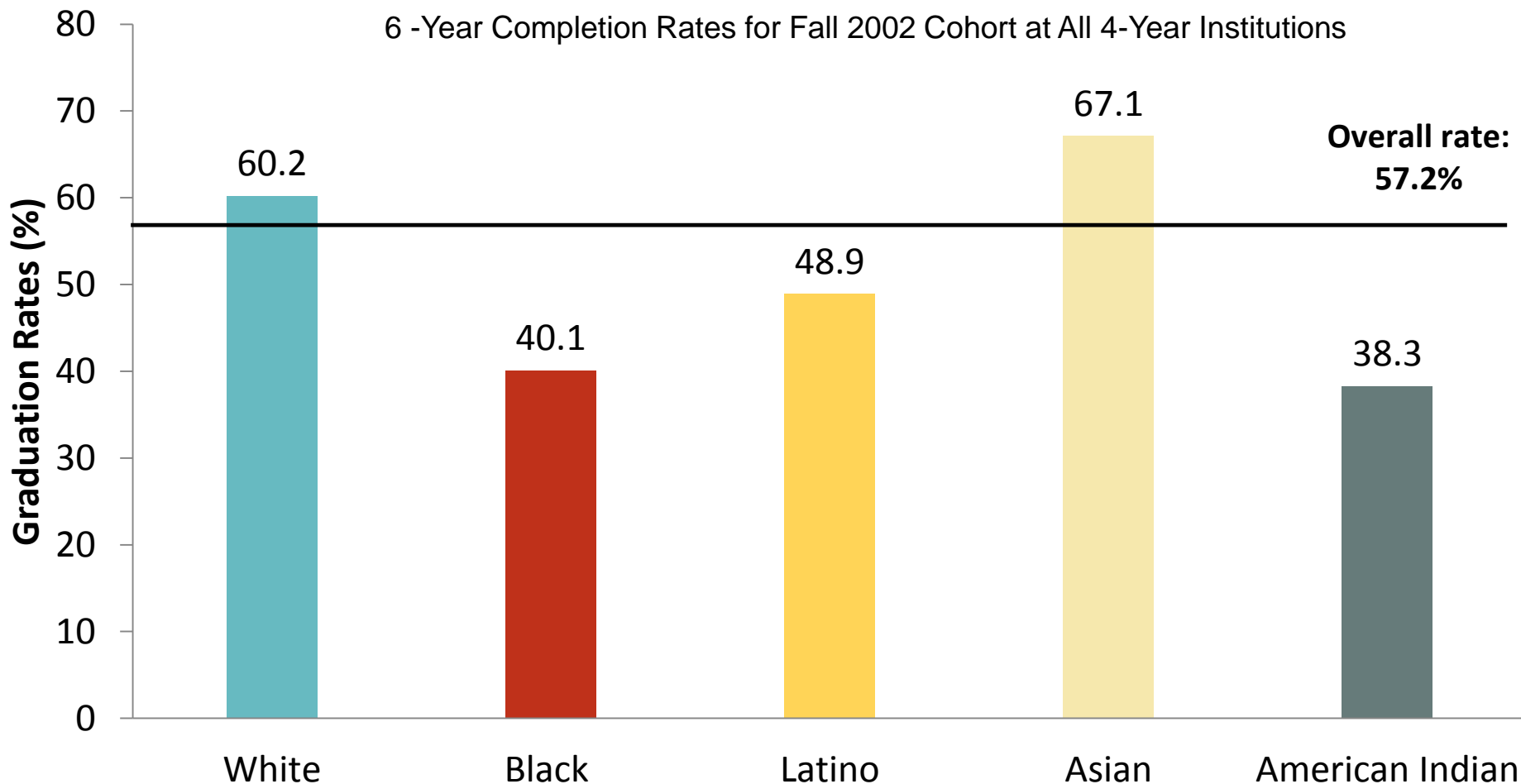
Access isn't the only issue...

Distribution of Beginning Postsecondary Students by Institutional Type and Race/Ethnicity, 2003-04

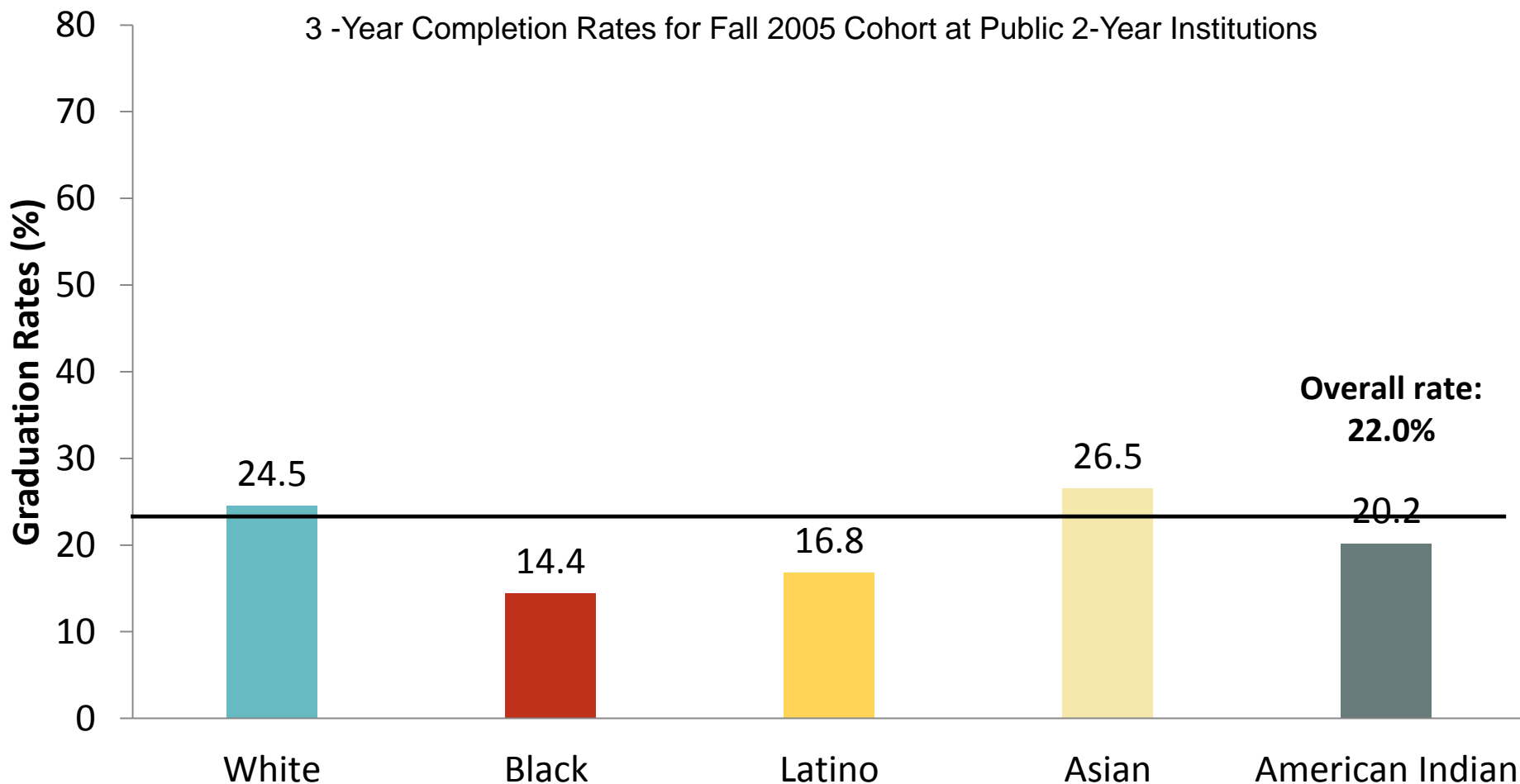


And what about graduation?

Black and Latino Freshmen Complete College at Lower Rates Than Other Students



Low Completion Rates for All Students at Community Colleges



Add it all up...

Some Americans Are Much Less Likely to Graduate From College

25-29 Year Olds with B.A. or Higher (2008)

White	37%
African American	21%
Latino	12%

Some Americans Are Much Less Likely to Graduate From College

**B.A. Rate by Age 24
(2008)**

Young People from
**Highest Income
Quartile**

77%

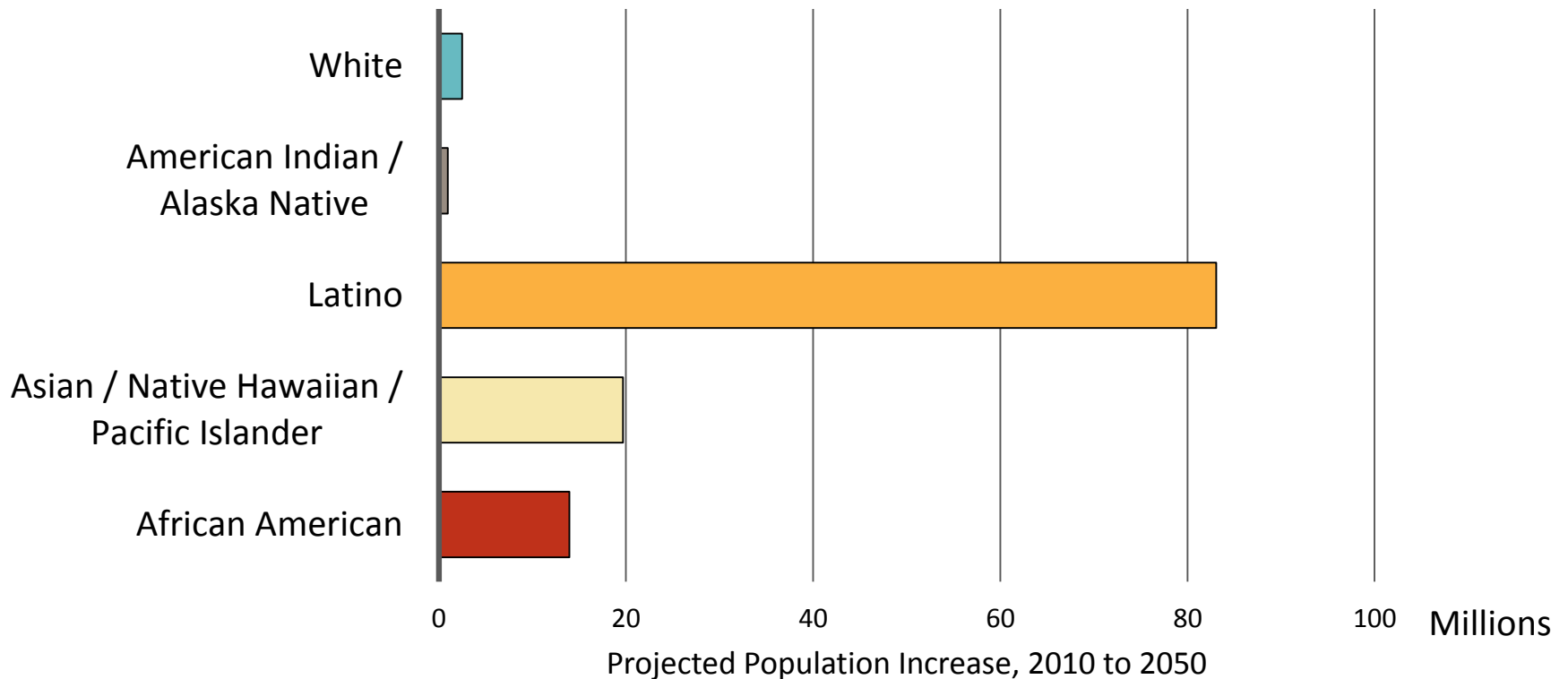
Young People from
**Lowest Income
Quartile**

10%

Source: *Postsecondary Education Opportunity*, "Bachelor's Degree Attainment by Age 24 by Family Income Quartiles, 1970 to 2008."

These rates threaten health of
our democracy.

Growth Differs Substantially by Group

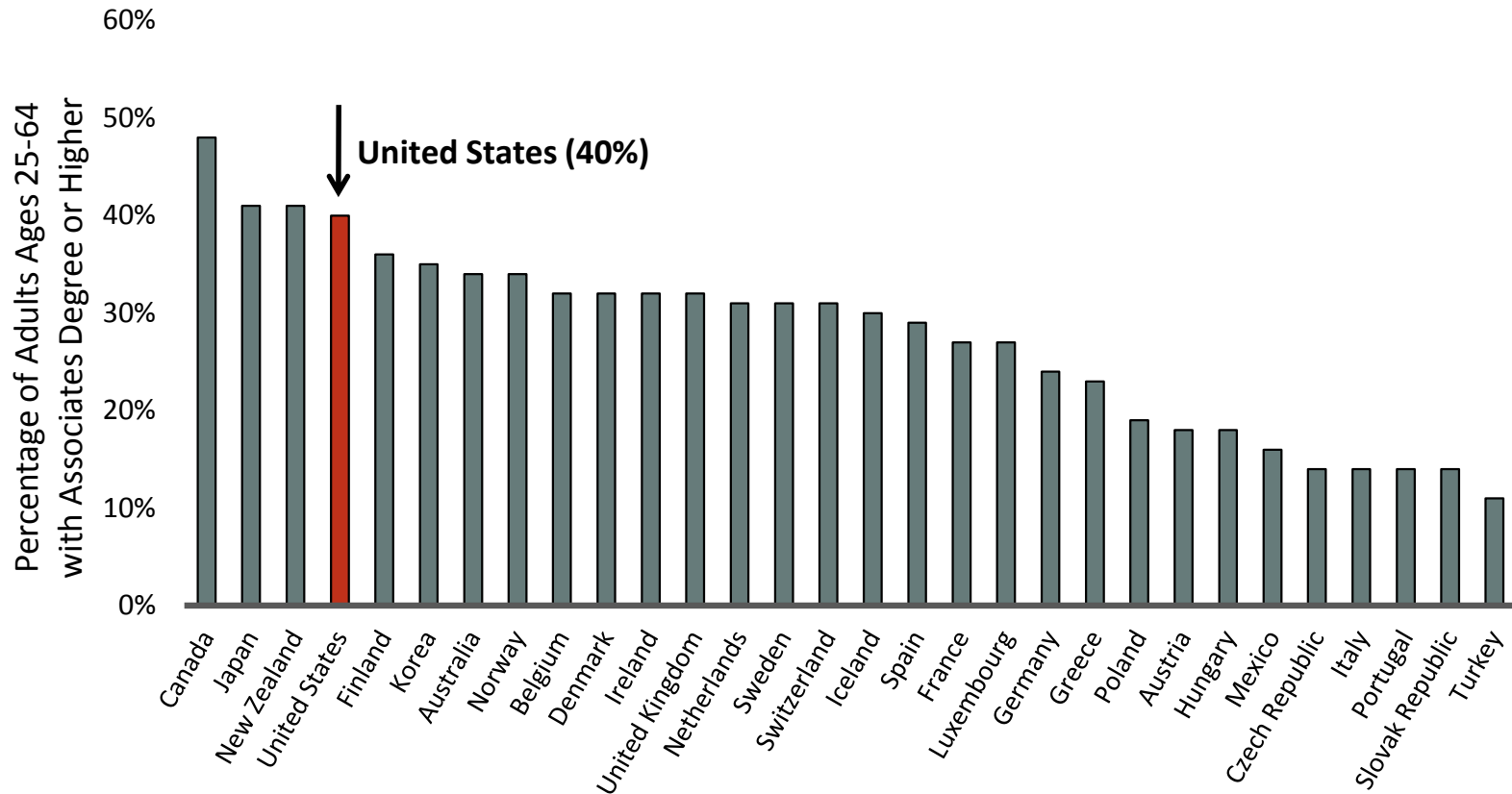


Data for all races exclude Hispanics.

Source: Population Division, Population Projections, U.S. Census Bureau. Released 2008.

Not surprisingly, our international
lead is slipping away

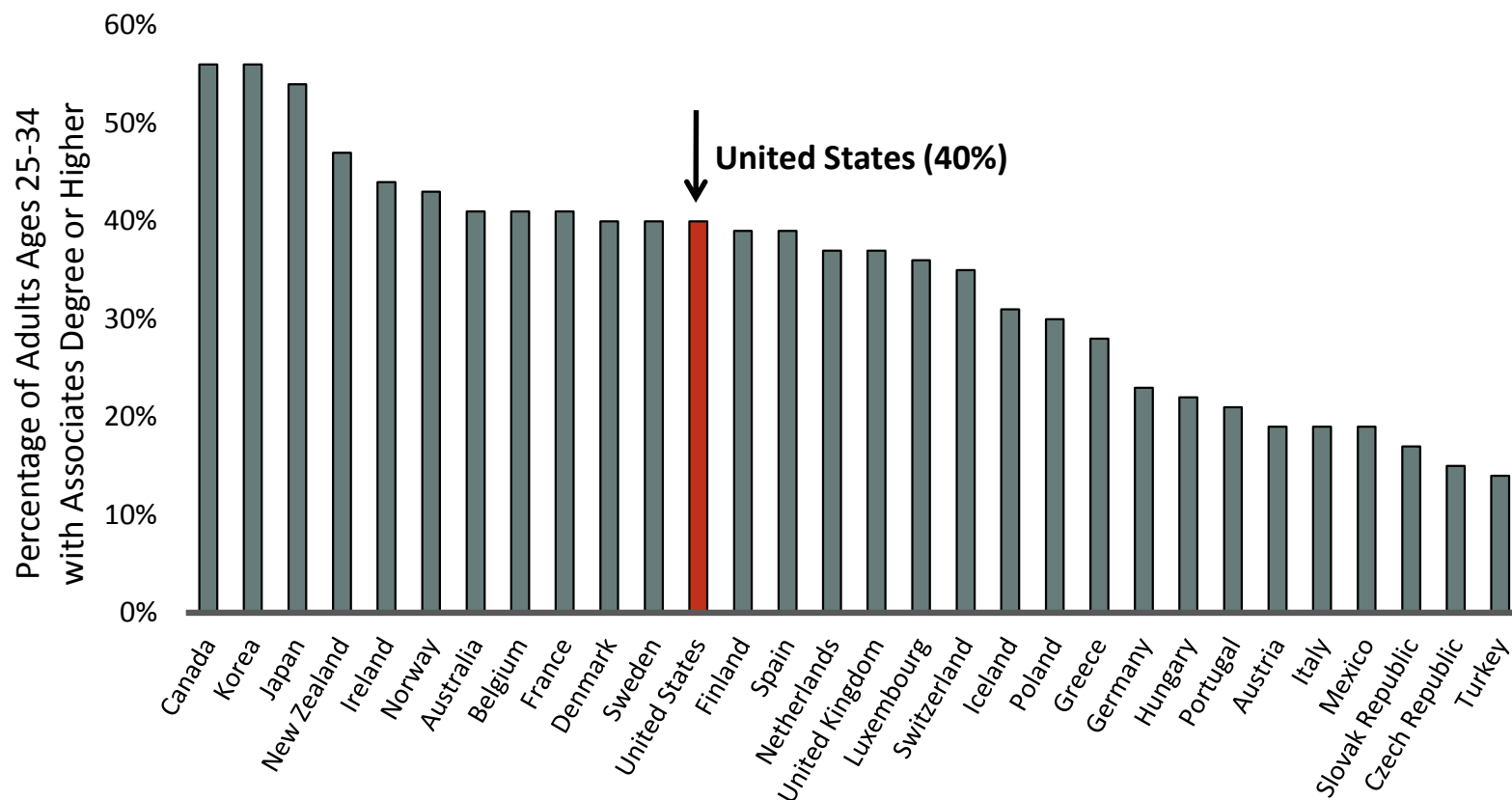
United States 4th Out of 30 OECD Countries in Overall Postsecondary Attainment



Source: OECD, Education at a Glance 2009, Table A1.3a,

http://www.oecd.org/document/62/0,3343,en_2649_39263238_43586328_1_1_1_1,00.html

United States Tied for 10th Out of 30 OECD Countries in Postsecondary Attainment of Younger Workers

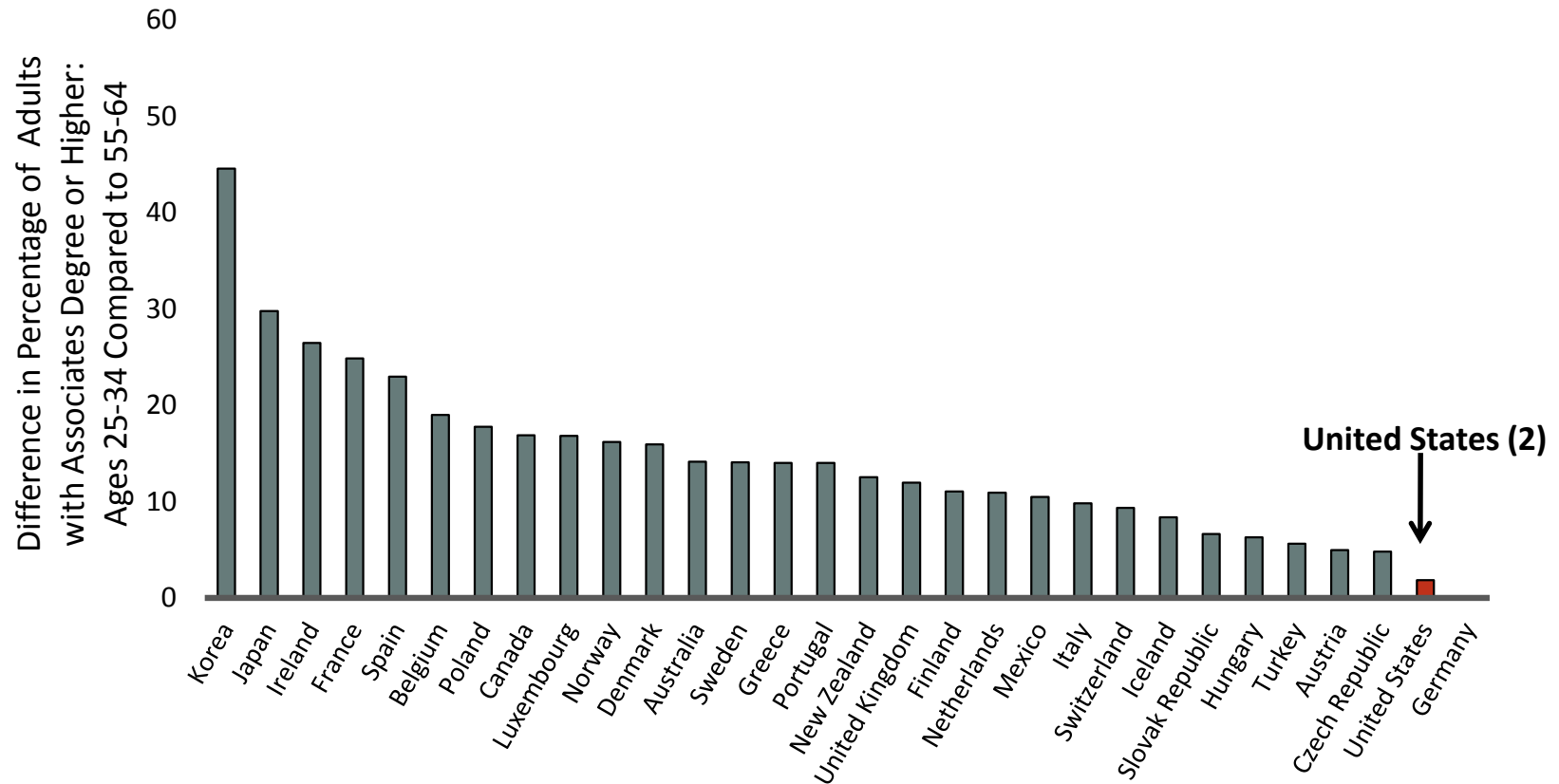


Source: OECD, Education at a Glance 2009, Table A1.3a,

http://www.oecd.org/document/62/0,3343,en_2649_39263238_43586328

[1 1 1 1,00.html](#)

United States: Not Much Difference in Postsecondary Attainment Levels of Youngest and Oldest Generations



Source: OECD, Education at a Glance 2009, Table A1.3a,

http://www.oecd.org/document/62/0,3343,en_2649_39263238_43586328_1_1_1_1,00.html

Only place we rank high?

Inequality.

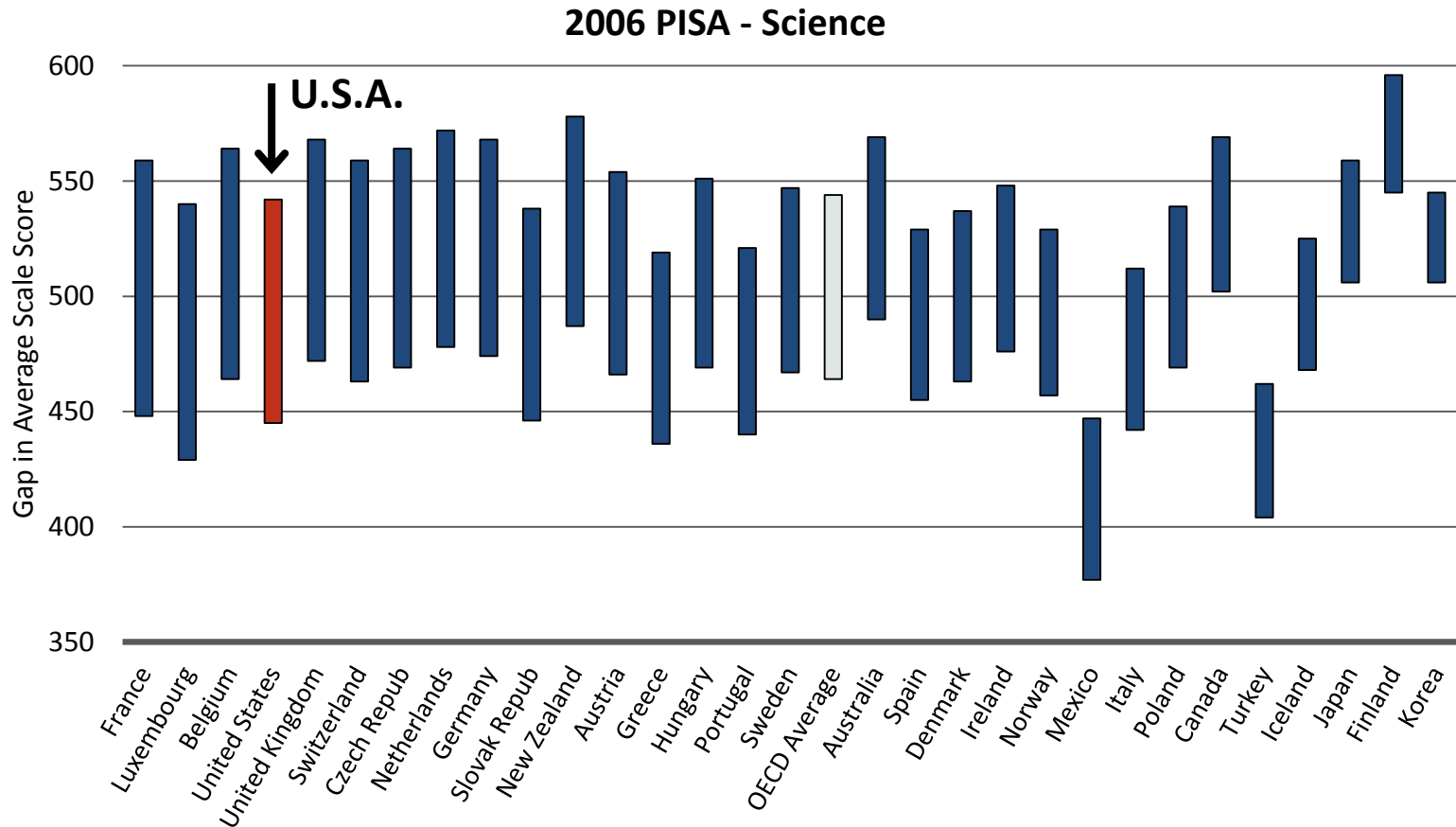
PISA 2003: Gaps in Performance Of U.S.15 Year-Olds Are Among the Largest of OECD Countries

	Rank in Performance Gaps Between Highest and Lowest Achieving Students *
Mathematical Literacy	8th
Problem Solving	6th

***Of 29 OECD countries, based on scores of students at the 5th and 95th percentiles.**

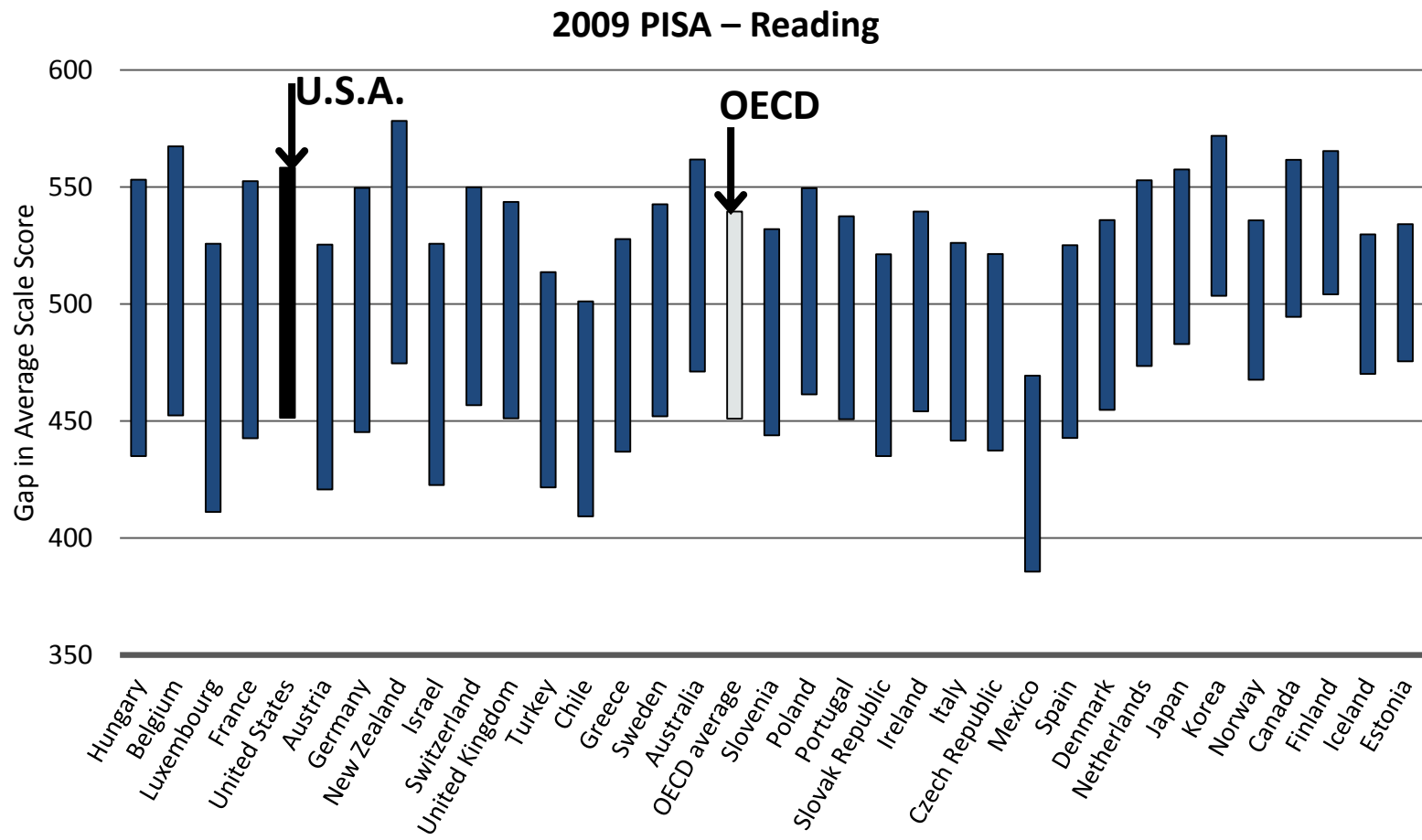
Source: Organization for Economic Cooperation and Development (OECD), PISA 2003 Results, data available at <http://www.oecd.org/>

Among OECD Countries, U.S.A. has the 4th 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 5th Largest Gap Between High-SES and Low-SES Students



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

These gaps begin before children
arrive at the schoolhouse door.

National Inequities in State and Local Revenue Per Student

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

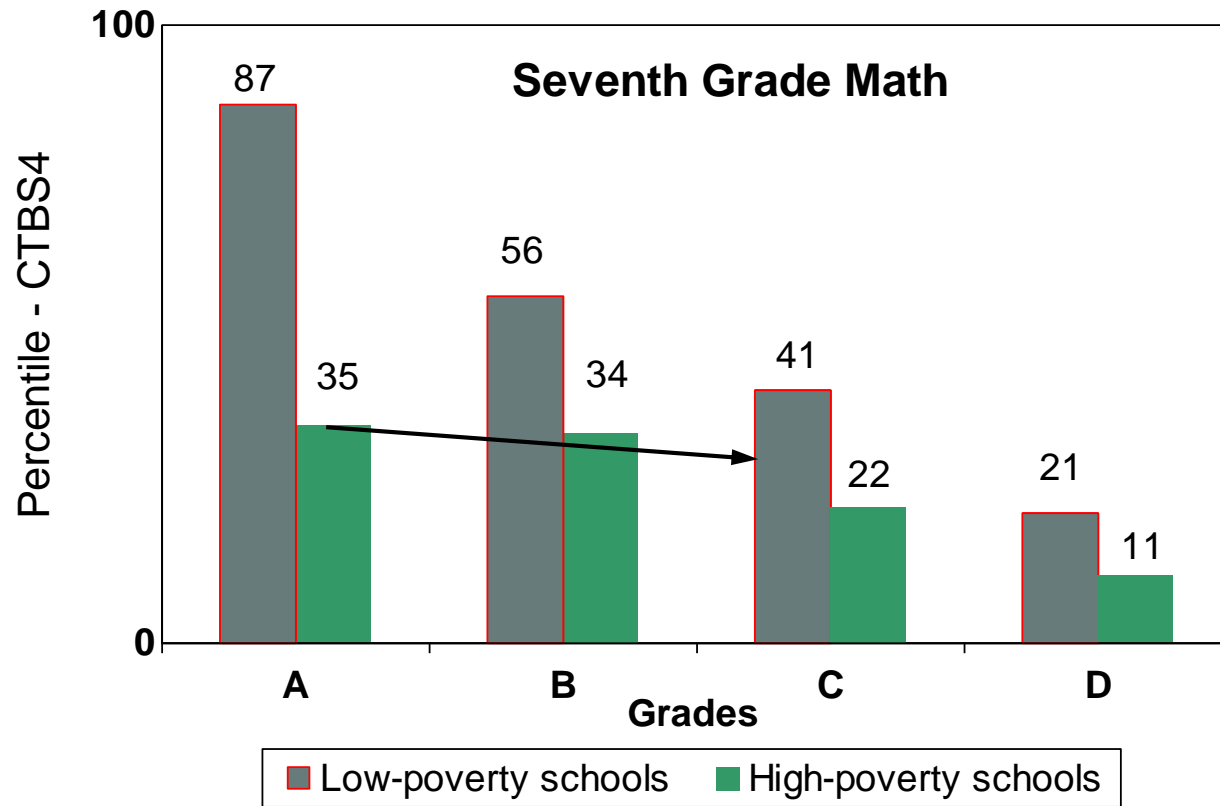
Source: Education Trust analyses based on U.S. Department of Education and U.S. Census Bureau data for the 2005-06 school year.

Even at the higher education level, we spend less per student in the institutions where most low-income students start.

	Expenditures per student
2 Year Colleges	\$9,183
4 Year Colleges	\$27,973

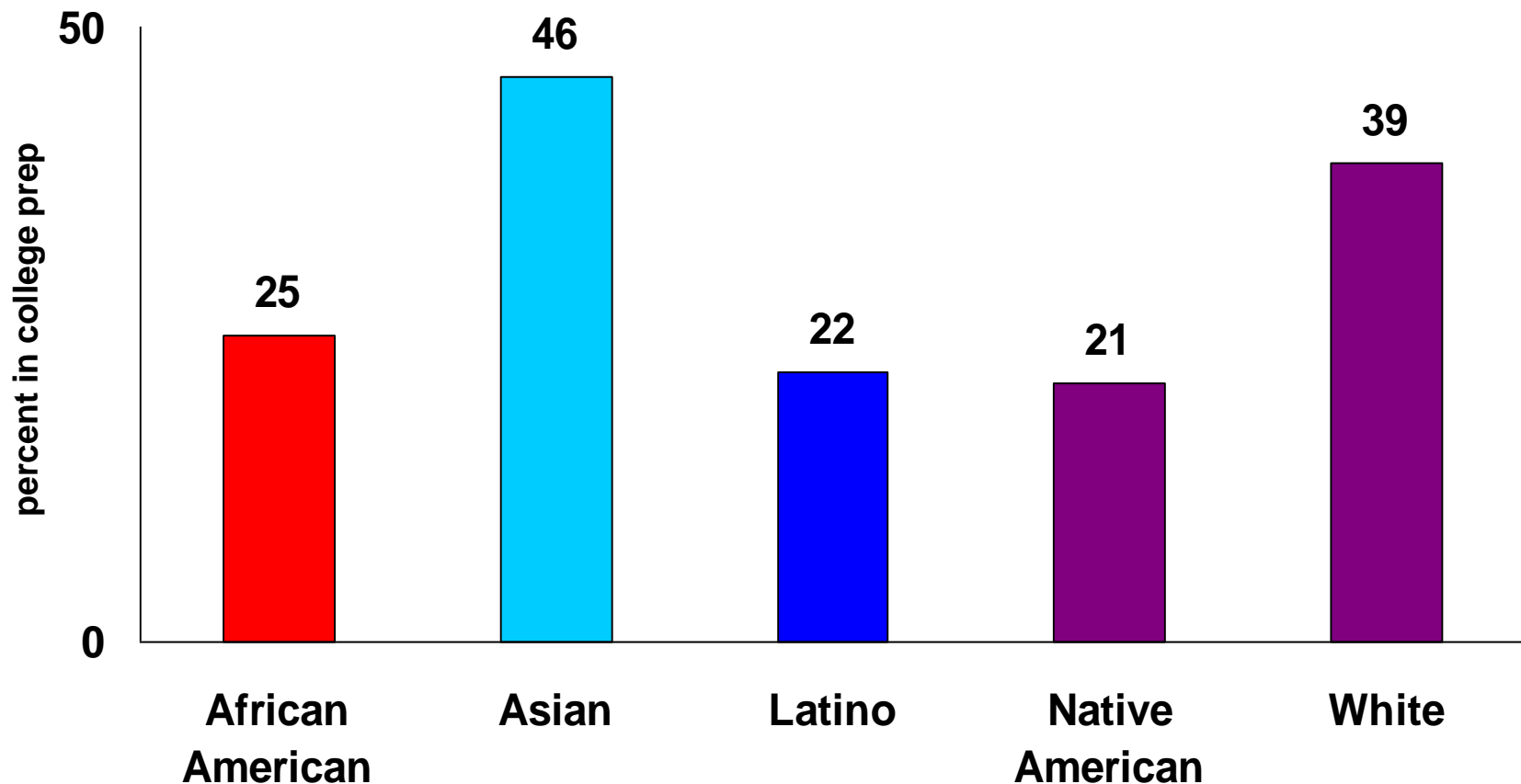
Source: NCES Digest of Education Statistics, 2003

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



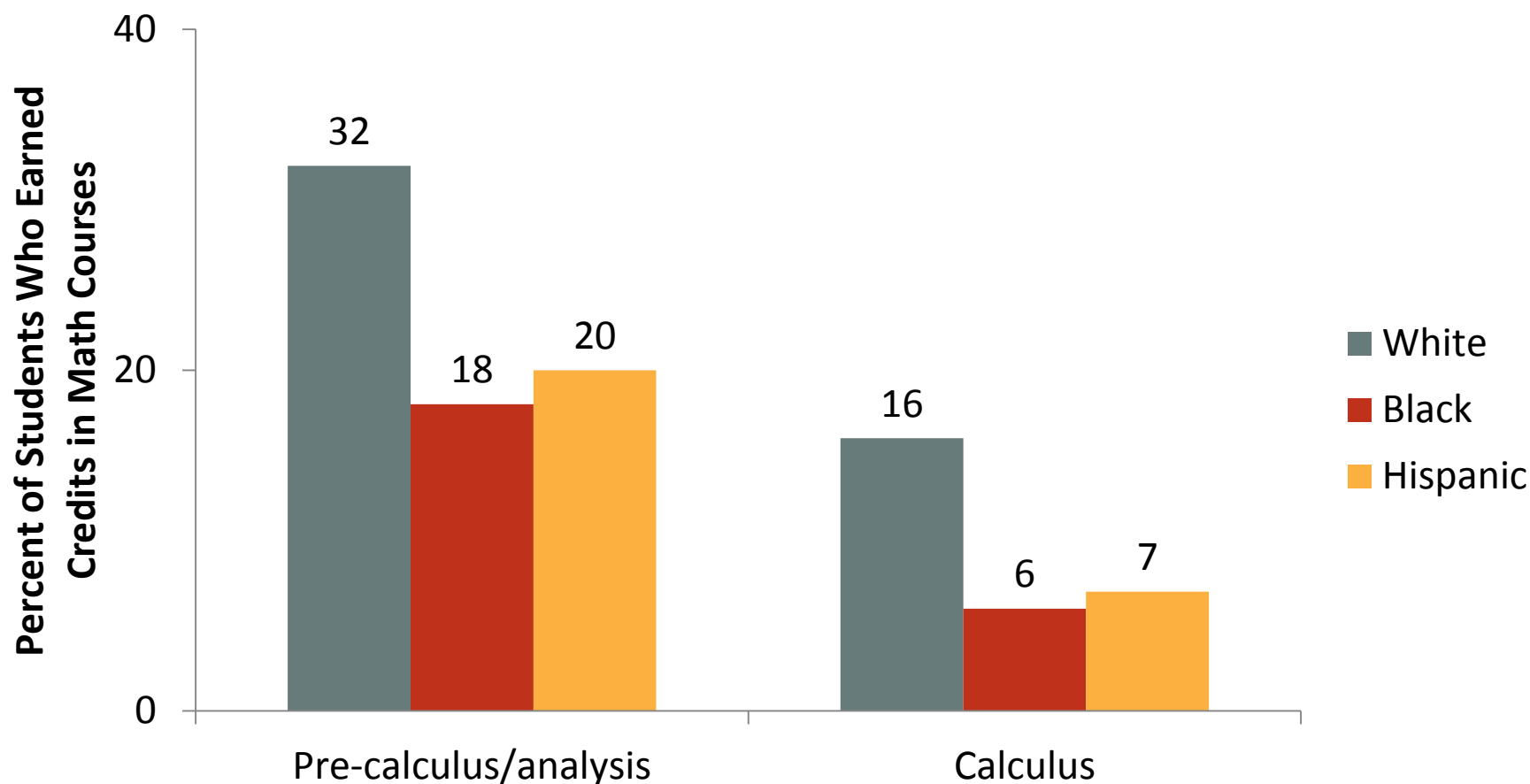
Source: Prospects (ABT Associates, 1993), in "Prospects: Final Report on Student Outcomes", PES, DOE, 1997.

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

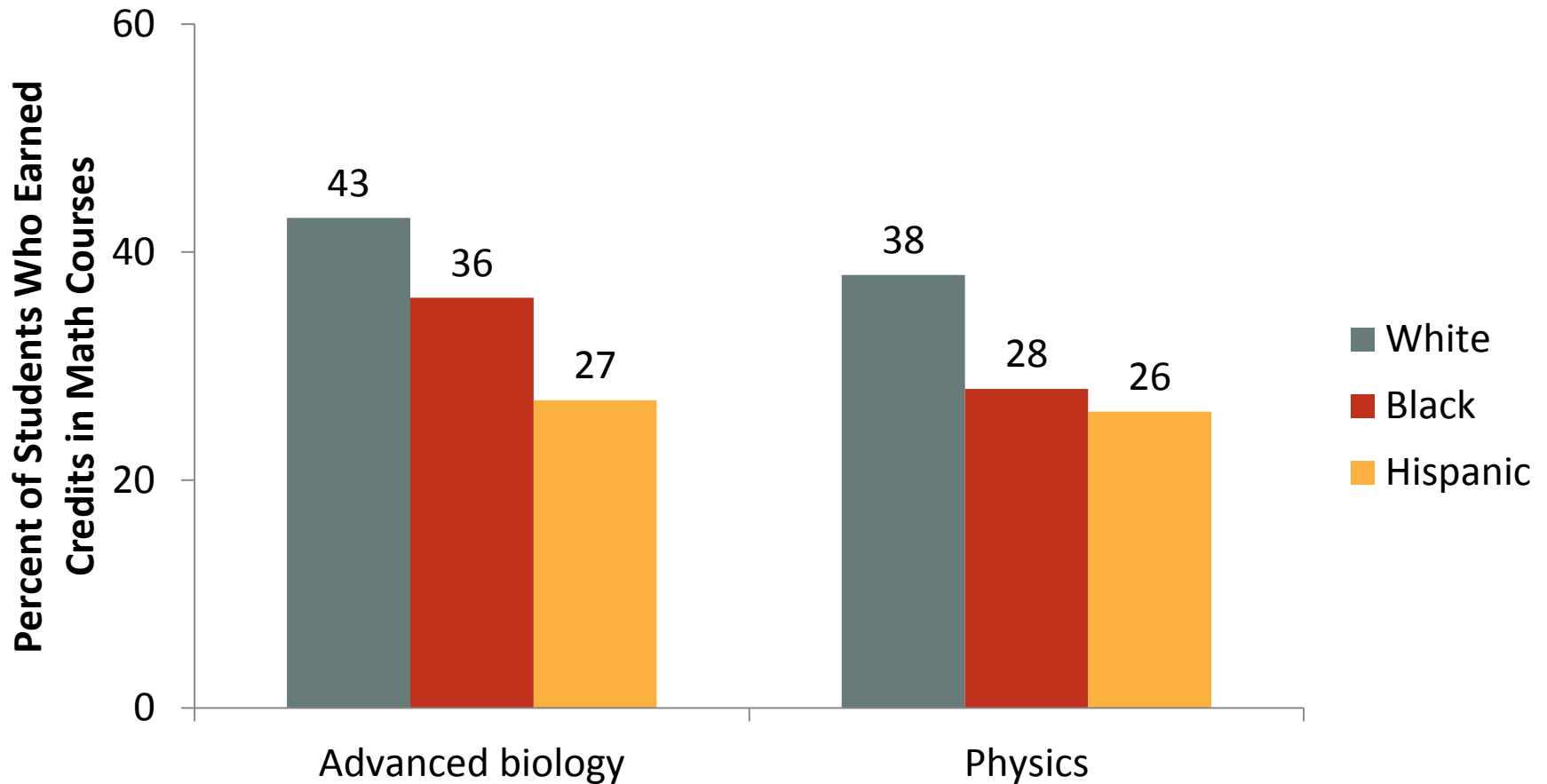
Percent of Students Who Earned Credits in Advanced Math Courses



Source: MPR Research (2010). STEM Coursetaking Among High School Graduates 1990-2005.

Available at http://www.mprinc.com/products/pdf/STEM_Coursetaking_Brief.pdf Data are for 2005.

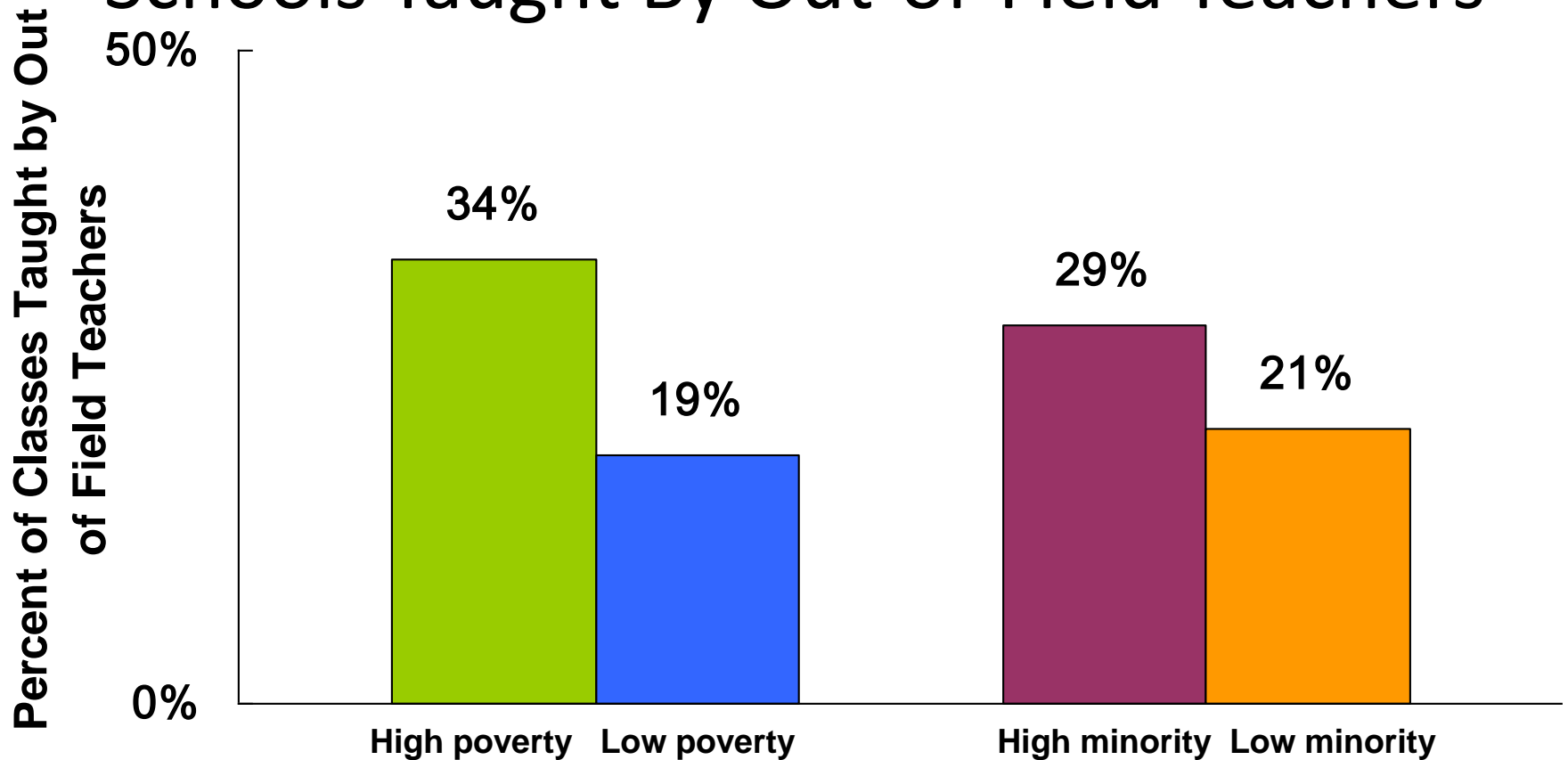
Percent of Students Who Earned Credits in Advanced Science Courses



Source: MPR Research (2010). STEM Coursetaking Among High School Graduates 1990-2005.

Available at http://www.mprinc.com/products/pdf/STEM_Coursetaking_Brief.pdf Data are for 2005.

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



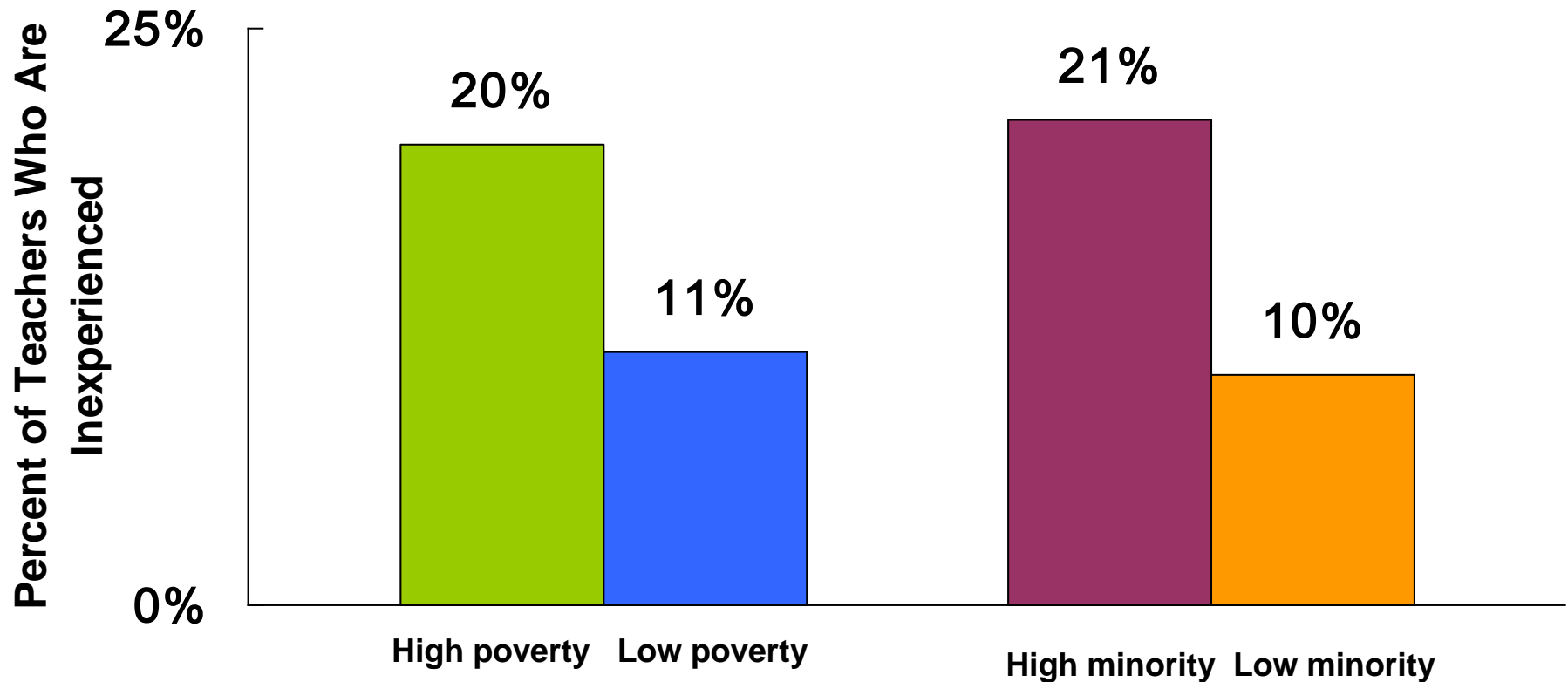
Note: High Poverty school-50% or more of the students are eligible for free/reduced price lunch. Low-poverty school -15% or fewer of the students are eligible for free/reduced price lunch.

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.

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.

Four big issues for discussion.

1. Teacher quality biggest influence on student achievement.

- US draws most teachers from bottom half of college pool, higher achieving countries draw from the top.
- Data suggest huge differences in effectiveness among our teachers
- With handful of exceptions (thank you, journalists) these differences hidden from parents and most teachers rated the same.
- Low-income and minority students taught disproportionately by weakest teachers.

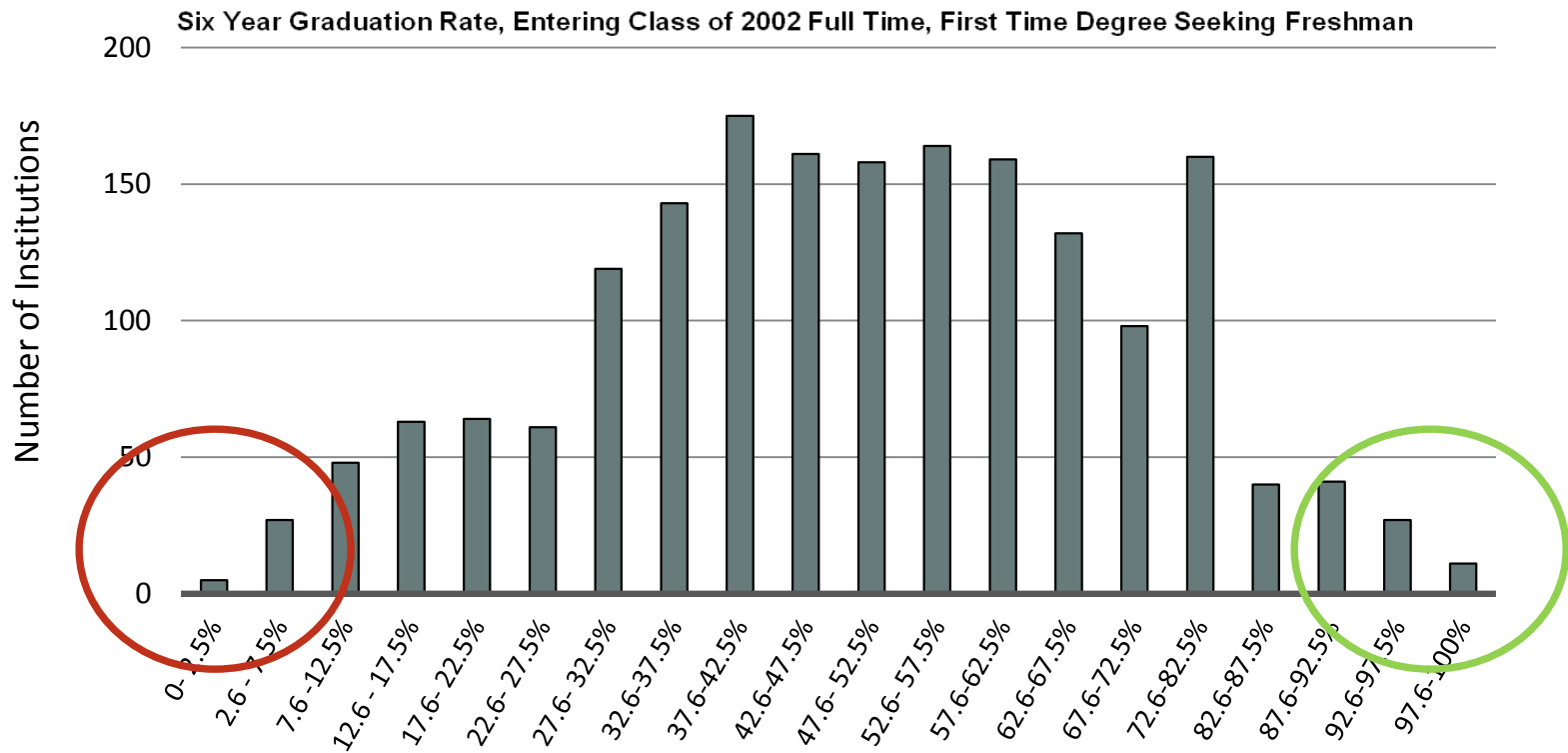
2. Goals, accountability matter, but mostly in hands of those whose short-term political interests push against stretch.

- Some perverse effects of NCLB;
- Possibilities inherent in common standards;
- Pushback already.

3. Getting better information out in public: will it create the pressure we need to improve results? For everybody?

- Data on effectiveness of individual teachers;
- Other data on school effectiveness;
- College success rates, earnings?

4. College Completion



Source:

Research Institutions

Similar Students, Different Results

	Median SAT	Size	% Pell	% URM	Overall Grad Rate	URM Grad Rate
Penn State University	1,200	35,702	15.0%	7.4%	84.0%	69.9%
Indiana University	1,120	28,768	16.0%	6.9%	71.9%	53.5%
Purdue University	1,135	31,008	17.7%	6.8%	69.1%	52.3%
University of Minnesota	1,165	28,654	19.9%	7.5%	63.4%	43.8%

Masters Institutions – Large

Similar Students, Different Results

	Median SAT	Size	% Pell	Overall Graduation Rate
University of Northern Iowa	1,085	9,946	23.8%	65.2%
Montclair State	1,015	10,908	26.5%	61.2%
Eastern Illinois	1,010	9,798	23.7%	60.3%
University of Wisconsin Whitewater	1,030	8,690	20.3%	53.1%
Tennessee Technological University	1,045	7,014	29.8%	43.5%

Historically Black Colleges

Similar Students, Different Results

	Median SAT	Size	% Pell	Overall Graduation Rate
Elizabeth City	845	2,423	69.9%	50.7%
Delaware State	835	3,057	47.8%	37.3%
University of Arkansas Pine Bluff	775	2,768	73.5%	32.9%
Norfolk State	900	4,798	54.5%	30.8%
Coppin State	N/A	2,800	72.6%	18.9%

Table 1: Six-Year Graduation Rates in Four-Year Institutions

	Public	Private Nonprofit	For-Profit
Percentage of Total Applicants Admitted			
100%	31%	36%	11%
75-99.99%	51%	57%	31%
50-74.99%	58%	60%	54%
0-49.99%	62%	78%	43%
Percentage of Freshmen Receiving Pell Grants			
67-100%	33%	27%	32%
34-66%	41%	45%	21%
0-33%	59%	70%	31%

Source: Education Trust analysis of College Results Online, 2008

Source: