

Reading and Mathematics 2011

NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS AT GRADES 4 AND 8

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Commissioner
National Center for Education Statistics

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Overview



Administered January–March 2011

National samples

- 422,000 fourth-graders
- 343,000 eighth-graders

Results available for

- Nation
- 50 states, the District of Columbia, and the Department of Defense school system

Performance reported as

- Average scale scores (0–500 scale)
- Achievement levels (Basic, Proficient, Advanced)



Overview



Changing student demographics

Percentage of fourth-grade students by race/ethnicity

	1990	2011
White	75*	54
Black	18*	15
Hispanic	6*	22
Asian/Pacific Islander	1*	5

Percentage of fourth-graders eligible for free/reduced-price school lunch

2003	2011
40*	49

^{*} Significantly different (p < .05) from 2011.



Mathematics

NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS AT GRADES 4 AND 8



Mathematics Assessment



Proportions of questions vary by grade in five mathematical content areas

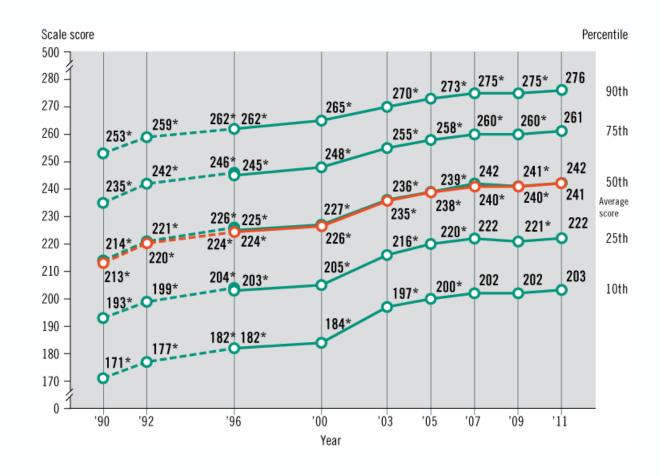
	Grade 4	Grade 8
Number properties and operations	40%	20%
Measurement	20%	15%
Geometry	15%	20%
Data analysis, statistics, and probability	10%	15%
Algebra	15%	30%





Students' performance improves from 2009

- Fourth-graders post highest score to date
- Scores higher than in 2009 for all but the 10th percentile



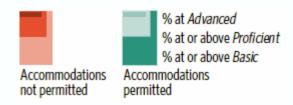
^{*} Significantly different (p < .05) from 2011.





Higher percentages of fourth-graders perform at or above *Proficient* and at *Advanced*





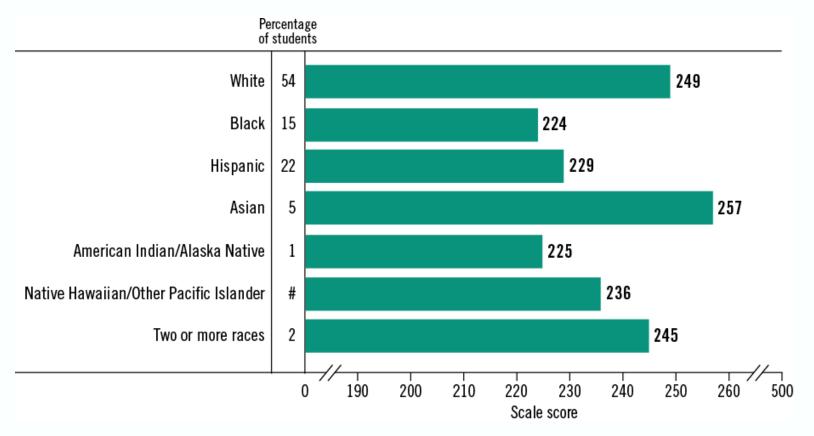
^{*} Significantly different (p < .05) from 2011.





NAEP results available for three additional racial/ethnic groups in 2011

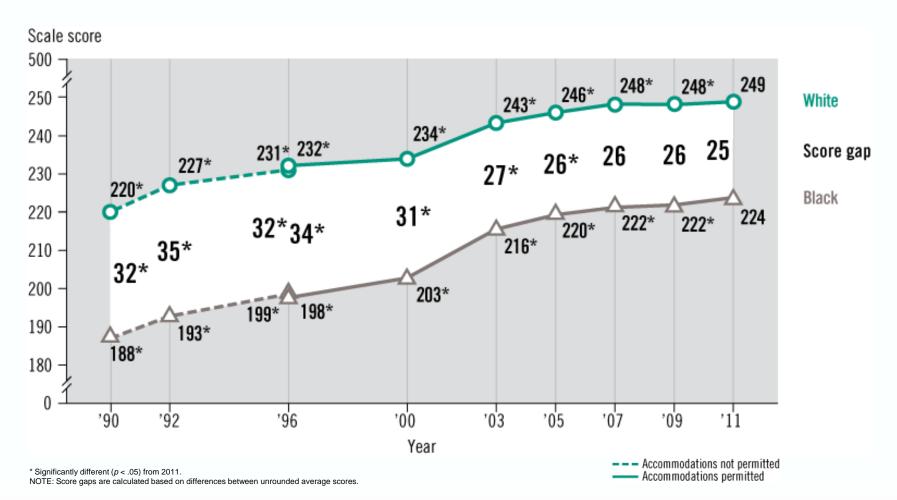
Asian students score higher than other racial/ethnic groups







White – Black score gap shows no significant change from 2009 but smaller than in 1990

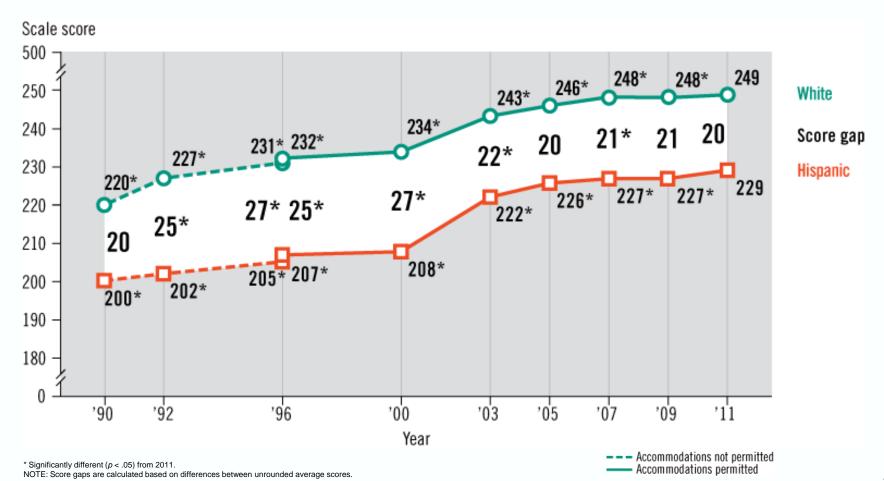


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No significant change in White – Hispanic score gap compared to 2009 or 1990

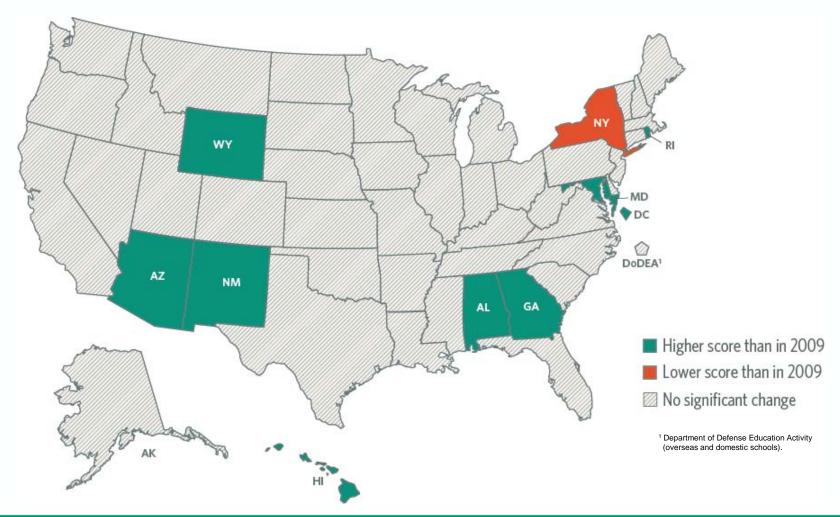


¹⁰





Students in 9 states/jurisdictions score higher than in 2009, and students in 1 state score lower

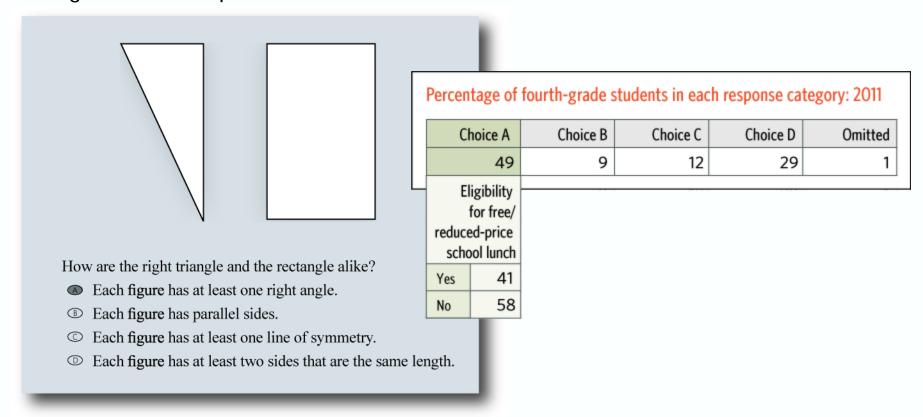






Geometry Question

49% of fourth-graders were able to identify a property common to two geometric shapes

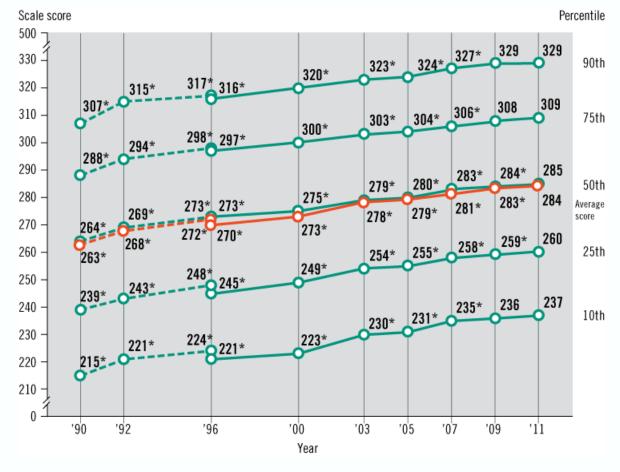






Students' performance improves from 2009

- Eighth-graders post highest score ever
- Scores higher than in 2009 for students at the 25th and 50th percentiles



^{*} Significantly different (*p* < .05) from 2011.





Higher percentage of eighth-graders perform at or above *Proficient*





^{*} Significantly different (p < .05) from 2011.





White – Hispanic score gap smaller than in 2009 but not significantly different from 1990

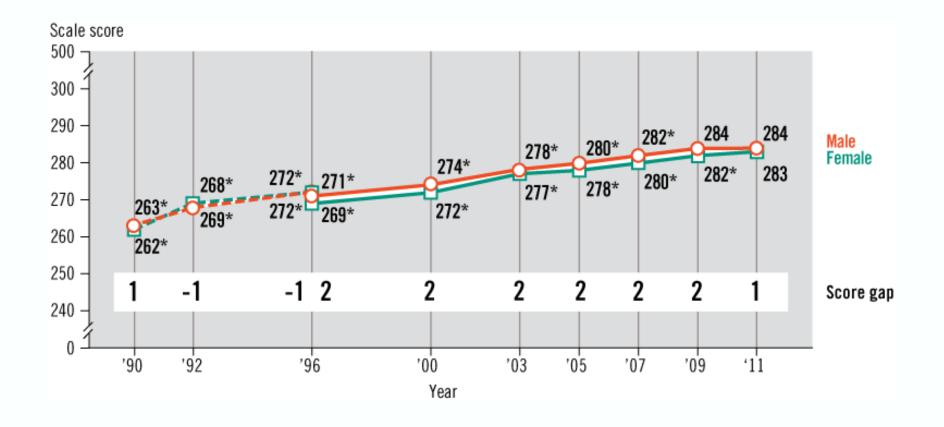


¹⁵





Female students score higher than in 2009



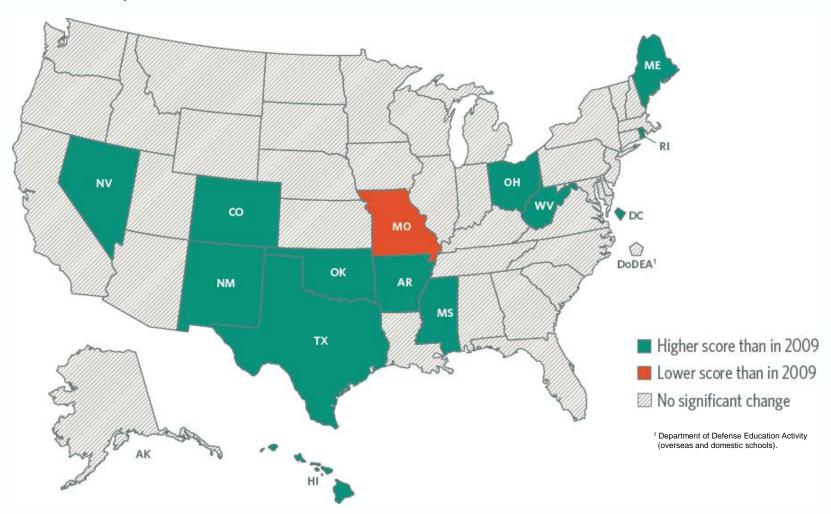
--- Accommodations not permitted Accommodations permitted

^{*} Significantly different (p < .05) from 2011. NOTE: Score gaps are calculated based on differences between unrounded average scores.





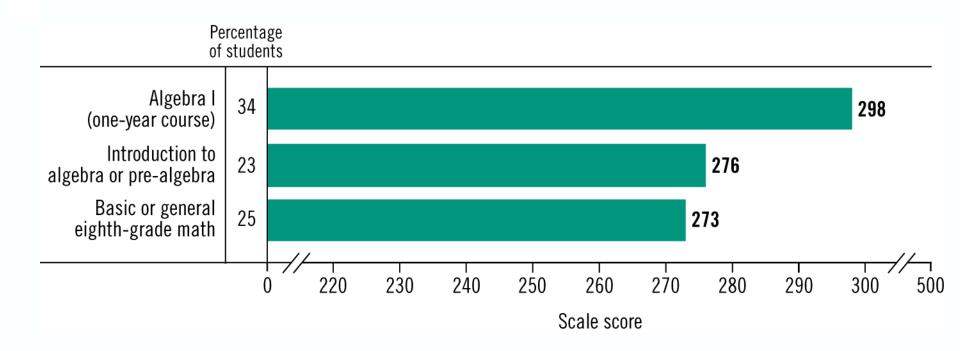
Students in 13 states/jurisdictions score higher than in 2009, and students in 1 state score lower







Eighth-graders who take algebra I score higher







Percentages of students taking algebra I vary for racial/ethnic groups

	Type of class taken				
Race/ethnicity	Algebra I (one-year course)	Introduction to algebra or pre-algebra	Basic or general eighth-grade math		
White	36	25	23		
Black	28	23	30		
Hispanic	33	20	29		
Asian	45	13	13		
Amerian Indian/ Alaska Native	24	32	29		
Native Hawaiian/ Other Pacific Islander	37	20	26		
Two or more races	34	24	23		





Algebra Question

31% of eighth-graders were able to identify the equation given a point and the slope

Which of the following is an equation of a line that passes through the point (0, 5) and has a negative slope?

$$\bigcirc$$
 $y = 5x$

©
$$y = 5x + 5$$

①
$$y = -5x - 5$$

$$y = -5x + 5$$

Percentage of	feighth-grade	students i	n each r	esponse	category	: 2011
i ci cciitage o	CIBITETI BIGGE	Students	ii cacii i	coponisc	cutegory	

Choice A	Choice B	Choice C	Choice D	Choice E	Omitted
12	27	9	20	31	1

- Selected i	racial/
ethnic groups	
White	34
Black	24
Hispanic	25
Asian	52
American Indian/ Alaska Native	20
Native Hawaiian/ Other Pacific Islander	22



Reading NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS AT GRADES 4 AND 8



Reading Assessment



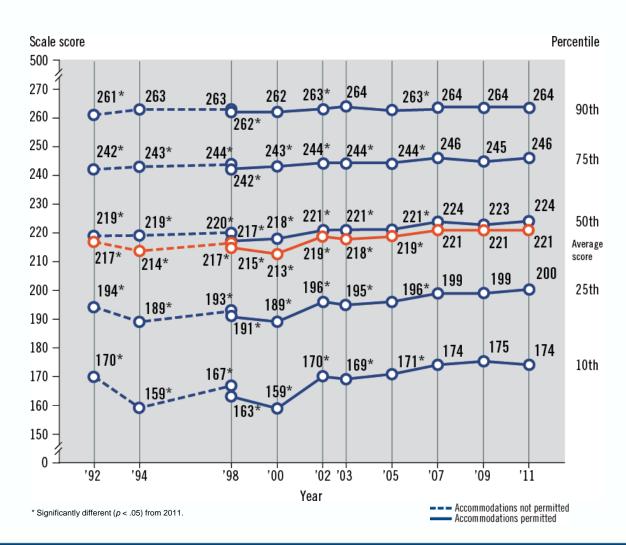
Students assessed with 2 text types and 3 reading processes

Text Types	Grade 4	Grade 8
Literary	50%	45%
Informational	50%	55%
Reading Processes	Grade 4	Grade 8
Locate and recall	30%	20%
Integrate and interpret	50%	50%
Critique and evaluate	20%	30%





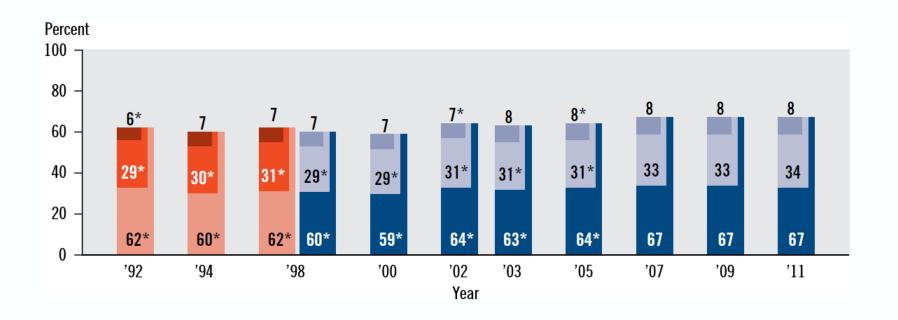
Fourth-graders' performance unchanged from 2009

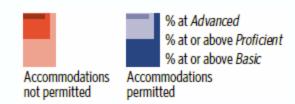






One-third of fourth-graders perform at or above *Proficient* in 2011





^{*} Significantly different (p < .05) from 2011.





Score gap between White and Asian/Pacific Islander students reverses in comparison to 1992



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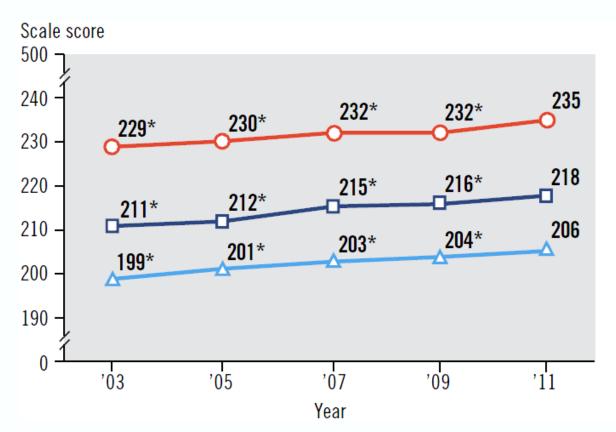
^{*} Significantly different (p < .05) from 2011.

¹ Score gaps reflect the average score for Asian/Pacific Islander students minus the score for White students and are calculated based on differences between unrounded average scores





Scores higher in 2011 for students across family income levels



Not eligible

Eligible for reduced-price lunch

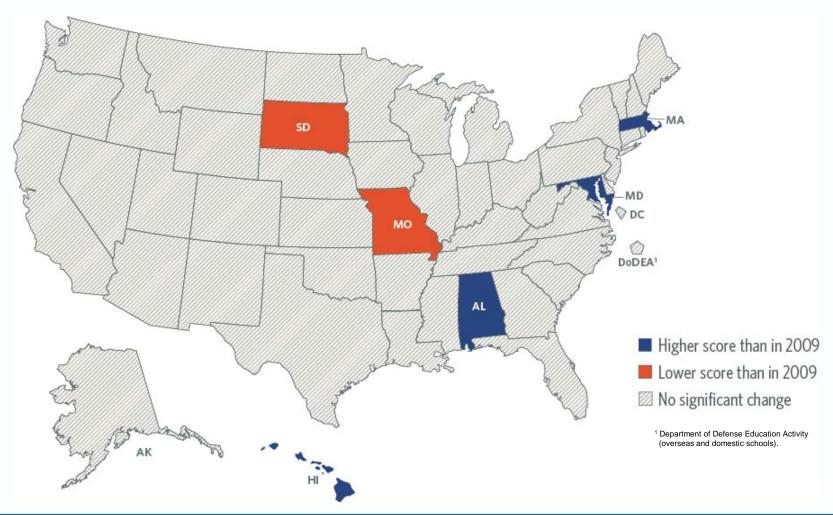
Eligible for free lunch

^{*} Significantly different (p < .05) from 2011.





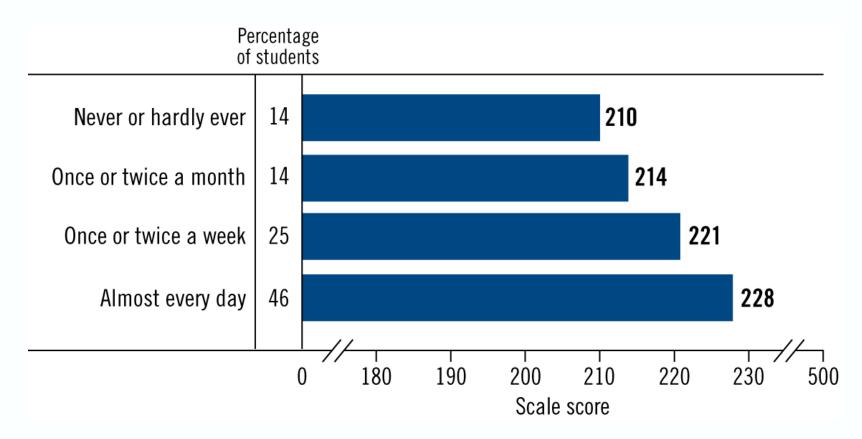
Students in 4 states score higher than in 2009, and students in 2 states score lower







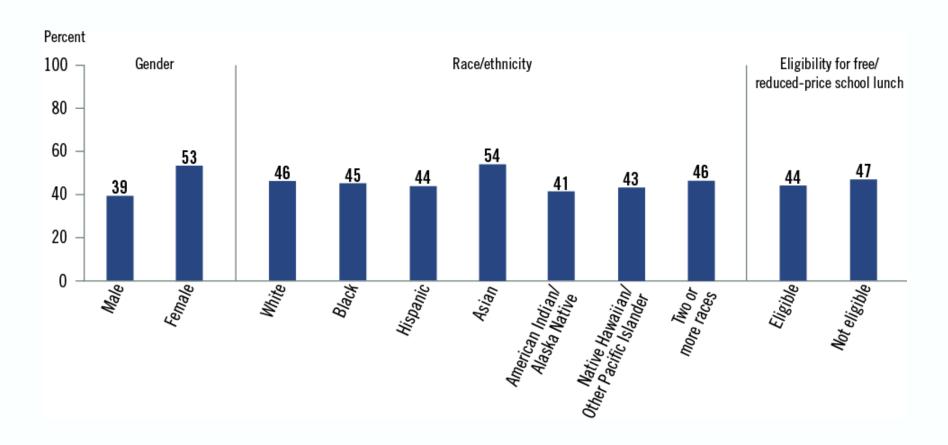
Fourth-graders who read for fun almost every day score higher







Proportions of students reading for fun almost every day vary for student groups



Grade 4 Sample Reading Passage



Tough as Daisy

by David M. Simon

The sign on the YMCA door says Wreetling Tournament Today.

I enter the gym and take a deep breath. It smells like old sweat socks and the stuff they use to wash wrestling mats.

I love that smell. Weird, huh? Not to me.

I was raised around wrestling. My older brothers wrestle for the high-school team. My dad wrestled in college. So it was natural for me to want to wrestle. Except for one thing.

I'm a girl. I even have a girly name-Duisy.

My dad always says, "Pound for pound, no one's as tough as Daisy."

I see my family in the stands. I wave to them and smile, but Γ m nervous.

Lots of boys are already on the mats, loosening up. I'm the only girl at the sign-up desk. Some of the boys point at me and imuth. We'll see about that.

Back in Ohio, people got used to seeing me wrestle. I kept showing up. I kept winning. They stopped pointing and started cheering.

Then we moved to California. Now Γ'm weird again.

The man says, "Name?"

"Dairy McGill."

"Have you wrestled before, honey?"

He didn't call any of the boys kowy: "Yes, in," I answer through clenched teeth. I hand him my registration form.

"OK," he says. "Climb on the scale." I weigh 70 pounds. He writes a number on the back of my hand I head to the gath' locker room to change.

First match. The kid looks strong. That's OK. Boys with muscles always underestimate me.

I map the chin stup on my headgest. The sef calls us to the middle of the mst. We shake hands. The hid uses, "I can't believe I have to superfie a girl."

The whistle blows, and I hit him first with a freeman's carry. He's on his back in first seconds. The rel's hand slaps the mat. Primed. One match down.

The hid refuses to shake my hand. The ref raises my right arm. He tells me, "Resented bloodward"

There's a lot of whispering going on. I hear someone my, "Man, the pinned him fast. No girl is going to best me."

My family cheers wildly. I feel good it always takes one match for the butterfiles in my stomach to serile

They call my number for the next match.

People crowd around the mut to get a look at Birarro Wrestler Ged. Sounds like a good name for a unsethero?

This kid is tall and thin. He looks serious about winning.

The whistle blows. I shoot for his leg. He hicks back and snaps my head down. He spins around behind me and takes me down. Good. I love a challenge.

Final period of this match, and I'm down three to nothing. Time to make my move.

I escape for one point, then shoot a quick takedown. All fiel up. Thirty seconds to go. He raises one leg and I take a chance. I reach around his head and knee. My hands close tight. I roll him onto his back.

The whistle blows. The sef holds up two fageers. I win by two points. Two matches down.

At least this kid shakes my hand. Some of the people watching even clap for me.

I'm in the finals for my weight class.

My brothers rob my arms and joke around with me. Dad says, "Just do your best, honey." It's OK when he calls me howe:

I head for the mat. The next kid I'm wrestling pinned both of his opponents. There's a large crowd watching on I can't tell if they want me to win or lose.

Doesn't matter to me.

We shake hands. "You're presty good," he says. "Good lack."

"You too," I save

The whistle blows. He shoots, and I'm on my knees before I can blink. Wow, he's fast. I feel my heart hammering in my chest. Easy, Dainy.

I spin away. Escape. He misses an arm-drag, and I catch him flat-footed. Takedown.

After two periods we're all tied up.

We're both gulping for breath as the last period starts. My brothers are screaming, but they sound far away. The kid shoots for my legs. I flatten out. He has one leg hooked. I force my forearm across his face like a wedge. We're locked up tight.

I can see the clock ticking down. With ten seconds left, his arms relax. Just what I was waiting for. I push down and spin behind him for the win. Yes!

I hear cheering and realize it's for me. The kid says, "Nice match. But next time, I'm going to win." He just must.

My dad wraps my sweaty body in a big bear lung. He says, "Pound for pound, no one's as tough as Daisy."

I guess today he's right.



We're locked up tight.

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Integrate and Interpret Question

64% of fourth-graders were able to interpret a part of a literary text to explain character traits

At the beginning of the story, when some of the boys point and laugh at Daisy, she thinks,

"We'll see about that." What does this tell you about Daisy?

Unst this tells me about Daisy is she is considert and strong. She never gives up. She never thinks she is bad at anything.

Percentage of fourth-grade students in each response category: 2011

Acceptable		Unacceptable	Omitted
	64	35	1
	Gender		
Male	58		

Female

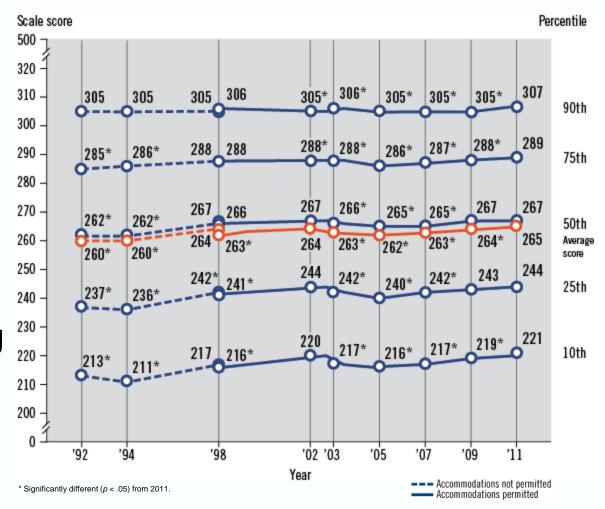
70





Students' performance improves from 2009

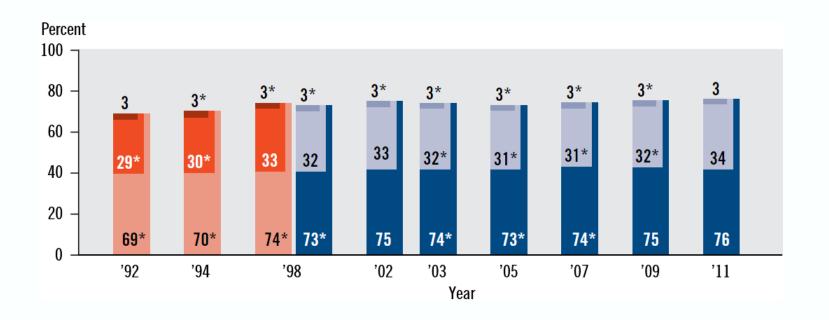
- Eighth-graders score higher than in 2009 and 1992
- Lower-performing students make greater gains from 1992 than higher-performing students

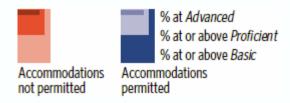






One-third of eighth-graders perform at or above *Proficient* in 2011



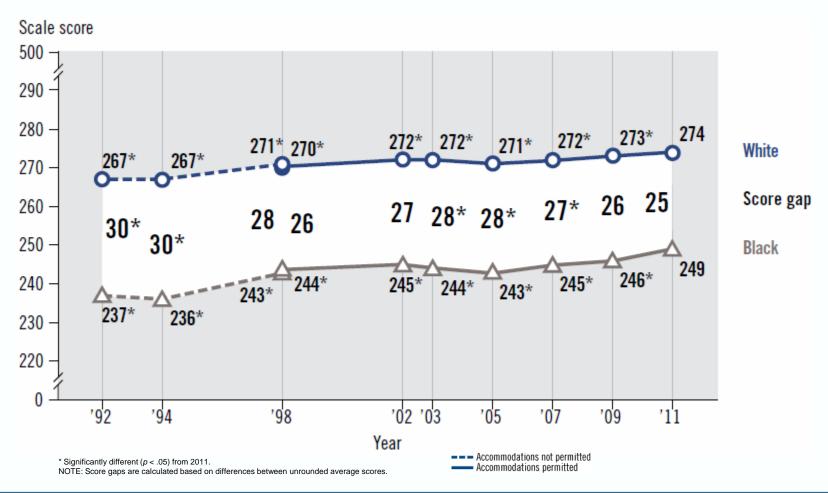


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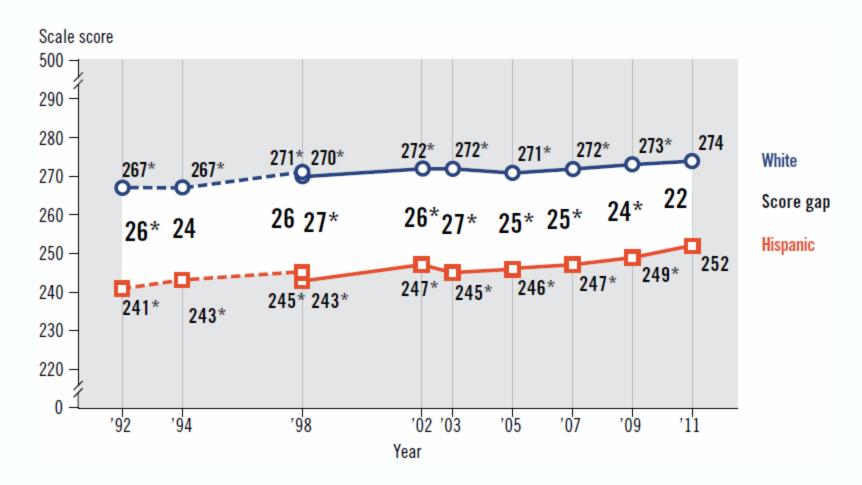
No significant change in White – Black score gap from 2009







White – Hispanic score gap narrows from 2009



^{*} Significantly different (p < .05) from 2011.

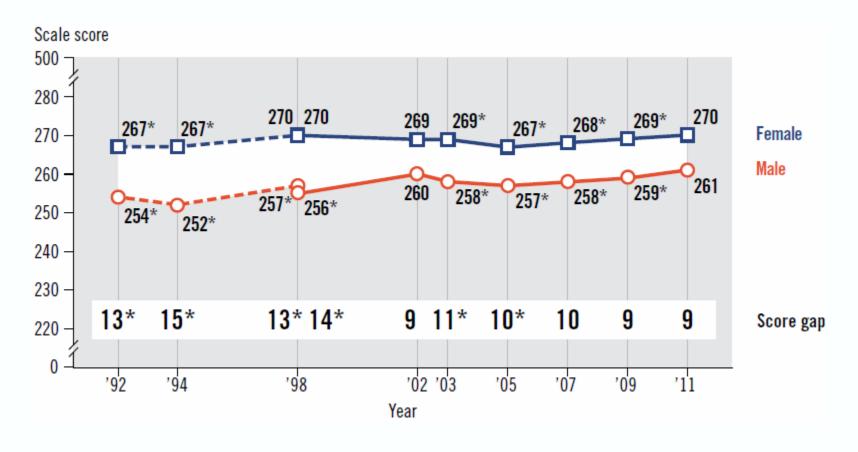
NOTE: Score gaps are calculated based on differences between unrounded average scores.

--- Accommodations not permitted
--- Accommodations permitted





Gender gap unchanged from 2009 but smaller than in 1992



^{*} Significantly different (p < .05) from 2011.

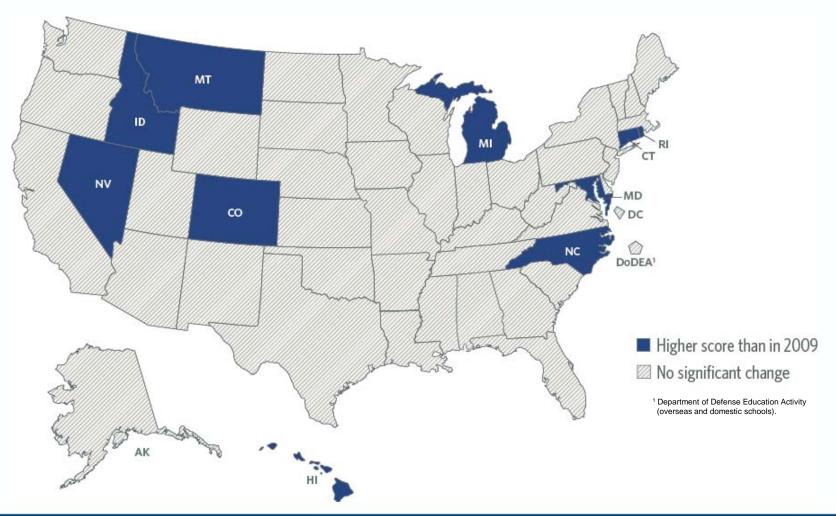
NOTE: Score gaps are calculated based on differences between unrounded average scores.

Accommodations not permitted
Accommodations permitted





Students in 10 states score higher than in 2009, and no states score lower



Grade 8 Sample Reading Passage

1920: Women Get the Vote

by Sam Roberts

The 19th Amendment was ratified in 1920, after decades of campaigning by the women's suffrage movement.

When John Adams and his fellow patriots were mailing independence from England in the spring of 1776, Abiguil Adams famously urged her husband to "remember the ladies and be more generous and favorable to them than your ancestors." Otherwise, she warned, "we are determined to forment a rebellion, and will not hold ourselves bound by any laws in which we have no voice or representation."

That summer, the Declaration of Independence proclaimed that all men are created equal but said nothing of women's equality. It would take another 144 years before the U.S. Constitution was imended, giving women the right to vote in every state.

That 19th Amendment says simply: "The right of critzens of the United States to vote shall not be denied or abridged by the United States or by any State on account of sex." It took effect after a dramatic ratification battle in Tennessee in which a 24-year-old legislator cast the deciding vote.

The amendment was a long time coming. At various times, women could run for public office in some places, but could rarely vote. (As far back as 1776, New Jersey allowed women property owners to vote, but rescinded that right three decades later)



More than 20,000 marchers took part in this 1915 parade in New York City in support of women's suffrage.





"WOMANIFESTO"

The campaign for women's rights began in earnest in 1848 at a Women's Rights convention in Seneca Falls, N.Y., organized by 32-year-old Elizabeth Cady Stanton and other advocates. Stanton had drafted a "Womanifesto" patterned on the Declaration of Independence, but the one resolution that shocked even some of her supporters was a demand for equal voting rights, also known as universal suffrage. "I saw clearly," Stanton later recalled, "that the power to make the laws was the right through which all other rights could be secured."

Stanton was joined in her campaign by Susan B. Anthony, Sojoumer Trafts, Lucretia Mott, and other crutaders who would become icons of the women's movement. Some were militant. Many were met with verbal abuse and even violence. Already active in the antislavery movement and temperance compaisns (which urged abstinence from alcohol), women often enlisted in the fight for voting nights too.

WYOMING IS FIRST

They staged demonstrations, engaged in civil disobedience, began legal challenges, and pressed their case state by state. In 1869, the Wyoming Territory gave women the vote, with the first permanent suffrage law in the nation. ("It made sense that a place like Wyoming would embrace. women's rights," Guil Collins of The New York Times wrote in her book America's Women. "With very few women around, there was no danger that they could impose their will on the male

In 1878, a constitutional amendment was introduced in Congress. The legislation languished for nine years. In 1887, the full Senate counidered the amendment for the first time and defeated it by about 2-to-1.

But the suffrage movement was slowly gaining support. With more and more women graduating from high school, going to college, and working outside the home, many Americans began asking: Why couldn't women vote too?

Plenty of opposition existed, according to Collins: Democrats feared women would vote for more socially progressive Republicans. The liquor industry, afraid of prolabition, also opposed women's suffrage, as did many people in the South, where blacks had been largely disenfranchised tince Reconstruction.

In 1918, after much cajoling and picketing by suffragists, President Woodrow Wilson changed his mind and backed the amendment. The next year, both houses of Congress voted to amend the Constitution. Suffrage advocates predicted quick ratification by the states. (By 1919, 28 states permitted women to vote, at least for President.) Within a little more than a year, 35 of the required. 36 states had voted for ratification.

The last stand for anti-suffragists was in Tennessee in the sammer of 1920. Their showdown in the State Legislature became known as the "War of the Roses." (Pro-amendment forces sported vellow roses; the antis wore red.)

After two roll calls, the vote was still tied, 48-48. On the third, Harry T. Burn, a Republican and at 24, the youngest member of the legislature, switched sides. He was wearing a red rose but voted for ratification because he had received a letter from his mother that read, in part. "Hurrah and vote for suffrage! Don't keep them in doubt!"

Burn said later: "I know that a mother's advice is always safest for her boy to follow and my mother wanted me to vote for ratification. I appreciated the fact that an opportunity such as seldom comes to mortal man-to free 17,000,000 women from political slavery-was mine."

GRADUAL CHANGE

In 1920, women across America had the right to vote in a presidential election. (In the South, black women and men would be kept off voter rolls in large numbers until 1965, after passage of the Voting Rights Act.)

But newly enfranchised women voted in much smaller numbers than men. "Women who were adults at that time had been socialized to believe that voting was socially inappropriate for women," says Susan J. Carroll, senior scholar at the Center for American Women and Politics.

The political and social change sought by suffragists came gradually and not without fits and starts. An Equal Rights Amendment, stipulating equal treatment of the sexes under the law, was passed by Congress and sent to the states in 1972, but later failed after being ratified by only 35 of the necessary 38 states.

In 1980, however, women surpassed men for the first time in turnout for a presidential election. Since then, there has also been a substantial rise in the number of women running for and holding political office.

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Locate and Recall Question

59% of eighth-graders were able to locate specific information from the passage

According to the article, what was most surprising about the "Womanifesto"?

- It was written by Elizabeth Cady Stanton.
- It called for equal voting rights for men and women.
- © It was based on the Declaration of Independence.
- It had such a large number of resolutions.

Percentage of eighth-grade students in each response category: 2011									
	Choice A C		Choice B	Choice C	Choice D	Omitted			
	6			59	24	9	#		
1		Туре	of school						
	Public		59						
Private		66							

Rounds to zero. NOTE: Detail may not sum to totals because of rounding.



Summary



Change in national average scores from 2009

	Mathe	Mathematics		ding
	Grade 4	Grade 8	Grade 4	Grade 8
Overall	A		♦	
Male	A	♦	•	
Female			*	
White	A	♦	*	
Black		♦	*	
Hispanic			*	
Asian/Pacific Islander	•	♦	*	♦
American Indian/ Alaska Native	♦	♦	♦	♦

[▲] Indicates the score was higher in 2011.

Indicates no significant change in the score in 2011.



Summary



Change in average scores from 2009 to 2011

	Mathematics			Reading			
	Both grades	Grade 4 only	Grade 8 only	Both grades	Grade 4 only	Grade 8 only	
	District of Columbia	Alabama	Arkansas	Hawaii	Alabama	Colorado	
	Hawaii	Arizona	Colorado	Maryland	Massachusetts	Connecticut	
	New Mexico	Georgia	Maine			Idaho	
Higher	Rhode Island	Maryland	Mississippi			Michigan	
· ···g···c·		Wyoming	Nevada			Montana	
			Ohio			Nevada	
			Oklahoma			North Carolina	
			Texas			Rhode Island	
			West Virginia				
Lower		New York	Missouri		Missouri		
Lowe					South Dakota		





For more information

