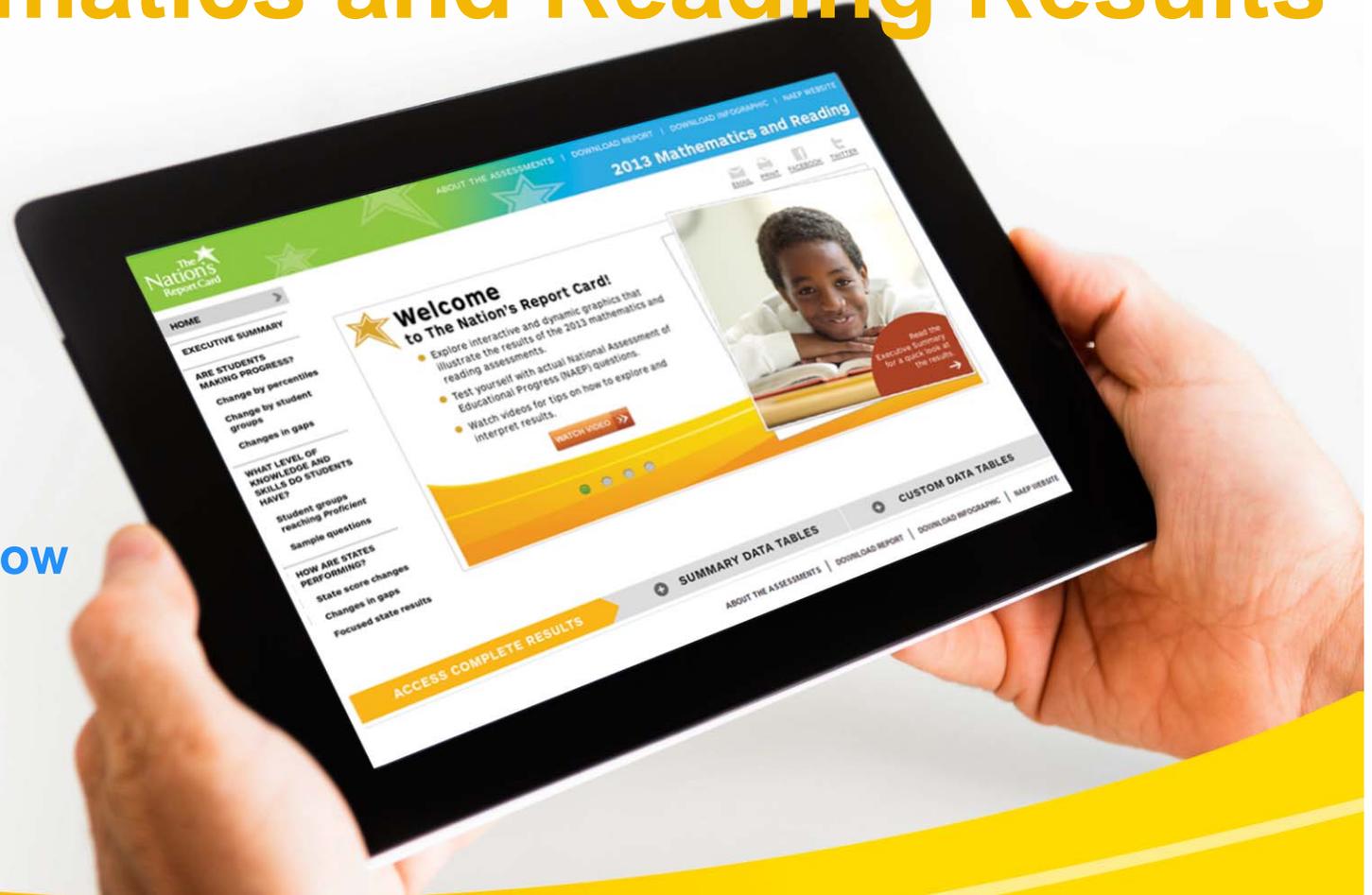


# 2013 NAEP Mathematics and Reading Results



**Dr. Shelly Pollnow**  
Director AZ NAEP  
December, 2013

NAEP 2013 Grade 4 and Grade 8

## **The Purpose of NAEP**

**(The National Assessment of Educational Progress) or  
The Nation's Report Card**

- **Measure student performance nationally and report changes over time**
  - **Provide results for the nation**
  - **Allow comparisons from individual states to the nation**
  - **Policymakers use NAEP results along with state test results and other indicators to help them evaluate current policies and consider policy changes to improve student achievement in AZ schools**
- (Low Stakes-There are no Arizona district/charter, school, or student level results)**

## About the 2013 Assessments

Administered January – March 2013

National Samples:

- 377,000 fourth-graders
- 342,000 eighth-graders

Results available for:

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

## About the 2013 Assessments

Administered January – March 2013

Arizona Samples:

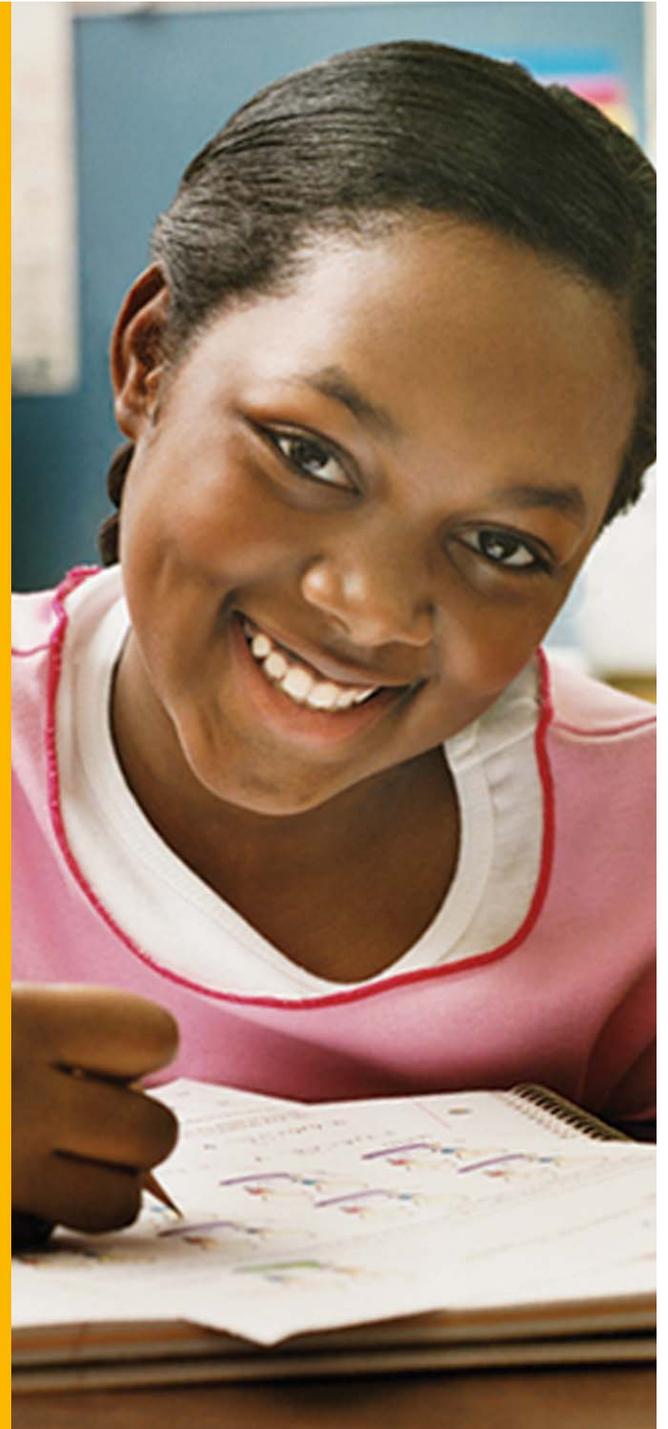
- 6,200 fourth-graders
- 4,500 eighth-graders

Schools: 277

Performance reported as:

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

# MATHEMATICS



## Arizona Mathematics

### 4th Grade

Arizona Grade 4 students continued to show dramatic growth – increasing 5 scale score points as they did in 2011.

Arizona 4<sup>th</sup> grade students scored significantly higher in 2013 with a score of (240) up from (235) in 2011.

This brings Arizona 4<sup>th</sup> grade math scores overall up to the national average (not statistically different AZ 240 vs. National 241)

# Arizona Mathematics

## 8th Grade

Although AZ Grade 8 math students' results remained unchanged since 2011, AZ math students maintained their significant gains made in 2011.

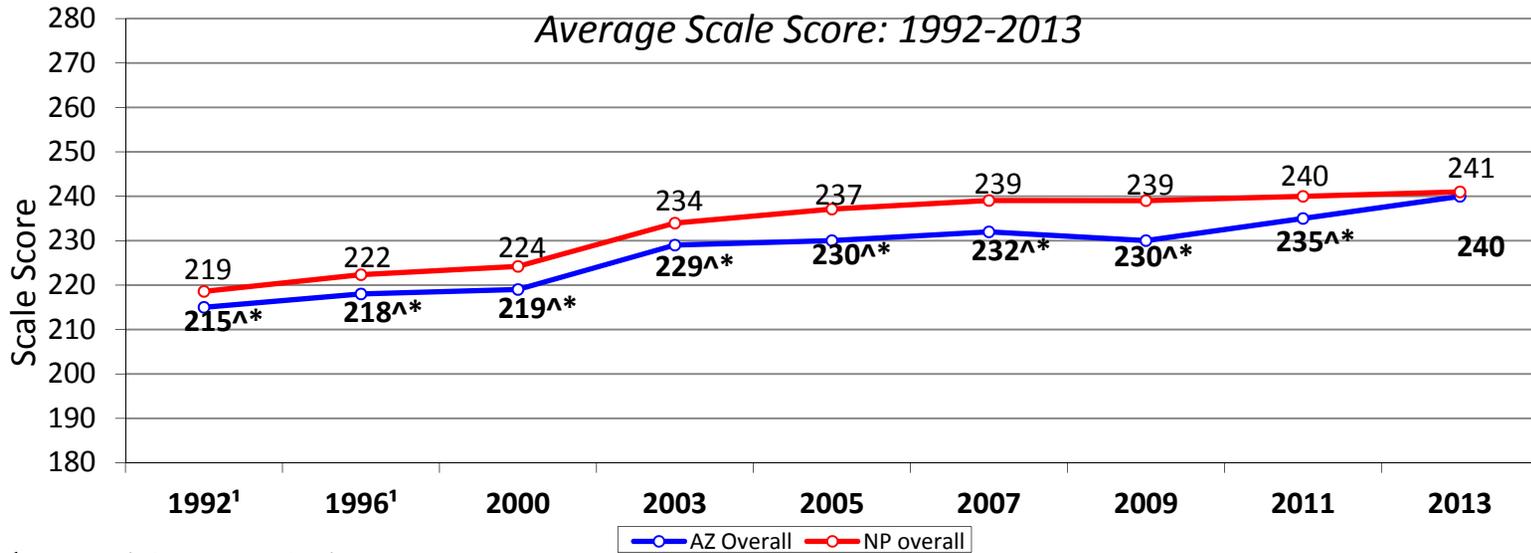
AZ Grade 8 African American, Hispanic, White, and Asian students scored at the national average for their peer group.

Arizona 8<sup>th</sup> grade Native American students mathematics score although showing a numerical increase was not significantly higher in 2013 (259) and was the same score of Native American students in 2005. Arizona Native American 8<sup>th</sup> grade students scored lower (259) than their peers nationally (270).

# Arizona Mathematics Overall

## NAEP Mathematics Grade 4 – Overall

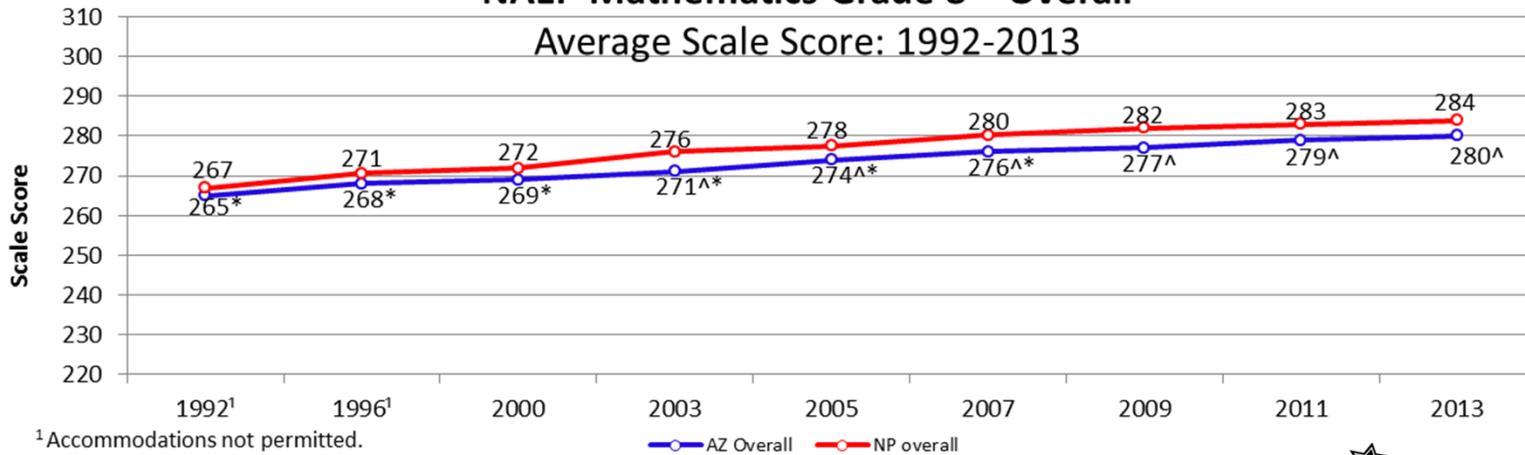
4th Grade



<sup>1</sup> Accommodations not permitted.

## NAEP Mathematics Grade 8 – Overall

8th Grade



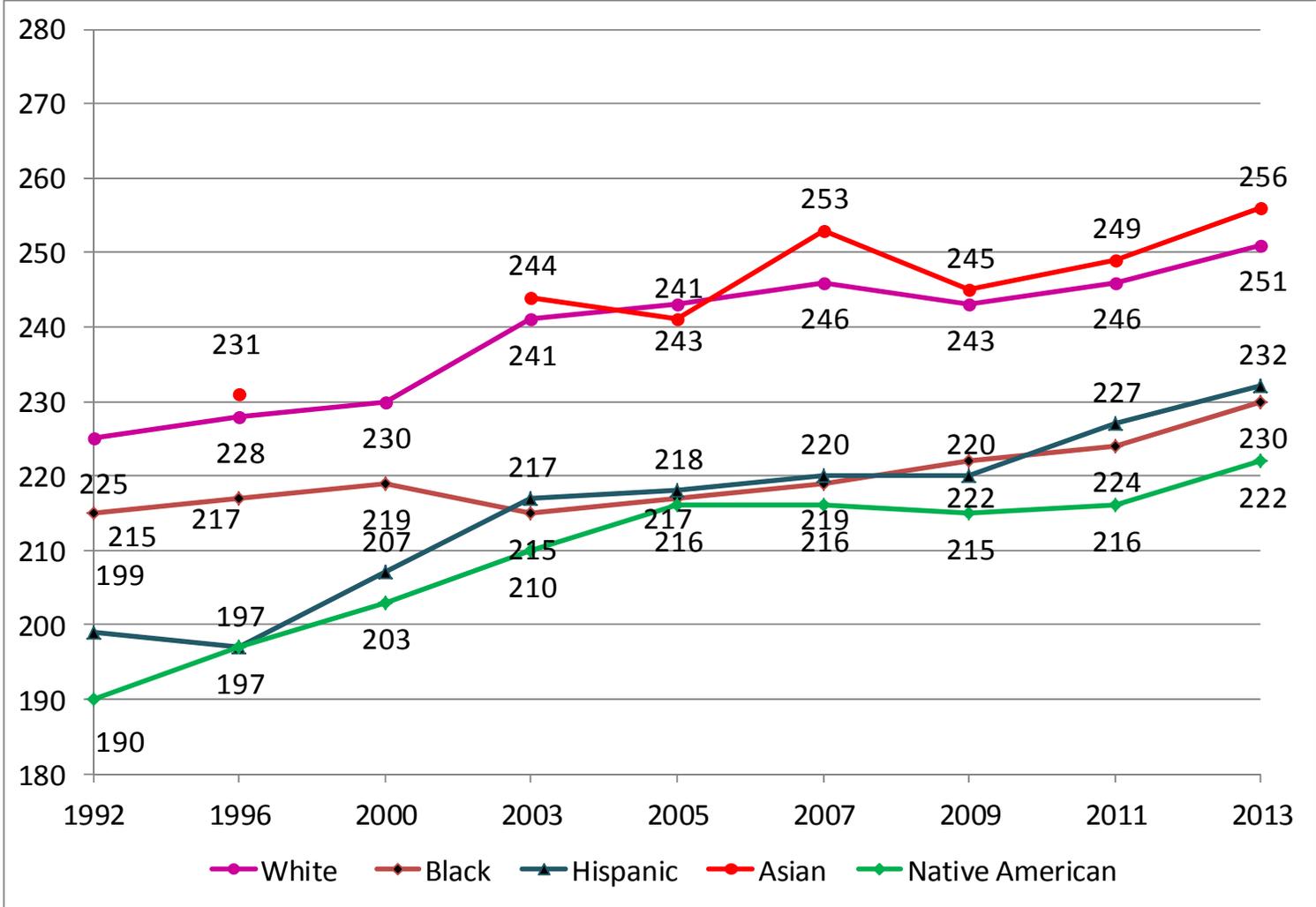
<sup>1</sup> Accommodations not permitted.

\* Significantly different ( $p < .05$ ) from AZ 2013.

<sup>^</sup> Significantly different ( $p < .05$ ) from National 2013

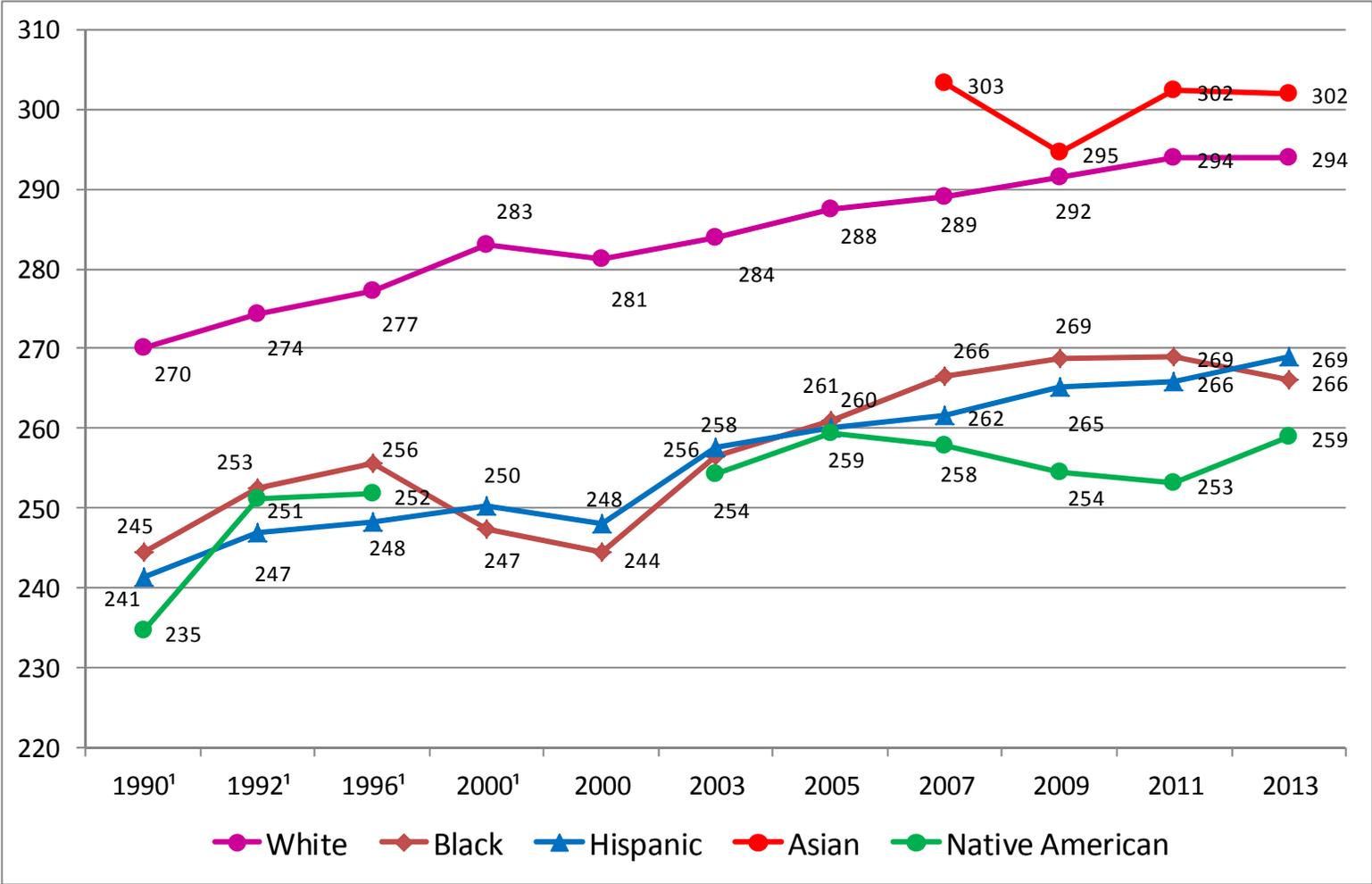
# Arizona 4<sup>th</sup> Grade Mathematics Race/Ethnicity

4th Grade



# Arizona Grade 8 Mathematics Race/Ethnicity

8th Grade



## Arizona Mathematics Score Gaps (note 4<sup>th</sup> and 8<sup>th</sup> grade are on different scales)

NAEP 2013	4 <sup>th</sup> MATH	8 <sup>th</sup> MATH
White	251	294
Black	230*	266*
Hispanic	232*	269*
Asian	256	302
Native American	222*	259*

The performance gaps for African American students and Hispanic students have not significantly changed since 1992.

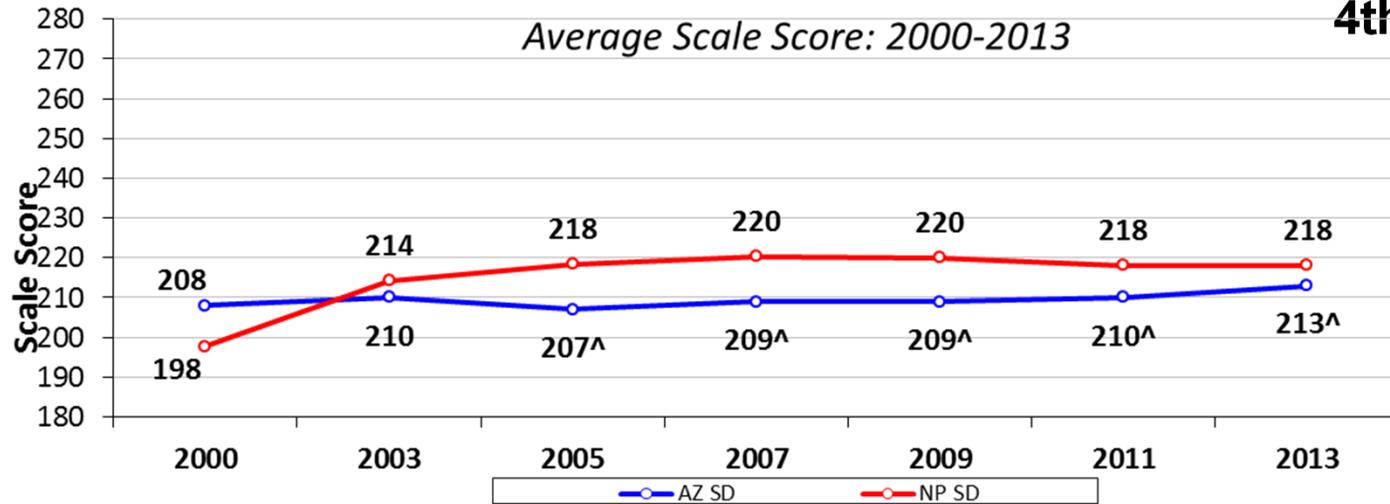
In 2013, Grade 8 Black students had an average score that was 28 points lower than White students. This performance gap was not significantly different from that in 1990 (26 points).

\* Significantly different at  $p < 0.05$

# Arizona Mathematics Students with Disabilities

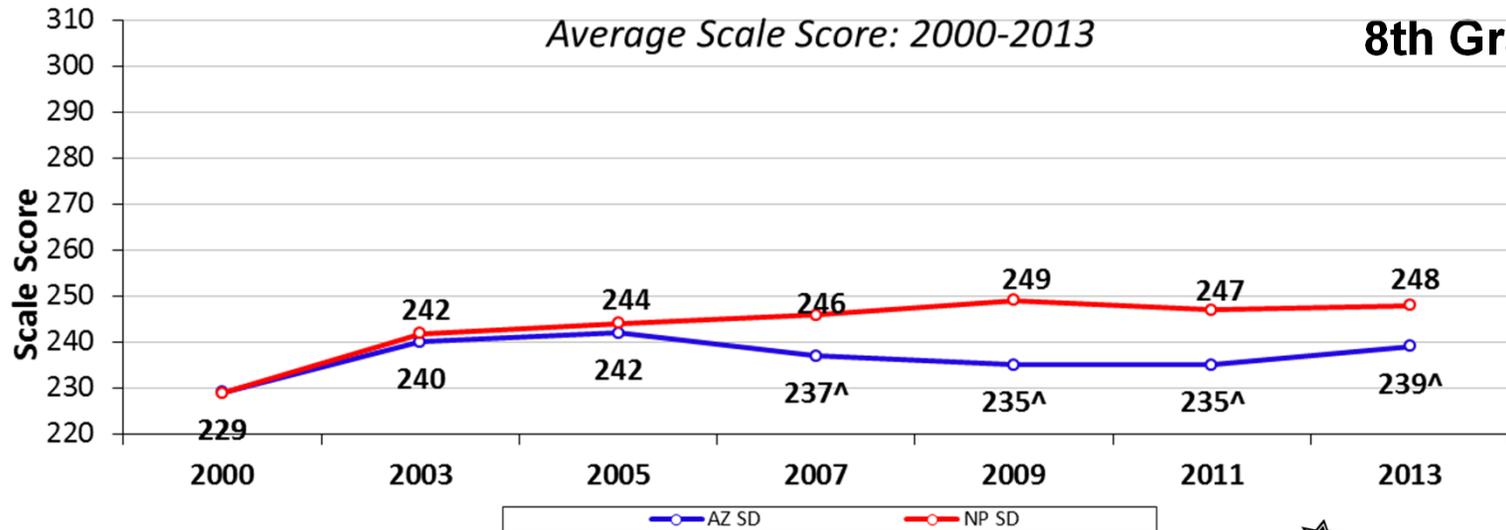
## NAEP Mathematics Grade 4 – Students with Disabilities

4th Grade



## NAEP Mathematics Grade 8 – Students with Disabilities

8th Grade



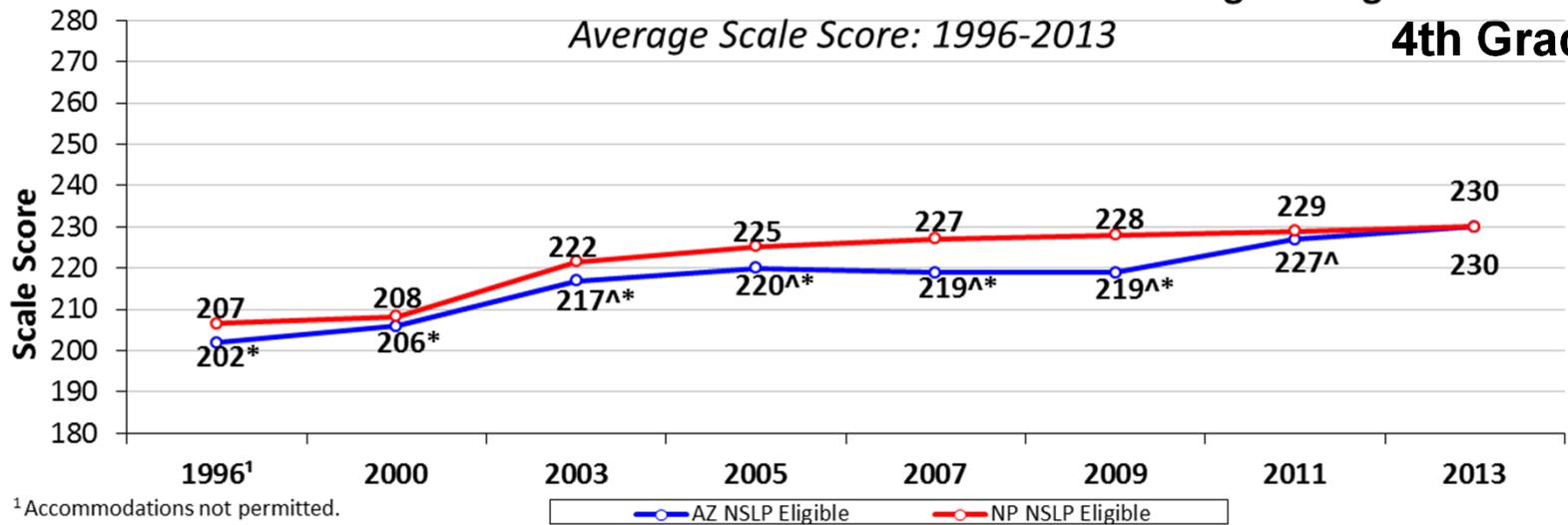
\* Significantly different ( $p < .05$ ) from AZ 2013.  
<sup>^</sup> Significantly different ( $p < .05$ ) from National 2013

# AZ Mathematics Students Eligible School Lunch

## NAEP Mathematics Grade 4 – National School Lunch Program Eligible

Average Scale Score: 1996-2013

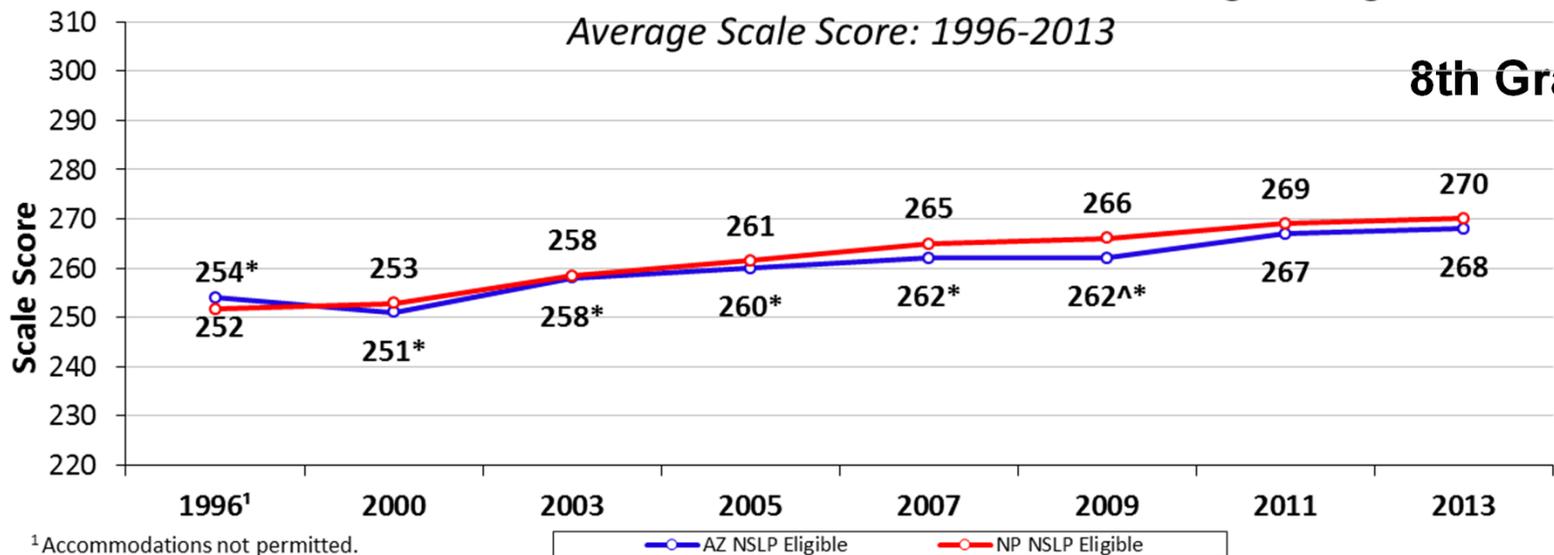
4th Grade



## NAEP Mathematics Grade 8 – National School Lunch Program Eligible

Average Scale Score: 1996-2013

8th Grade

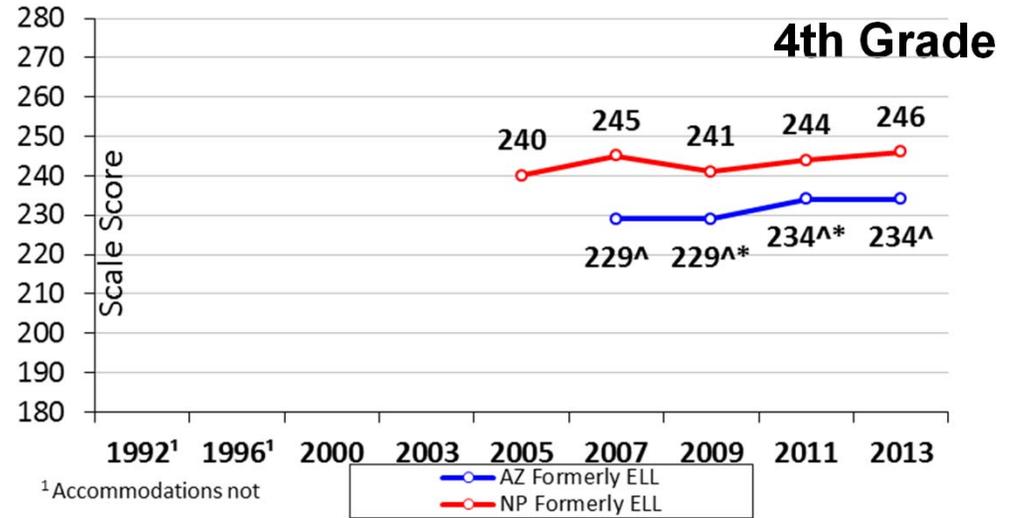


\* Significantly different ( $p < .05$ ) from AZ 2013.

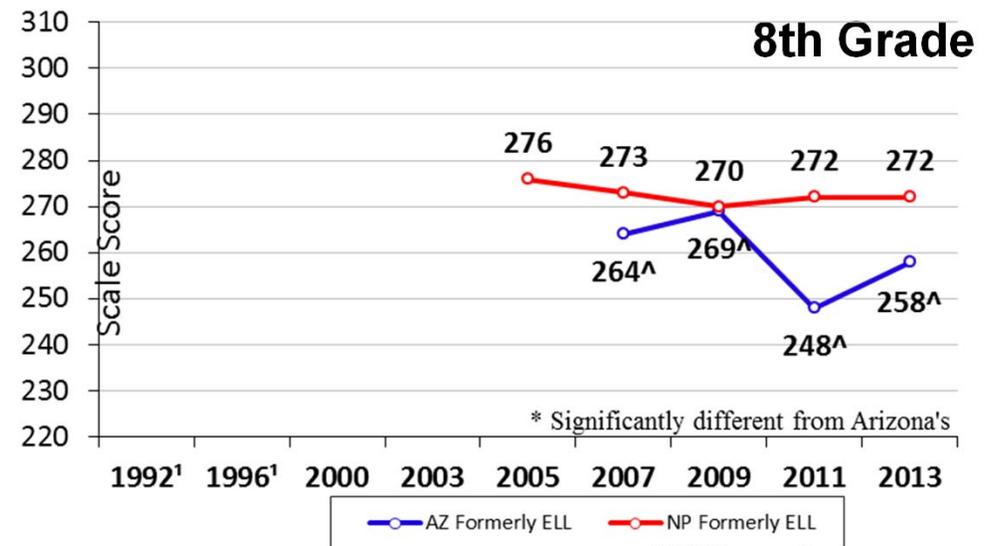
<sup>^</sup> Significantly different ( $p < .05$ ) from National 2013

# AZ Mathematics Students Formerly ELL

Grade 4 2013	AZ %	NP % Nat'l pub percent
ELL	7 <sup>^</sup>	11
Non-ELL	88	86
Formerly ELL	5 <sup>^</sup>	3



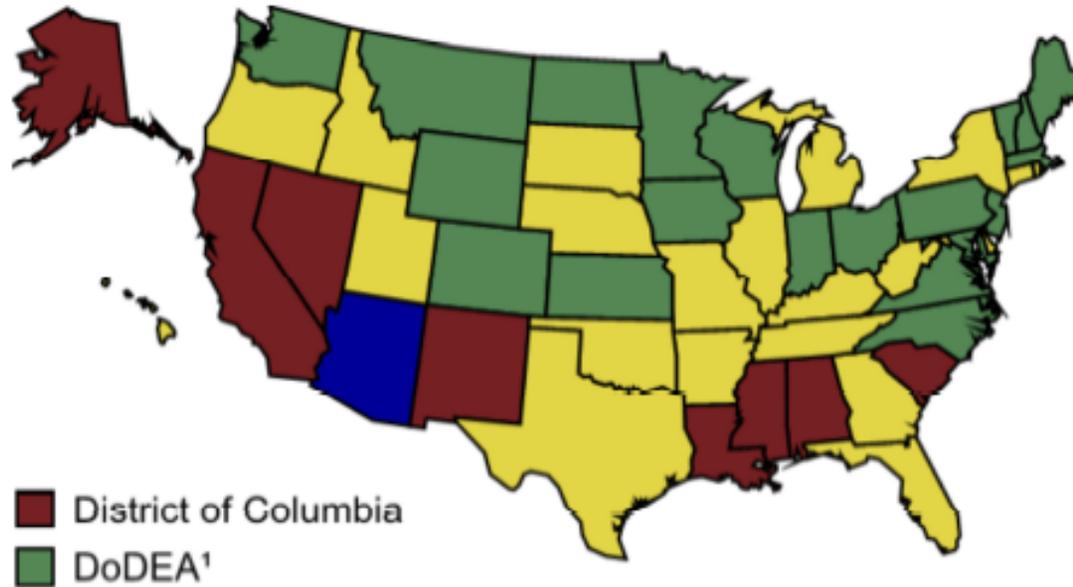
Grade 8 2013	AZ %	NP % Nat'l Public Percent
ELL	1 <sup>^</sup>	5
Non-ELL	96 <sup>^</sup>	92
Formerly ELL	3	3



\* Significantly different ( $p < .05$ ) from AZ 2013.  
<sup>^</sup> Significantly different ( $p < .05$ ) from National 2013

# 4<sup>th</sup> Grade Mathematics State Comparison

Compare the Average Score in 2013 to Other States/Jurisdictions



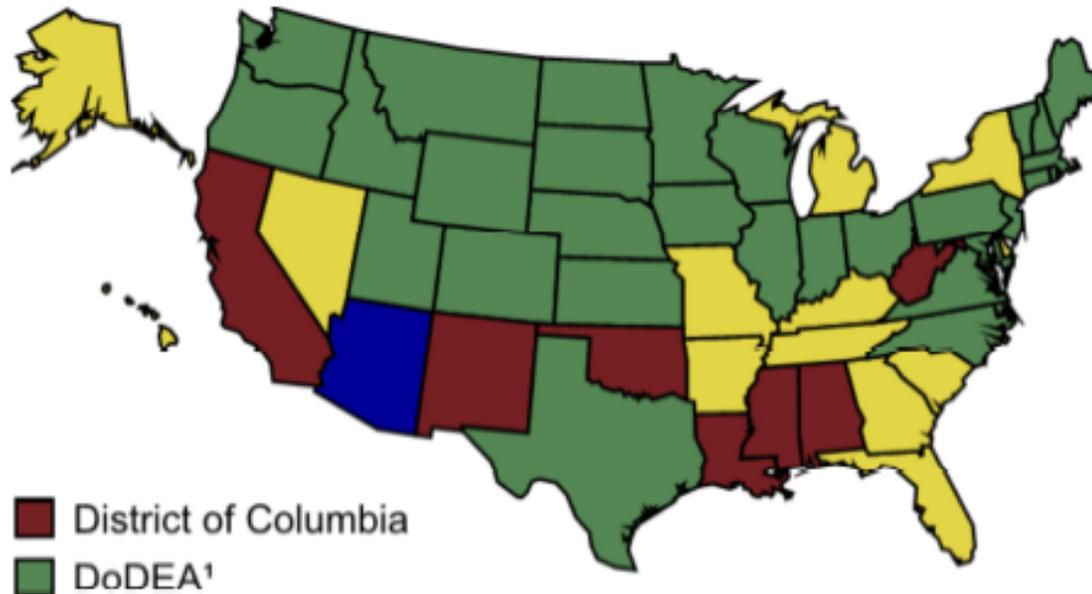
<sup>1</sup> Department of Defense Education Activity (overseas and domestic schools).

In 2013, the average score in **Arizona** (240) was

- lower than those in 21 states/jurisdictions
- higher than those in 9 states/jurisdictions
- not significantly different from those in 21 states/jurisdictions

## 8<sup>th</sup> Grade Mathematics State Comparison

Compare the Average Score in 2013 to Other States/Jurisdictions



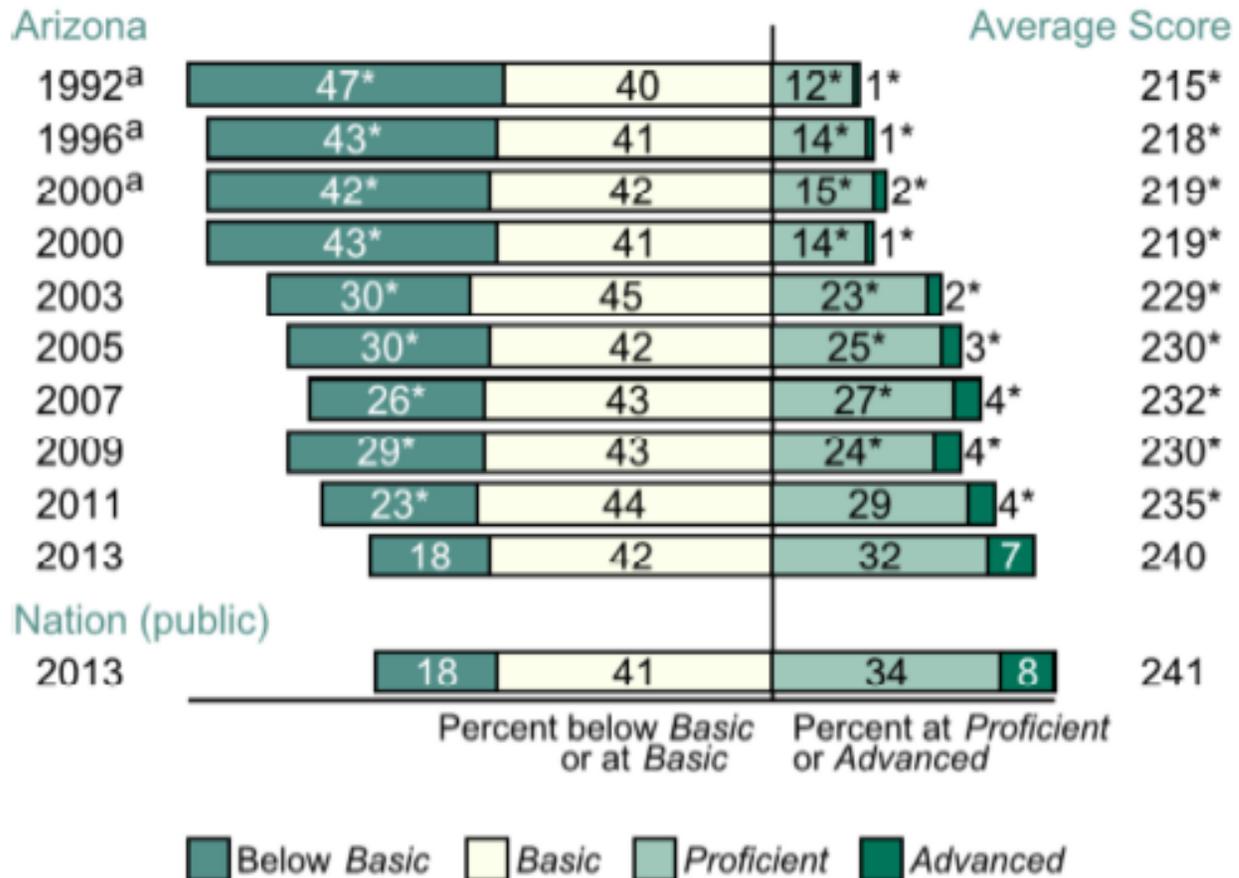
<sup>1</sup> Department of Defense Education Activity (overseas and domestic schools).

In 2013, the average score in **Arizona** (280) was

- lower than those in 30 states/jurisdictions
- higher than those in 8 states/jurisdictions
- not significantly different from those in 13 states/jurisdictions

# 4<sup>th</sup> Grade Mathematics Achievement Levels

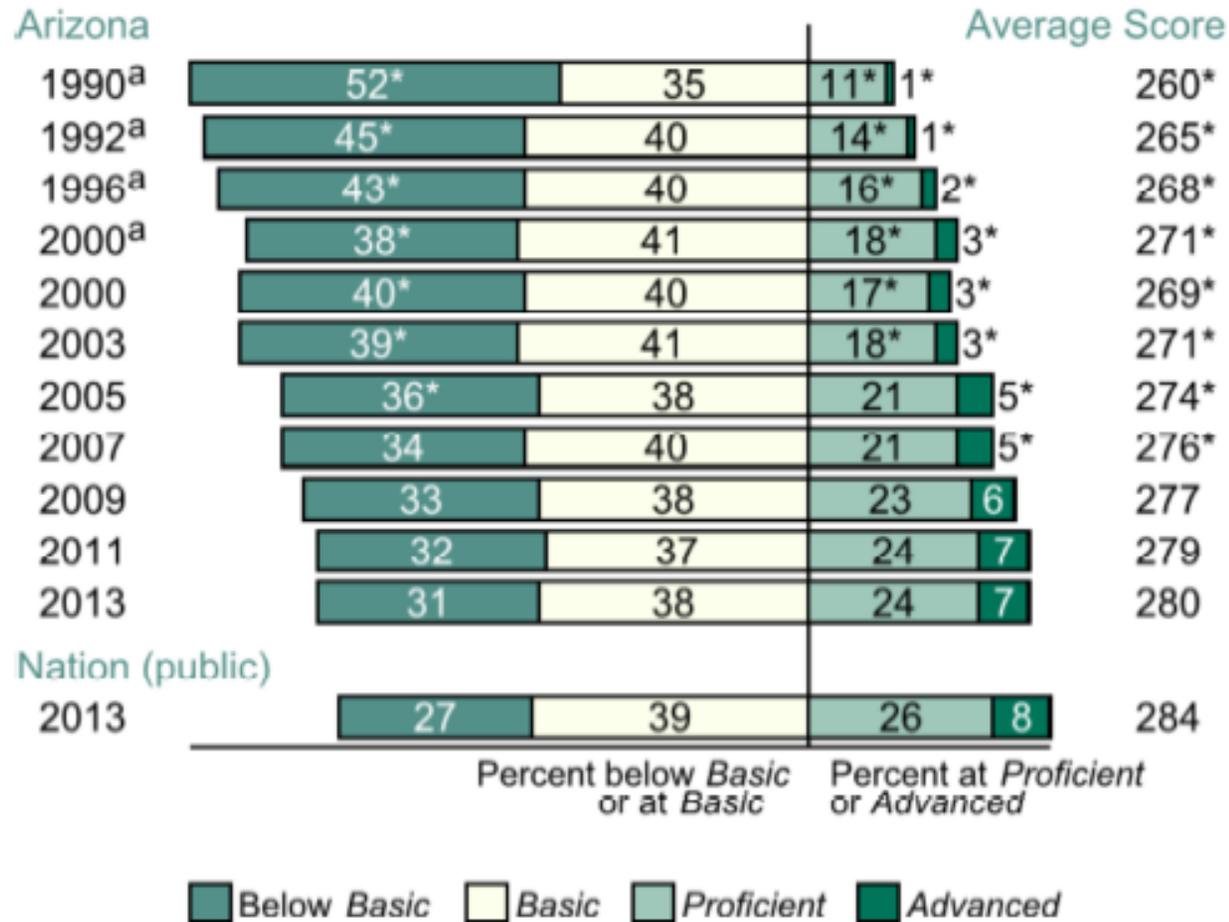
## Achievement-Level Percentages and Average Score Results



\* Significantly different ( $p < .05$ ) from state's results in 2013. Significance tests were performed using unrounded numbers.

# 8<sup>th</sup> Grade Mathematics Achievement Levels

## Achievement-Level Percentages and Average Score Results



\* Significantly different ( $p < .05$ ) from state's results in 2013. Significance tests were performed using unrounded numbers.

# READING



## Arizona Reading

4th Grade

- **Arizona Grade 4 students scored higher in 2013 (213) than in 2003 (209).**
- **Arizona Grade 4 reading results remain unchanged since 2011.**
- **Our African American, White, and Asian students scored at the national average for their peer groups.**

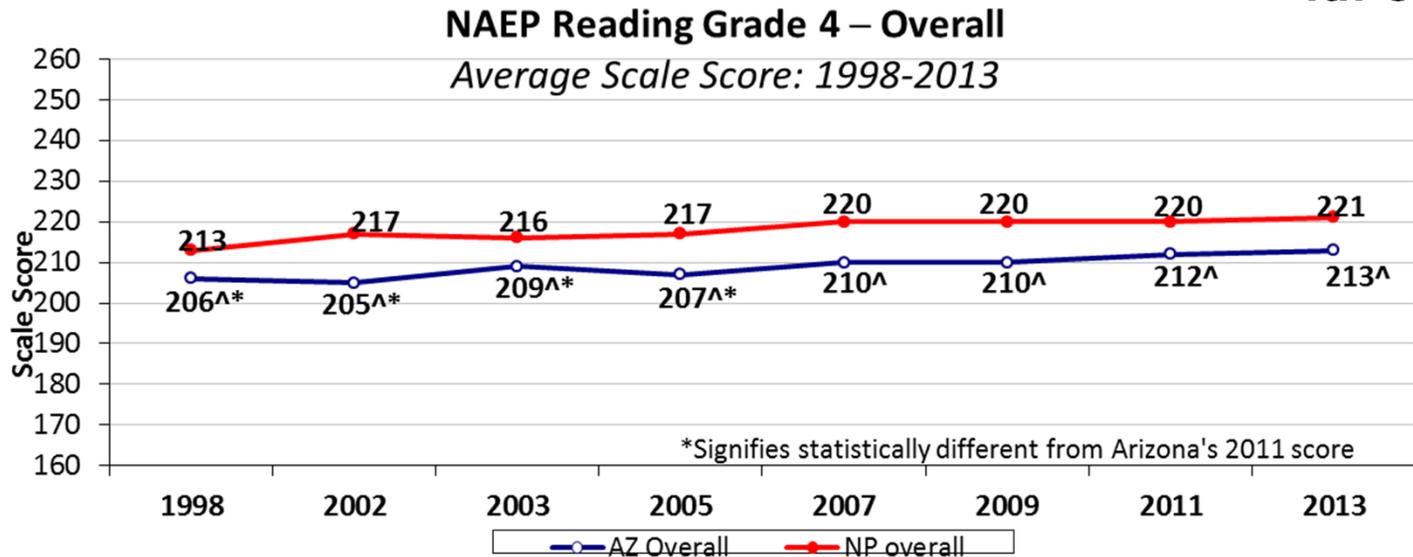
# Arizona Reading

8th Grade

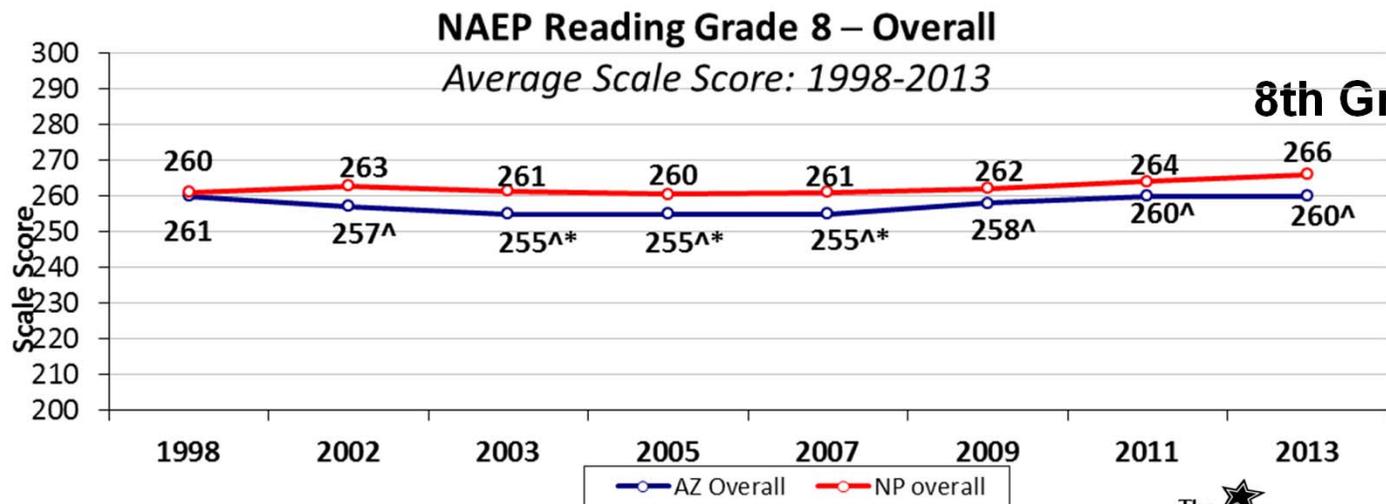
- **Arizona's Grade 8 students scored significantly higher in 2013 (260) than in 2007 (255).**
- **Arizona Grade 8 reading score (260) for 2013 remained unchanged from 2011**
- **Arizona's White, Asian, and African American students scored at the national average for their peer groups.**

# Arizona Reading Overall

## 4th Grade



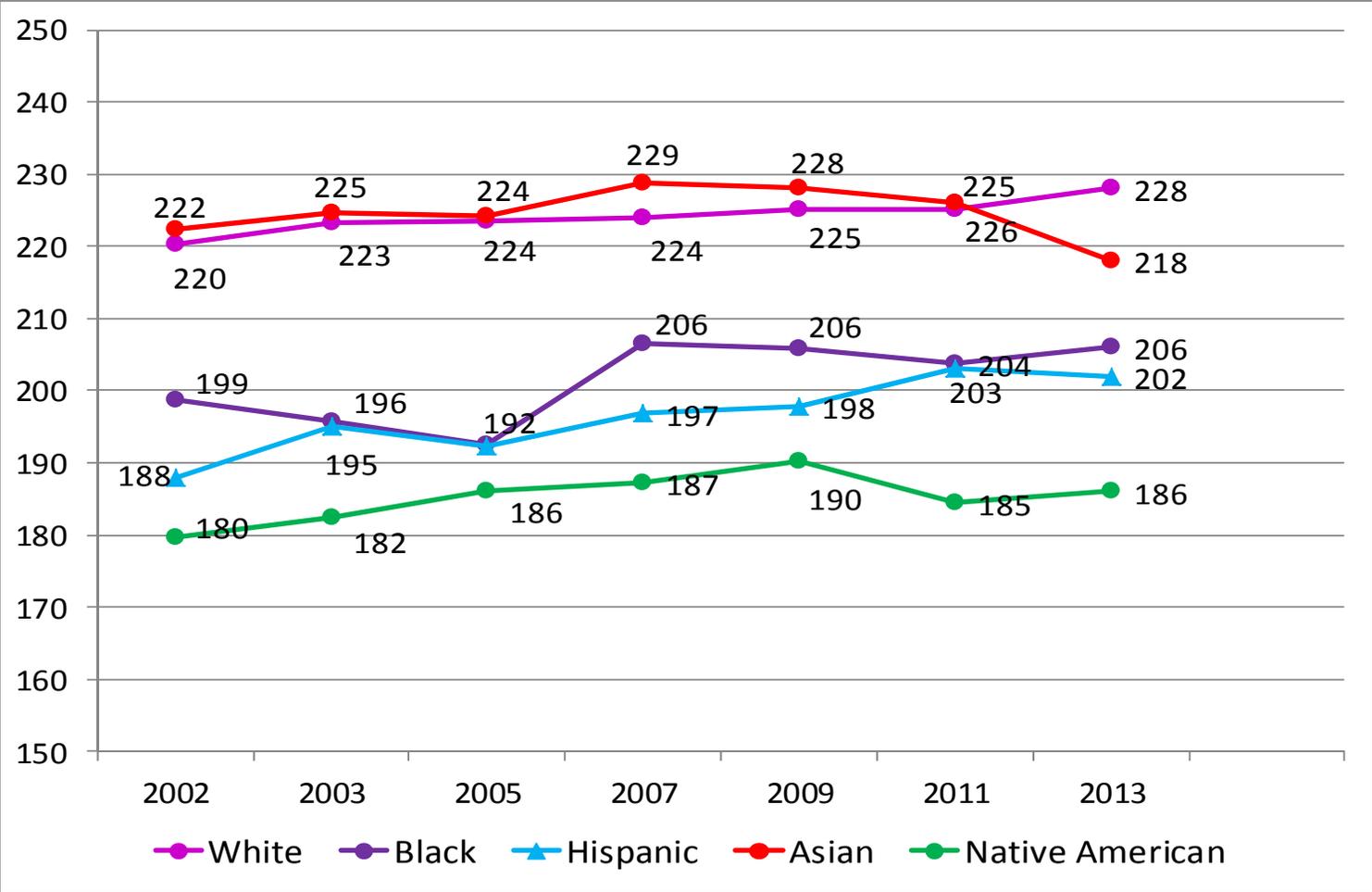
## 8th Grade



\* Significantly different ( $p < .05$ ) from AZ 2013.  
<sup>^</sup> Significantly different ( $p < .05$ ) from National 2013

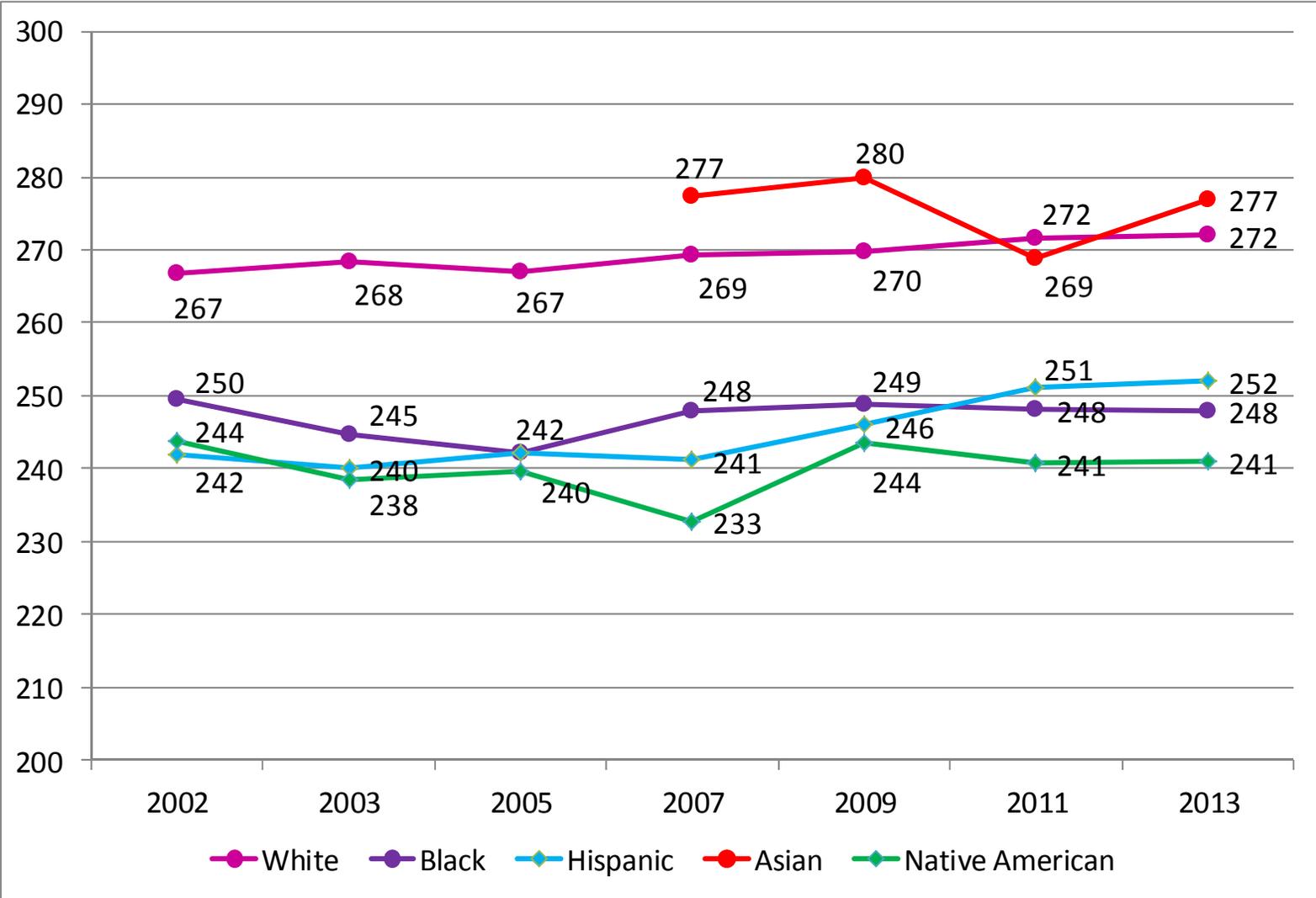
# Arizona Reading 4<sup>th</sup> Grade Race/Ethnicity

4th Grade



# Arizona Reading 8<sup>th</sup> Grade Race/Ethnicity

8th Grade



## Arizona Reading Gaps

NAEP 2013	4 <sup>th</sup> Reading	8 <sup>th</sup> Reading
White	228*	294*
Black	206*	248*
Hispanic	202*	252*
Asian	218	277
Native American	186*	241*

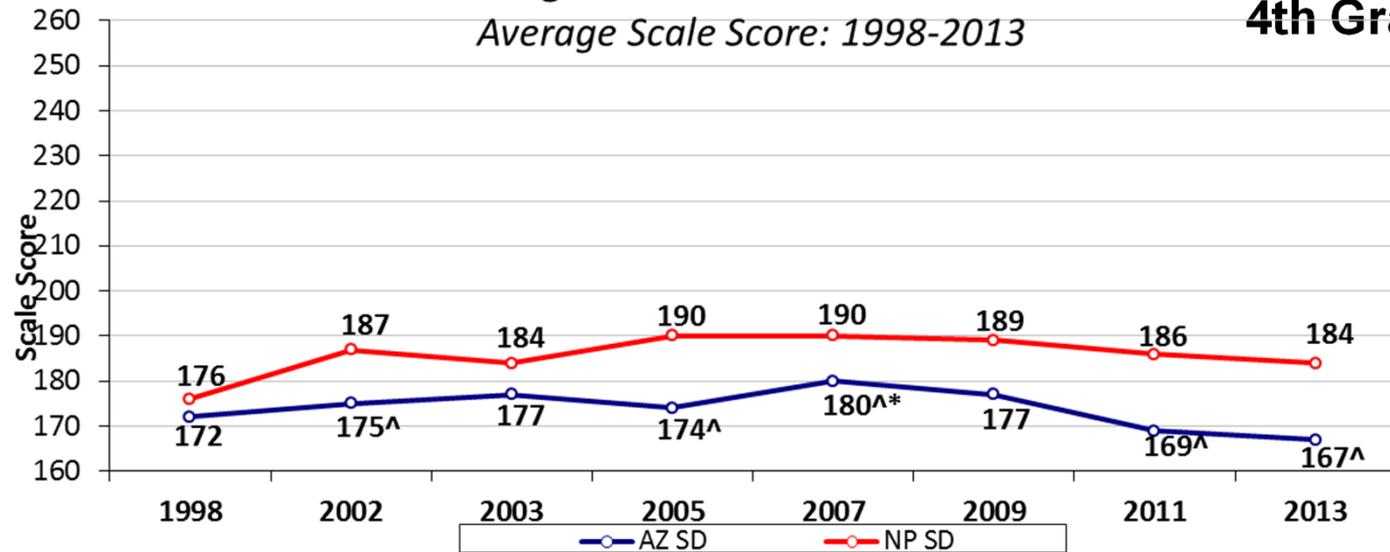
Score gaps are not statistically different from score gaps since the 1990s for both 4<sup>th</sup> and 8<sup>th</sup> Grade Reading NAEP 2013.

\* Significantly different at  $p < 0.05$

# Reading Students with Disabilities

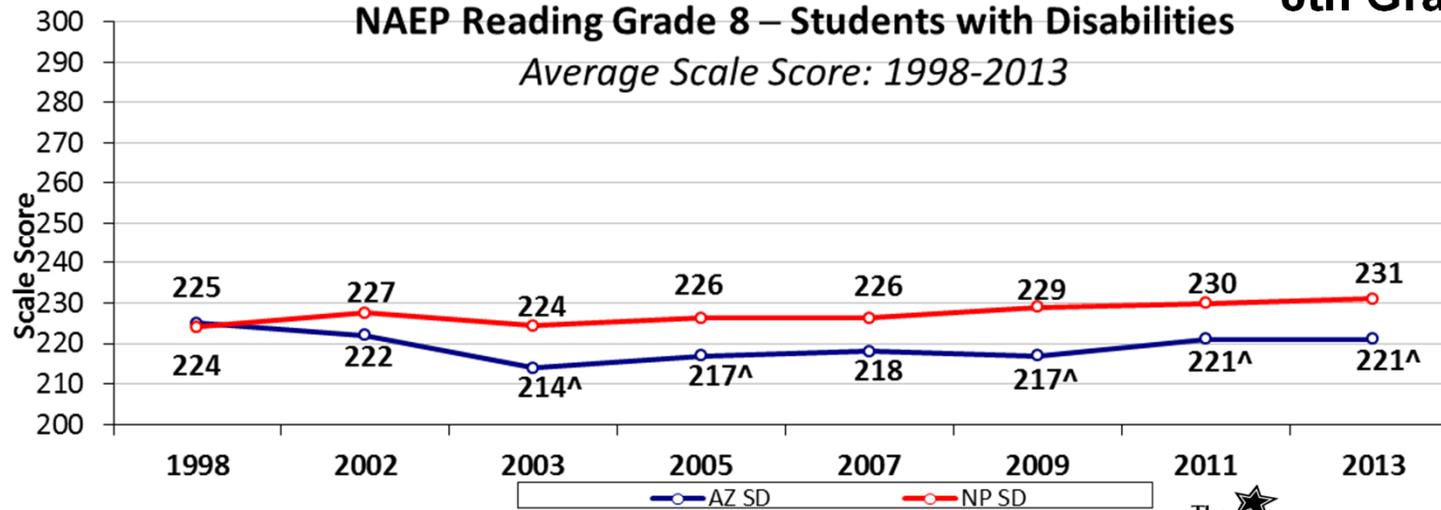
## NAEP Reading Grade 4 – Students with Disabilities

4th Grade



## NAEP Reading Grade 8 – Students with Disabilities

8th Grade



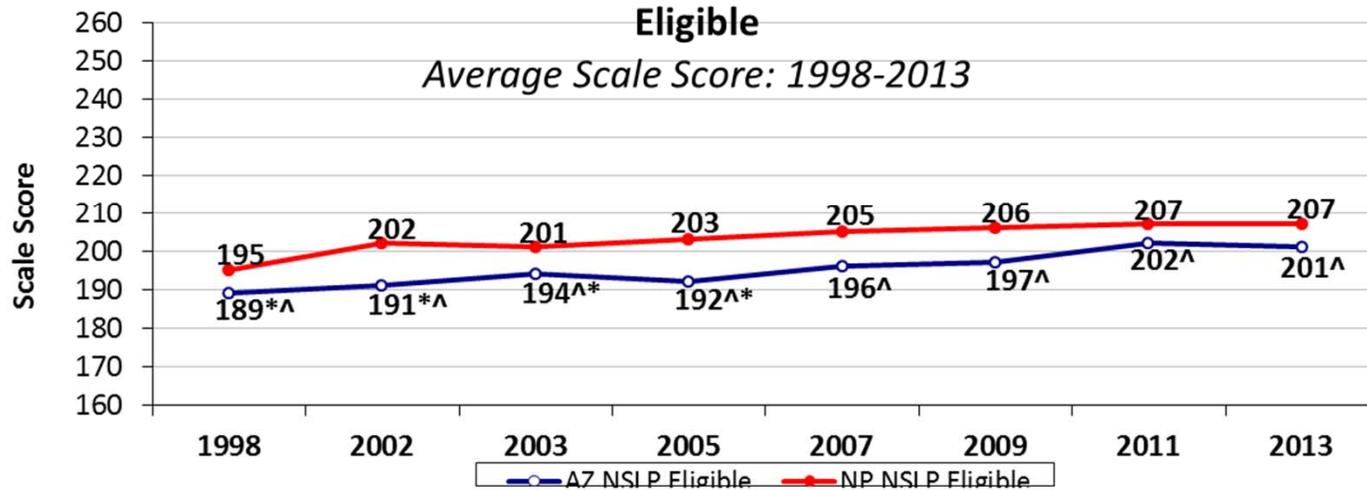
\* Significantly different ( $p < .05$ ) from AZ 2013.

<sup>^</sup> Significantly different ( $p < .05$ ) from National 2013

# Reading Students Eligible for School Lunch

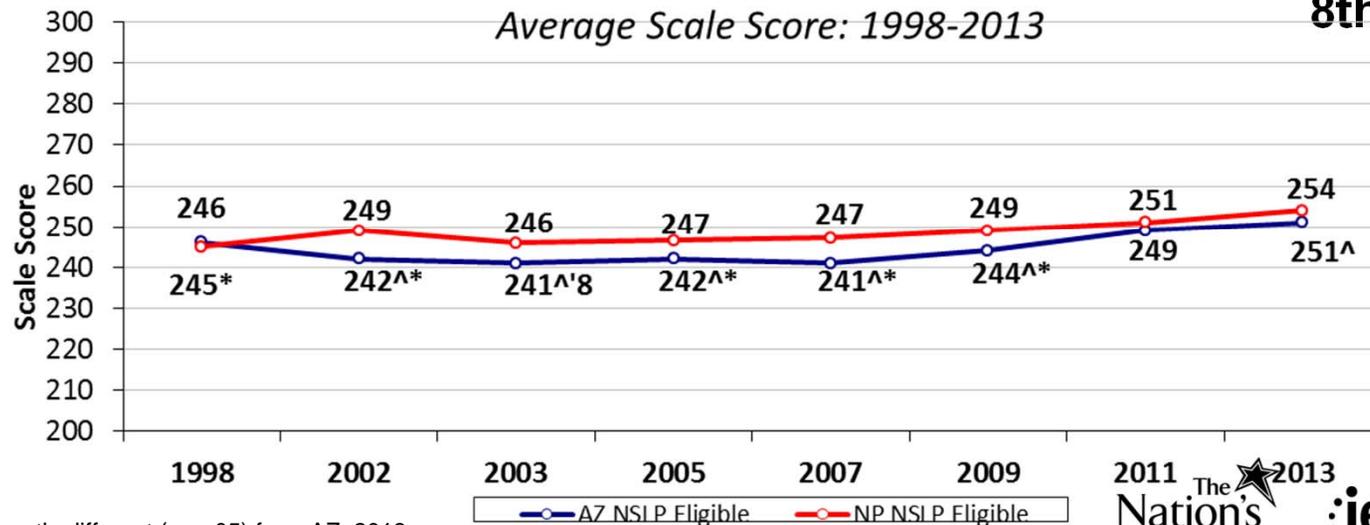
NAEP Reading Grade 4 – National School Lunch Program

4th Grade



NAEP Reading Grade 8 – National School Lunch Program Eligible

8th Grade



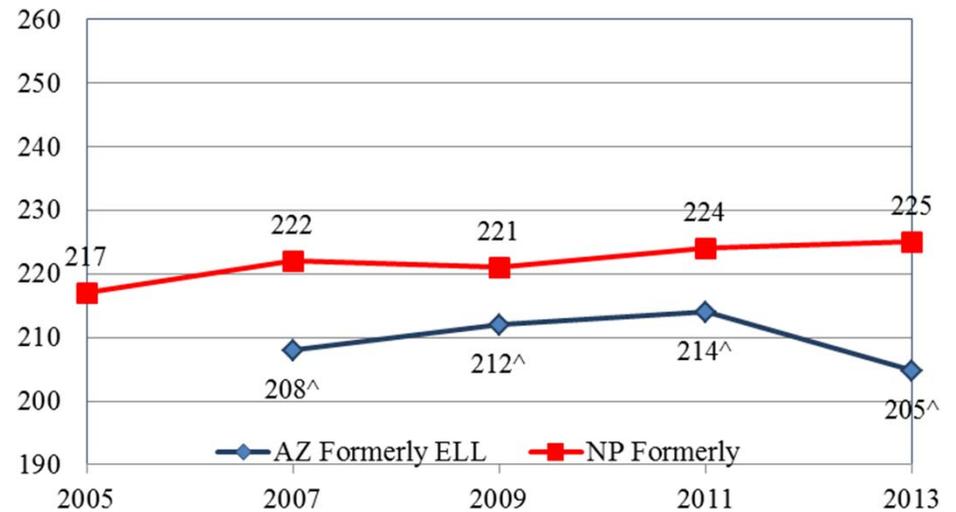
\* Significantly different ( $p < .05$ ) from AZ 2013.

^ Significantly different ( $p < .05$ ) from National 2013

# Reading Formerly ELL

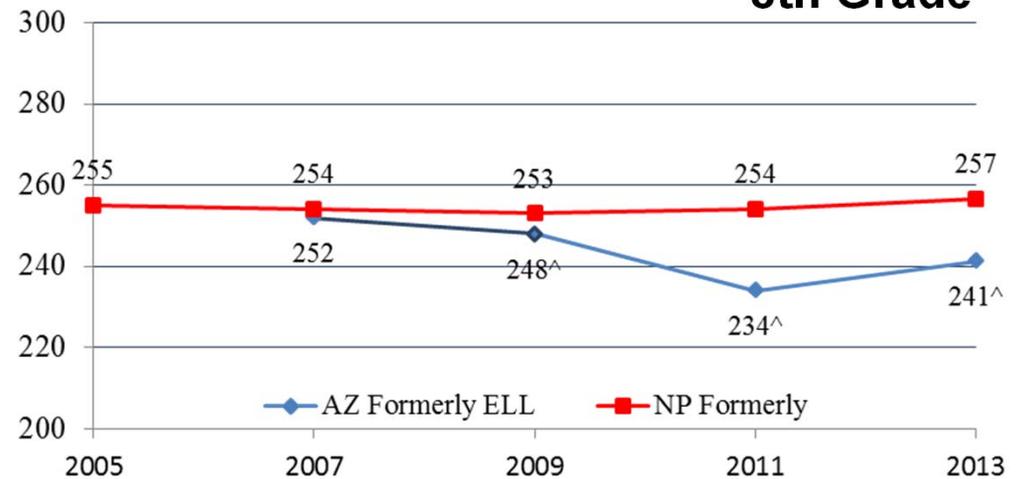
## 4th Grade

Grade 4 2013	AZ %	NP % Nat'l pub percent
ELL	7 <sup>^</sup>	10
Non-ELL	88	87
Formerly ELL	6 <sup>^</sup>	3



## 8th Grade

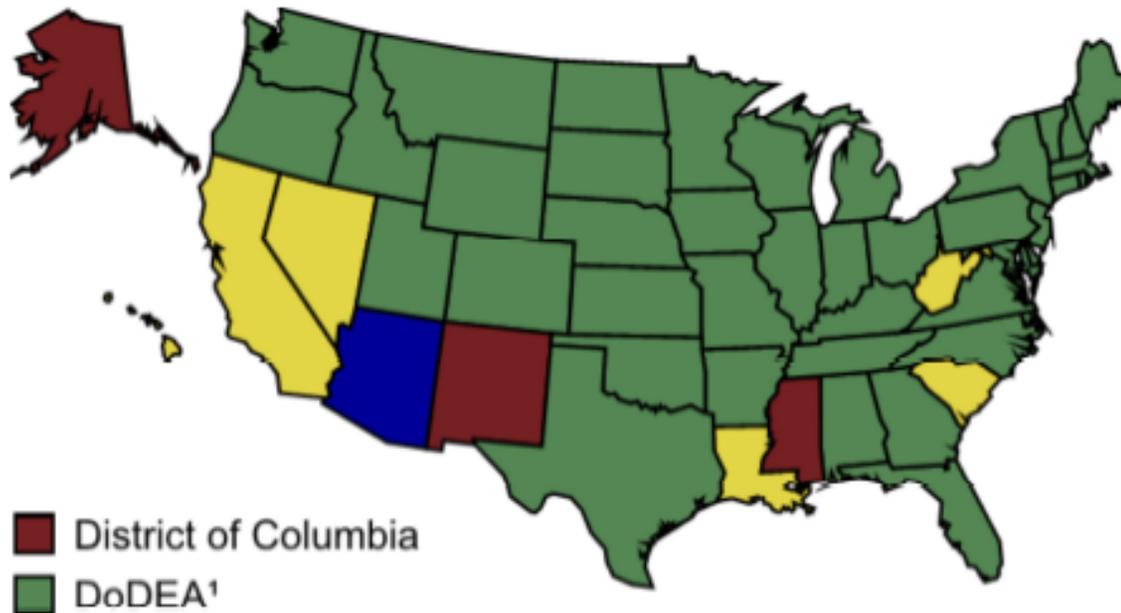
Grade 8 2013	AZ %	NP % Nat'l pub percent
ELL	1 <sup>^</sup>	5
Non-ELL	96	92
Formerly ELL	3	3



\* Significantly different ( $p < .05$ ) from AZ 2013.  
<sup>^</sup> Significantly different ( $p < .05$ ) from National 2013

## 4<sup>th</sup> Grade Reading NAEP 2013

Compare the Average Score in 2013 to Other States/Jurisdictions



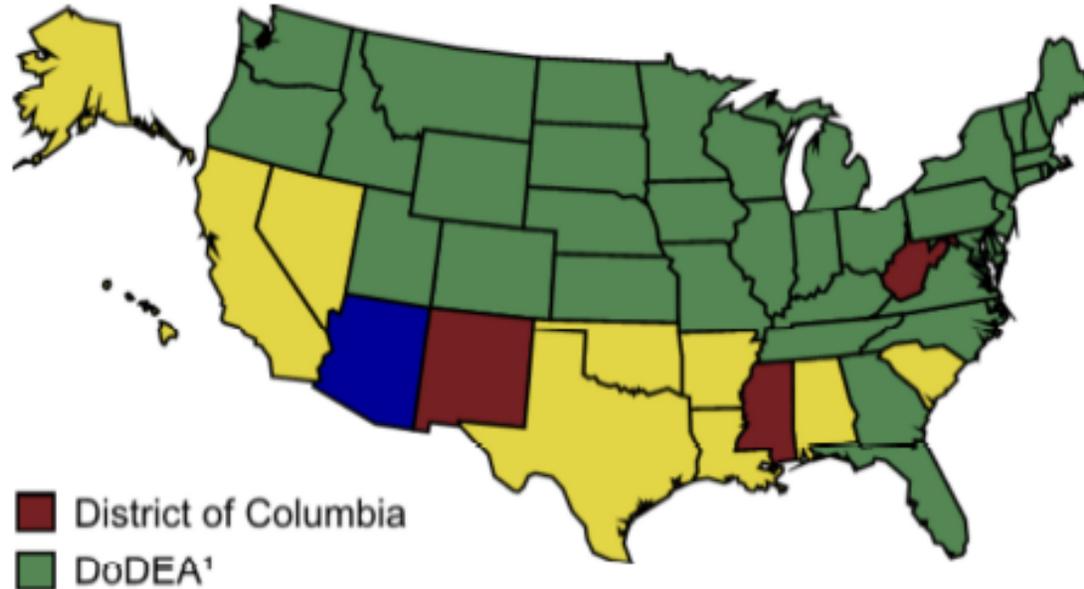
<sup>1</sup> Department of Defense Education Activity (overseas and domestic schools).

In 2013, the average score in **Arizona** (213) was

- lower than those in 41 states/jurisdictions
- higher than those in 4 states/jurisdictions
- not significantly different from those in 6 states/jurisdictions

## 8<sup>th</sup> Grade Reading NAEP 2013

Compare the Average Score in 2013 to Other States/Jurisdictions



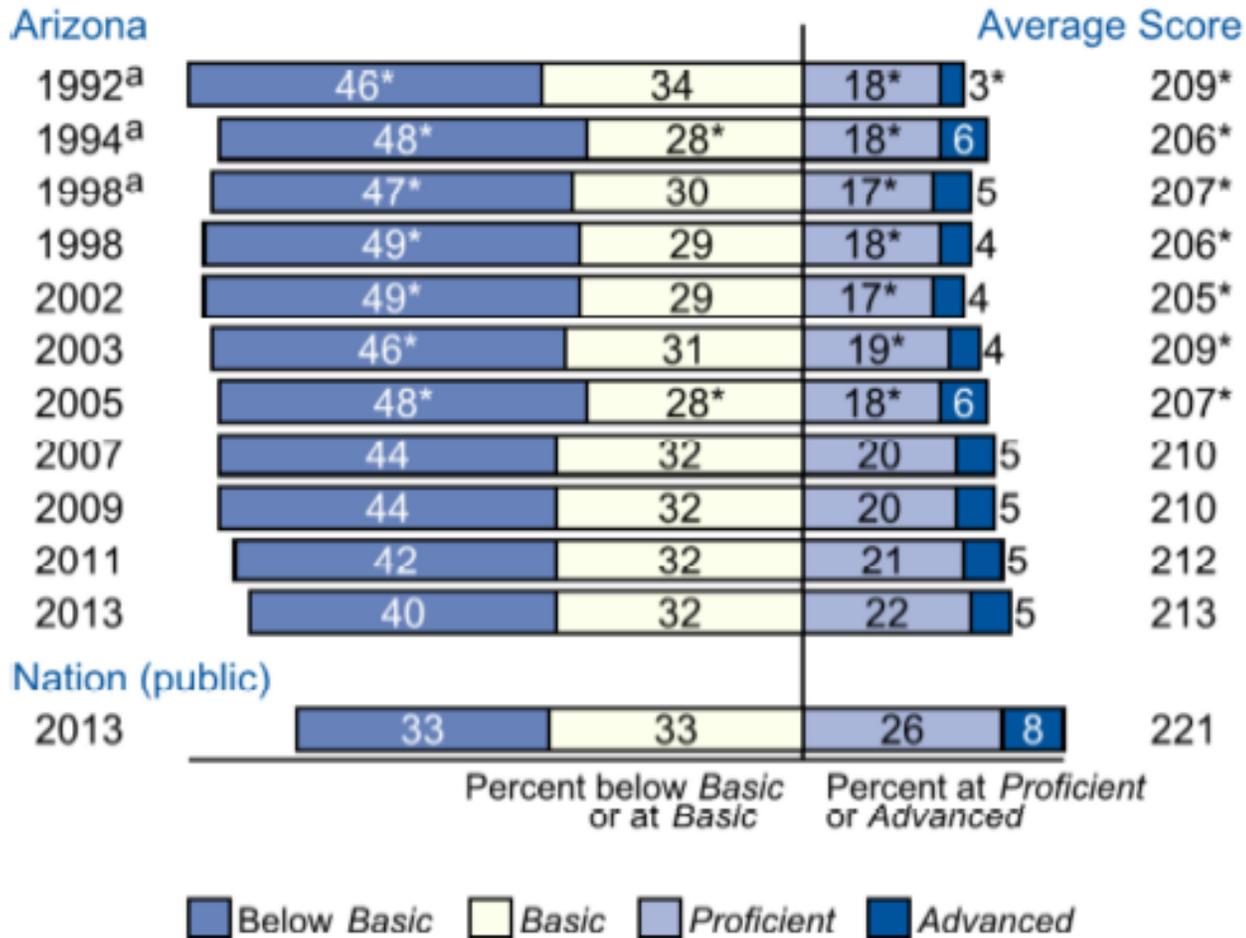
<sup>1</sup> Department of Defense Education Activity (overseas and domestic schools).

In 2013, the average score in **Arizona** (260) was

- lower than those in 37 states/jurisdictions
- higher than those in 4 states/jurisdictions
- not significantly different from those in 10 states/jurisdictions

# 4<sup>th</sup> Grade Reading Achievement Levels

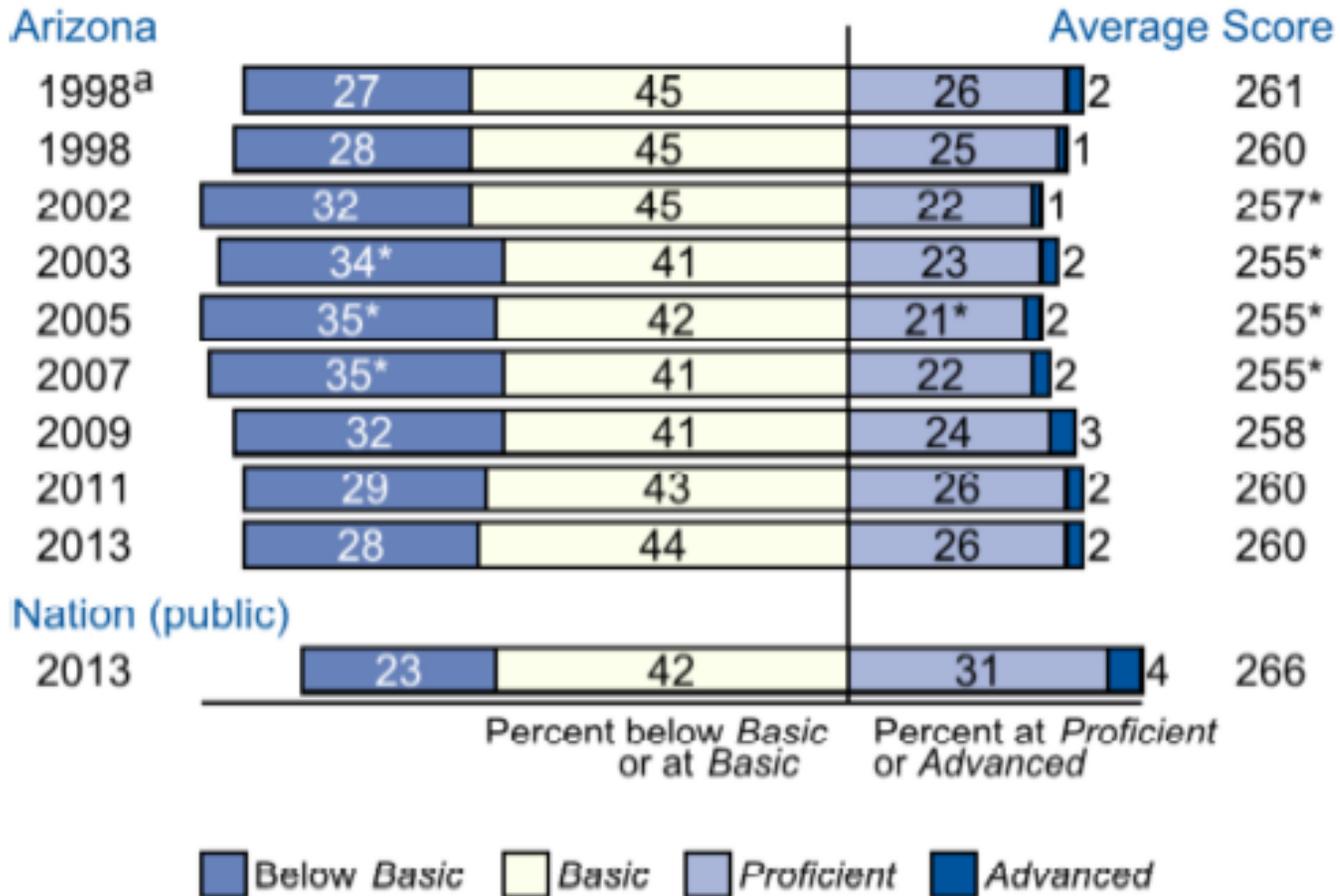
## Achievement-Level Percentages and Average Score Results



\* Significantly different ( $p < .05$ ) from state's results in 2013. Significance tests were performed using unrounded numbers.

# 8<sup>th</sup> Grade Achievement Levels

## Achievement-Level Percentages and Average Score Results



\* Significantly different ( $p < .05$ ) from state's results in 2013. Significance tests were performed using unrounded numbers.

# Explore the results on the new online report card

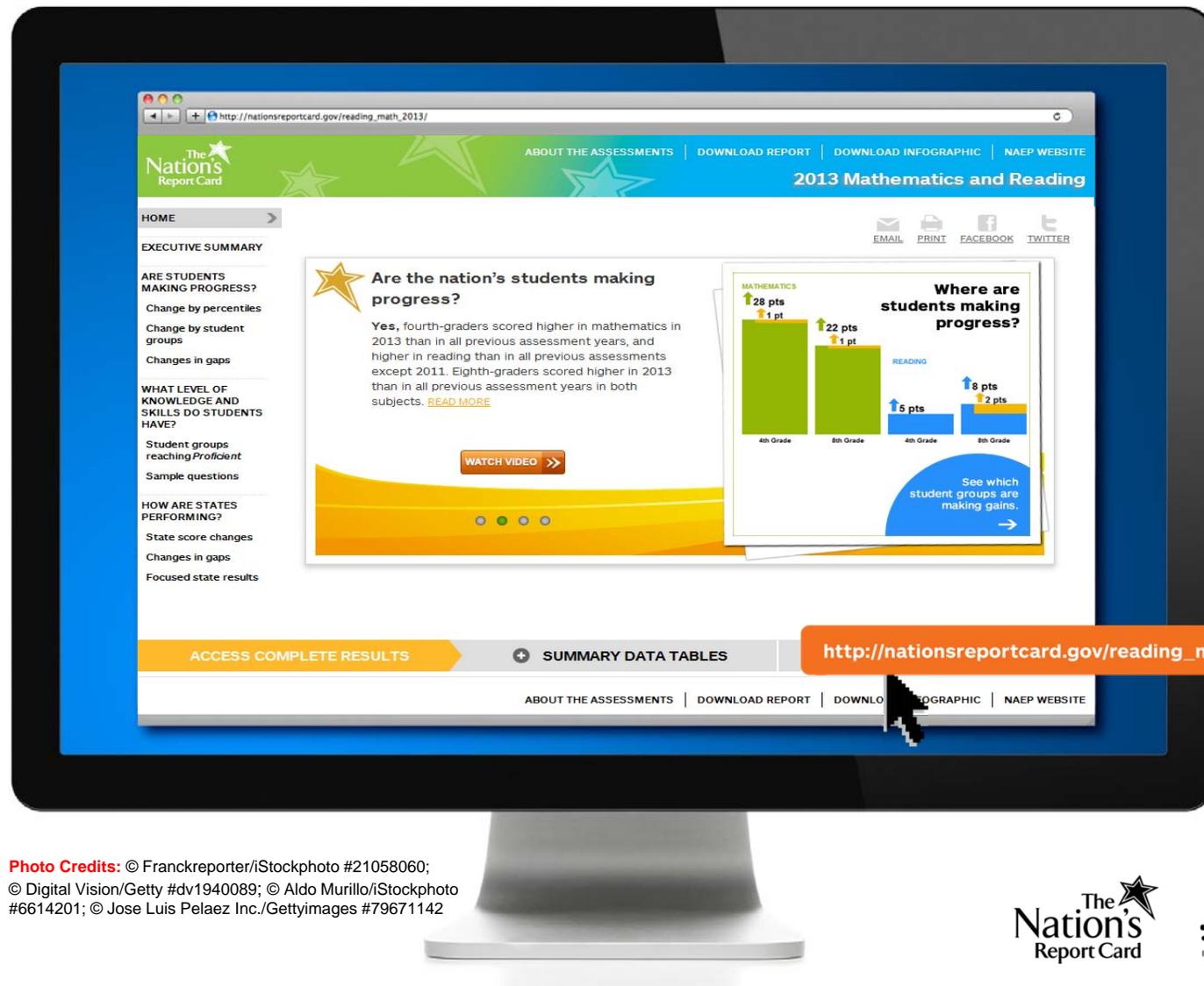


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#6614201; © Jose Luis Pelaez Inc./Gettyimages #79671142

*Thank you*

If you would like any other information on NAEP please contact:

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