## Overview - 2013 NAEP Sampling

- N -counts
- In WY public schools: sample of nearly

12,400 students in grades 4 and 8 across
270 schools (approx)

- US public schools: nearly 718,800 students across 14,450 schools (approx)
- Sampling variability and statistical significance testing is underlying all NAEP results
- Very similar to how margin of error works in polling results


## 2013 Wyoming NAEP Report Card

- Increases since 2011 NAEP?

- Compared to 2009 NAEP results, however, 2013 scores are higher in reading and mathematics for both grades four and eight.


## Mathematics

## Percentages of 4th- and 8th-graders at or above Proficient in mathematics higher than the nation in 19 states/jurisdictions



In 2013, the percentage of public school students performing at or above Proficient in mathematics was:

${ }^{1}$ Department of Defense Education Activity (overseas and domestic schools).

## Reading

## Percentages of 4th- and 8th-graders at or above Proficient in reading higher than the nation in 15 states/jurisdictions



In 2013, the percentage of public school students performing at or above Proficient in reading was:


Higher than the nation at both grades 4 and 8
Higher than the nation at grade 4 only
$\square$ Higher than the nation at grade 8 only


Lower than the nation at both grades 4 and 8
$\square$ Lower than the nation at grade 4 only
$\square$ Lower than the nation at grade 8 only

Not significantly different from the nation at either grade
${ }^{1}$ Department of Defense Education Activity (overseas and domestic schools).

# Grade Four Mathematics 

Summaries:
Scale Scores, Achievement Levels, and Percentile Scores

| Wyoming |  |  |  | Average Score |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1992{ }^{\text {a }}$ | 31* | 50* | 18* |  | 225* |
| $1996{ }^{\text {a }}$ | $36^{*}$ | 45 | $17^{*}$ 1* |  | 223* |
| $2000{ }^{\text {a }}$ | $27^{*}$ | 48* | 23* |  | 229* |
| 2000 | 29* | 47 | 23* |  | 229* |
| 2003 | 13* | 48* | 35* | $14^{*}$ | 241* |
| 2005 | 13* | 45 | 37 | $\square 5$ | 243* |
| 2007 | 12 | 44 | 40 | 15* | 244* |
| 2009 | 13* | 47* | 36* | $\square 4^{*}$ | 242* |
| 2011 | ${ }^{12}$ | 44 | 38 | $\square 5$ | $244{ }^{\text {® }}$ |
| 2013 | 10 | 42 | 41 | 7 | 247 |
| Nation (public) |  |  |  |  |  |
| 2013 | 18 | 41 | 34 | 8 | 241 |
| Percent Percent at Basic, Proficient <br> below Basic Advanced <br> or  |  |  |  |  |  |




# Grade Eight Mathematics 

Summaries:
Scale Scores, Achievement Levels, and White/Hispanic Gap

| Wyoming |  | Average Score |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1990{ }^{\text {a }}$ | 36* | 45 | 17* |  | 272* |
| $1992{ }^{\text {a }}$ | $33^{*}$ | 46* | 19* | $2^{*}$ | 275* |
| $1996{ }^{\text {a }}$ | $32^{*}$ | $47^{*}$ | 19* | $12^{*}$ | 275* |
| $2000{ }^{\text {a }}$ | $30^{*}$ | 45 | 21* | $\square 4^{*}$ | 277* |
| 2000 | 31* | 45 | $20^{*}$ | $3{ }^{*}$ | 276* |
| 2003 | $23^{*}$ | 44 | 28* | $14^{*}$ | 284* |
| 2005 | 24* | 47* | 26* | $13^{*}$ | 282* |
| 2007 | 20 | 44 | 29 | 7 | 287 |
| 2009 | 22 | 43 | $28^{\star}$ | 17 | $286{ }^{\text {® }}$ |
| 2011 | 20 | 43 | 30 | 7 | 288 |
| 2013 | 19 | 43 | 31 | 7 | 288 |
| Nation (public) |  |  |  |  |  |
| 2013 | 27 | 39 | 26 | 8 | 284 |
| Percent Percent at Basic, Proficient <br> below Basic <br> or Advanced |  |  |  |  |  |




# Grade Four Reading 

Summaries:

Scale Scores, Achievement Levels, and Percentile Scores

| Wyoming |  |  |  | Averag | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1992{ }^{\text {a }}$ | 29 | 38 | 27 | $5^{*}$ | 223* |
| $1994{ }^{\text {a }}$ | $32^{*}$ | 36 | $26^{*}$ | 16 | 221* |
| $1998{ }^{\text {a }}$ | $35^{*}$ | 35 | 24* | 16 | 219* |
| 1998 | $36^{*}$ | 34 | 23* | 6 | 218* |
| 2002 | 32* | 37 | $26^{*}$ | 16* | 221* |
| 2003 | 31* | 35 | 26* | 7 | 222* |
| 2005 | 29* | 36 | 27 | 7 | 223* |
| 2007 | 27 | 37 | 29 | 8 | 225 |
| 2009 | $2 \delta^{*}$ | 39 | 28 | $15^{*}$ | $223{ }^{\text { }}$ |
| 2011 | $29^{\text {® }}$ | 37 | 28 | 7 | 224 |
| 2013 | 25 | 38 | 30 | 7 | 226 |
| Nation (public) |  |  |  |  |  |
| 2013 | 33 | 33 | 26 | 8 | 221 |
| $\begin{aligned} \text { Percent } & \text { Percent at Basic, Proficient } \\ \text { below Basic } & \text { or Advanced }\end{aligned}$ below Basic or Advanced |  |  |  |  |  |




# Grade Eight Reading 

Summaries:
Scale Scores and Achievement Levels

| Wyoming |  |  | Average Score |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1998{ }^{\text {a }}$ | 24* | 46 | $28^{*}$ | 12 | 262* |
| 1998 | 24* | 45 | 29* | 2 | 263* |
| 2002 | 22* | 47 | 29* | 12 | 265* |
| 2003 | 21* | 45 | 32* | 2 | 267* |
| 2005 | 19* | 45 | 33 | 12 | 268* |
| 2007 | $20^{*}$ | 47 | 31* | 2 | 266* |
| 2009 | 18 | 47 | 33 | 12 | $268{ }^{\text {® }}$ |
| 2011 | $18^{\text {® }}$ | 44 | 35 | -3 | 270 |
| 2013 | 16 | 47 | 35 | 12 | 271 |
| Nation (public) |  |  |  |  |  |
| 2013 | 23 | 42 | 31 | 4 | 266 |
| Percent <br> below Basic Percent at Basic, Proficient <br> or Advanced |  |  |  |  |  |

```
Score
290
280
260
```

270 662*263 ${ }^{265 * 267 * 268 * 266 * 268 ® 270271}$ Wyoming
270 662*263 ${ }^{265 * 267 * 268 * 266 * 268 ® 270271}$ Wyoming

```
2 5 0
240
E.......-Accommodations were not permitted
Accommodations were permitted
```


# State-to-State Comparisons 

Average Scale Scores:
States higher, lower, or even with WY




Not significantly different from Wyoming (12 jurisdictions)


# Regional Comparisons 

Average Scale Scores and
Achievement Levels
(at/above NAEP Basic)

## Average Scale Scores



Legend: Wyoming (blue) is the focal state. States in yellow were not statistically different from Wyoming. States in red scored reliably lower than Wyoming.

## Achievement Levels



- NAEP Basic ©Proficient \& Advanced
\% At/Above NAEP Basic



## Average Scale Scores



Legend: Wyoming (blue) is the focal state. States in yellow were not statistically different from Wyoming. States in red scored reliably lower than Wyoming.

## Achievement Levels


-NAEP Basic
©Proficient \& Advanced
\% At/Above NAEP Basic


## Average Scale Scores




- NAEP Basic
-Proficient \& Advanced


## Achievement Levels

Legend: Wyoming (blue) is the focal state. States in yellow were not statistically different from Wyoming. States in red scored reliably lower than Wyoming.
\% At/Above NAEP Basic

$$
\begin{aligned}
& \underline{\text { WY > }} \\
& \text { ID, MT, } \\
& \text { NE, SD, } \\
& \text { UT, US }
\end{aligned}
$$

## Average Scale Scores




- NAEP Basic
aProficient \& Advanced


## Achievement Levels

Profic ient \& Advanced

Legend: Wyoming (blue) is the focal state. States in yellow were not statistically different from Wyoming. States in red scored reliably lower than Wyoming.
\% At/Above NAEP Basic


# Funding Comparisons 

States with Similar<br>Per Capita Education Expenditures:<br>Achievement Levels<br>(at/above NAEP Basic)

Dollars
State


SOURCE: U.S. Department of Education, National Center for Education Statistics, "National Public Education Financial Survey (NPEFS)," fiscal year 2009, Version 1a.

NOTE: The prekindergarten student membership was imputed for some states, affecting the total student count and per pupil expenditures calculation. Some values were affected by redistribution of reported expenditure values to correct for missing data items, and/or to distribute state direct support expenditures.


## Achievement Levels



DNAEP Basic $\quad$ Proficient \& Advanced
\% At/Above
NAEP Basic



## Achievement Levels



- NAEP Basic ©Proficient \& Advanced

$$
\begin{aligned}
& \frac{\% \mathrm{At} / \mathrm{Above}}{\text { NAEP Basic }}
\end{aligned}
$$




## Achievement Levels



- NAEP Basic
aproficient \& Advanced
\% At/Above NAEP Basic



# Disaggregated Student Group Comparisons 

Average Scale Scores:
Wyoming Students
and Their U.S. Peers

## Wyoming and National Results



* Indicates a statistical difference in average US and WY scores


## Wyoming and National Results



[^0]
## Wyoming and National Results



* Indicates a statistical difference in average US and WY scores


## Wyoming and National Results



* Indicates a statistical difference in average US and WY scores


# Equity Comparisons 

Achievement Levels for
Gender, Race, and School Lunch
Student Groups in Wyoming

## ALL STUDENTS

GENDER Female

Male
ETHNICITY White Hispanic Native Am erican

SCHOOL LUNCH Pgm.
Not Eligible
Eligible
SPECIAL Ed. Not IEP

IEP
ENGLISH LEARNERS. Not ELL

ELL
(60)



ALL STUDENTS
GENDER Female

Male
ETHNICITY White
Hispanic
Native American
SCHOOL LUNCH Pgm. Not Eligible

Eligible
SPECIAL Ed.
Not IEP
IEP
ENGLISH LEARNERS.
Not ELL
ELL
(80)



# State Comparisons: School Lunch Program 

Average Scale Scores Differences for School Lunch Eligible Students and Non-Eligible Students, by State

Free/Reduced Lunch, Student Gaps in Average Scale Scores: NAEP 2013, Grade 4 Mathematics


Bottom of each bar = Avg. score for Free/Reduced Lunch Students

Free/Reduced Lunch, Student Gaps in Average Scale Scores: NAEP 2013, Grade 8 Mathematics


Free/Reduced Lunch, Student Gaps in Average Scale Scores: NAEP 2013, Grade 4 Reading


Free/Reduced Lunch, Student Gaps in Average Scale Scores: NAEP 2013, Grade 8 Reading



[^0]:    * Indicates a statistical difference in average US and WY scores

