

### 2017 Mathematics State Snapshot Report Wyoming • Grade 8 • Public Schools

### **Overall Results**

- In 2017, the average score of eighth-grade students in Wyoming was 289. This was higher than the average score of 282 for public school students in the nation.
- The average score for students in Wyoming in 2017 (289) was not significantly different from their average score in 2015 (287) and was higher than their average score in 2000 (276).
- The percentage of students in Wyoming who performed at or above the NAEP *Proficient* level was 38 percent in 2017. This percentage was not significantly different from that in 2015 (35 percent) and was greater than that in 2000 (23 percent).
- The percentage of students in Wyoming who performed at or above the NAEP *Basic* level was 79 percent in 2017. This percentage was not significantly different from that in 2015 (78 percent) and was greater than that in 2000 (69 percent).

# Compare the Average Score in 2017 to Other States/Jurisdictions



In 2017, the average score in Wyoming (289) was

- lower than those in 5 states/jurisdictions
- higher than those in 36 states/jurisdictions
- not significantly different from those in 11 states/jurisdictions

DoDEA = Department of Defense Education Activity (overseas and domestic schools)

## **Results for Student Groups in 2017**

	Percentage of	Avg.	Perce	entage at above	Percentage at
Reporting Groups	students	score	Basic	Proficient	Advanced
Race/Ethnicity					
White	78	292	82	42	11
Black	1	‡	‡	‡	‡
Hispanic	14	275	67	23	3
Asian	1	‡	‡	‡	‡
American Indian/Alaska	Native 3	268	55	18	4
Native Hawaiian/Pacific	Islander #	‡	‡	‡	‡
Two or more races	2	‡	‡	‡	‡
Gender					
Male	51	289	78	39	10
Female	49	289	80	38	8
National School Lunch Pr	ogram				
Eligible	37	276	68	24	3
Not eligible	62	296	86	47	13
# Rounds to zero.					

‡ Reporting standards not met.

NOTE: Detail may not sum to totals because of rounding, and because the "Information not available" category for the National School Lunch Program, which provides

free/reduced-price lunches, is not displayed. Black includes African American and Hispanic includes Latino. Race categories exclude Hispanic origin.



# Achievement-Level Percentages and Average Score Results



\* Significantly different ( $\rho$  < .05) from state's results in 2017. Significance tests were performed using unrounded numbers.

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

# Average Scores for State/Jurisdiction and Nation (public)



 $\ast$  Significantly different (p < .05) from 2017. Significance tests were performed using unrounded numbers.

# White - Hispanic Score Gap



\* Significantly different (p < .05) from 2017. Significance tests were performed using unrounded numbers.

NOTE: The NAEP mathematics scale ranges from 0 to 500. Statistical comparisons are calculated on the basis of unrounded scale scores or percentages. Read more about how to interpret NAEP results from the mathematics assessment at <a href="https://nces.ed.gov/nationsreportcard/mathematics/interpret\_results.aspx">https://nces.ed.gov/nationsreportcard/mathematics/interpret\_results.aspx</a>. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000-2017 Mathematics Assessments.



### Grade 8 Report

### **National Snapshot**

The National Assessment of Educational Progress (NAEP) uses both multiple choice and constructed-response test items to assess fourth graders' mathematical skills in five categories: number properties & operations, measurement, geometry, data analysis & probability, and algebra. Scale scores range from 0 to 500, wherein a 262 score denotes NAEP's *Basic* achievement benchmark (i.e., approximately a "grade level" performance); 299 reflects *Proficient* results or competency on challenging material, and 333 is considered to be *Advanced*.

Wyoming and the Nation — Grade 8 Mathematics Scale Scores



- On the 2017 mathematics assessment, Wyoming 8th graders had an average scale score that was reliably higher than in Alabama, Alaska, Arizona, Arkansas, California, Connecticut, District of Columbia, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Mississippi, Missouri, Montana, Nevada, New Mexico, New York, North Carolina, Oklahoma, Oregon, Puerto Rico, Rhode Island, South Carolina, South Dakota, Tennessee, Texas and West Virginia.
- Wyoming 8th graders had an average scale score that was not statistically different from students in Colorado, Indiana, Nebraska, North Dakota, Ohio, Pennsylvania, Utah, Vermont, Virginia, Washington and Wisconsin.
- ► Wyoming 4th graders had an average scale score which was reliably lower than students in Department of Defense Schools, Massachusetts, Minnesota, New Hampshire and New Jersey.



### Grade 8 Report

### **Regional Snapshot**

The National Assessment of Educational Progress (NAEP) uses both multiple choice and constructed-response test items to assess fourth graders' mathematical skills in five categories: number properties & operations, measurement, geometry, data analysis & probability, and algebra. Scale scores range from 0 to 500, wherein a 262 score denotes NAEP's *Basic* achievement benchmark (i.e., approximately a "grade level" performance); 299 reflects *Proficient* results or competency on challenging material, and 333 is considered to be *Advanced*.



#### Average Scale Scores

- In 2017, the average mathematics scale score for 8th grade students in Wyoming was 289; this was reliably higher than the national average (282).
- ► Wyoming 8th graders had a higher average mathematics scale score in 2017 than their peers in Idaho, Montana and South Dakota.
- Wyoming eighth graders had an average mathematics scale score in 2017 that was not statistically different from Colorado, Nebraska, or Utah.

Legend: Wyoming is the focal state. States in beige were not statistically different from Wyoming. State in dark blue scored reliably lower than Wyoming.

#### Achievement Levels

- Seventy-nine (79) percent of Wyoming's 8th graders scored at or above *Basic* on the 2017 mathematics assessment. This was higher than the nation's 69%
- Wyoming had a higher percentage of 8th graders scoring at or above *Basic* on the 2017 mathematics assessment than Colorado, Idaho and Utah.
- The percentage of Wyoming's 8th graders scoring at or above *Basic* on mathematics in 2017 was not reliably different from Montana, Nebraska or South Dakota.



Results are based on statistical tests which take into account the variability of NAEP sampling. For additional results and more information about Wyoming NAEP, please visit: http://edu.wyoming.gov/educators/assessment/naep.



### Grade 8 Report

### **Regional Snapshot**

The National Assessment of Educational Progress (NAEP) uses both multiple choice and constructed-response test items to assess fourth graders' mathematical skills in five categories: number properties & operations, measurement, geometry, data analysis & probability, and algebra. Scale scores range from 0 to 500, wherein a 262 score denotes NAEP's *Basic* achievement benchmark (i.e., approximately a "grade level" performance); 299 reflects *Proficient* results or competency on challenging material, and 333 is considered to be *Advanced*.

Per Capita Student Expenditures During 2014-2015



### Wyoming was one of nine jurisdictions spending over \$15,000 per student during the 2014-2015 school year. Jurisdictions also at this spending level: Alaska, Connecticut, DC, Massachusetts, New Jersey, New York, Rhode Island, and Vermont.

NOTE: Current expenditures include instruction, instruction-related, support services, and other elementary/secondary expenditures, but exclude expenditures on capital outlay, other programs, and interest on long term debt. Interschool transactions are excluded to prevent double-counting.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey (NPEFS)," fiscal year 2015, Provisional Version 1a.

#### Achievement Levels

- Seventy-nine (79) percent of Wyoming 8th graders scored at or above *Basic* on the 2017 mathematics assessment. This was higher than the nation's 69 percent.
- Wyoming had a higher percentage of 8th graders scoring at or above *Basic* on the 2017 mathematics assessment than Alaska, Connecticut, District of Columbia, New York, New Jersey, Rhode Island and Vermont i.e., states with similar per student expenditures.
- The percentage of Wyoming eighth grade students performing at or above *Basic* on the 2017 assessment was not reliably different from Massachusetts.



Results are based on statistical tests which take into account the variability of NAEP sampling. For additional results and more information about Wyoming NAEP, please visit:

http://edu.wyoming.gov/educators/assessment/naep.



### Grade 8 Report

### WY-US Student Gaps Snapshot

The National Assessment of Educational Progress (NAEP) uses both multiple choice and constructed-response test items to assess fourth graders' mathematical skills in five categories: number properties & operations, measurement, geometry, data analysis & probability, and algebra. Scale scores range from 0 to 500, wherein a 262 score denotes NAEP's *Basic* achievement benchmark (i.e., approximately a "grade level" performance); 299 reflects *Proficient* results or competency on challenging material, and 333 is considered to be *Advanced*.

### Student Group Comparisons



### Wyoming and National Results

In 2017, Wyoming eighth graders' average scale score in mathematics was higher than students nationally;

Wyoming also had higher results students in eight student groups: both male and female students, Hispanic students, students from low income families (i.e., students qualifying for free or reduced price meals from the National School Lunch Program), Special Education students, and students in city, town and rural schools (as defined by the US Census Bureau).

Wyoming White eighth graders, Native American students and Non-eligible students (i.e., students not qualifying for free or reduced price meals from the National School Lunch Program had average scale scores in mathematics that were not reliably different from their peers nationally.



## Grade 8 Report

### Student Groups Snapshot

The National Assessment of Educational Progress (NAEP) uses both multiple choice and constructed-response test items to assess fourth graders' mathematical skills in five categories: number properties & operations, measurement, geometry, data analysis & probability, and algebra. Scale scores range from 0 to 500, wherein a 262 score denotes NAEP's *Basic* achievement benchmark (i.e., approximately a "grade level" performance); 299 reflects *Proficient* results or competency on challenging material, and 333 is considered to be *Advanced*.



- On the NAEP 2017 mathematics assessment, the proportion of eighth grade female students in Wyoming scoring at or above *Basic* (80 percent) was <u>not</u> reliably different than male students (78 percent).
- The proportion of eighth grade Hispanic (67 percent) and Native American (55 percent) students in Wyoming scoring at or above Basic was lower than their White peers (82 percent). Sampling was not sufficient to permit reporting of mathematics performance for eighth grade Asian and Black students.
- Wyoming eighth graders qualifying for free or reduced price meals in the School Lunch Program and scoring at or above *Basic* (68 percent) was lower than students not eligible for the program (86 percent).
- Special education students scoring at or above *Basi*c (35 percent) was lower than general education students (85 percent).
- Sampling was not sufficient to permit reporting of reading performance for grade eight English Language Learners in Wyoming.