





# 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

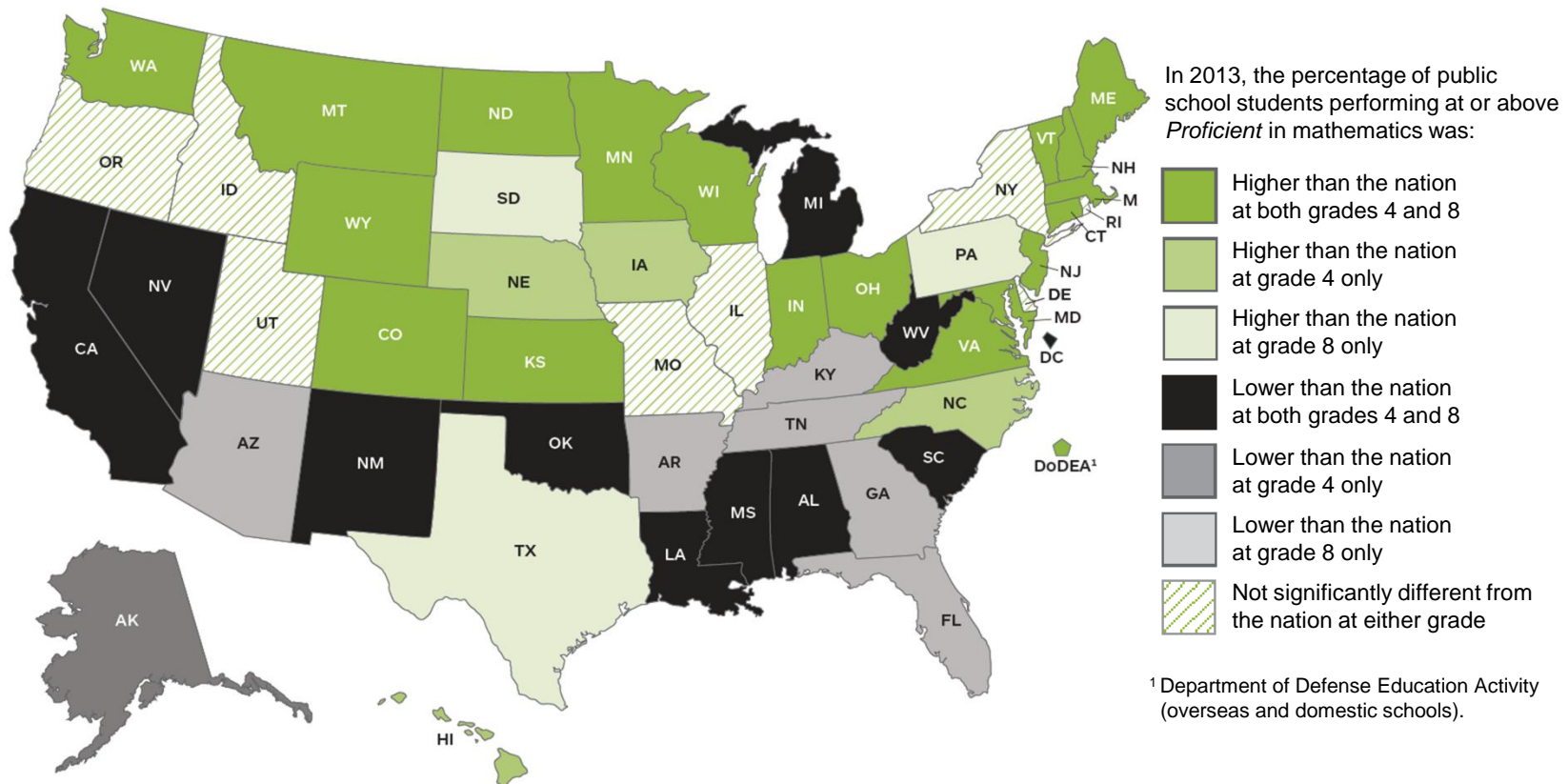
- Increases since 2011 NAEP?

MATHEMATICS	
Gr. 4	
Gr. 8	
READING	
Gr. 4	
Gr. 8	

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

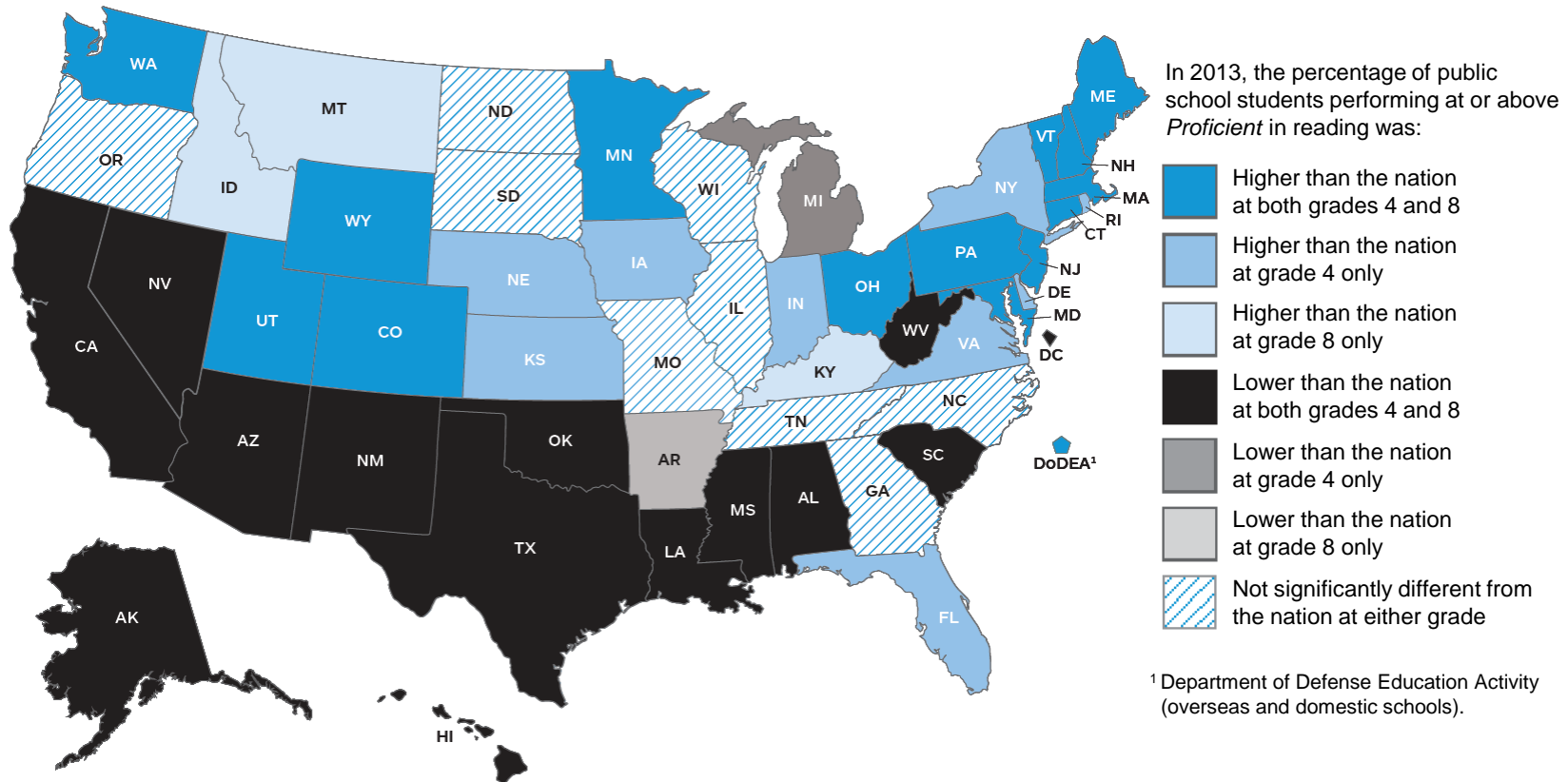
# Mathematics

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



# Reading

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



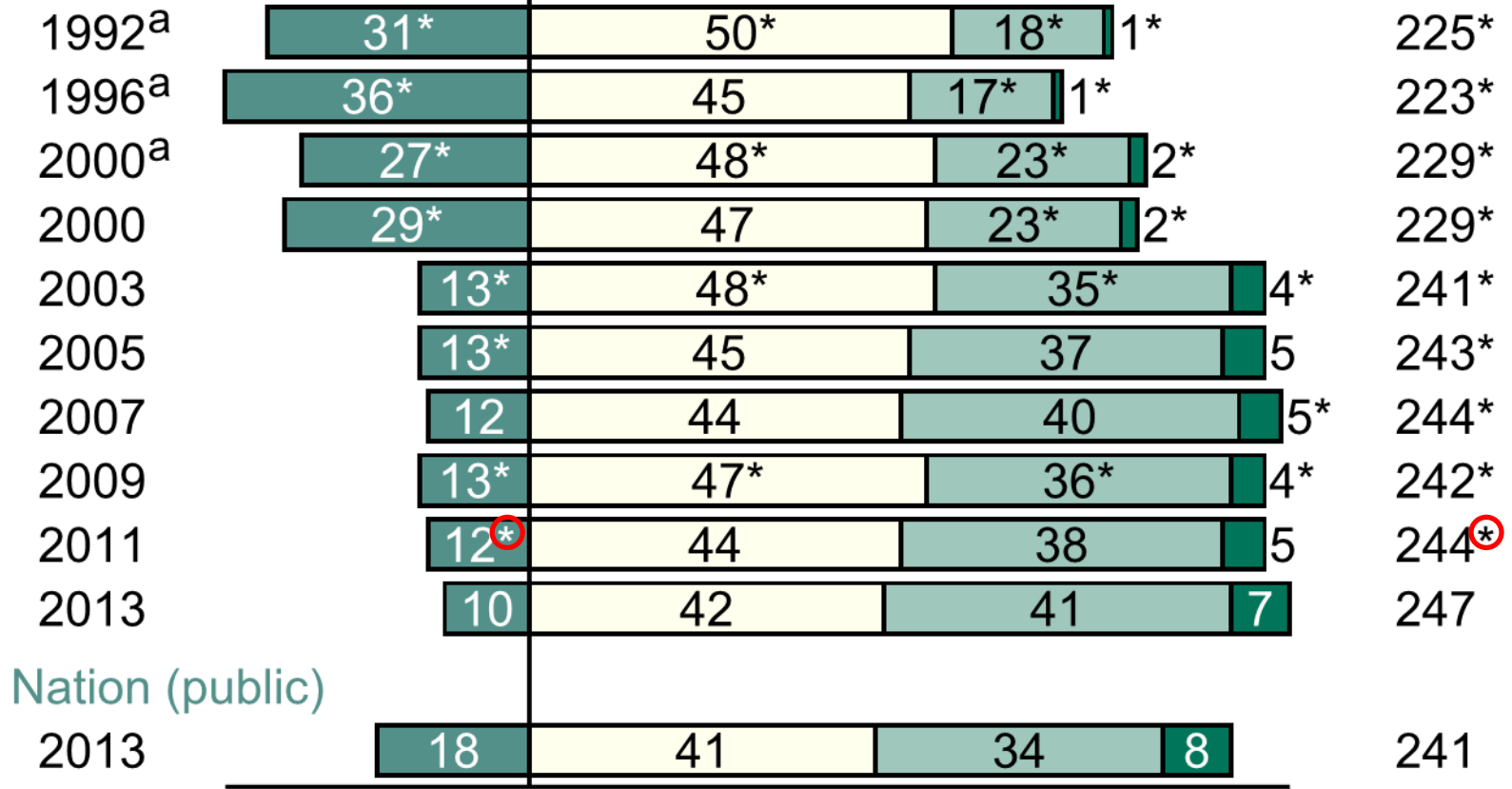
# **Grade Four Mathematics**

Summaries:

Scale Scores, Achievement Levels,  
and Percentile Scores

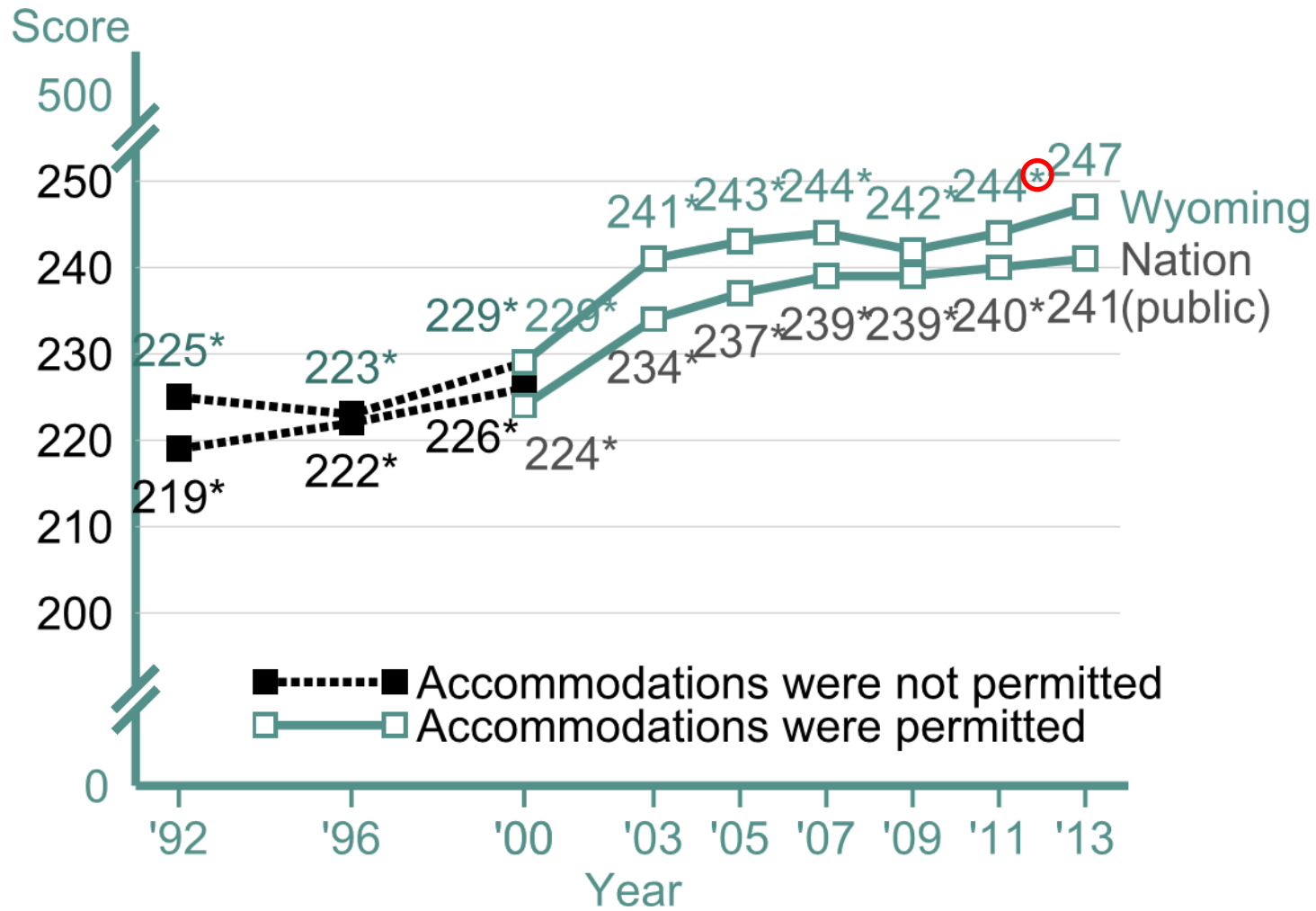
## Wyoming

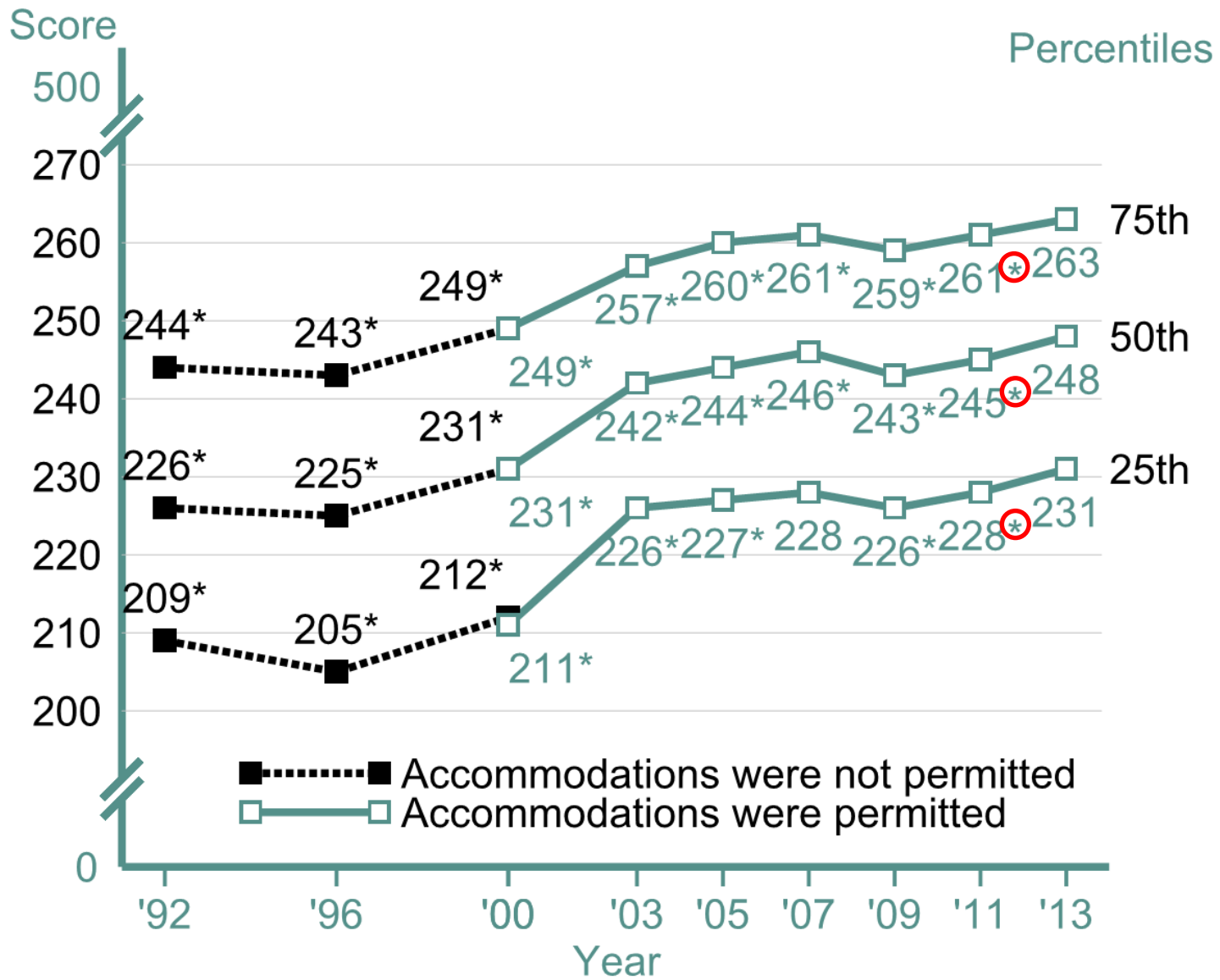
## Average Score



Percent below *Basic*      Percent at *Basic, Proficient*  
or *Advanced*

Below *Basic*   
  *Basic*   
  *Proficient*   
  *Advanced*







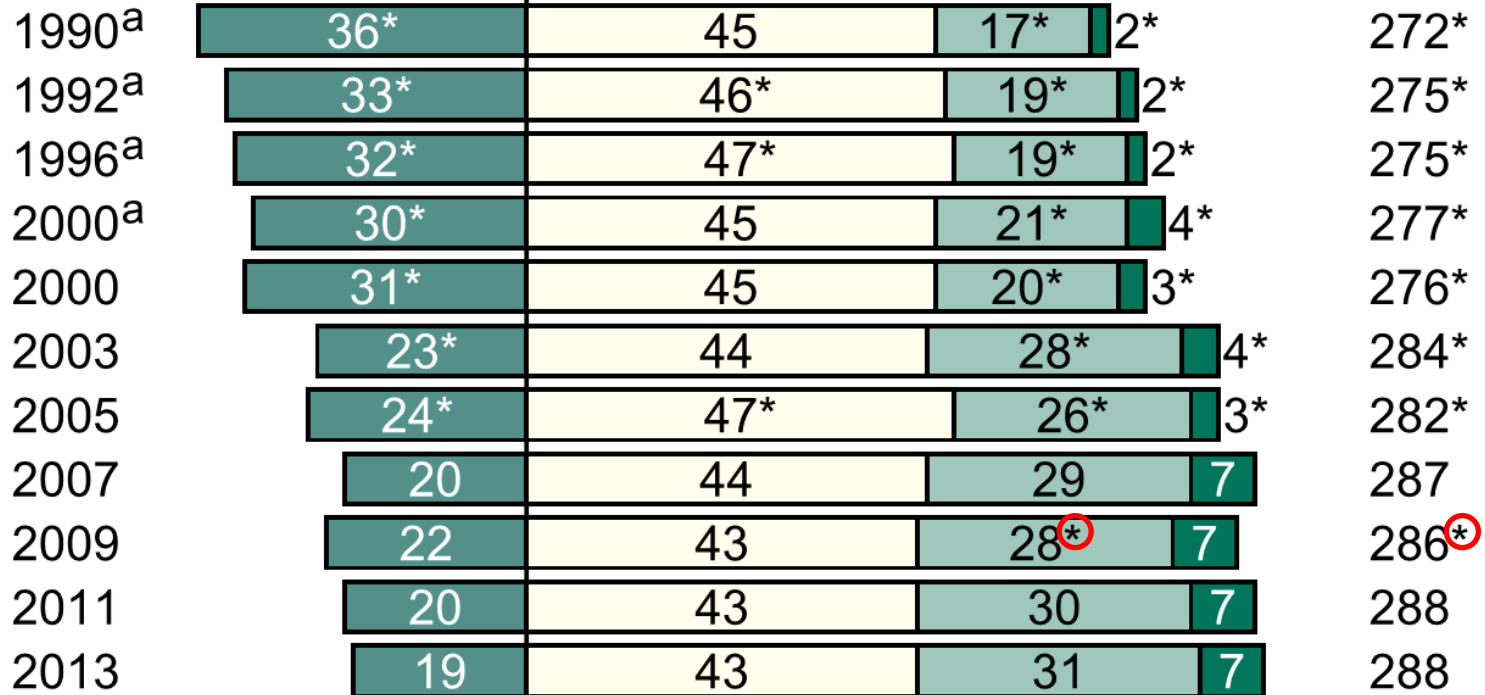
# **Grade Eight Mathematics**

Summaries:

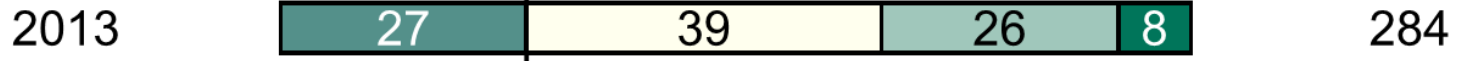
Scale Scores, Achievement Levels,  
and White/Hispanic Gap

Wyoming

Average Score

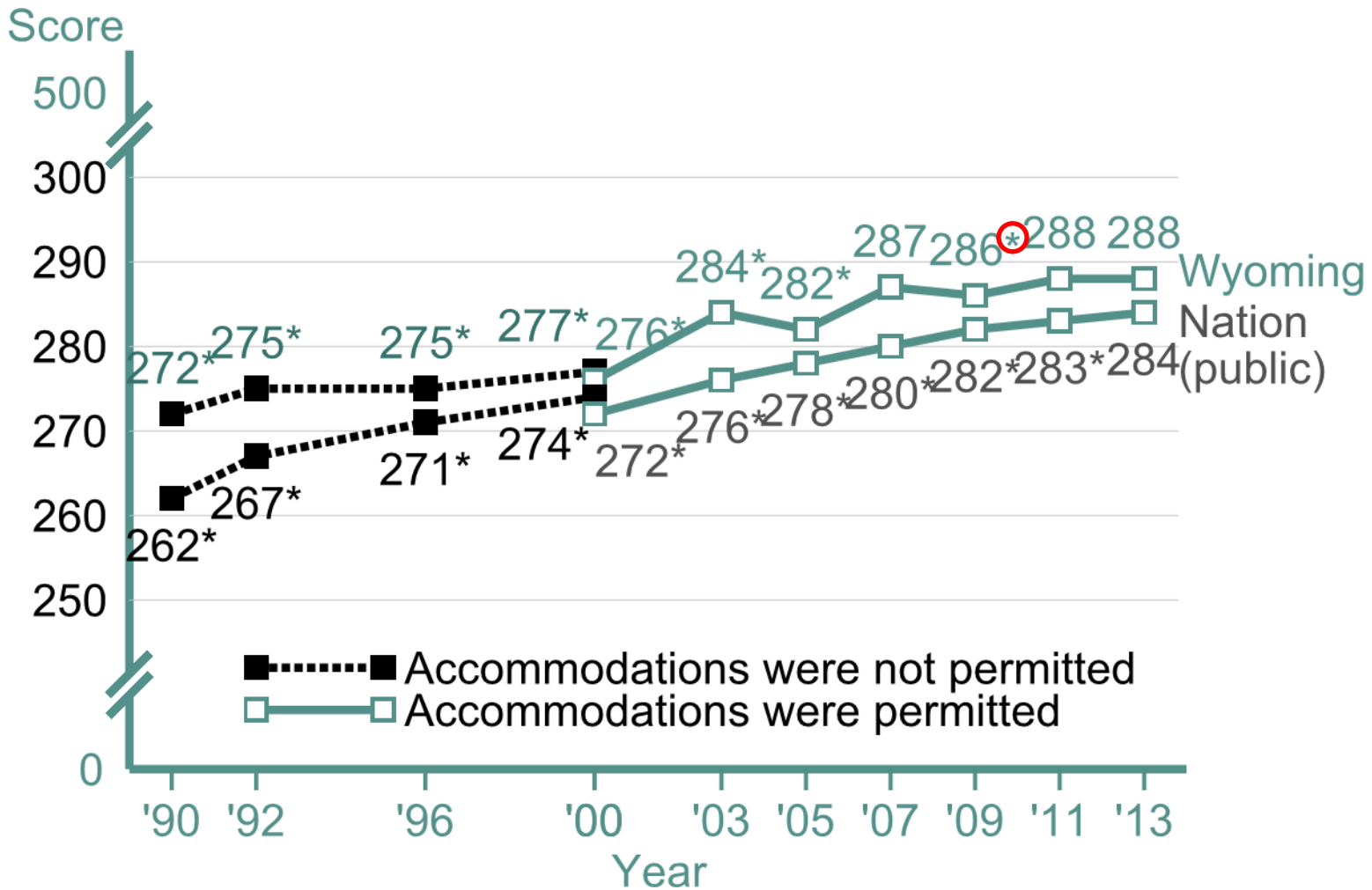


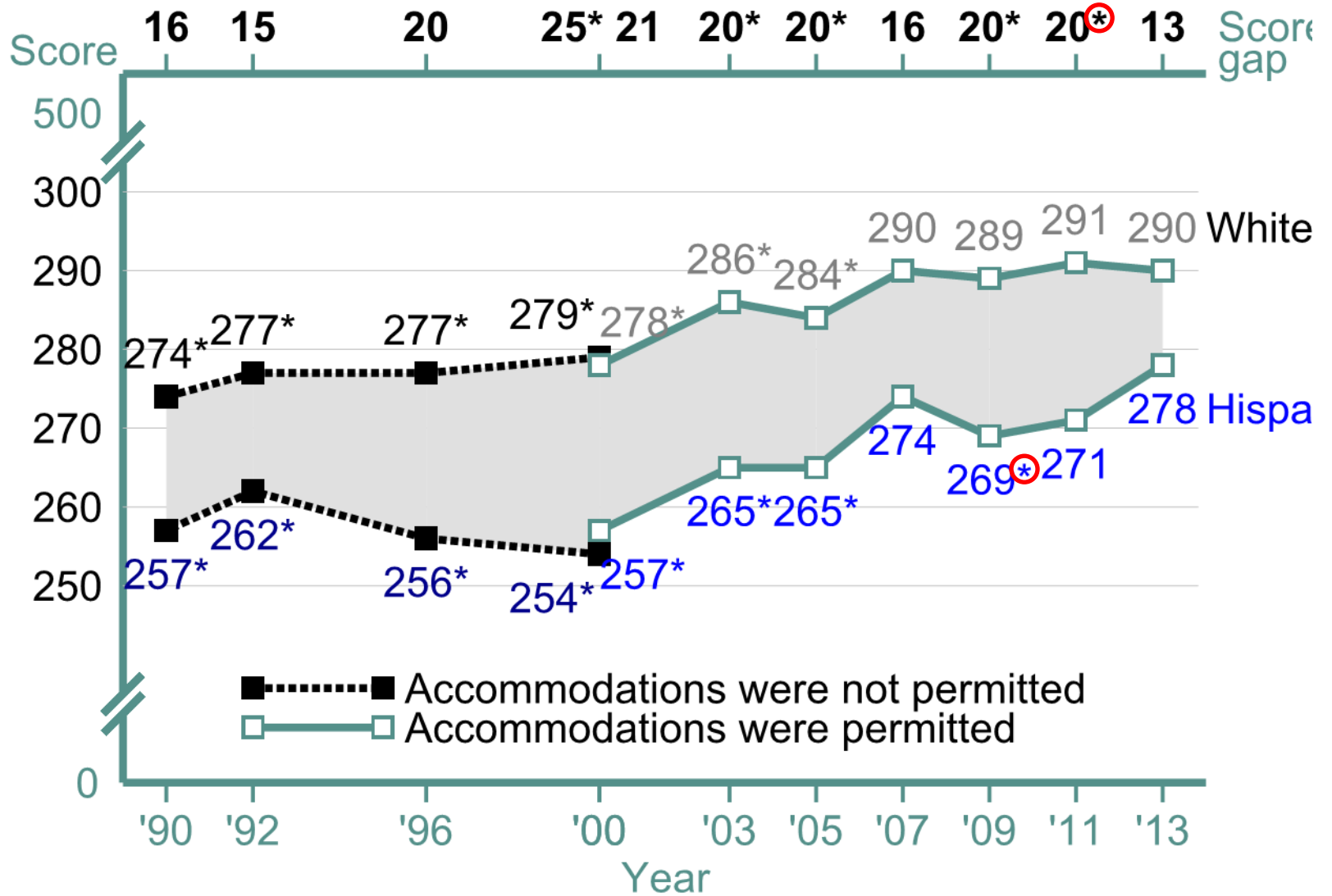
Nation (public)



Percent below *Basic*    Percent at *Basic, Proficient* or *Advanced*







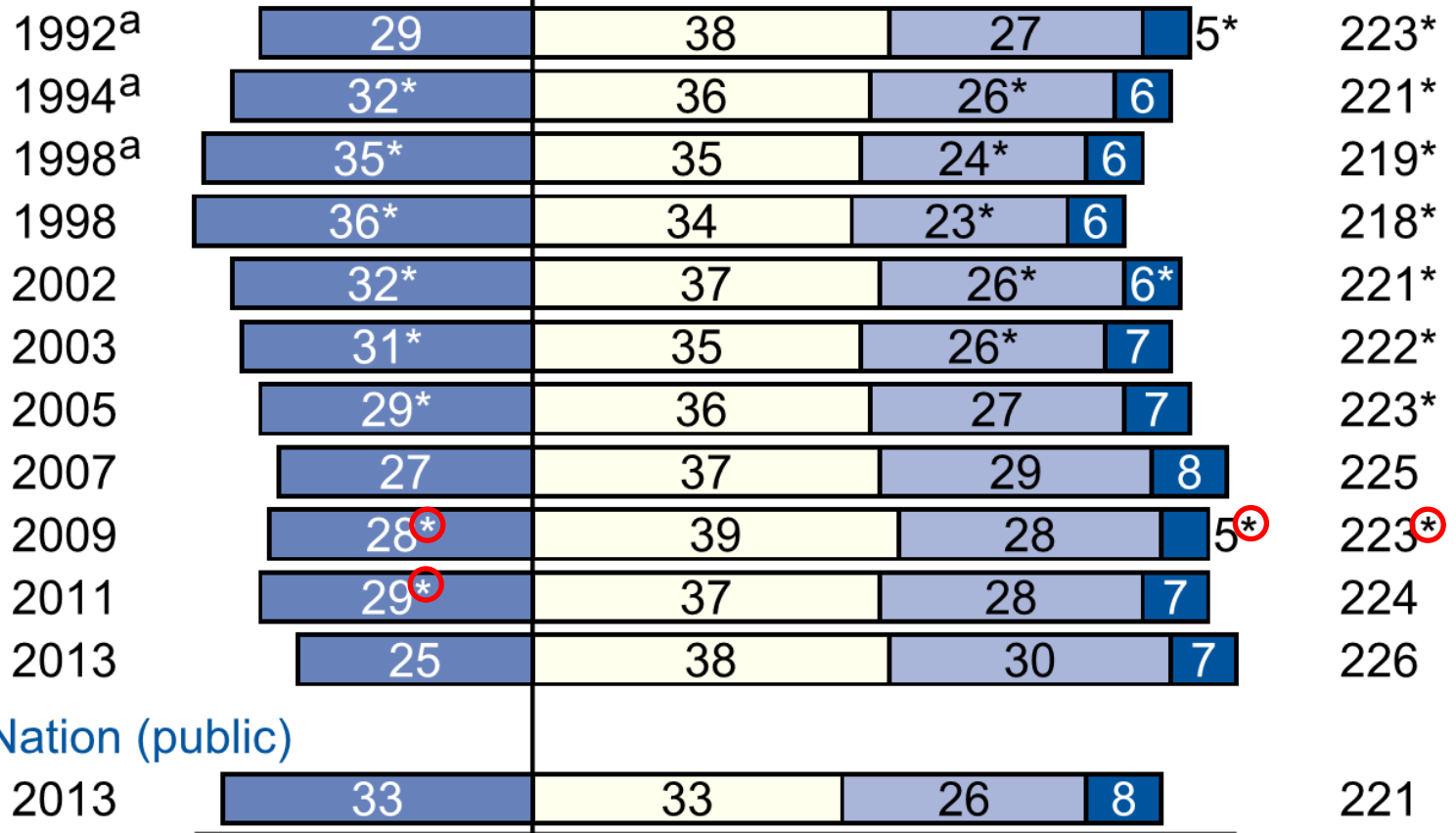
# **Grade Four Reading**

Summaries:

Scale Scores, Achievement Levels,  
and Percentile Scores

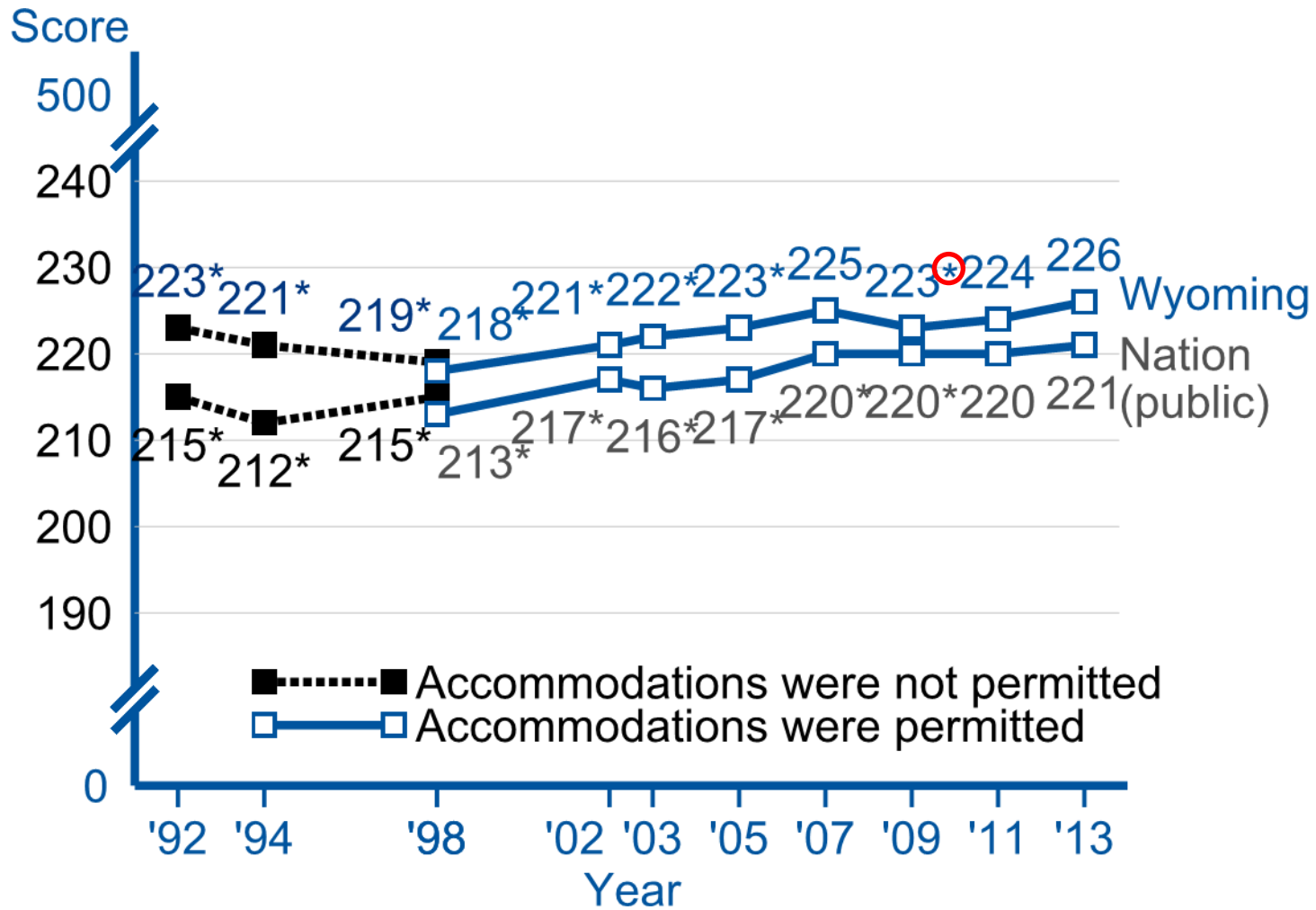
## Wyoming

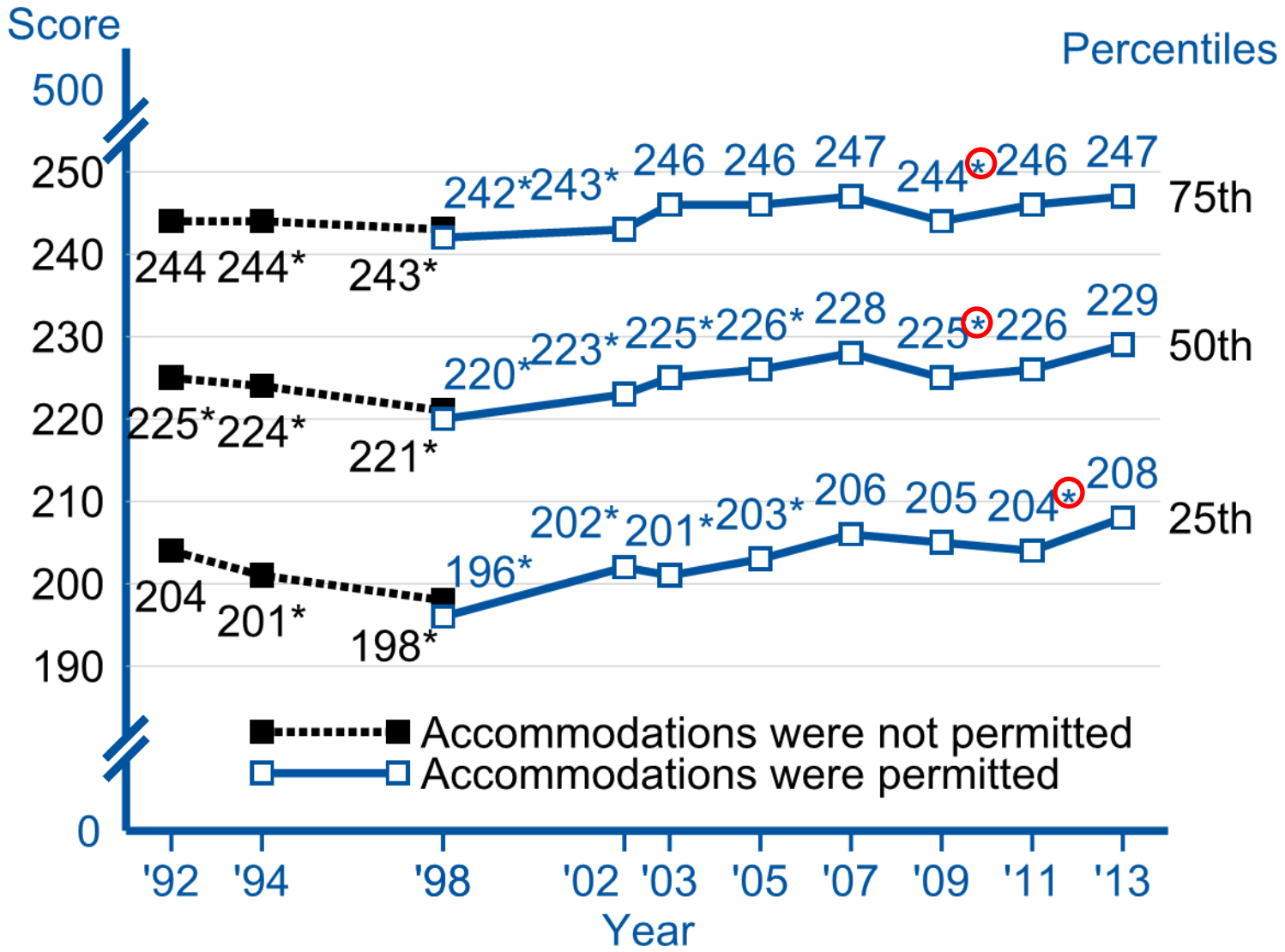
## Average Score



Percent below *Basic*      Percent at *Basic, Proficient*  
or *Advanced*

Below *Basic*  
  *Basic*  
  *Proficient*  
  *Advanced*







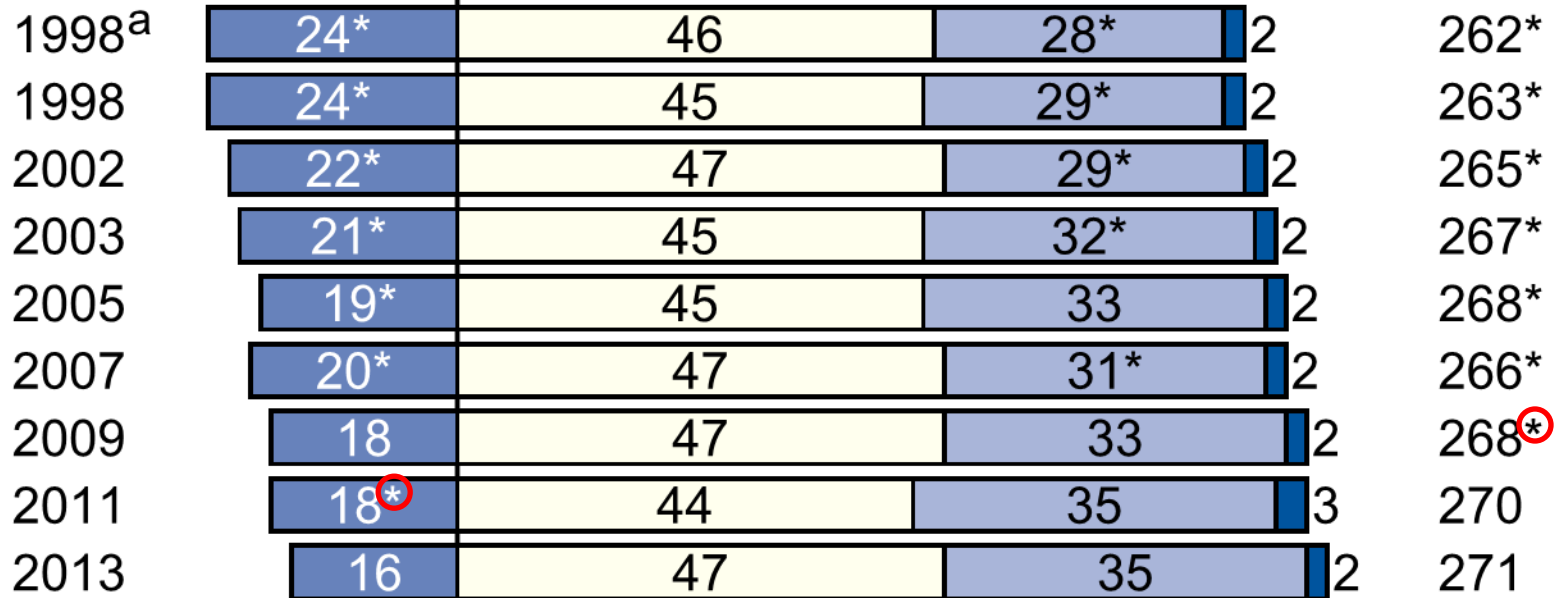
# **Grade Eight Reading**

Summaries:

Scale Scores and Achievement Levels

## Wyoming

## Average Score

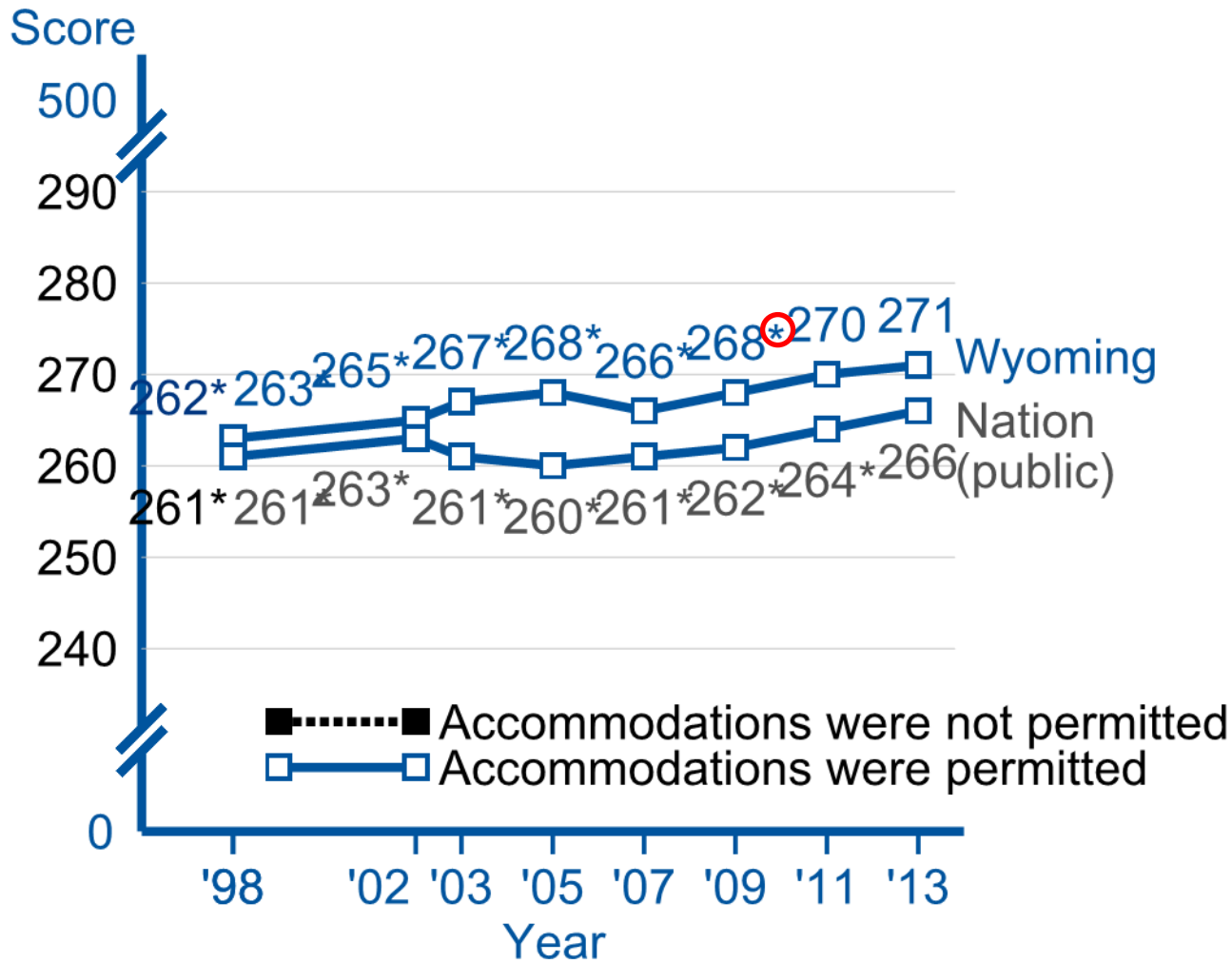


## Nation (public)



Percent below *Basic*    Percent at *Basic, Proficient* or *Advanced*

Below *Basic*   
  *Basic*   
  *Proficient*   
  *Advanced*



# **State-to-State Comparisons**

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

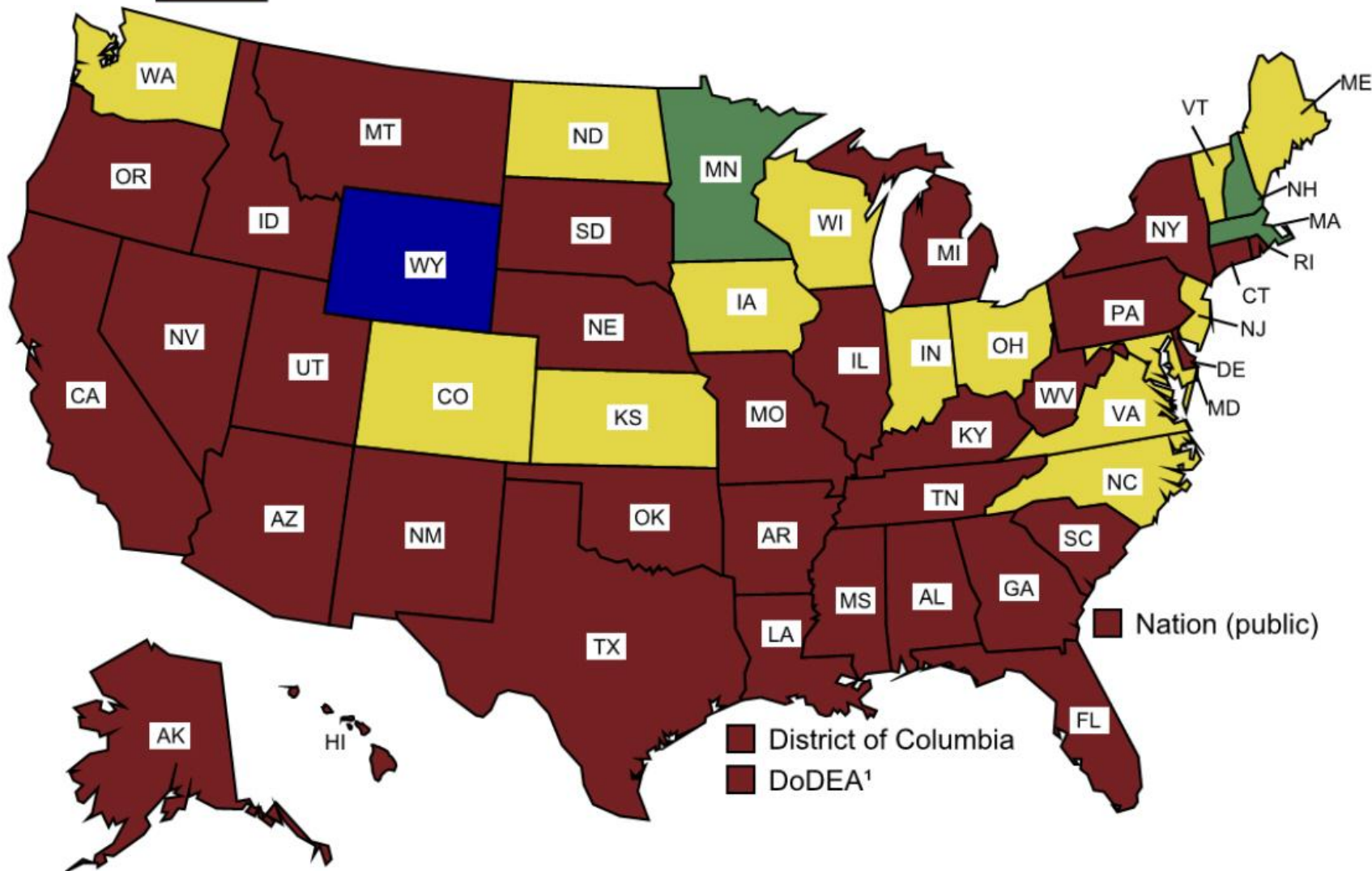


Focal state/jurisdiction (Wyoming)

Higher average scale score than Wyoming (3 jurisdictions)

Not significantly different from Wyoming (14 jurisdictions)





Lower average scale score than Wyoming (nation and 34 jurisdictions)

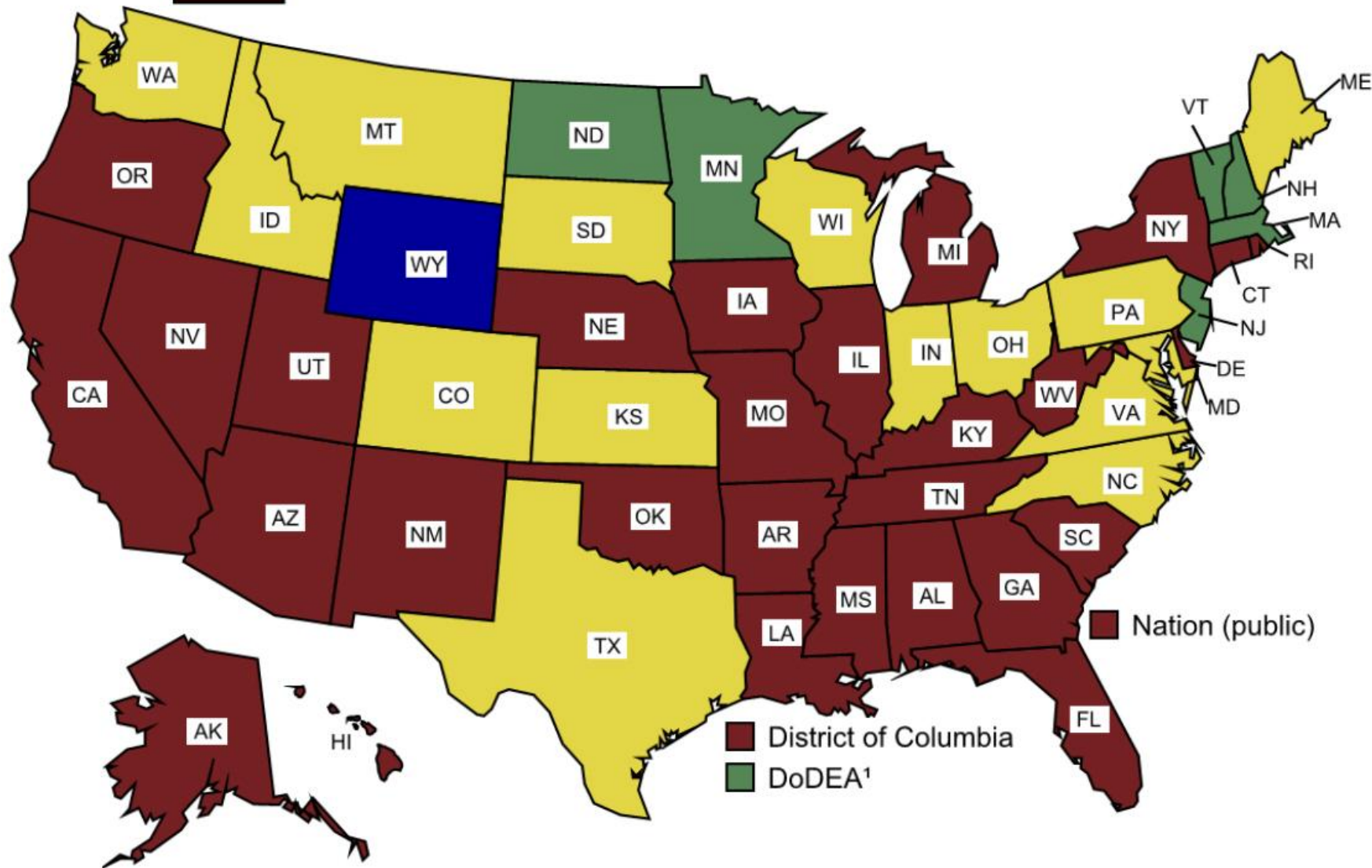


■ Nation (public)

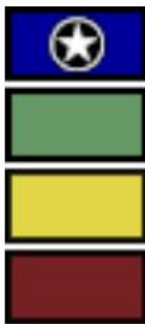
■ District of Columbia

■ DoDEA<sup>1</sup>

-  Focal state/jurisdiction (Wyoming)
-  Higher average scale score than Wyoming (7 jurisdictions)
-  Not significantly different from Wyoming (15 jurisdictions)
-  Lower average scale score than Wyoming (nation and 29 jurisdictions)





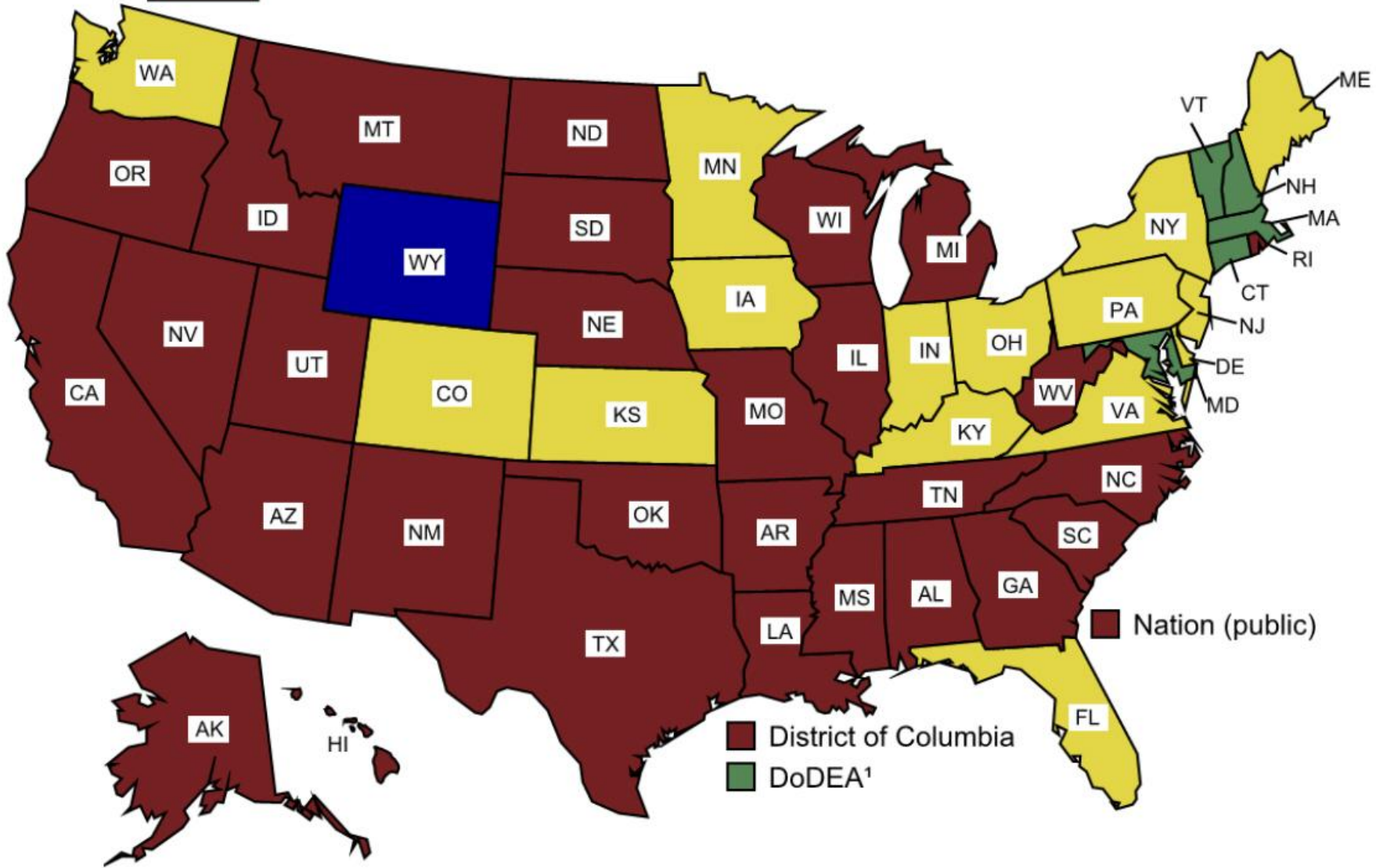


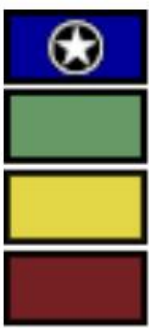
Focal state/jurisdiction (Wyoming)

Higher average scale score than Wyoming (6 jurisdictions)

Not significantly different from Wyoming (15 jurisdictions)

Lower average scale score than Wyoming (nation and 30 jurisdictions)



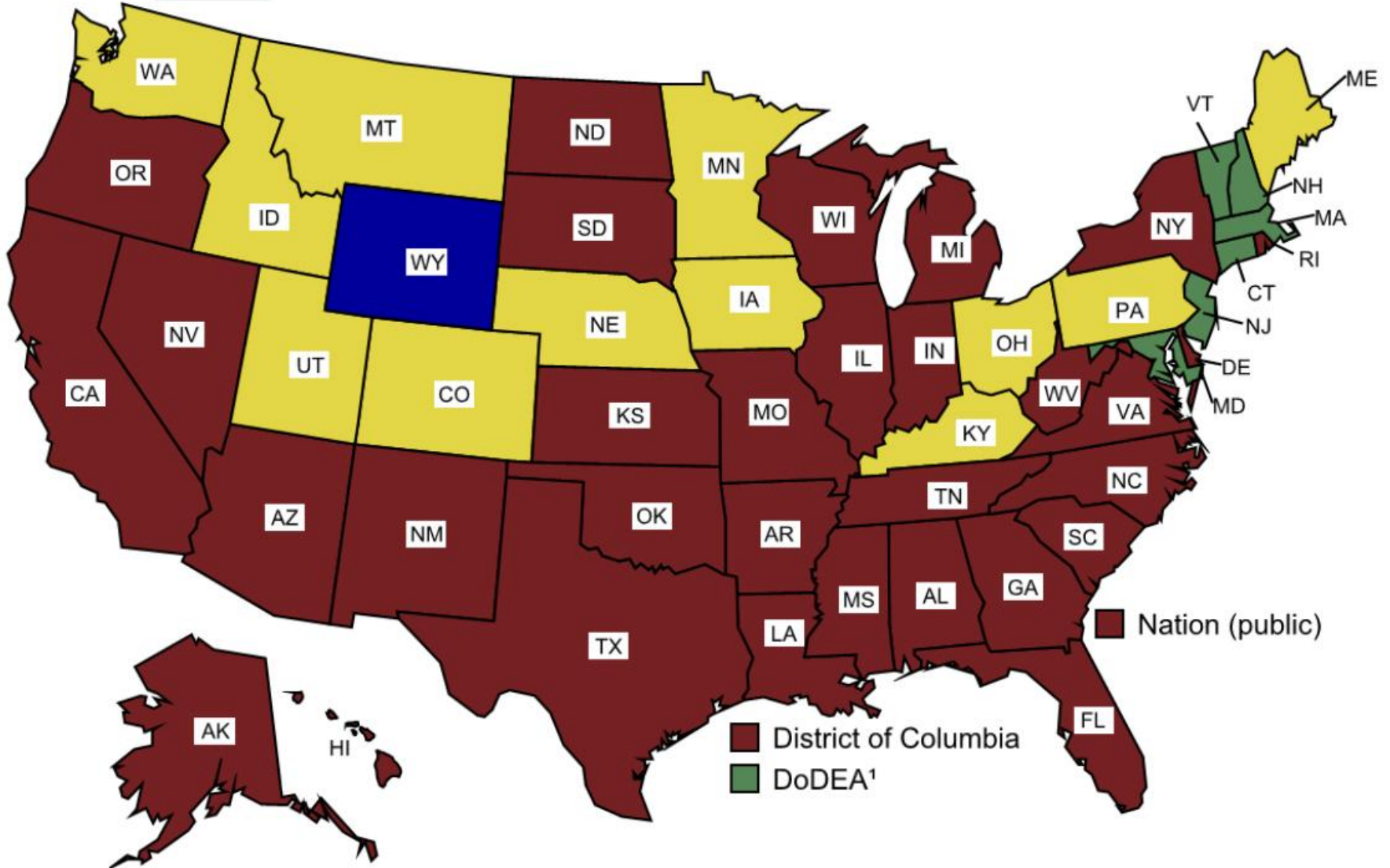


Focal state/jurisdiction (Wyoming)

Higher average scale score than Wyoming (7 jurisdictions)

Not significantly different from Wyoming (12 jurisdictions)

Lower average scale score than Wyoming (nation and 32 jurisdictions)

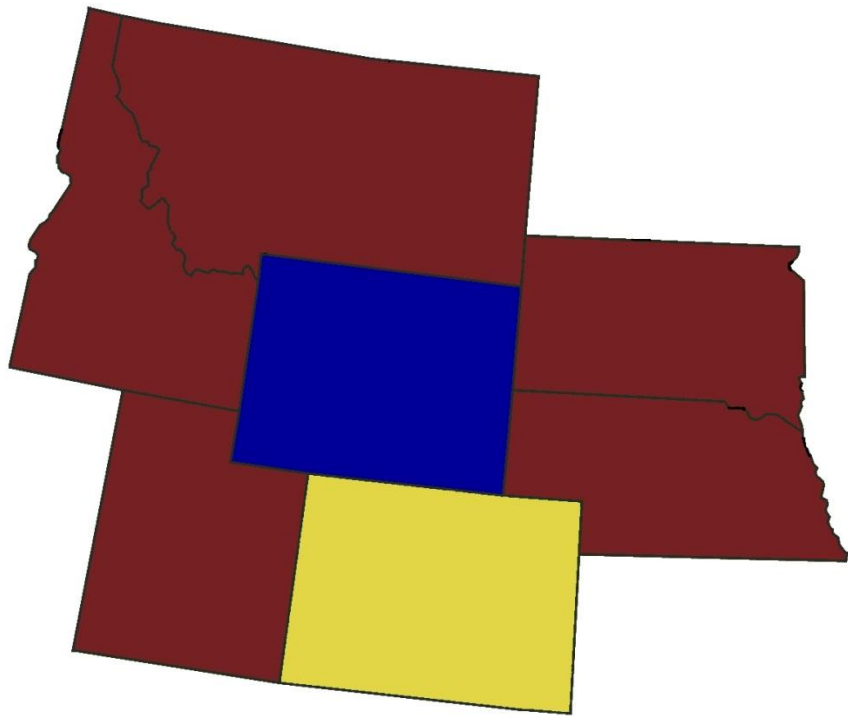




# **Regional Comparisons**

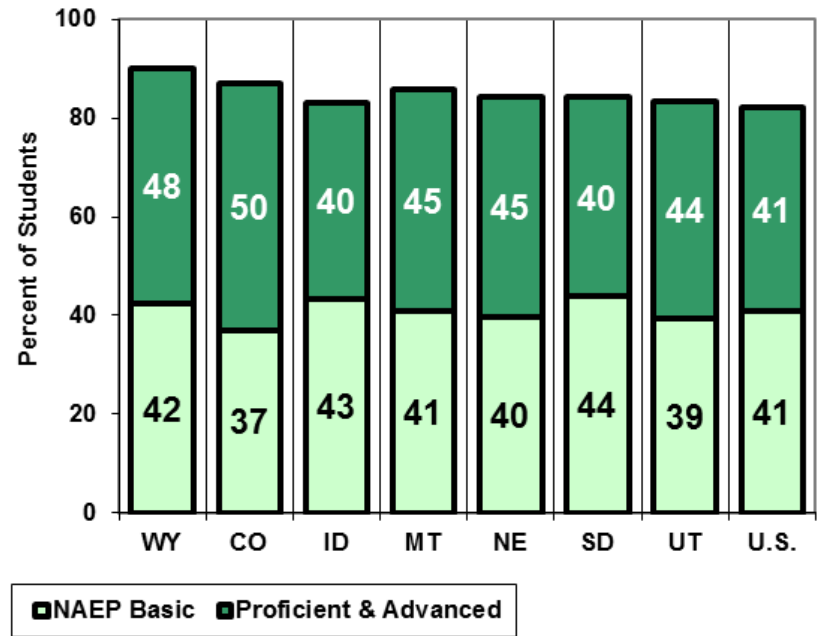
Average Scale Scores and  
Achievement Levels  
(at/above NAEP *Basic*)

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.

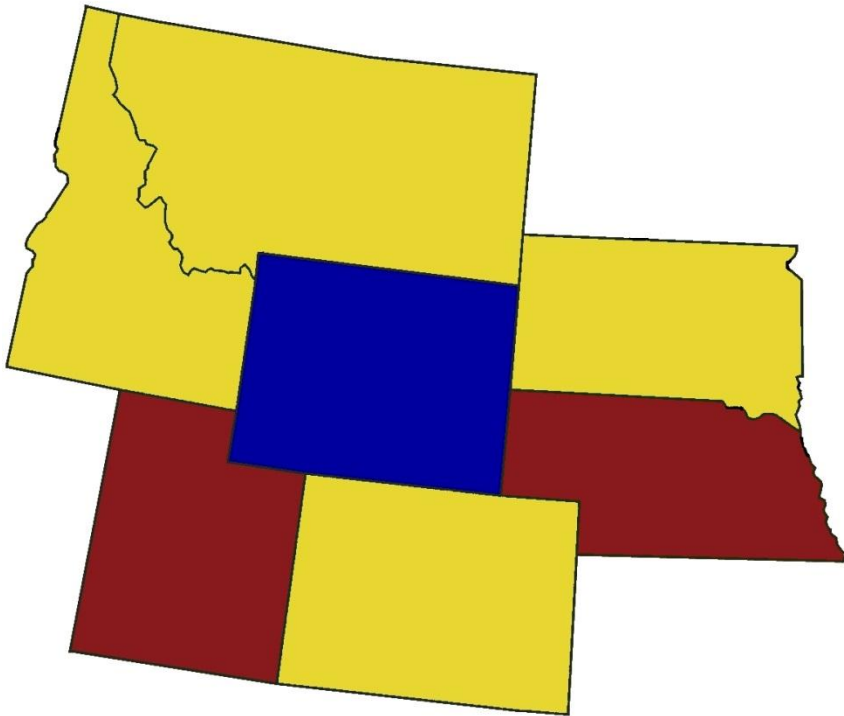
Achievement Levels



<p><u>WY &gt;</u> ID, MT, NE, SD, UT, US</p>	<p><u>WY =</u> CO</p>
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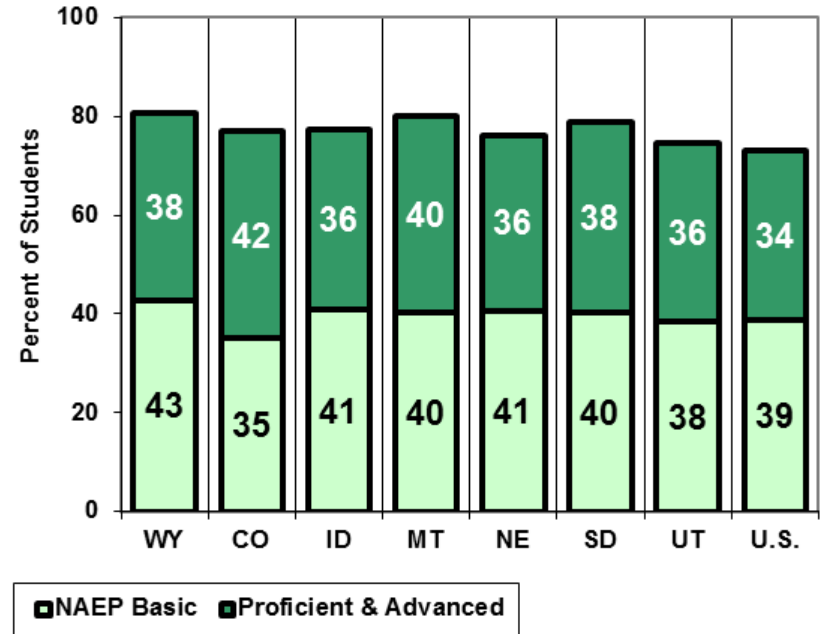
% At/Above  
NAEP Basic

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.

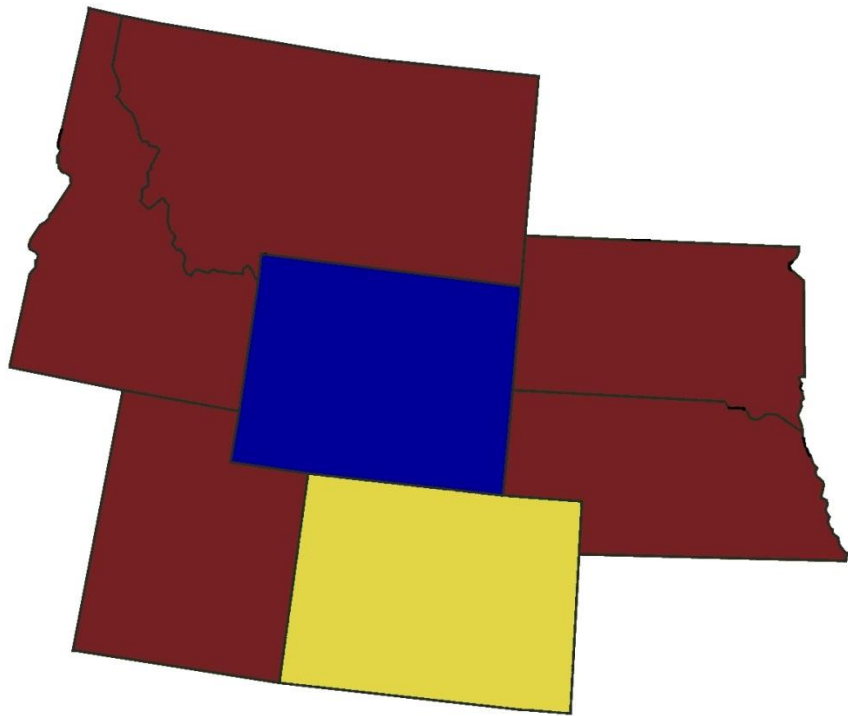
Achievement Levels



% At/Above  
NAEP Basic

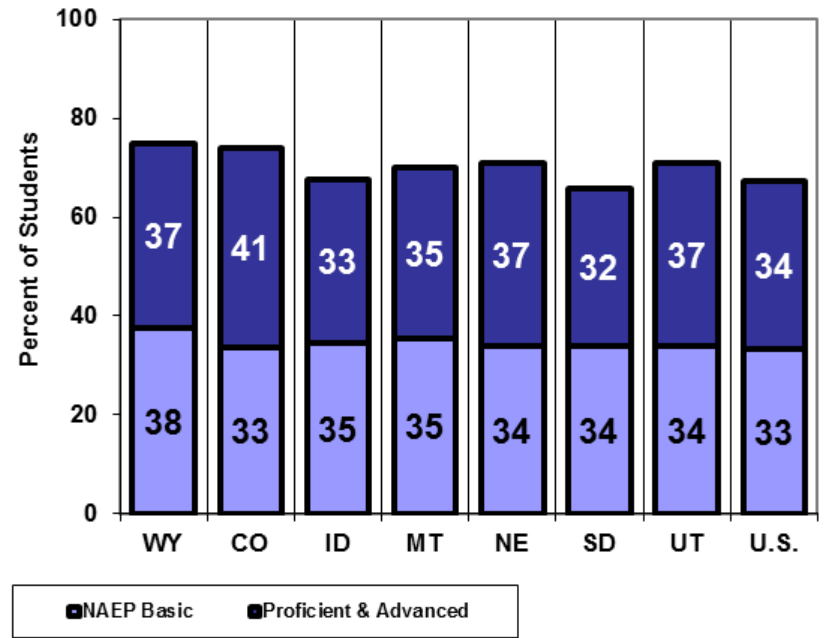
<p><u>WY &gt;</u> NE, UT, US</p>	<p><u>WY =</u> CO, ID, MT, SD</p>
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Average Scale Scores



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

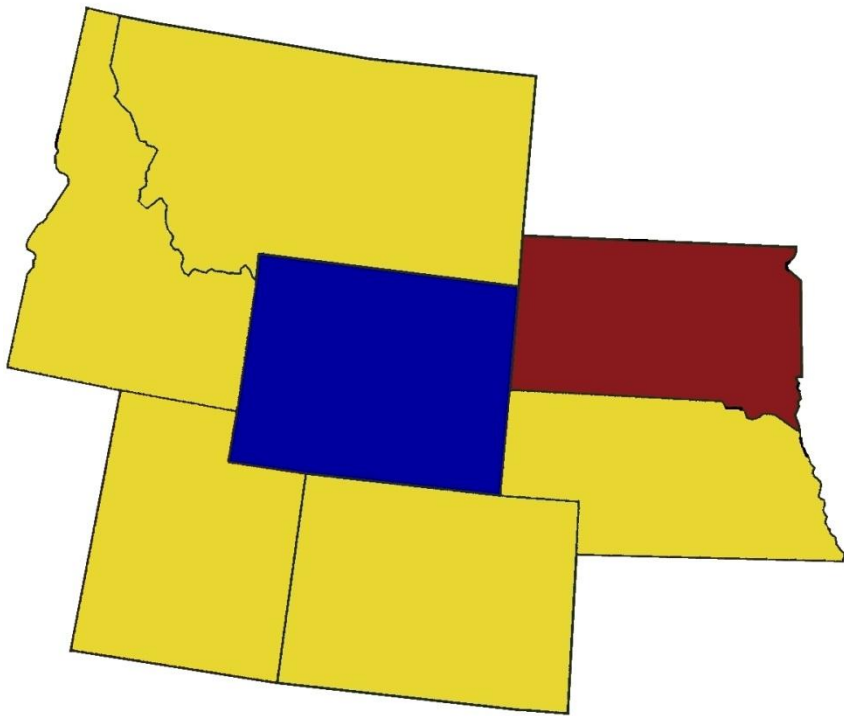
Achievement Levels



% At/Above  
NAEP Basic

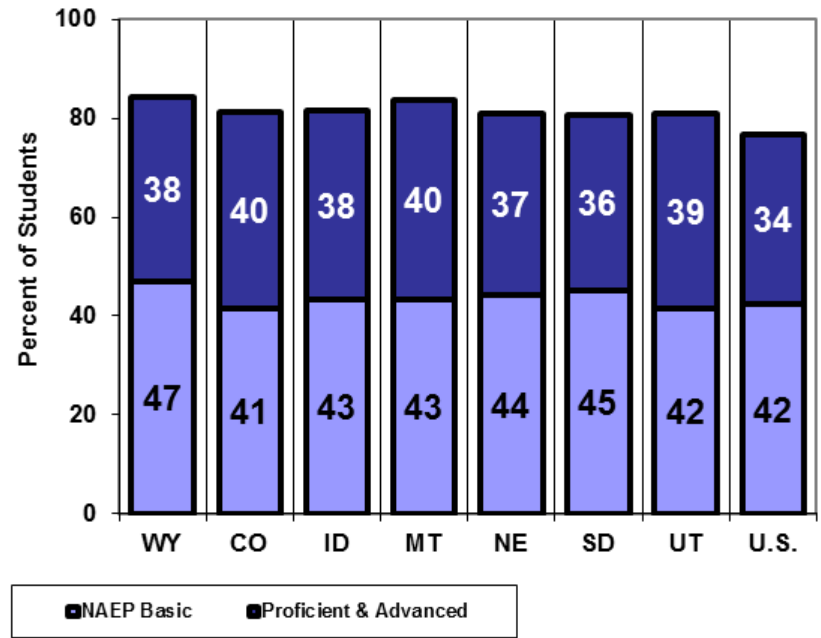
<p><u>WY &gt;</u> ID, MT, NE, SD, UT, US</p>	<p><u>WY =</u> CO</p>
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Average Scale Scores



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

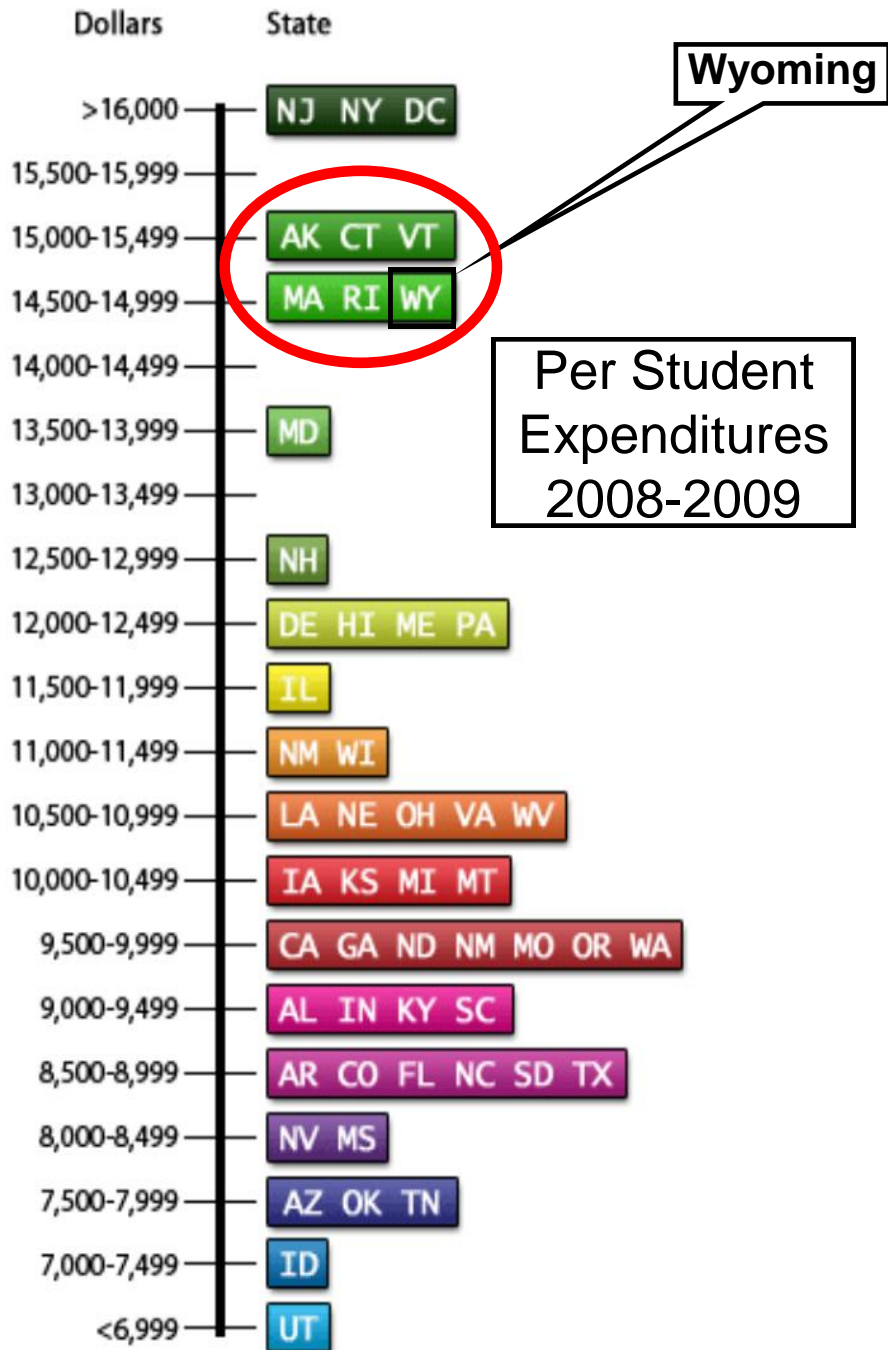


% At/Above  
NAEP Basic

<u>WY &gt;</u> ID, NE, SD, US	<u>WY =</u> CO, MT, UT,
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# **Funding Comparisons**

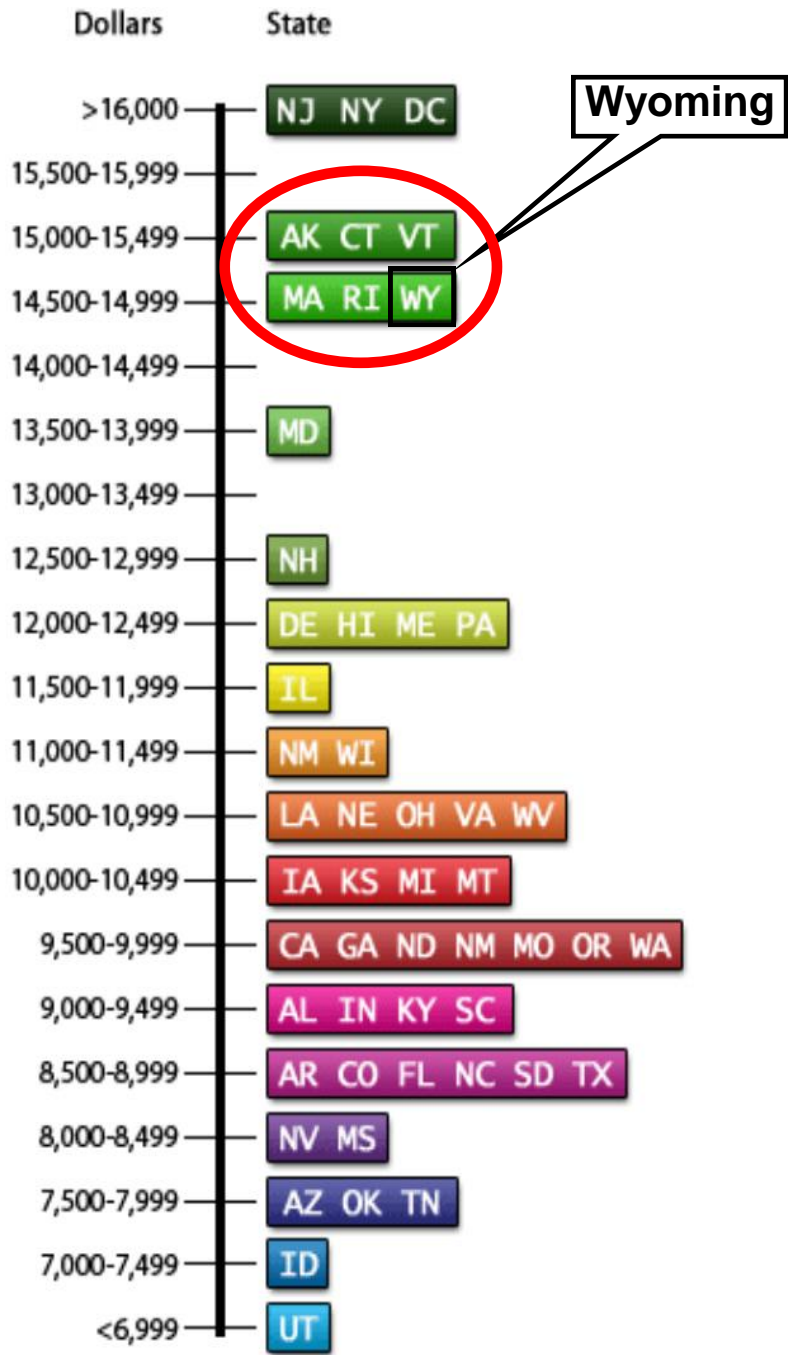
States with Similar  
Per Capita Education Expenditures:  
Achievement Levels  
(at/above NAEP *Basic*)



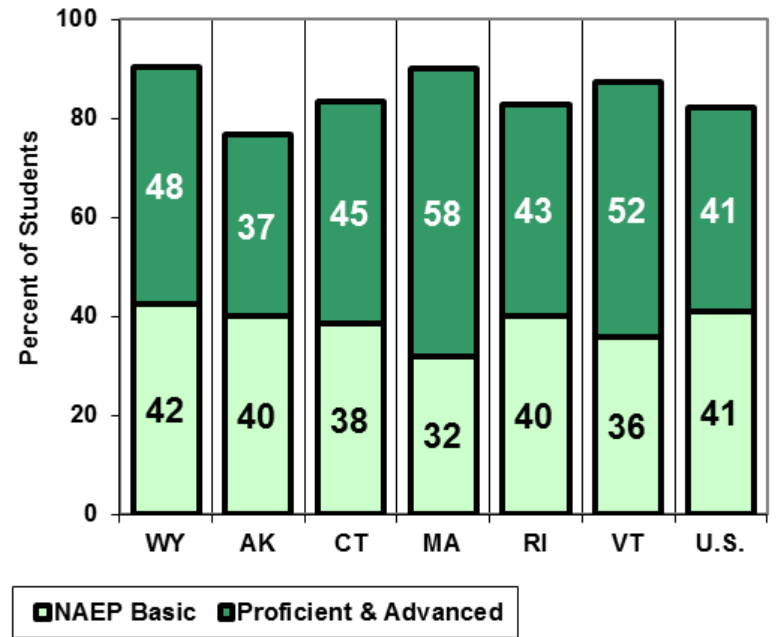
Wyoming was among six states reporting per student expenditures between \$14,500 and \$15,500 during school year 2008-2009 (most recent data available). The other states were Alaska, Connecticut, Massachusetts, Rhode Island, and Vermont.

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.



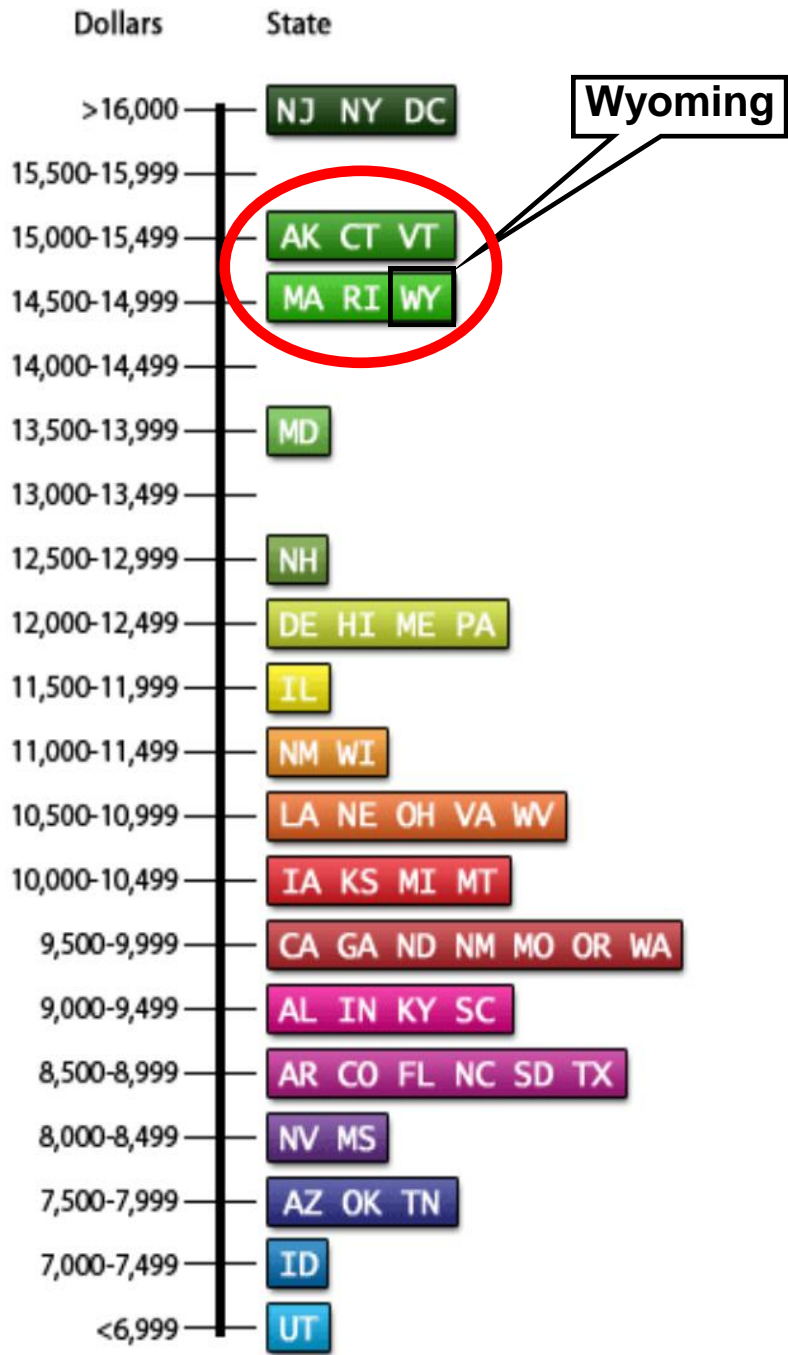
Achievement Levels



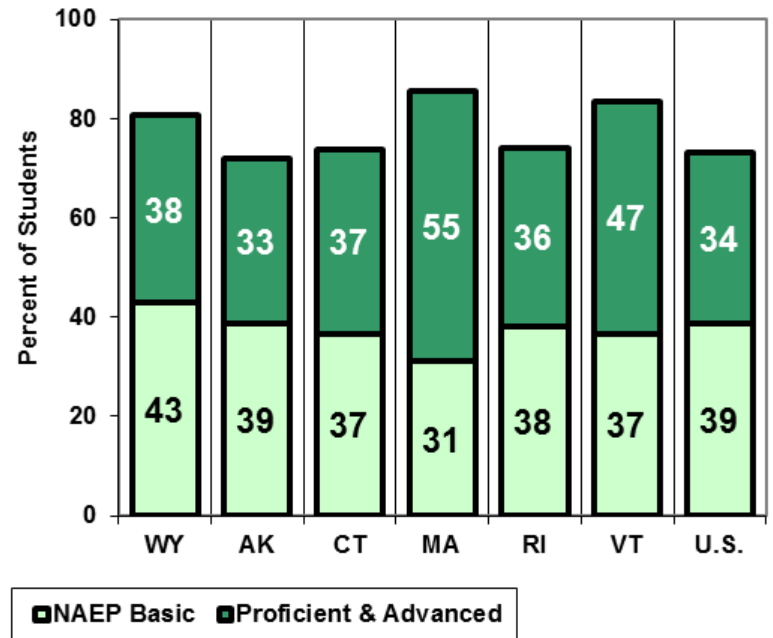
% At/Above  
NAEP Basic

<u>WY &gt;</u> AK, CT, RI, VT, US	<u>WY =</u> MA
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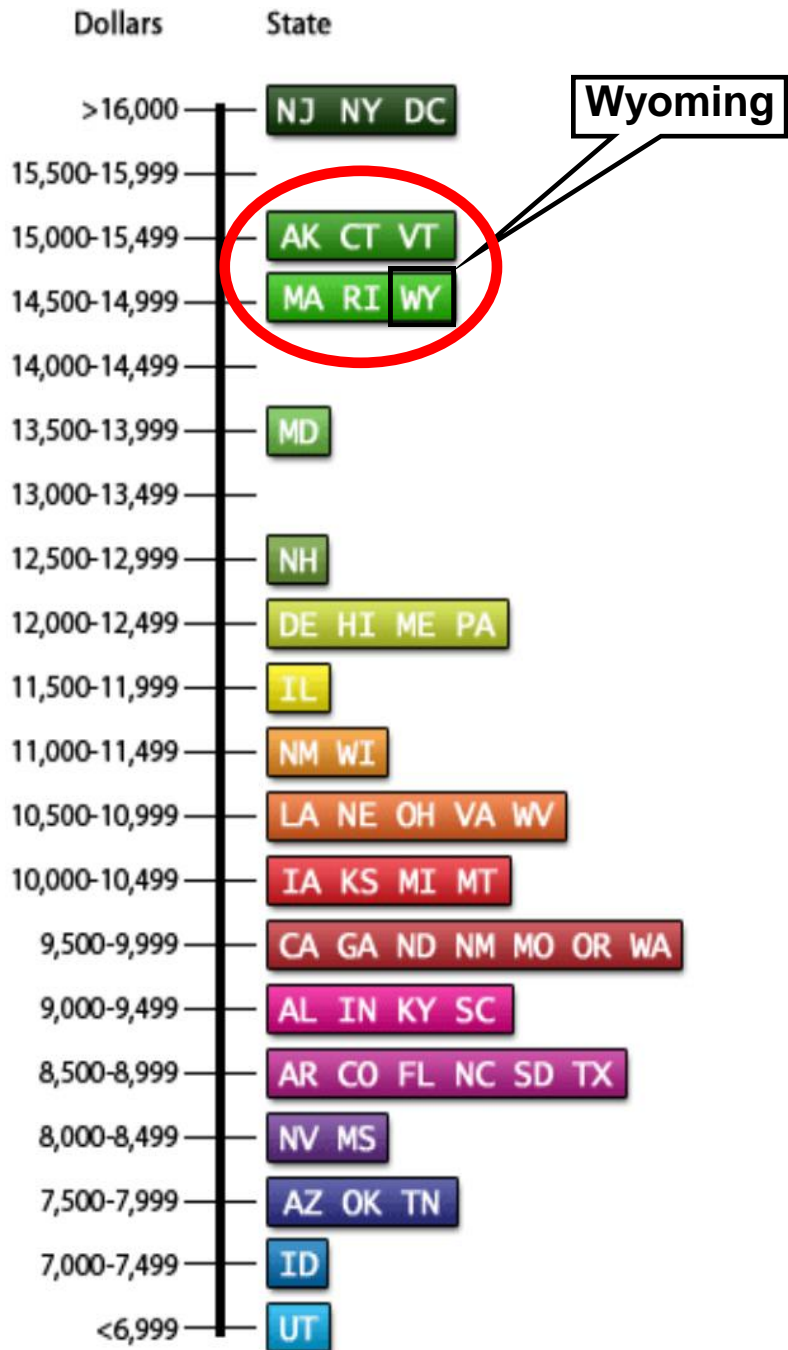


Achievement Levels

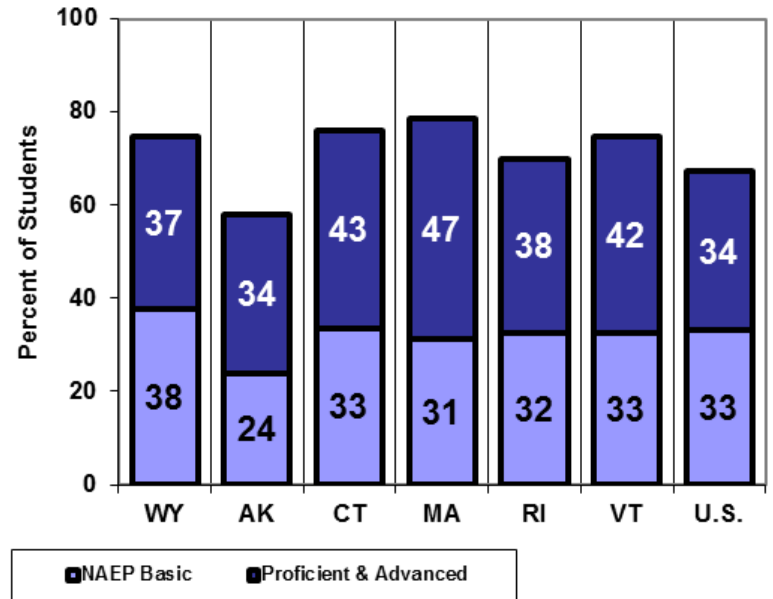


% At/Above  
NAEP Basic

WY > AK, CT, RI, US	WY < MA, VT
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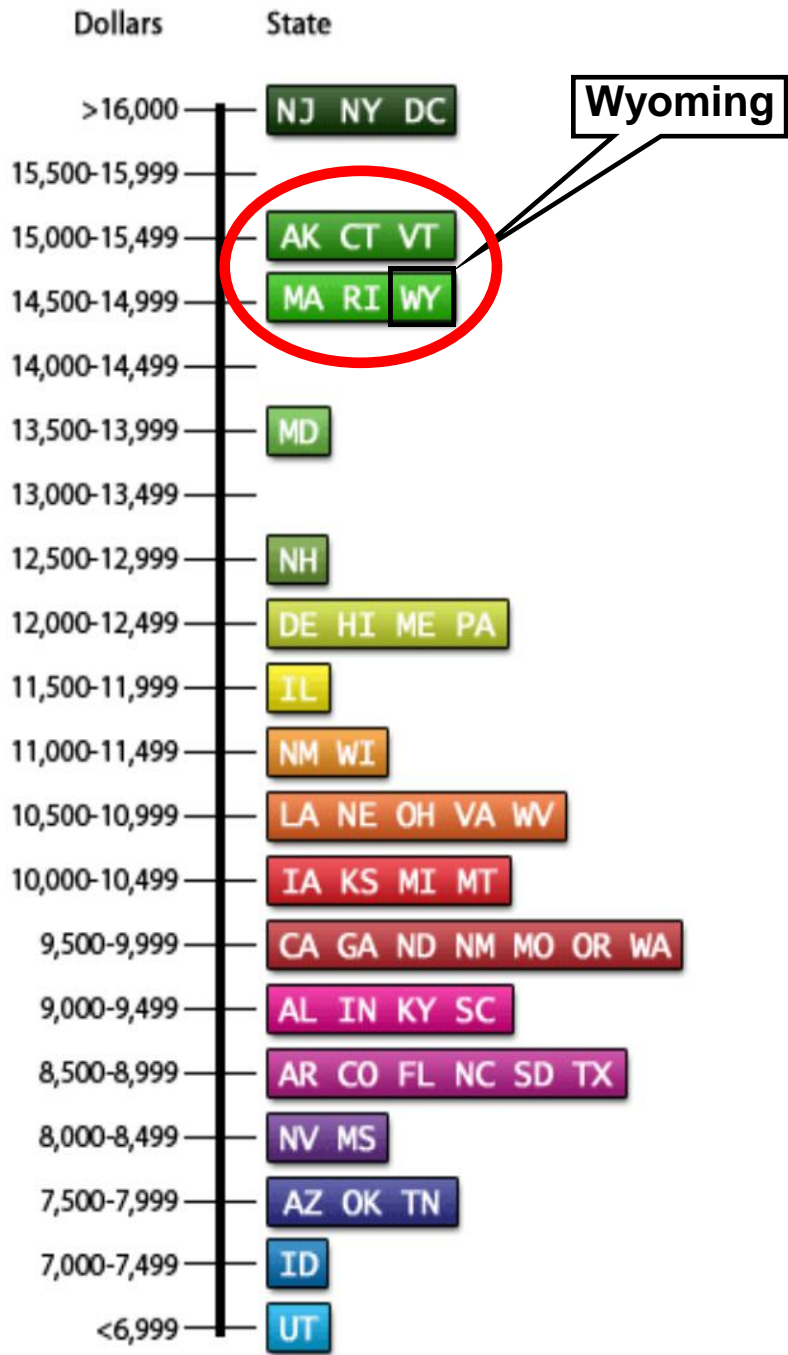


Achievement Levels

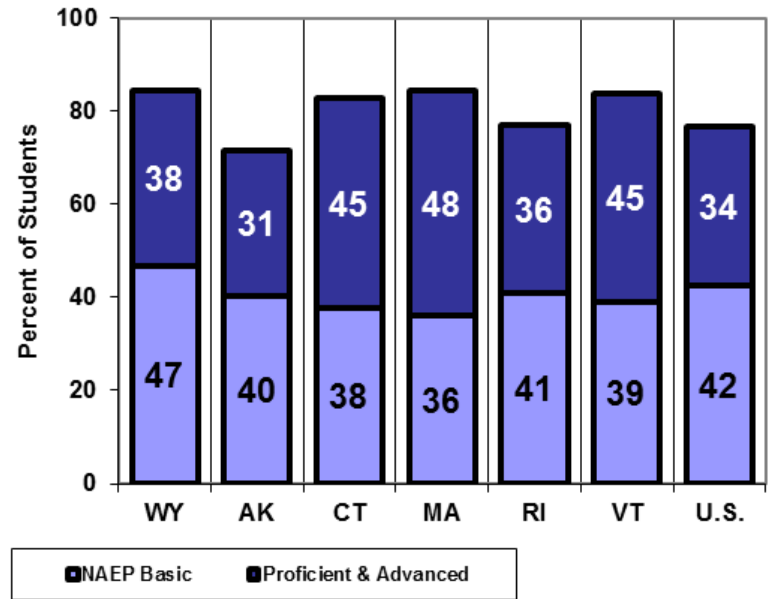


% At/Above  
NAEP Basic

WY >	WY =	WY <
AK, RI, US	CT, VT	MA



### Achievement Levels



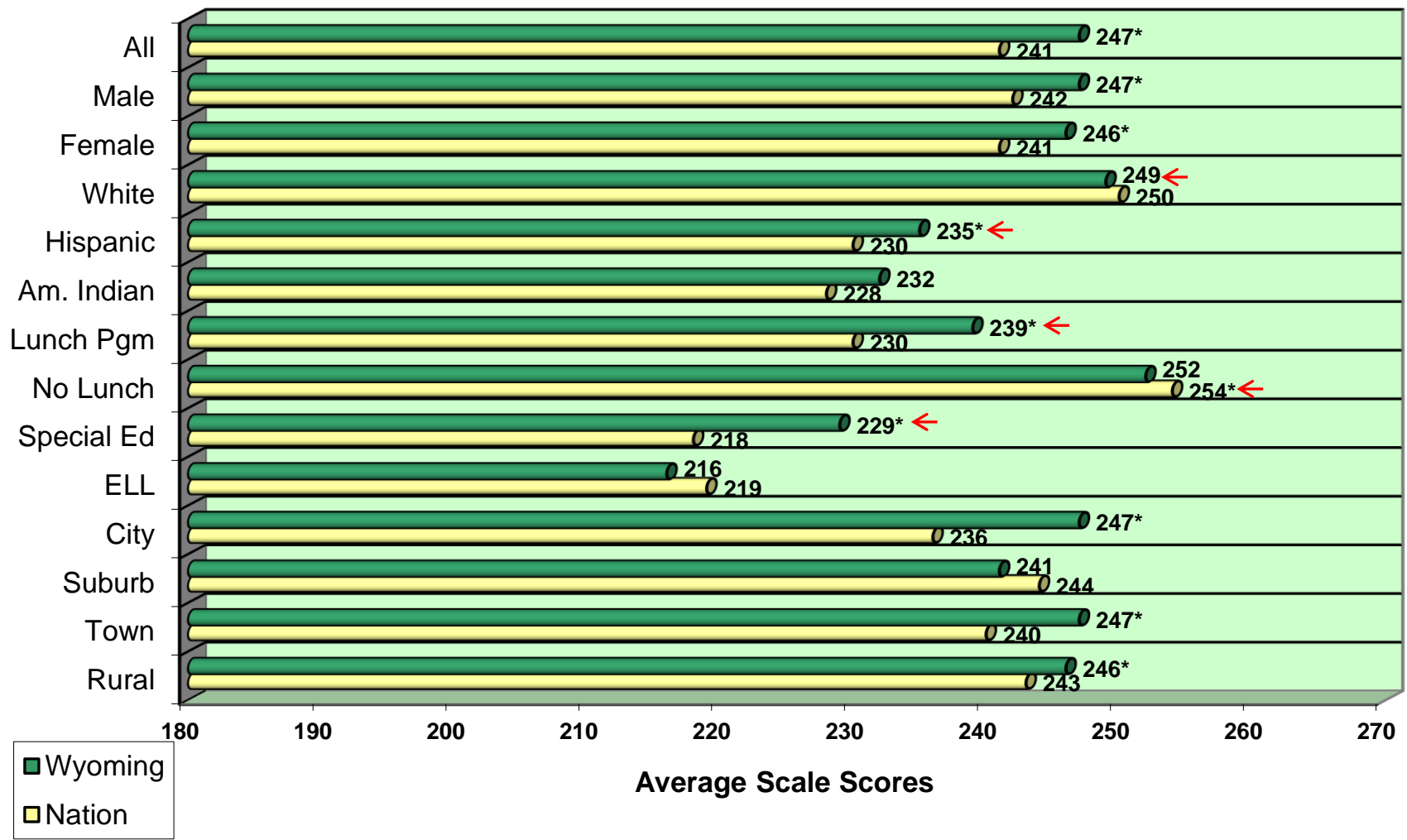
% At/Above  
NAEP Basic

<p><u>WY &gt;</u> AK, RI, US</p>	<p><u>WY =</u> CT, MA, VT</p>
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# **Disaggregated Student Group Comparisons**

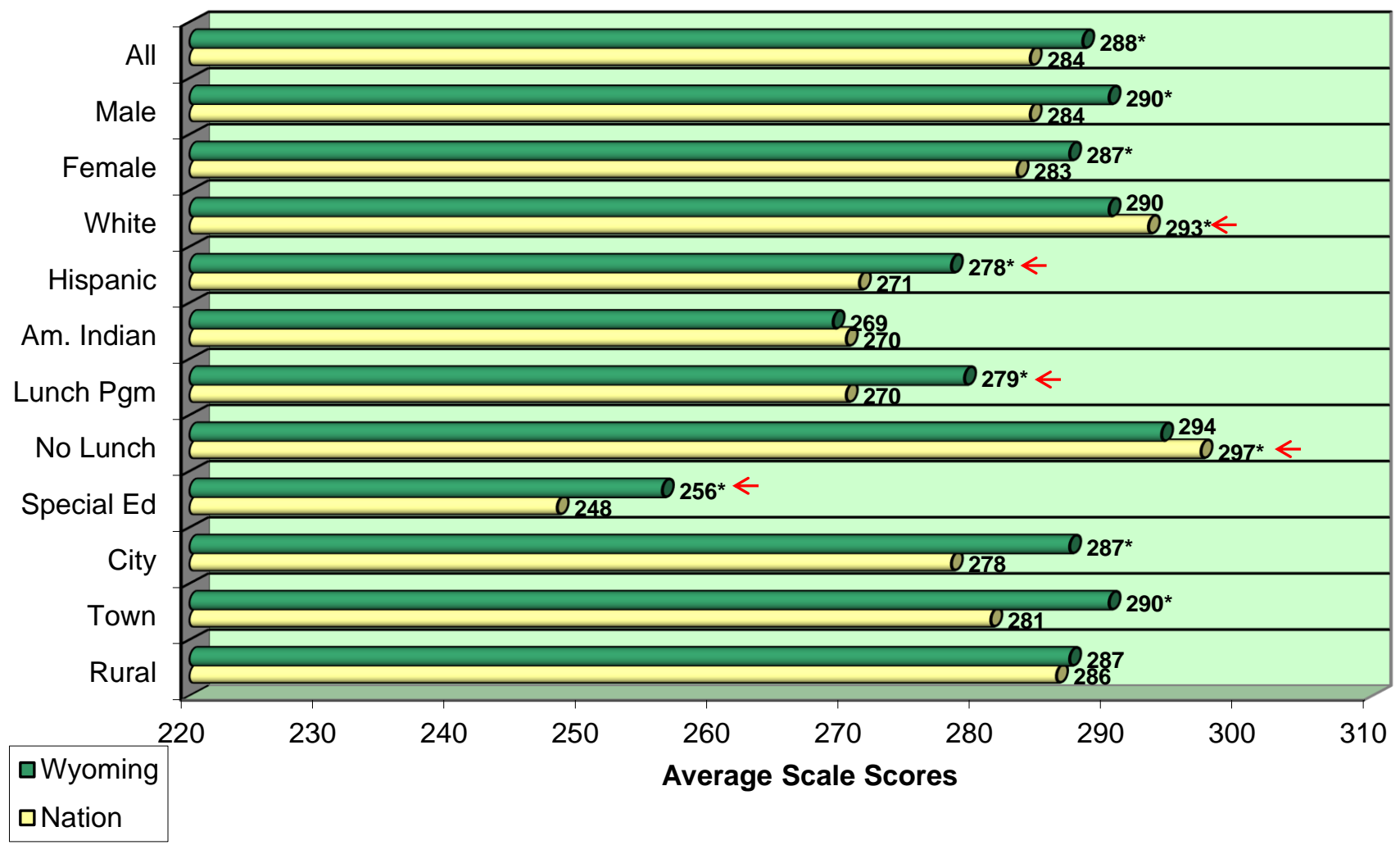
Average Scale Scores:  
Wyoming Students  
and Their U.S. Peers

### Wyoming and National Results



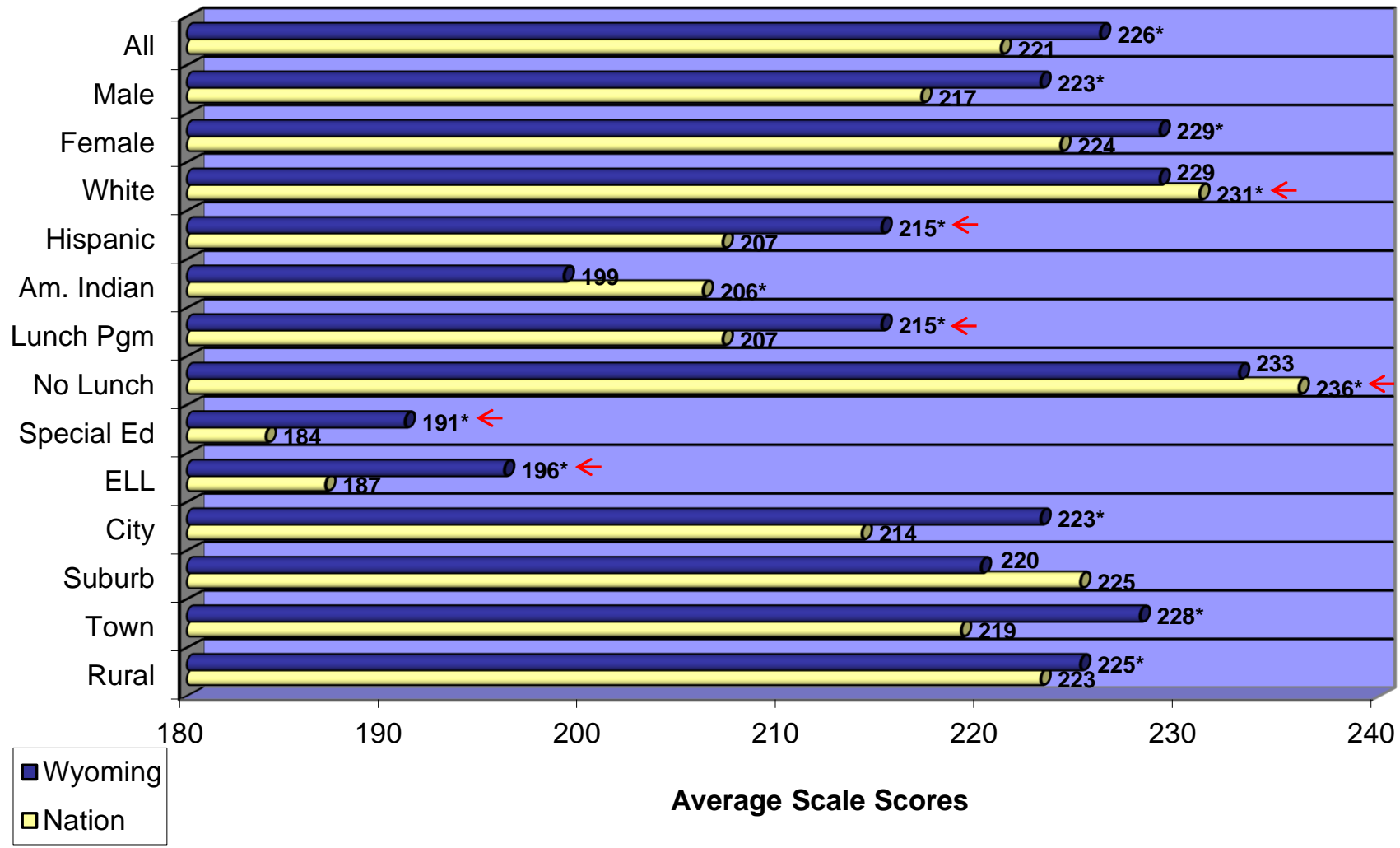
\* Indicates a statistical difference in average US and WY scores

### Wyoming and National Results



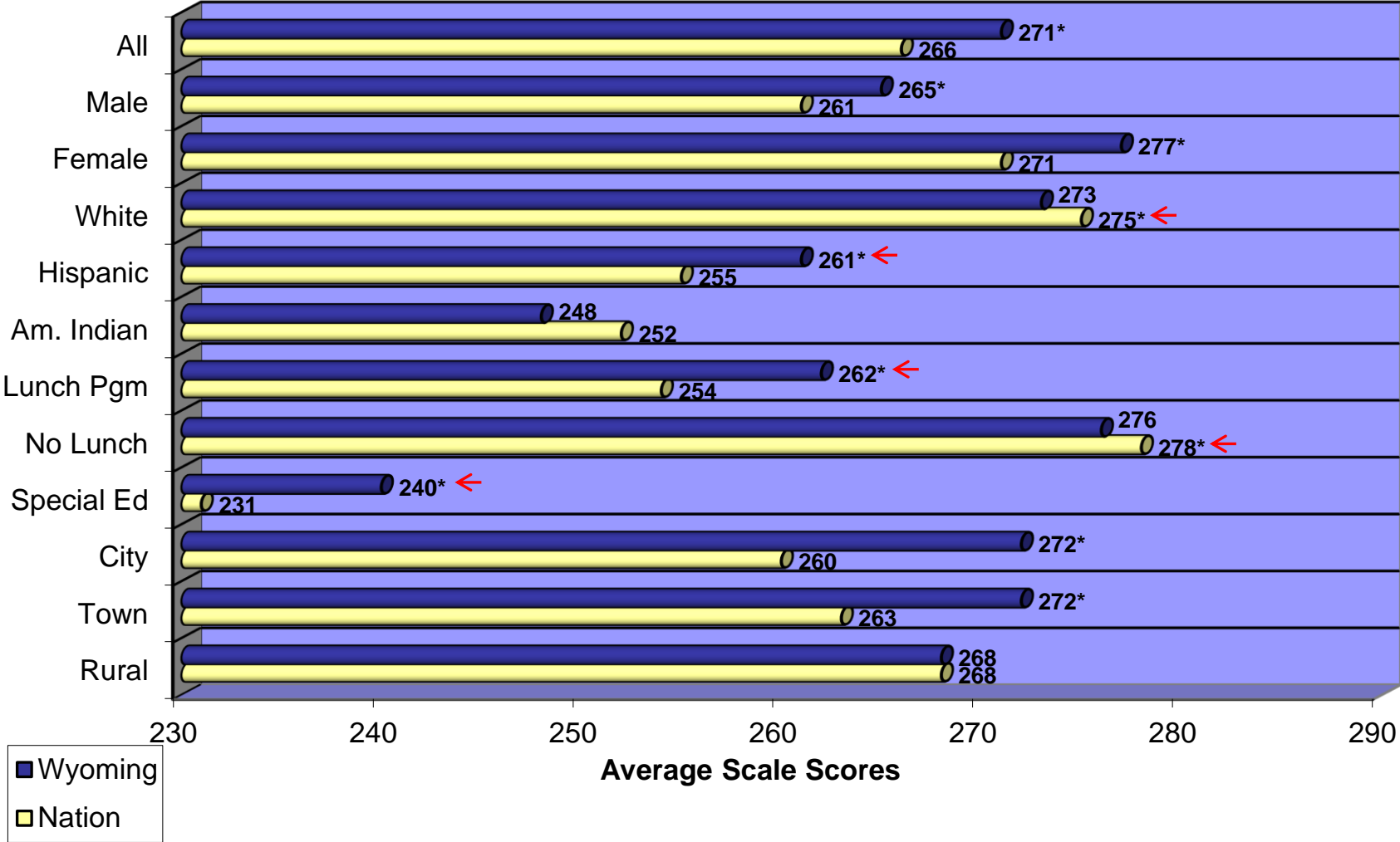
\* Indicates a statistical difference in average US and WY scores

### Wyoming and National Results



\* Indicates a statistical difference in average US and WY scores

### Wyoming and National Results

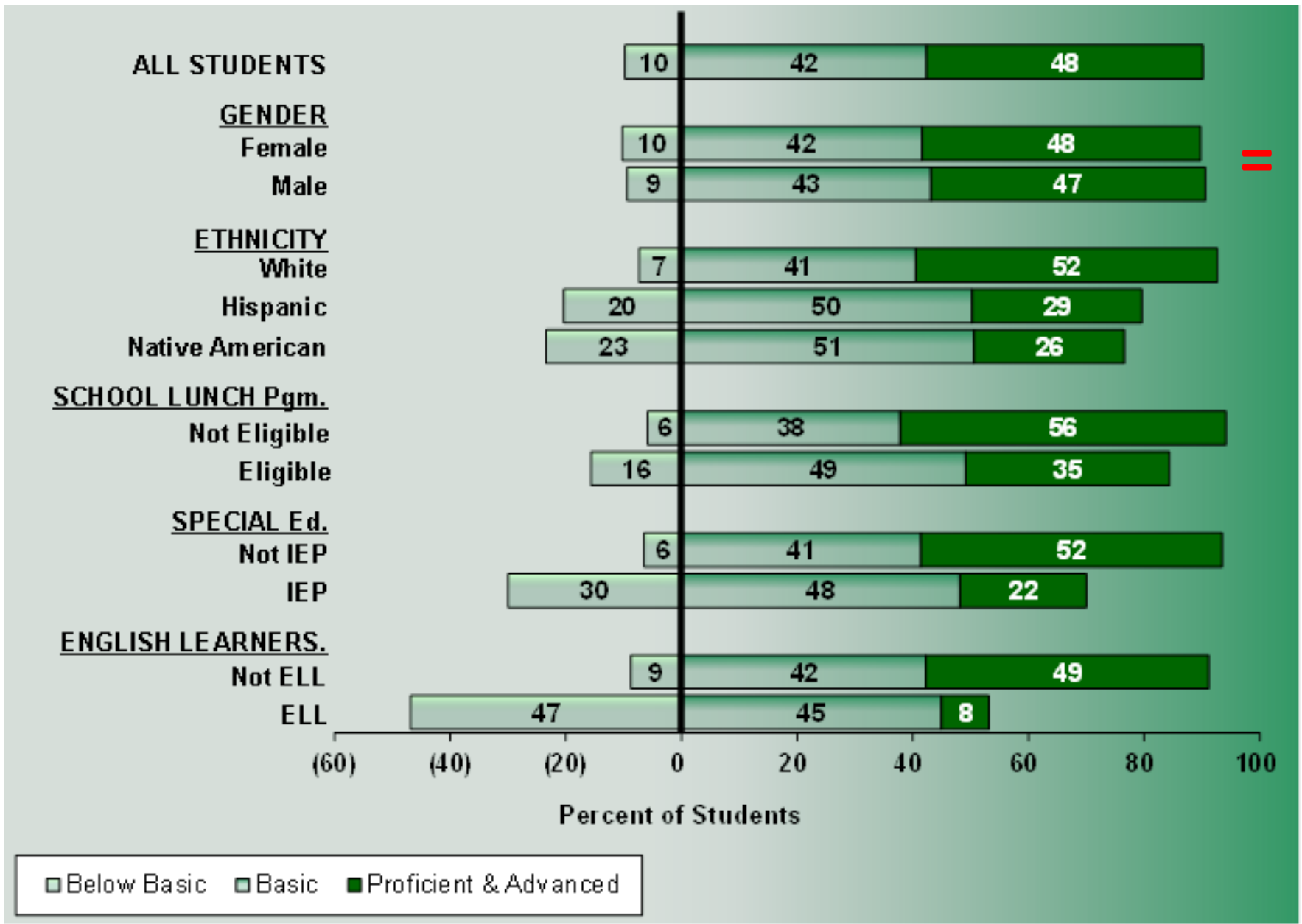


\* Indicates a statistical difference in average US and WY scores

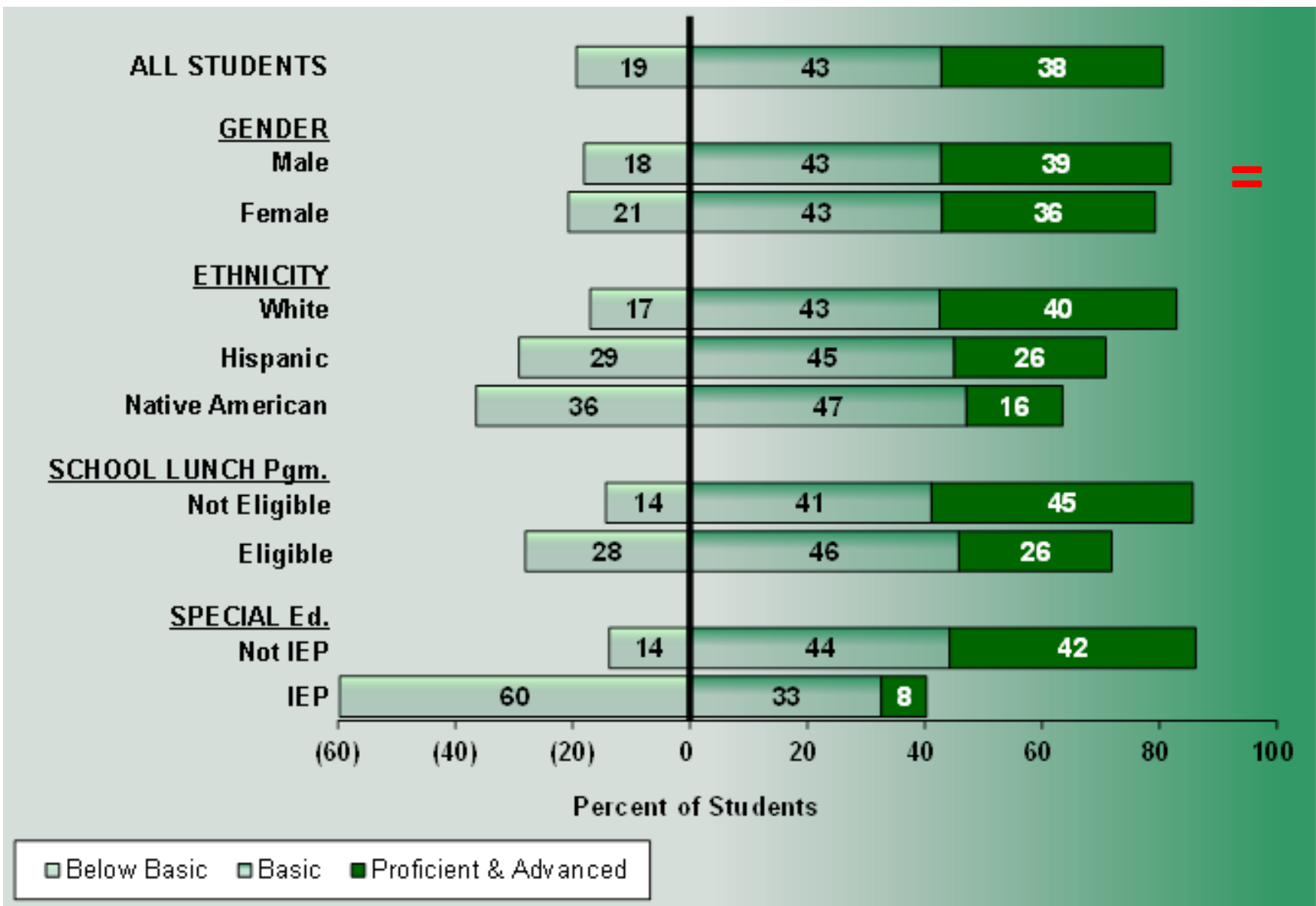


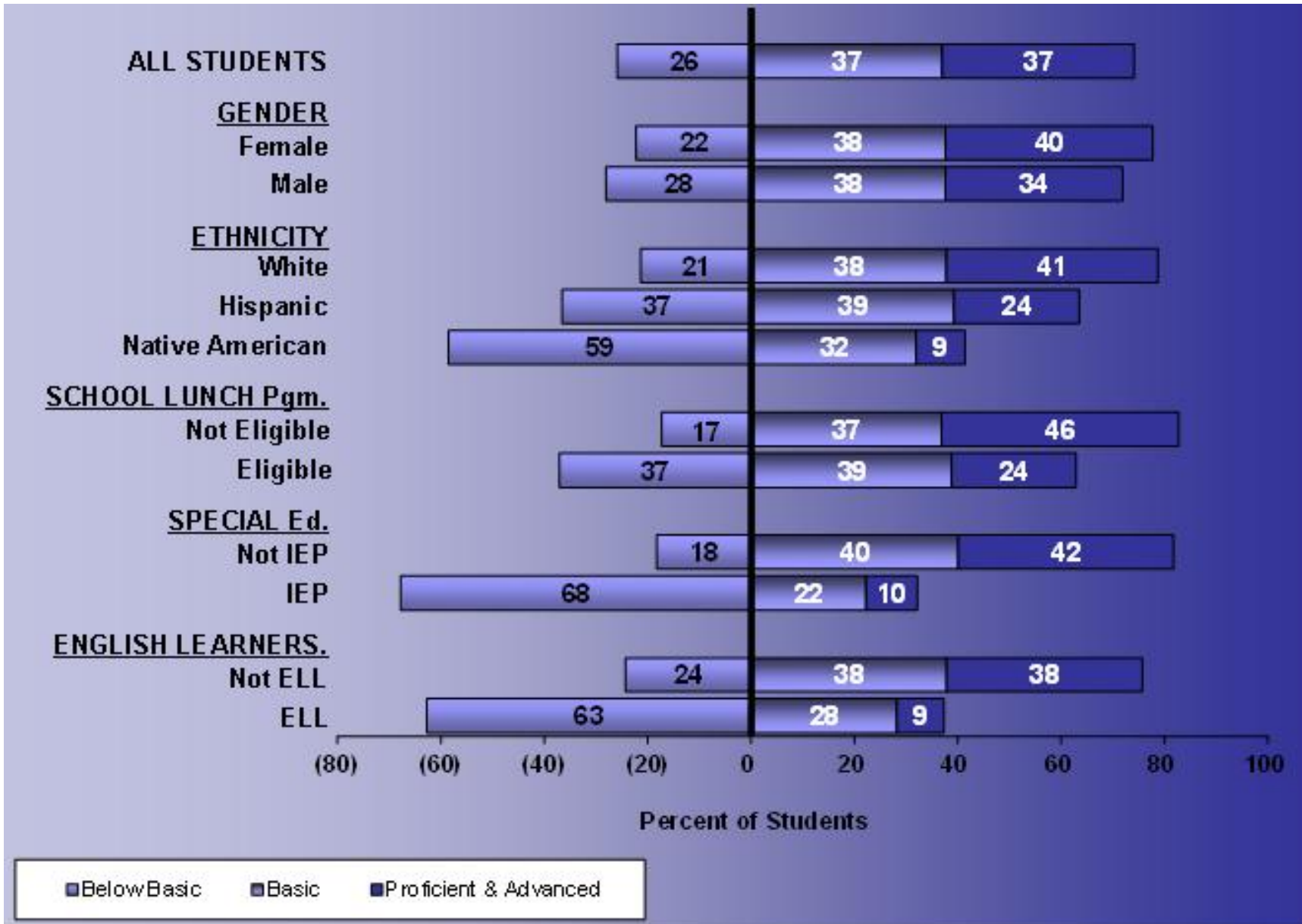
# **Equity Comparisons**

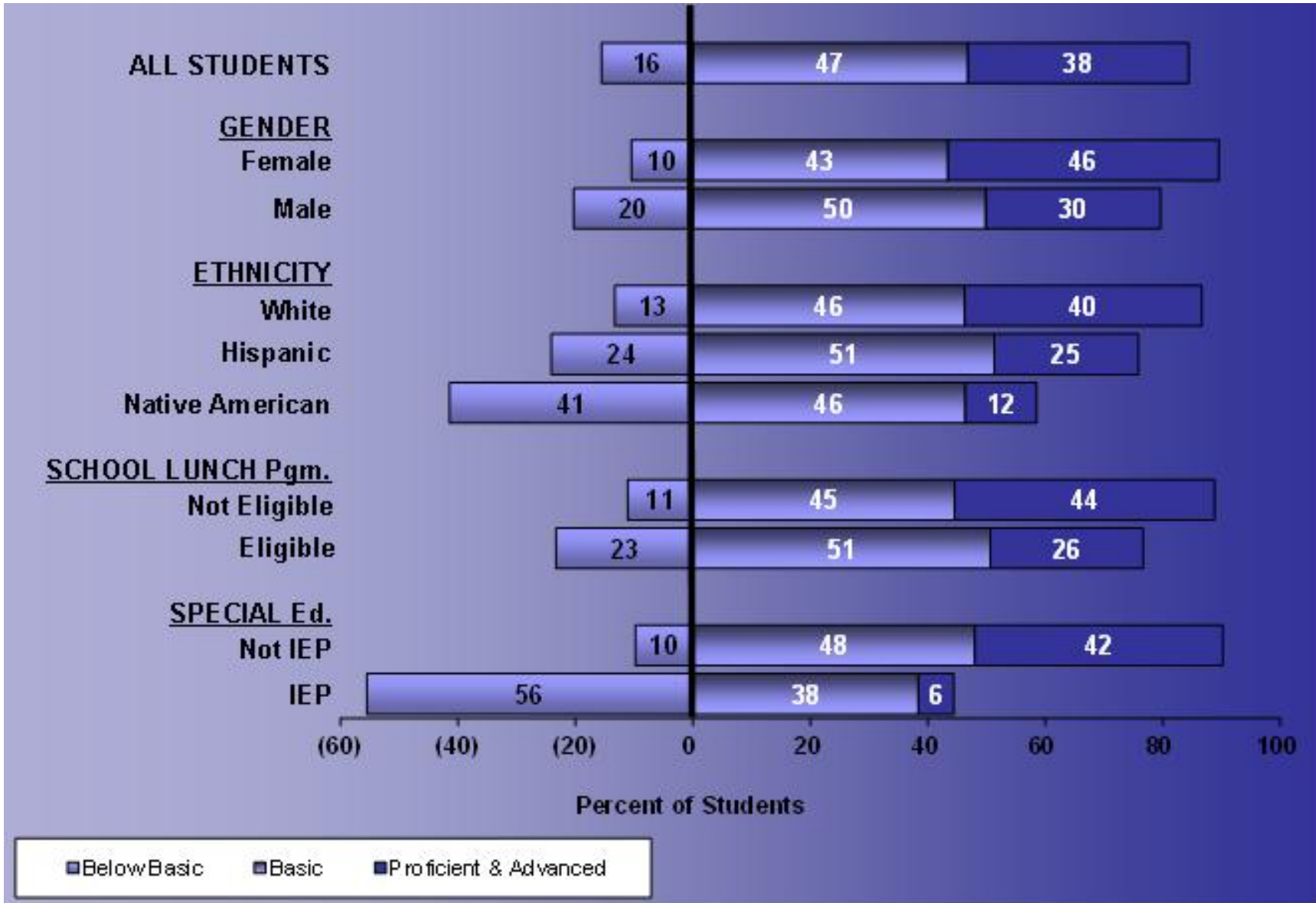
Achievement Levels for  
Gender, Race, and School Lunch  
Student Groups in Wyoming



Below Basic
  Basic
  Proficient & Advanced



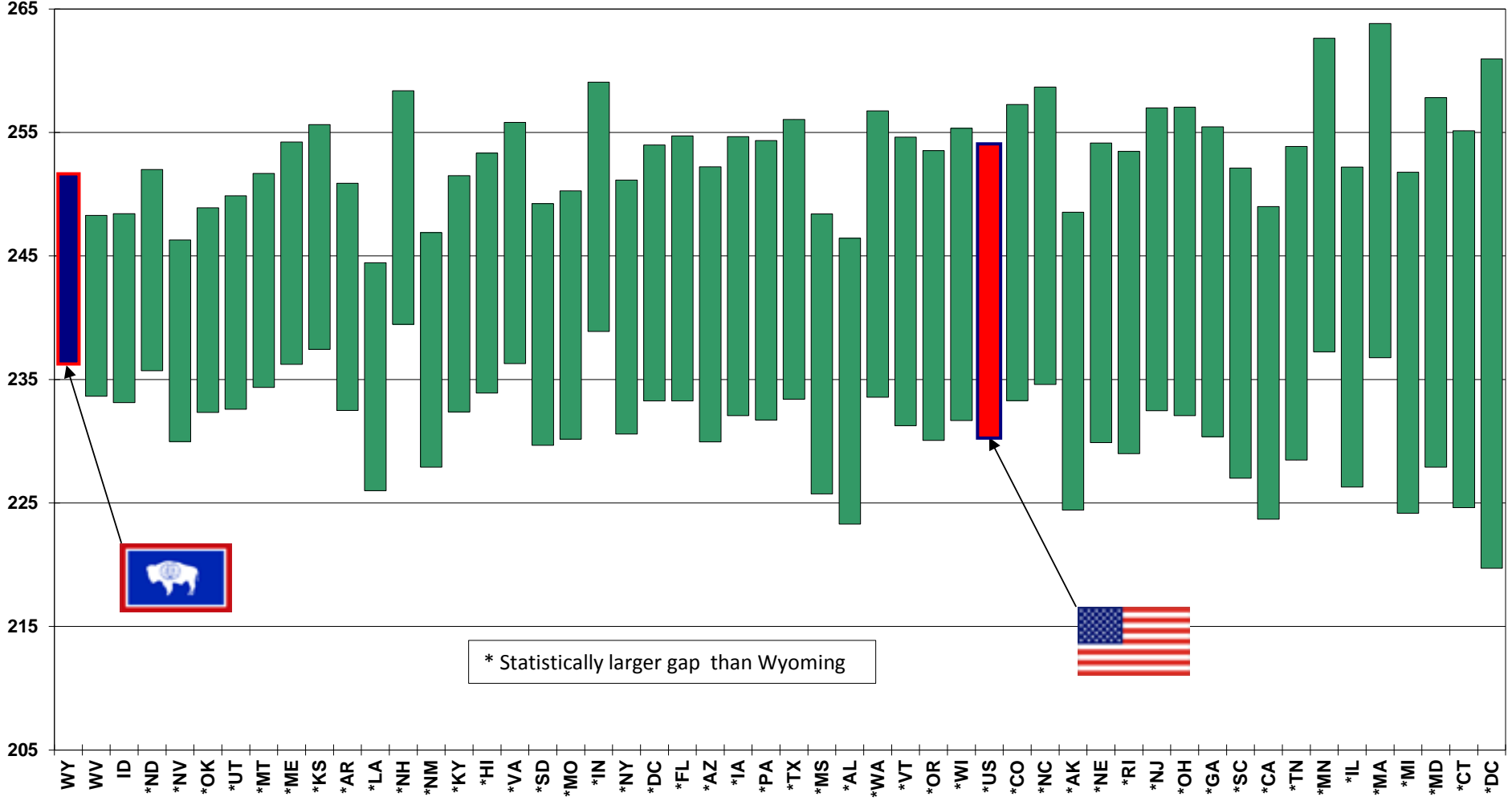




# **State Comparisons: School Lunch Program**

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

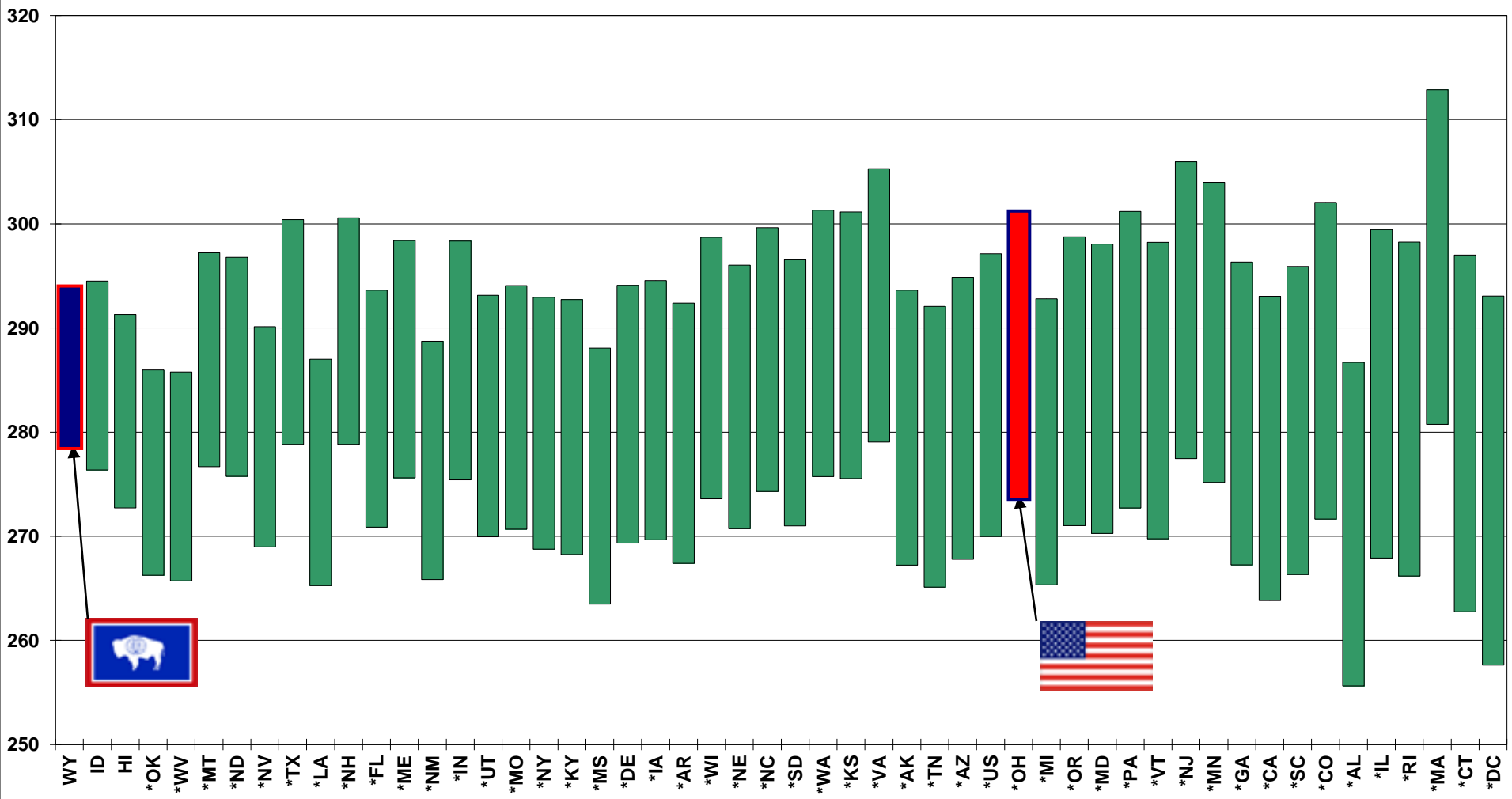
Free/Reduced Lunch, Student Gaps in Average Scale Scores: NAEP 2013, Grade 4 Mathematics



\* Statistically larger gap than Wyoming

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

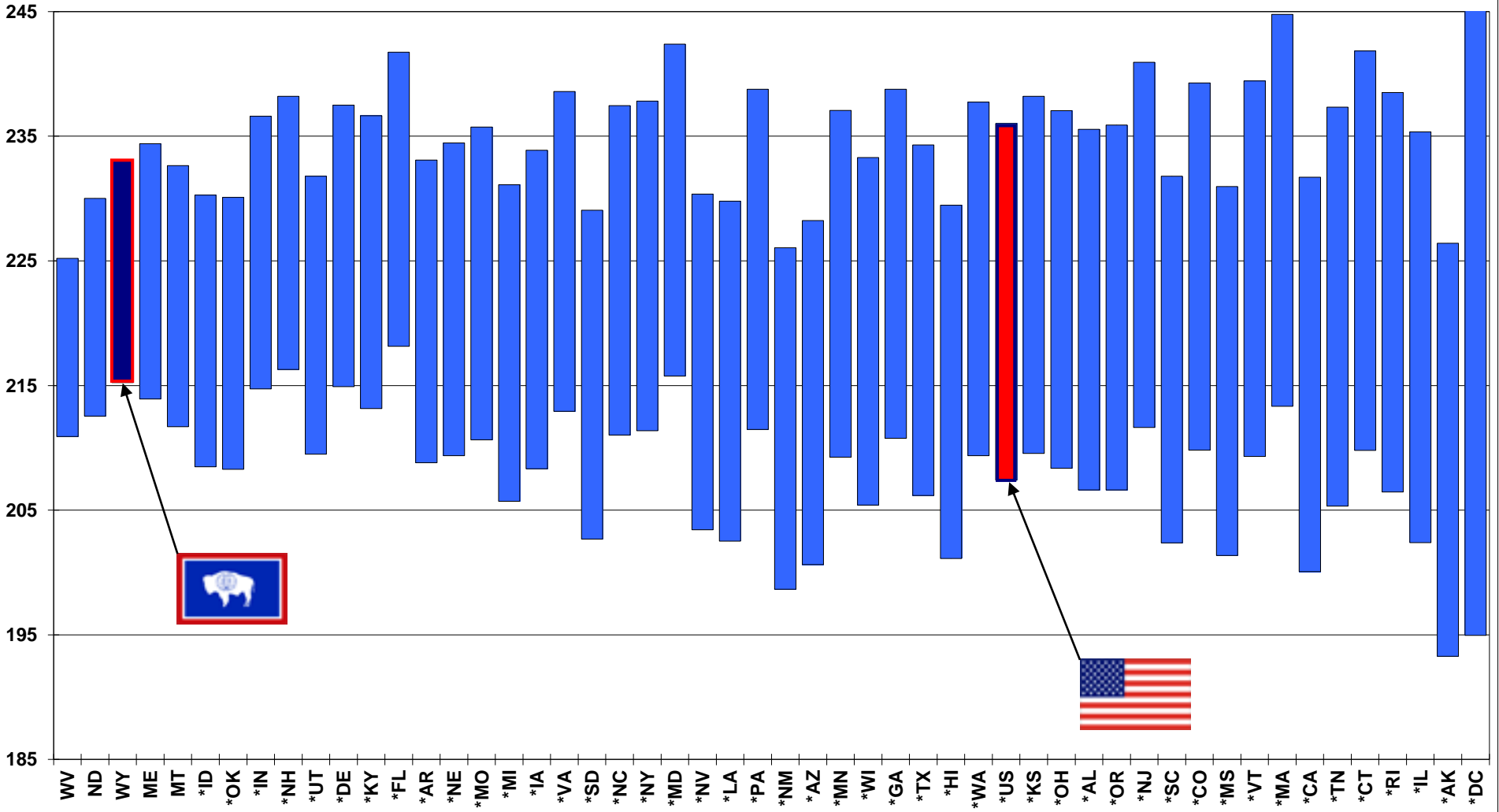
Free/Reduced Lunch, Student Gaps in Average Scale Scores: NAEP 2013, Grade 8 Mathematics



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

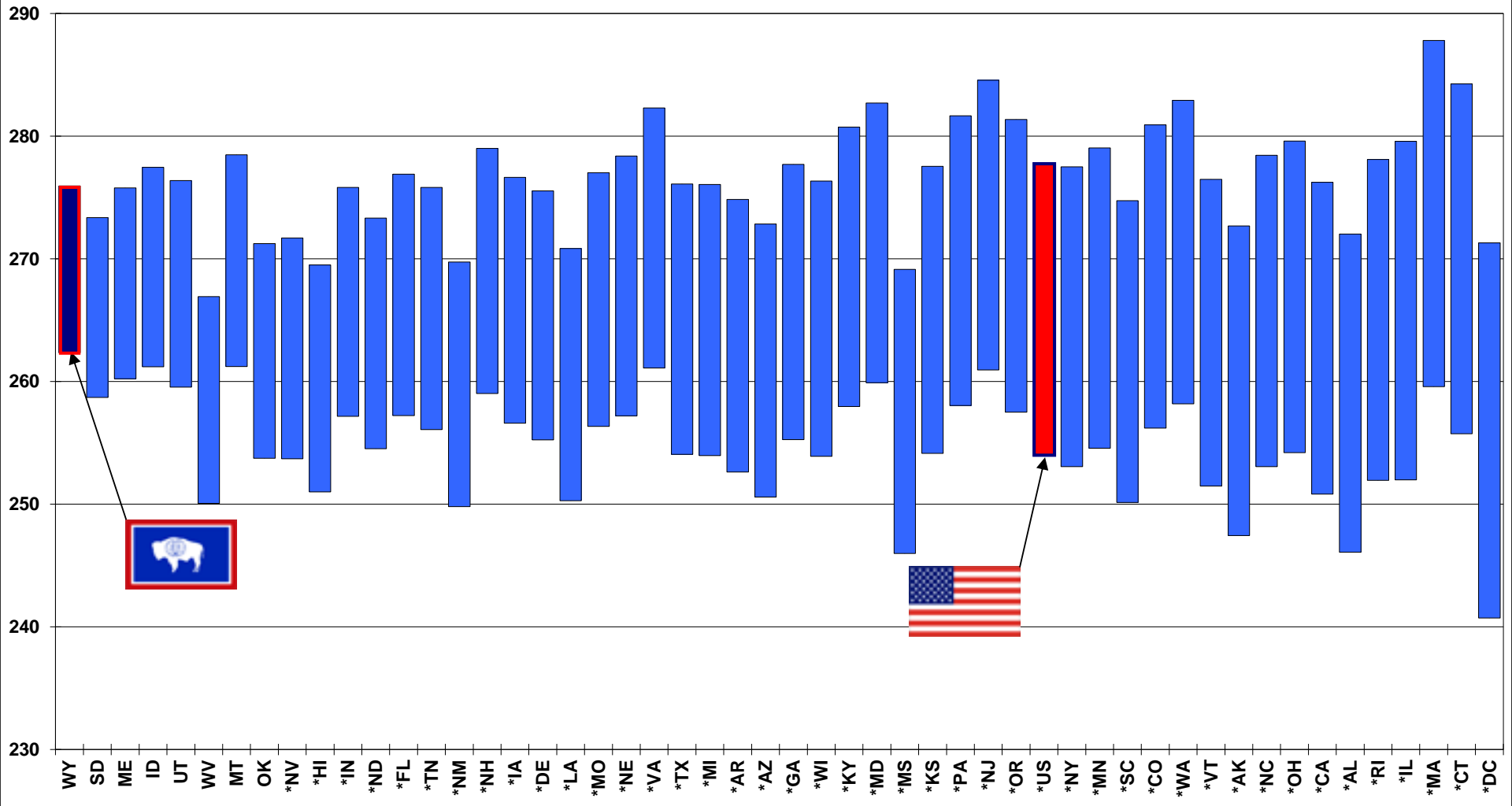


Free/Reduced Lunch, Student Gaps in Average Scale Scores: NAEP 2013, Grade 4 Reading



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

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



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