



**NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS
SCIENCE REPORT FOR FLORIDA
GRADE 4**

*In 2009, 47 jurisdictions participated in Grade 4
NAEP Science: 46 states and the Department
of Defense Education Activity schools.*

FOR IMMEDIATE RELEASE
TUESDAY, JANUARY 25, 2009

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Statement By:

EDUCATION COMMISSIONER DR. ERIC J. SMITH

Regarding the 2009 NAEP Science Results

“Today’s release of the latest NAEP Science results brings Florida a mix of news, showcasing areas of success while highlighting the challenges we still face in this critical subject area. Most notably, our 4th graders are outperforming the nation when it comes to the Basic level of measurement on the assessment, but that performance falls off when we look at 4th grade Proficient performance and the overall achievement of our 8th graders. Clearly, there exists a disconnect that we are in the process of solving.

“I am confident that we are taking the right steps to make science education in our schools a national model. Our Legislature recently increased state graduation requirements to include important science courses such as Biology and Chemistry to ensure students are gaining this essential knowledge, and we have new, next generation curriculum standards and assessments that hone in on the core science concepts students need to be learning in the classroom. Our win in the Race to the Top competition has also given us an unprecedented opportunity to apply a strict focus on improving academic performance in not just science, but technology, engineering and mathematics – the key subjects our children need to compete in today’s global economy.

“Florida has been paving a path of educational progress within our nation for many years now, and we stand well positioned to make our work in science a part of that success. Our students, and our state, are counting on us to get this right and we will not fail them.”

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NAEP General Information

The National Assessment of Educational Progress (NAEP) is the only ongoing, nationally representative measure of what students in the United States know and can do in various subject areas. It serves as a benchmark based on national proficiency standards and as a common measure of state-reported progress and achievement across states.¹

A representative sample of the student population participates in NAEP with each student taking only a portion of the assessment. Results are then assembled to form projected state and national scores based on aggregated state and national results. NAEP does not provide school- or student-level results. In this report, grade 4 science results are reported at a given time and across time, as well as by race/ethnicity, gender, eligibility for the National School Lunch Program (NSLP), students with disabilities (SD), and English language learners (ELL). This report also compares Florida's and the nation's public school performance gaps (White/African-American, White/Hispanic, and eligible/not eligible for the National School Lunch Program (NSLP)).

In this report, NAEP Science results are reported by average scale scores (on a 0–300 point scale) and, using that point scale, by achievement levels (at or above *Basic* and at or above *Proficient*).² Additional results can be accessed via the [NAEP Data Explorer](#).

NAEP Science Framework and Florida's Standards

The [Science Framework for the 2009 NAEP](#) for grades 4 and 8 has three broad content areas: Physical, Life, and Earth/Space. Nature of Science expectations are assessed within these three content areas. In 2009, Florida's Sunshine State Standards followed this same practice by embedding Nature of Science throughout each of its reporting categories, but in 2012 Florida's Next Generation Sunshine State Standards will assess Nature of Science as a separate body of knowledge to ensure that students know how, why, when, and where to apply science knowledge and practice.

The NAEP 2009 Science Framework approved by the National Assessment Governing Board (NAGB) replaced the framework used for the 1996, 2000, and 2005 science assessments. A variety of factors made it necessary to create a new framework to guide the assessment of science in 2009 and beyond: the publication of *National Standards* for science literacy, advances in both science and cognitive research, the growth in the prevalence of national and international science assessments, advances in innovative assessment approaches, and the need to advance the state of the art so that the widest possible range of students can be fairly assessed. Because of the recent changes to the assessment, the results from 2009 and 2011 cannot be compared to those from previous assessment years; however, they provide a current snapshot of what the nation's fourth-, eighth-, and twelfth-graders know and can do in science that will serve as the basis for comparisons on future science assessments.

¹ The source of the NAEP data in this report is the U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment.

² Differences between average scale scores or between achievement-level percentages are discussed only when they are statistically significant. Statistically significant means it is unlikely the differences in scores occurred by chance. Comparisons are based on statistical tests (0.05 level) that consider sample size, magnitude of difference, and standard errors. In this report, results for Florida are reported as scoring significantly higher than, not significantly different from, or significantly lower than the national public; when comparing performance gaps, results for Florida's performance gaps are reported as being significantly larger than, not significantly different from, or significantly narrower than the national public.

NAEP 2009 Science, Grade 4

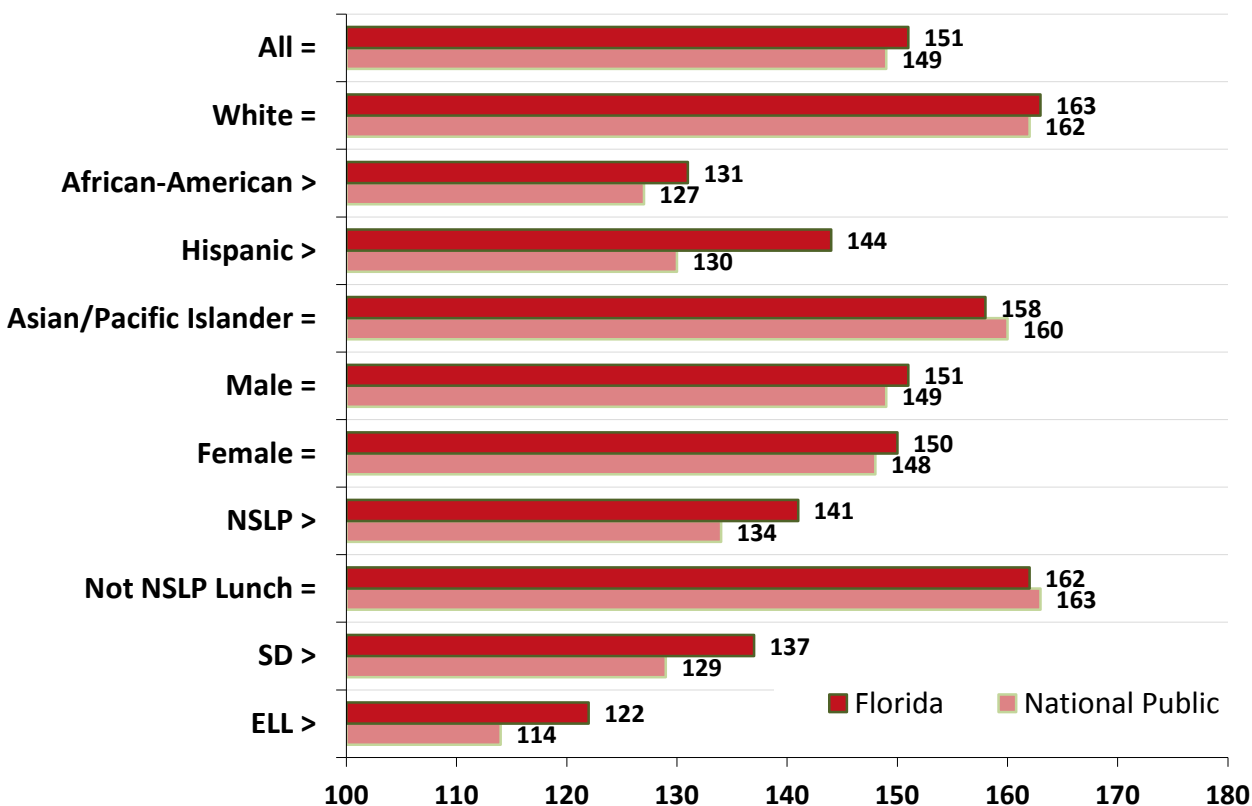
Florida vs. National Public Student Demographic Groups

Average Scale Scores – What Students Know and Can Do



Legend

- > Florida significantly higher than the nation's public schools
- = No significant difference between Florida and the nation's public schools
- < Florida significantly lower than the nation's public schools



- Florida’s grade 4 public school students had an average scale score in NAEP Science that was not significantly different from that of their national counterparts.
- The average scale scores of the following groups of Florida’s grade 4 public school students were significantly *higher* than those of their national counterparts: African-American, Hispanic, eligible for the NSLP, SD, and ELLs.
- The average scale scores of the following groups of Florida’s grade 4 public school students were *not significantly different* from those of their national counterparts: White, Asian/Pacific Islander, male, female, and not eligible for the NSLP.

Notes: NSLP=National School Lunch Program (used as an indicator of socioeconomic standing). SD includes students with disabilities and students with Section 504 Plans. ELL=English language learners. Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at <http://www.fldoe.org/asp/naep/>. [NAEP Data Explorer](#) Search Criteria: Science, Grade 4. Jurisdictions: National Public, Florida. Year: 2009. Variables: All; Disability status of student, including those with 504 plan (SD); Gender; National School Lunch Program (NSLP) eligibility; Race/Ethnicity used to report trends, school-reported; Status as English Language Learner (ELL). Edit Reports: Statistics Options, Average Scale Scores.

NAEP 2009 Science, Grade 4

Florida vs. National Public Student Demographic Groups

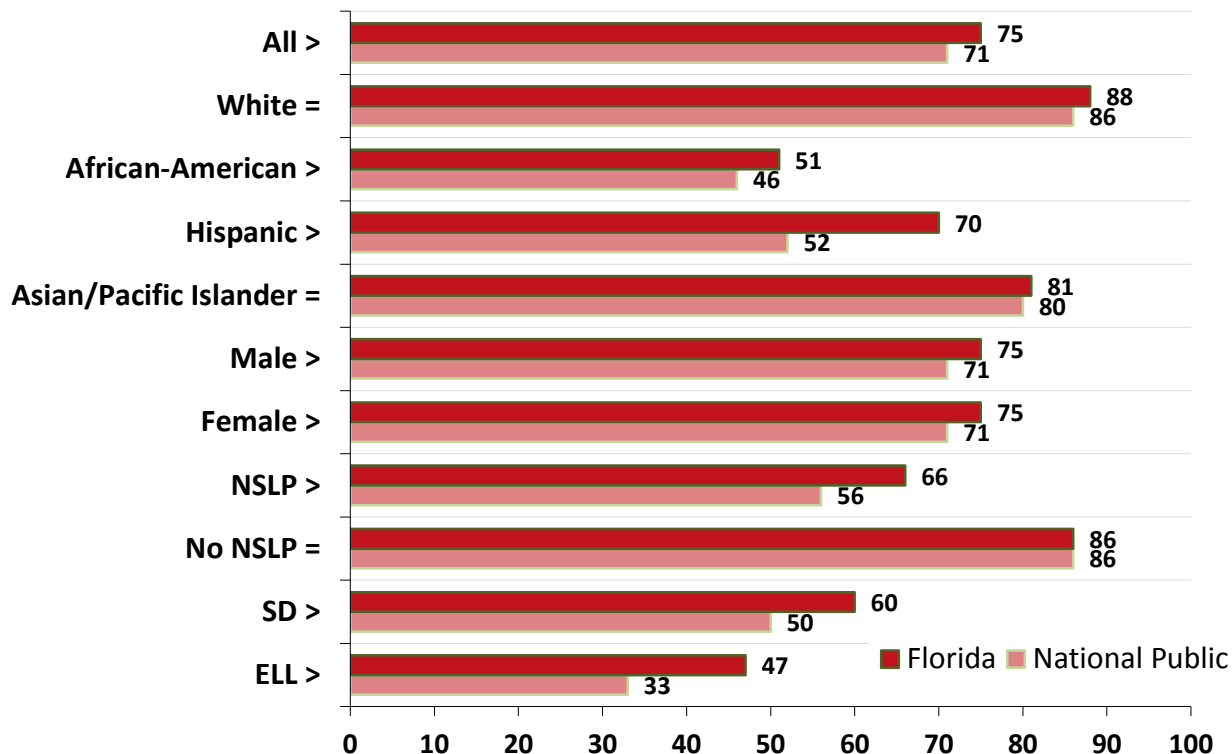
Achievement-Level Scores



Percent at or above *Basic* - partial mastery of prerequisite knowledge and skills that are fundamental for proficient work.

Legend

- > Florida significantly higher than the nation's public schools
- = No significant difference between Florida and the nation's public schools
- < Florida significantly lower than the nation's public schools



- The percentage of Florida’s grade 4 public school students scoring at or above *Basic* on NAEP Science was significantly *higher* than that of their national counterparts.
- The percentages of the following groups of Florida’s grade 4 public school students scoring at or above *Basic* were significantly *higher* than those of their national counterparts: African-American, Hispanic, male and female, eligible for the NSLP, SD, and ELLs.
- The percentages of the following groups of Florida’s grade 4 public school students scoring at or above *Basic* were *not significantly different* from those of their national counterparts: White, Asian/Pacific Islander, and not eligible for the NSLP.

Notes: NSLP=National School Lunch Program (used as an indicator of socioeconomic standing). SD includes students with disabilities and students with Section 504 Plans. ELL=English language learners. Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

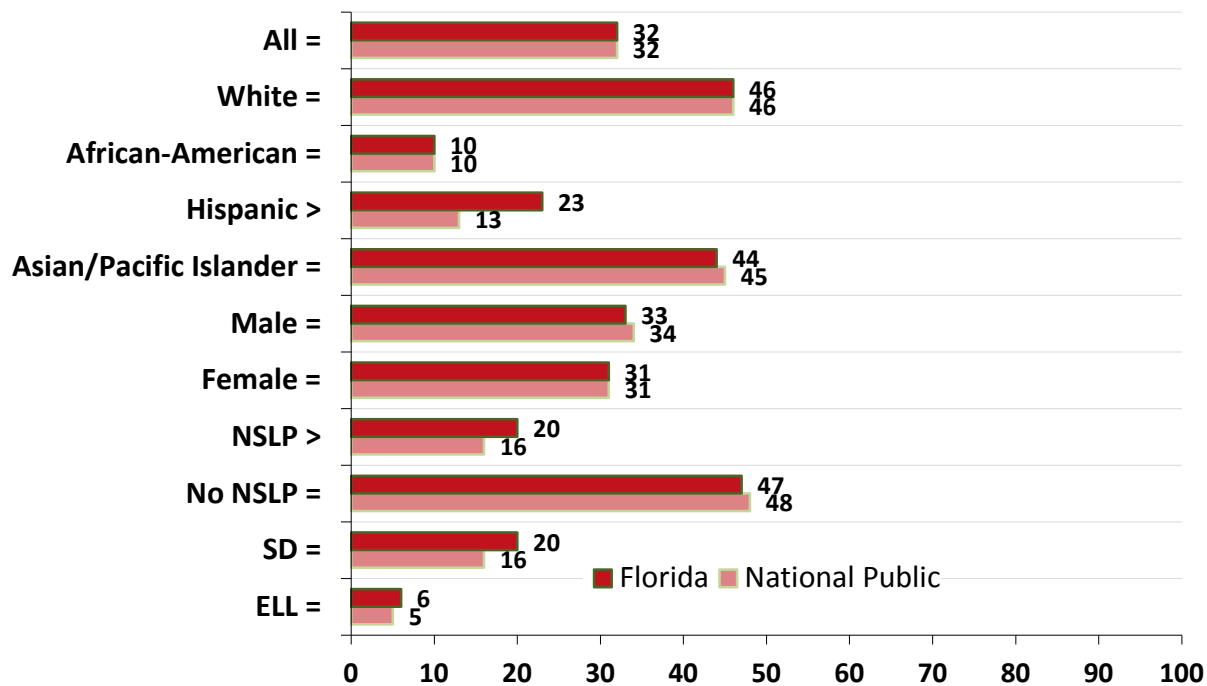
Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at <http://www.fldoe.org/asp/naep/>. [NAEP Data Explorer](#) Search Criteria: Science, Grade 4. Jurisdictions: National Public, Florida. Year: 2009. Variables: All; Disability status of student, including those with 504 plan (SD); Gender; National School Lunch Program (NSLP) eligibility; Race/Ethnicity used to report trends, school-reported; Status as English Language Learner (ELL). Edit Reports: Statistics Options, Achievement Levels, Cumulative.

NAEP 2009 Science, Grade 4 Florida vs. National Public Student Demographic Groups Achievement-Level Scores

Percent at or above *Proficient* - solid academic performance. Students reaching this level have demonstrated competency over challenging subject matter.

Legend

- > Florida significantly higher than the nation's public schools
- = No significant difference between Florida and the nation's public schools
- < Florida significantly lower than the nation's public schools



- The percentage of Florida's grade 4 public school students scoring at or above *Proficient* on NAEP Science was *not significantly different* from that of their national counterparts.
- The percentages of Florida's grade 4 public school Hispanic students and students eligible for the NSLP scoring at or above *Proficient* were significantly *higher* than those of their national counterparts.
- The percentages of the following groups of Florida's grade 4 public school students scoring at or above *Proficient* were *not significantly different* from those of their national counterparts: White, African-American, Asian/Pacific Islander, male and female, not eligible for the NSLP, SD, and ELLs.

Notes: NSLP=National School Lunch Program (used as an indicator of socioeconomic standing). SD includes students with disabilities and students with Section 504 Plans. ELL=English language learners. Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at <http://www.fldoe.org/asp/naep/>. [NAEP Data Explorer](#) Search Criteria: Science, Grade 4. Jurisdictions: National Public, Florida. Year: 2009. Variables: All; Disability status of student, including those with 504 plan (SD); Gender; National School Lunch Program (NSLP) eligibility; Race/Ethnicity used to report trends, school-reported; Status as English Language Learner (ELL). Edit Reports: Statistics Options, Achievement Levels, Cumulative.

NAEP 2009 Science, Grade 4

Cross-State Comparison of Overall Average Scale Scores

All Students

Scale scores range from 0 to 300 and serve as the basis for achievement levels.
 NAEP 2009 Science Cut Scores: *Basic* 131 to 166; *Proficient* 167 to 223; *Advanced* 224 to 300;
 scores below 131 are classified as below *Basic*.



Florida's grade 4 public school 2009 NAEP Science average scale score of **151** compares to the nation and the other states as follows:

- **The following 11 states had significantly lower average scale scores than Florida:** Alabama, Arizona, Arkansas, California, Georgia, Hawaii, Louisiana, Mississippi, Nevada, New Mexico, and New York.
- **The following 16 states and the national public had average scale scores that were not significantly different from Florida's:** Delaware, Illinois, Indiana, Maryland, Michigan, North Carolina, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Washington, and West Virginia.
- **The following 18 states had significantly higher average scale scores than Florida:** Colorado, Connecticut, Idaho, Iowa, Kentucky, Maine, Massachusetts, Minnesota, Missouri, Montana, New Hampshire, New Jersey, North Dakota, Ohio, South Dakota, Virginia, Wisconsin, and Wyoming.

Note: Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

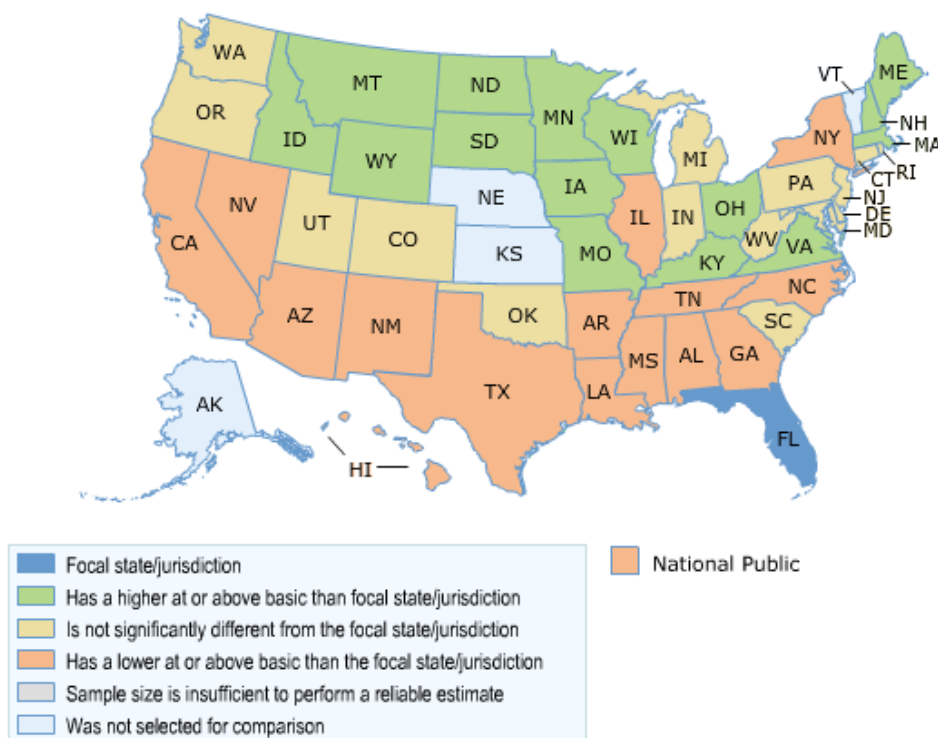
Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at http://www.fldoe.org/asp/naep/..NAEP_Data_Explorer Search Criteria: Science, Grade 4. Jurisdictions: National Public, All States. Year: 2009. Variables: All Students. Edit Reports: Statistics Options, Average Scale Scores.

NAEP 2009 Science, Grade 4

Cross-State Comparison of at or above *Basic* Achievement Level

All Students

Scale scores range from 0 to 300 and serve as the basis for achievement levels.
 NAEP 2009 Science Cut Scores: *Basic* 131 to 166; *Proficient* 167 to 223; *Advanced* 224 to 300;
 scores below 131 are classified as below *Basic*.



The percentage of Florida's grade 4 public school students scoring at or above *Basic* on 2009 NAEP Science was **75%**. This percentage compares to the nation and the other states as follows:

- **The following 15 states and the national public had a significantly lower percentage of students performing at or above *Basic* than Florida:** Alabama, Arizona, Arkansas, California, Georgia, Hawaii, Illinois, Louisiana, Mississippi, Nevada, New Mexico, New York, North Carolina, Tennessee, and Texas.
- **The following 15 states had a percentage of students performing at or above *Basic* that was not significantly different from Florida's:** Colorado, Connecticut, Delaware, Indiana, Maryland, Michigan, New Jersey, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Utah, Washington, and West Virginia.
- **The following 15 states had a significantly higher percentage of students performing at or above *Basic* than Florida:** Idaho, Iowa, Kentucky, Maine, Massachusetts, Minnesota, Missouri, Montana, New Hampshire, North Dakota, Ohio, South Dakota, Virginia, Wisconsin, and Wyoming.

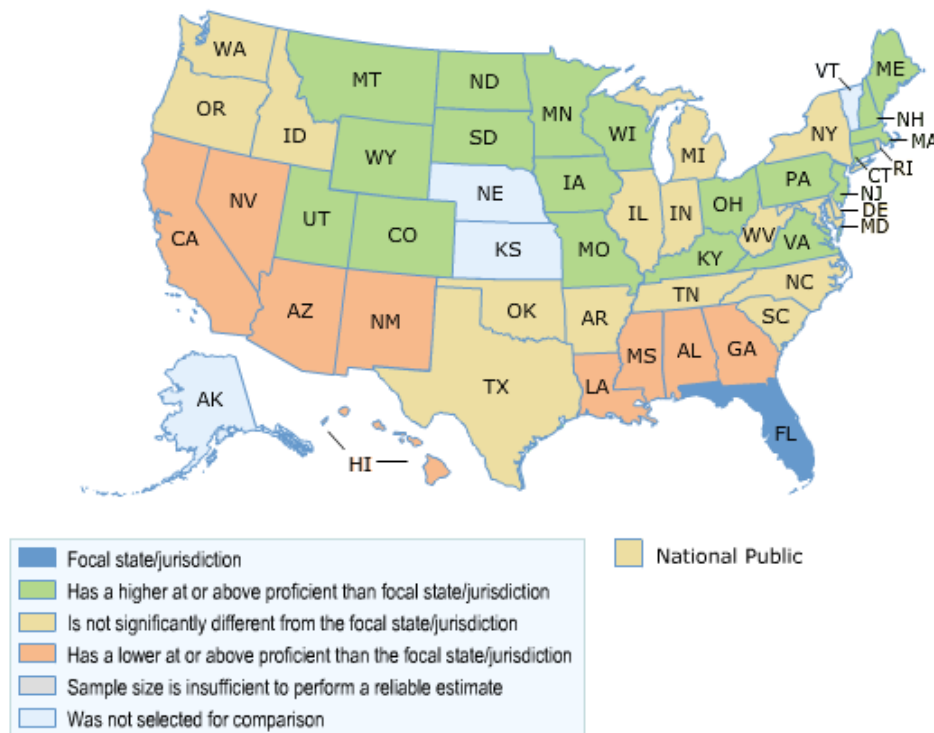
Note: Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at [http://www.fldoe.org/asp/naep/..NAEP Data Explorer](http://www.fldoe.org/asp/naep/..NAEP_Data_Explorer) Search Criteria: Science, Grade 4. Jurisdictions: National Public, All States. Year: 2009. Variables: All Students. Edit Reports: Statistics Options, Achievement Levels, Cumulative.

NAEP 2009 Science, Grade 4 Cross-State Comparison of at or above *Proficient* Achievement Level All Students

Scale scores range from 0 to 300 and serve as the basis for achievement levels.

NAEP 2009 Science Cut Scores: *Basic* 131 to 166; *Proficient* 167 to 223; *Advanced* 224 to 300; scores below 131 are classified as below *Basic*.



The percentage of Florida's grade 4 public school students scoring at or above *Proficient* on 2009 NAEP Science was **32%**. This percentage compares to the nation and the other states as follows:

- **The following 9 states had a significantly lower percentage of students performing at or above *Proficient* than Florida:** Alabama, Arizona, California, Georgia, Hawaii, Louisiana, Mississippi, Nevada, and New Mexico.
- **The following 17 states and the national public had a percentage of students performing at or above *Proficient* that was not significantly different from Florida's:** Arkansas, Delaware, Idaho, Illinois, Indiana, Maryland, Michigan, New York, North Carolina, Oklahoma, Oregon, Rhode Island, South Carolina, Tennessee, Texas, Washington, and West Virginia.
- **The following 19 states had a significantly higher percentage of students performing at or above *Proficient* than Florida:** Colorado, Connecticut, Iowa, Kentucky, Maine, Massachusetts, Minnesota, Missouri, Montana, New Hampshire, New Jersey, North Dakota, Ohio, Pennsylvania, South Dakota, Utah, Virginia, Wisconsin, and Wyoming.

Note: Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

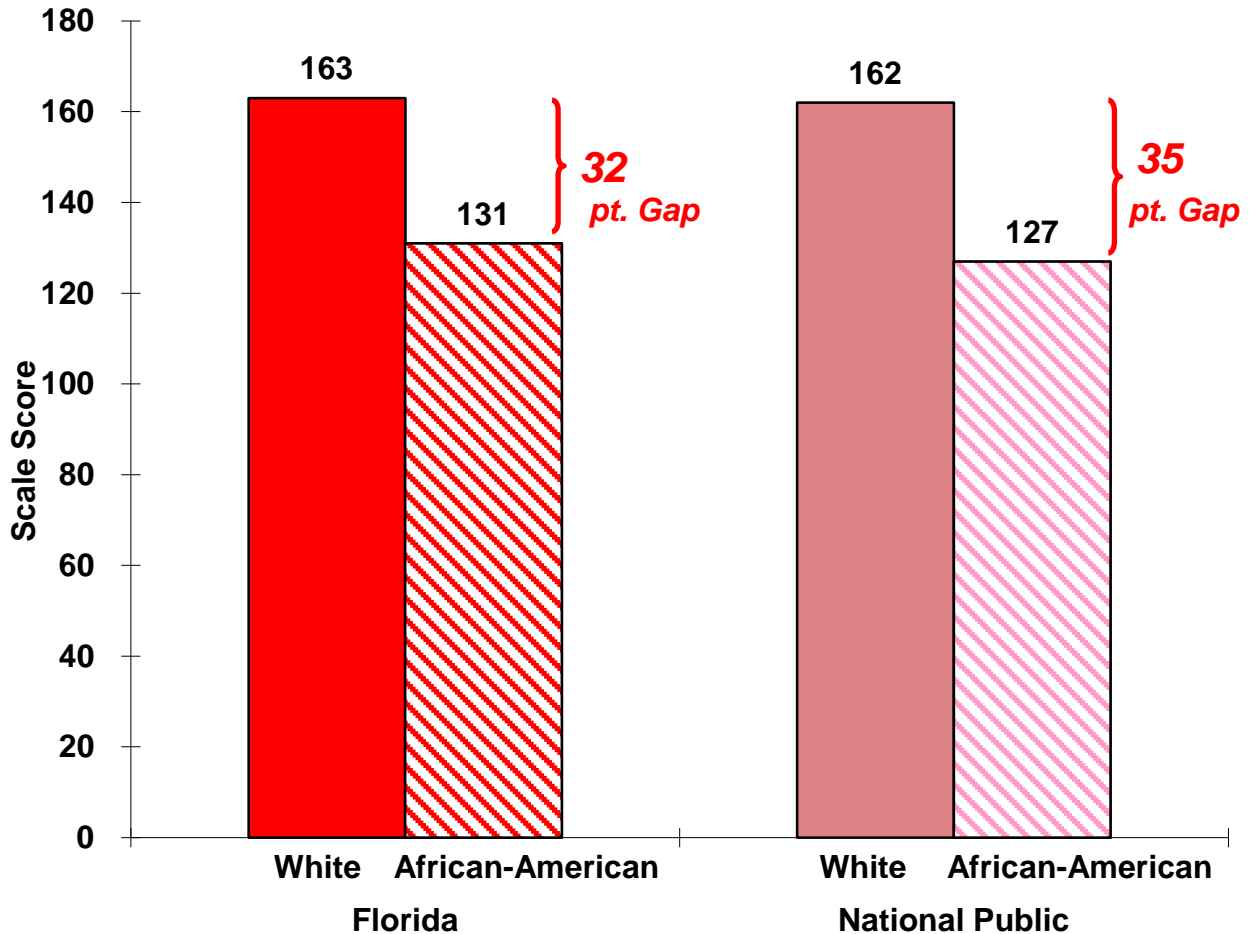
Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at <http://www.fldoe.org/asp/naep/>. [NAEP Data Explorer](#) Search Criteria: Science, Grade 4. Jurisdictions: National Public, All States. Year: 2009. Variables: All Students. Edit Reports: Statistics Options, Achievement Levels, Cumulative.

Race/Ethnicity

Schools report the racial/ethnic subgroups that best describe the students eligible to be assessed. Florida has reportable (sufficient size) White, African-American, Hispanic, and Asian/Pacific Islander racial/ethnic groups.

NAEP 2009 Science, Grade 4 Florida vs. National Public Schools Gaps in Average Scale Scores

White and African-American Students



Key Finding:

The average scale score gap between Florida's grade 4 public school White and African-American students was 32 points. This gap is not significantly different from the national public's 35-point White/African-American average scale score gap.

Notes: Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

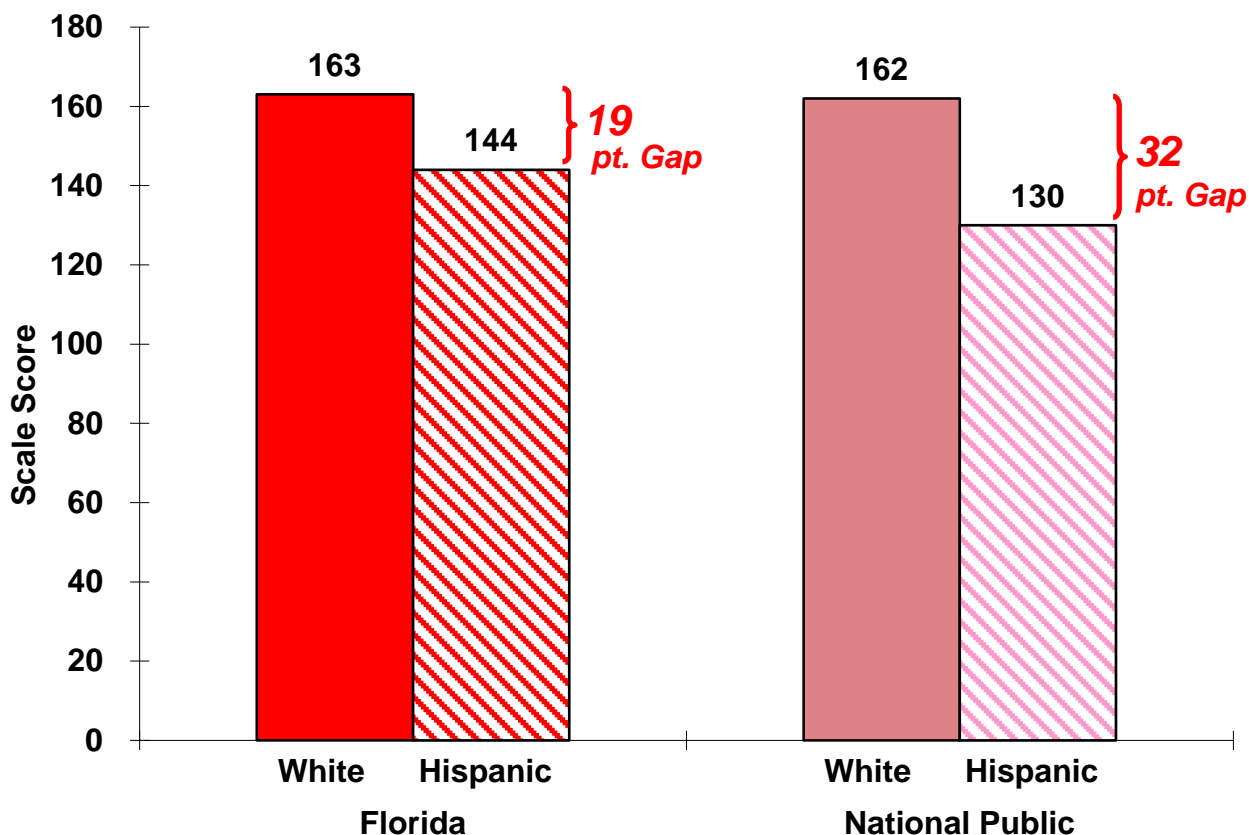
Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at <http://www.fldoe.org/asp/naep/>.

[NAEP Data Explorer](#) Search Criteria: Science, Grade 4. Jurisdictions: National Public, Florida. Year: 2009. Variables: Race/Ethnicity used to report trends, school-reported. Edit Reports: Statistics Options, Average Scale Scores.

NAEP 2009 Science, Grade 4 Florida vs. National Public Schools Gaps in Average Scale Scores (continued)



White and Hispanic Students



Key Finding:

The average scale score gap between Florida’s grade 4 public school White and Hispanic students was 19 points. This gap is narrower than the national public’s 32-point White/Hispanic average scale score gap.

Notes: Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at <http://www.fldoe.org/asp/naep/>.
[NAEP Data Explorer](#) Search Criteria: Science, Grade 4. Jurisdictions: National Public, Florida. Year: 2009. Variables: Race/Ethnicity used to report trends, school-reported. Edit Reports: Statistics Options, Average Scale Scores.

NAEP 2009 Science, Grade 4 Cross-State Comparison of Average Scale Scores White Students

Scale scores range from 0 to 300 and serve as the basis for achievement levels.

NAEP 2009 Science Cut Scores: *Basic* 131 to 166; *Proficient* 167 to 223; *Advanced* 224 to 300; scores below 131 are classified as below *Basic*.



Florida's grade 4 public school White students' NAEP 2009 Science average scale score of **163** compares to the nation and the other states as follows:

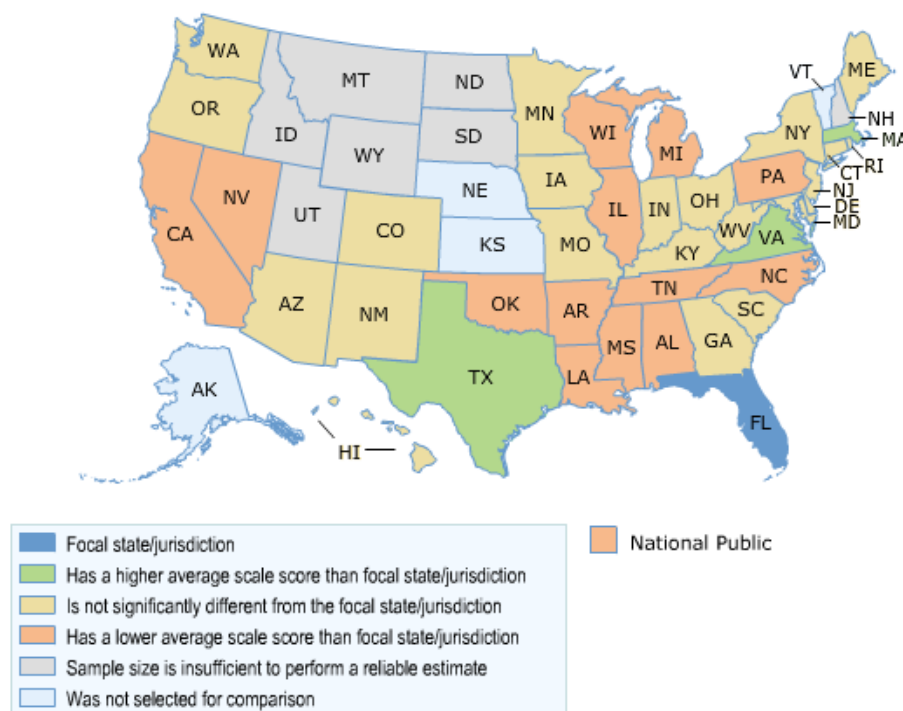
- **The following 12 states had significantly lower average scale scores than Florida:** Alabama, Arizona, Arkansas, Idaho, Indiana, Mississippi, Nevada, Oklahoma, Oregon, Tennessee, West Virginia, and Wyoming.
- **The following 30 states and the national public had average scale scores that were not significantly different from Florida's:** California, Colorado, Delaware, Georgia, Hawaii, Illinois, Iowa, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Missouri, Montana, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Pennsylvania, Rhode Island, South Carolina, South Dakota, Texas, Utah, Washington, and Wisconsin.
- **The following 3 states had significantly higher average scale scores than Florida:** Connecticut, Massachusetts, and Virginia.

Note: Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at <http://www.fldoe.org/asp/naep/>. [NAEP Data Explorer](#) Search Criteria: Science, Grade 4. Jurisdictions: National Public, All States. Year: 2009. Variables: Race/Ethnicity used to report trends, school-related. Edit Reports: Statistics Options, Average Scale Scores.

NAEP 2009 Science, Grade 4 Cross-State Comparison of Average Scale Scores African-American Students

Scale scores range from 0 to 300 and serve as the basis for achievement levels.
NAEP 2009 Science Cut Scores: *Basic* 131 to 166; *Proficient* 167 to 223; *Advanced* 224 to 300;
scores below 131 are classified as below *Basic*.



Florida's grade 4 public school African-American students' NAEP 2009 Science average scale score of **131** compares to the nation and the other states as follows:

- **The following 13 states and the national public had significantly lower average scale scores than Florida:** Alabama, Arkansas, California, Illinois, Louisiana, Michigan, Mississippi, Nevada, North Carolina, Oklahoma, Pennsylvania, Tennessee, and Wisconsin.
- **The following 22 states had average scale scores that were not significantly different from Florida's:** Arizona, Colorado, Connecticut, Delaware, Georgia, Hawaii, Indiana, Iowa, Kentucky, Maine, Maryland, Minnesota, Missouri, New Jersey, New Mexico, New York, Ohio, Oregon, Rhode Island, South Carolina, Washington, and West Virginia.
- **The following 3 states had significantly higher average scale scores than Florida:** Massachusetts, Texas, and Virginia.

The sample size in the following 7 states was not large enough to permit a reliable estimate: Idaho, Montana, New Hampshire, North Dakota, South Dakota, Utah, and Wyoming.

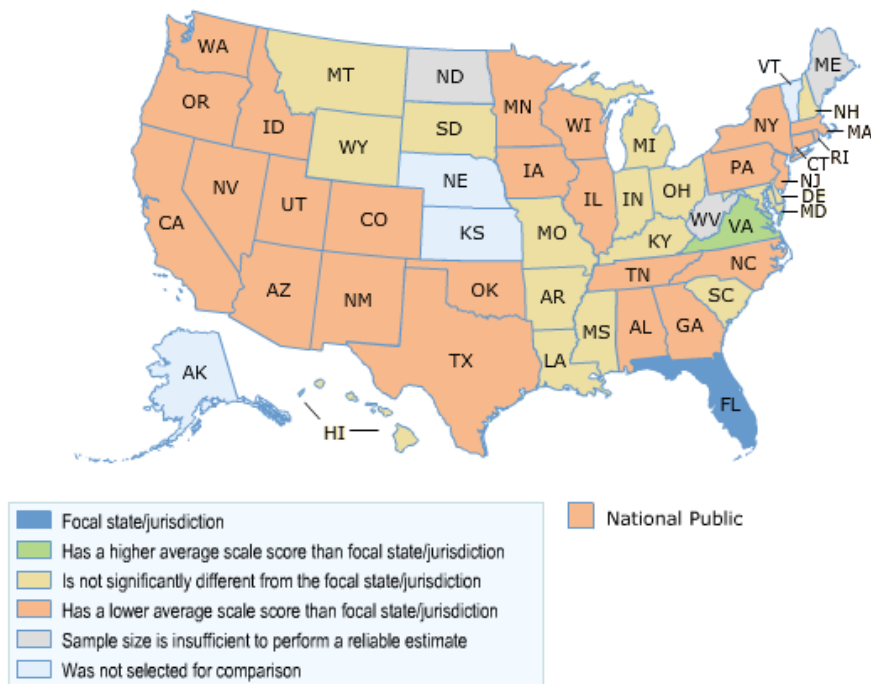
Note: Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at <http://www.fldoe.org/asp/naep/>. [NAEP Data Explorer](#) Search Criteria: Science, Grade 4. Jurisdictions: National Public, All States. Year: 2009. Variables: Race/Ethnicity used to report trends, school-related. Edit Reports: Statistics Options, Average Scale Scores.

NAEP 2009 Science, Grade 4 Cross-State Comparison of Average Scale Scores Hispanic Students

Scale scores range from 0 to 300 and serve as the basis for achievement levels.

NAEP 2009 Science Cut Scores: *Basic* 131 to 166; *Proficient* 167 to 223; *Advanced* 224 to 300; scores below 131 are classified as below *Basic*.



Florida's grade 4 public school Hispanic students' NAEP 2009 Science average scale score of **144** compares to the nation and the other states as follows:

- **The following 25 states and the national public had significantly lower average scale scores than Florida:** Alabama, Arizona, California, Colorado, Connecticut, Georgia, Idaho, Illinois, Iowa, Massachusetts, Minnesota, Nevada, New Jersey, New Mexico, New York, North Carolina, Oklahoma, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas, Utah, Washington, and Wisconsin.
- **The following 16 states had average scale scores that were not significantly different from Florida's:** Arkansas, Delaware, Hawaii, Indiana, Kentucky, Louisiana, Maryland, Michigan, Mississippi, Missouri, Montana, New Hampshire, Ohio, South Carolina, South Dakota, and Wyoming.
- **The following state had a significantly higher average scale score than Florida:** Virginia.

The sample size in the following 3 states was not large enough to permit a reliable estimate: Maine, North Dakota, and West Virginia.

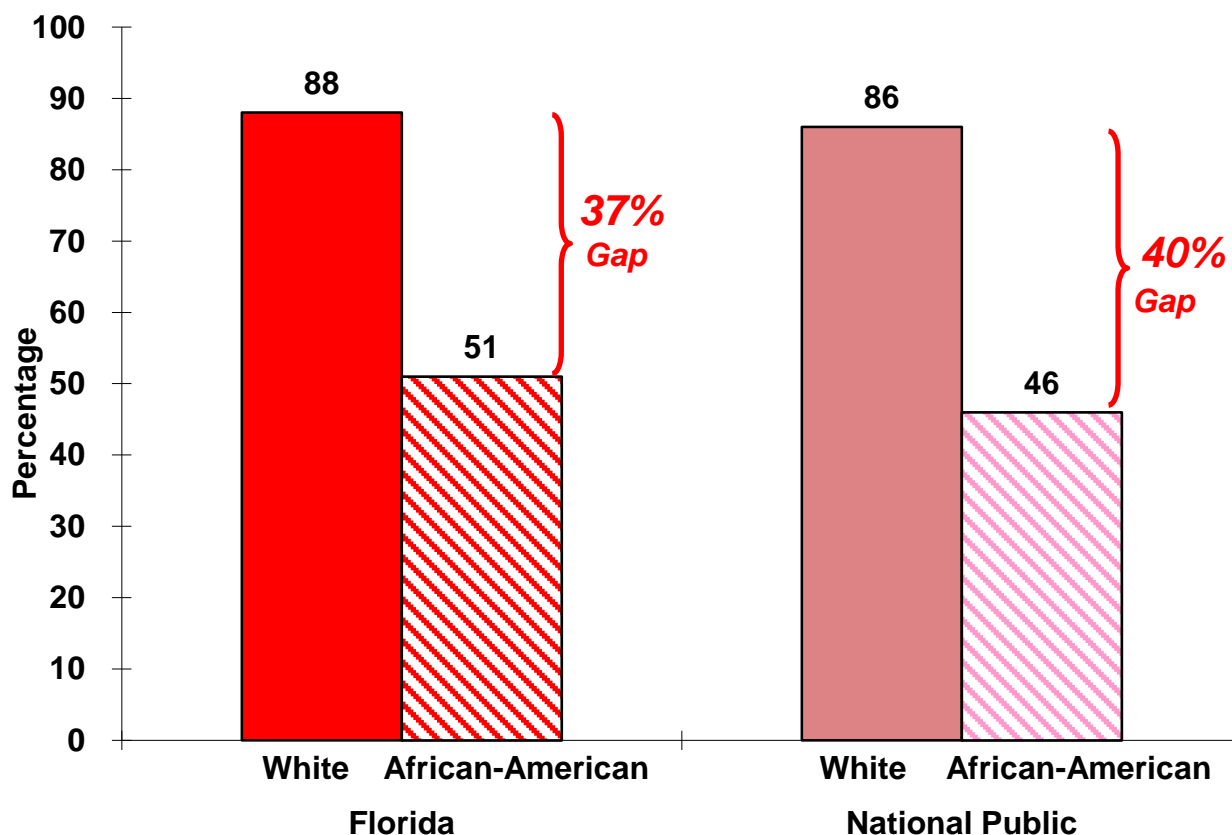
Note: Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at <http://www.fldoe.org/asp/naep/>. [NAEP Data Explorer](#) Search Criteria: Science, Grade 4. Jurisdictions: National Public, All States. Year: 2009. Variables: Race/Ethnicity used to report trends, school-related. Edit Reports: Statistics Options, Average Scale Scores.

NAEP 2009 Science, Grade 4 Florida vs. National Public Schools Gaps in Achievement-Level Scores – at or above *Basic*



White and African-American Students



Key Finding:

The gap between the percent of Florida’s grade 4 public school White and African-American students performing at or above *Basic* was 37 percentage points. This gap is not significantly different from the national public school’s White/African-American gap of 40 percentage points.

Notes: Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

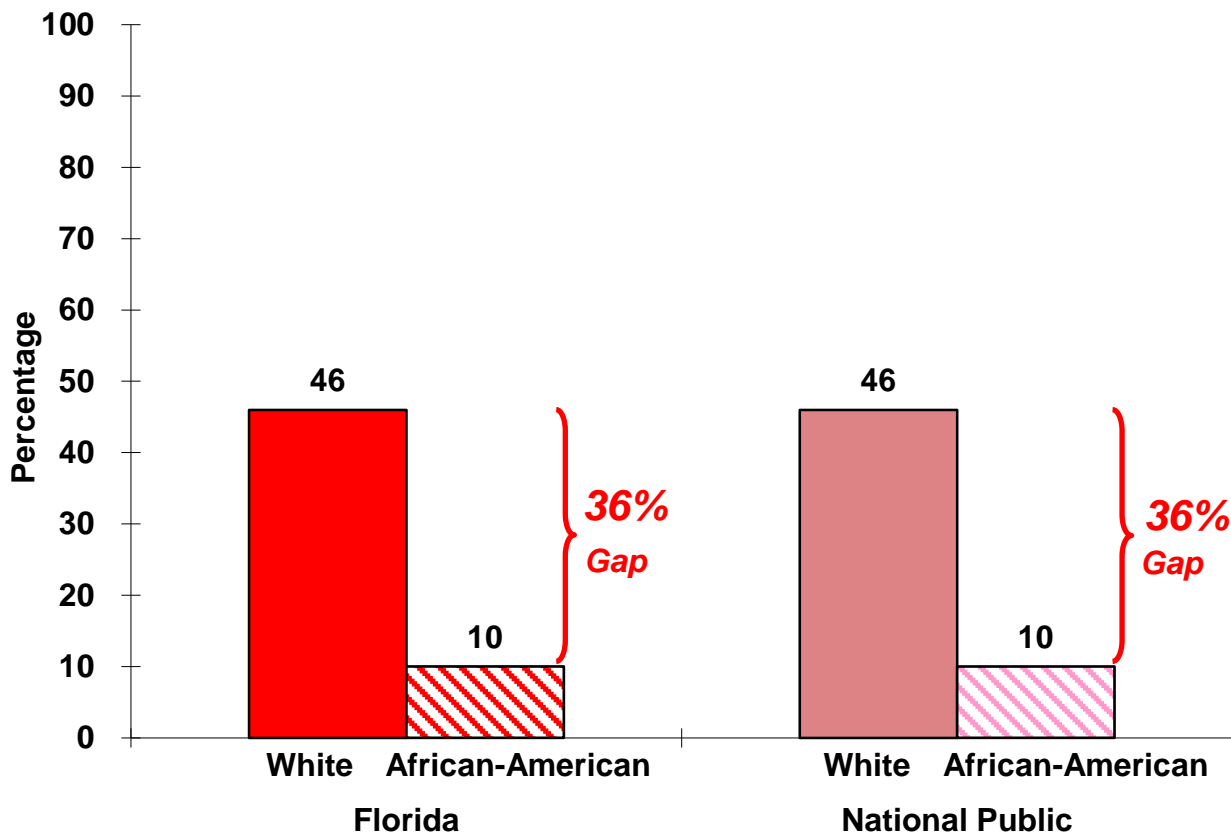
Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at <http://www.fldoe.org/asp/naep/>.

[NAEP Data Explorer](#) Search Criteria: Science, Grade 4. Jurisdictions: National Public, Florida. Year: 2009. Variables: Race/Ethnicity used to report trends, school-reported. Edit Reports: Statistics Options, Achievement Levels, Cumulative.

NAEP 2009 Science, Grade 4 Florida vs. National Public Schools Gaps in Achievement-Level Scores – at or above *Proficient*



White and African-American Students



Key Finding:

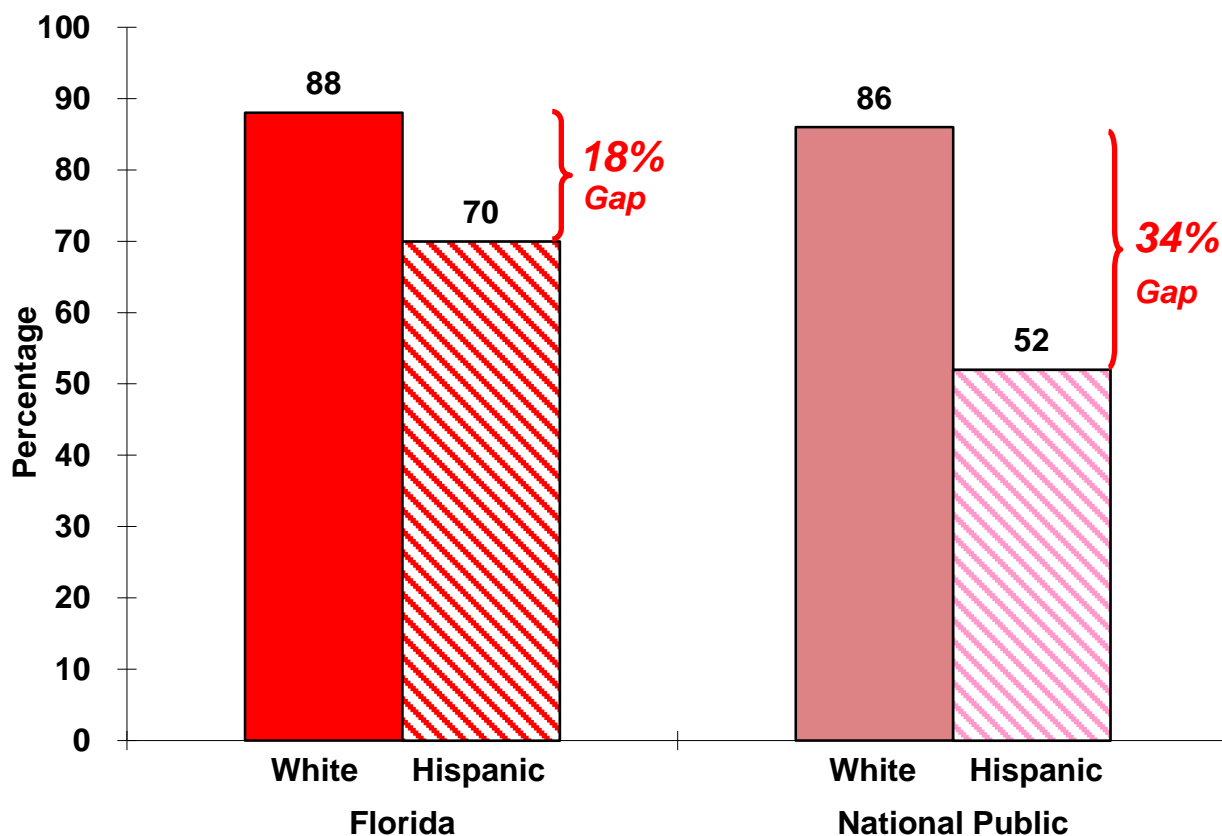
The gap between the percent of Florida’s grade 4 public school White and African-American students performing at or above *Proficient* was 36 percentage points, which is the same as the national public school’s White/African-American gap of 36 percentage points.

Notes: Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at <http://www.fldoe.org/asp/naep/>.
[NAEP Data Explorer](#) Search Criteria: Science, Grade 4. Jurisdictions: National Public, Florida. Year: 2009. Variables: Race/Ethnicity used to report trends, school-reported. Edit Reports: Statistics Options, Achievement Levels, Cumulative.

NAEP 2009 Science, Grade 4 Florida vs. National Public Schools Gaps in Achievement-Level Scores – at or above *Basic*

White and Hispanic Students



Key Finding:

The gap between the percent of Florida's grade 4 public school White and Hispanic students performing at or above *Basic* was 18 percentage points. This gap is significantly narrower than the national public school's White/Hispanic gap of 34 percentage points.

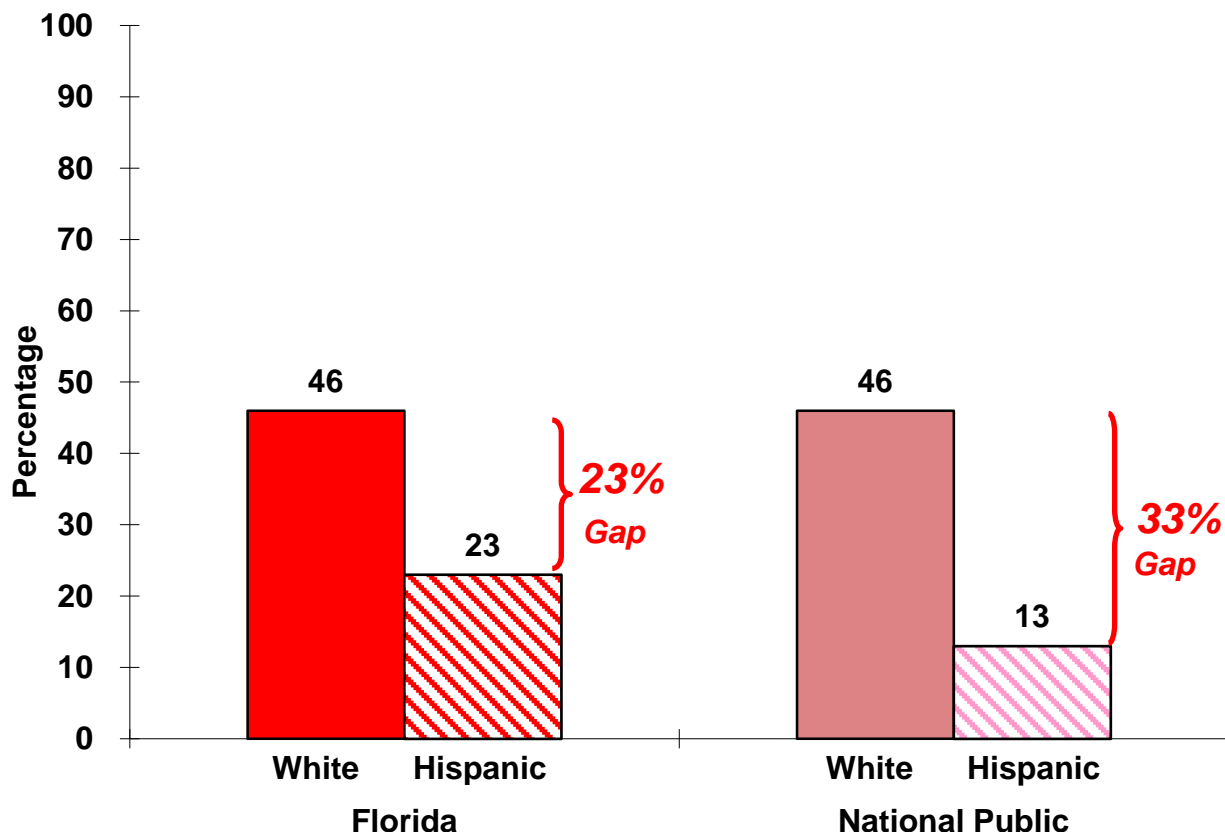
Notes: Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at <http://www.fldoe.org/asp/naep/>.
[NAEP Data Explorer](#) Search Criteria: Science, Grade 4. Jurisdictions: National Public, Florida. Year: 2009. Variables: Race/Ethnicity used to report trends, school-reported. Edit Reports: Statistics Options, Achievement Levels, Cumulative.

NAEP 2009 Science, Grade 4 Florida vs. National Public Schools Gaps in Achievement-Level Scores – at or above *Proficient*



White and Hispanic Students



Key Finding:

The gap between the percent of Florida’s grade 4 public school White and Hispanic students performing at or above *Proficient* was 23 percentage points. The national public school’s White/Hispanic gap of 33 percentage points is larger than Florida’s White/Hispanic achievement gap.

Notes: Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at <http://www.fldoe.org/asp/naep/>.

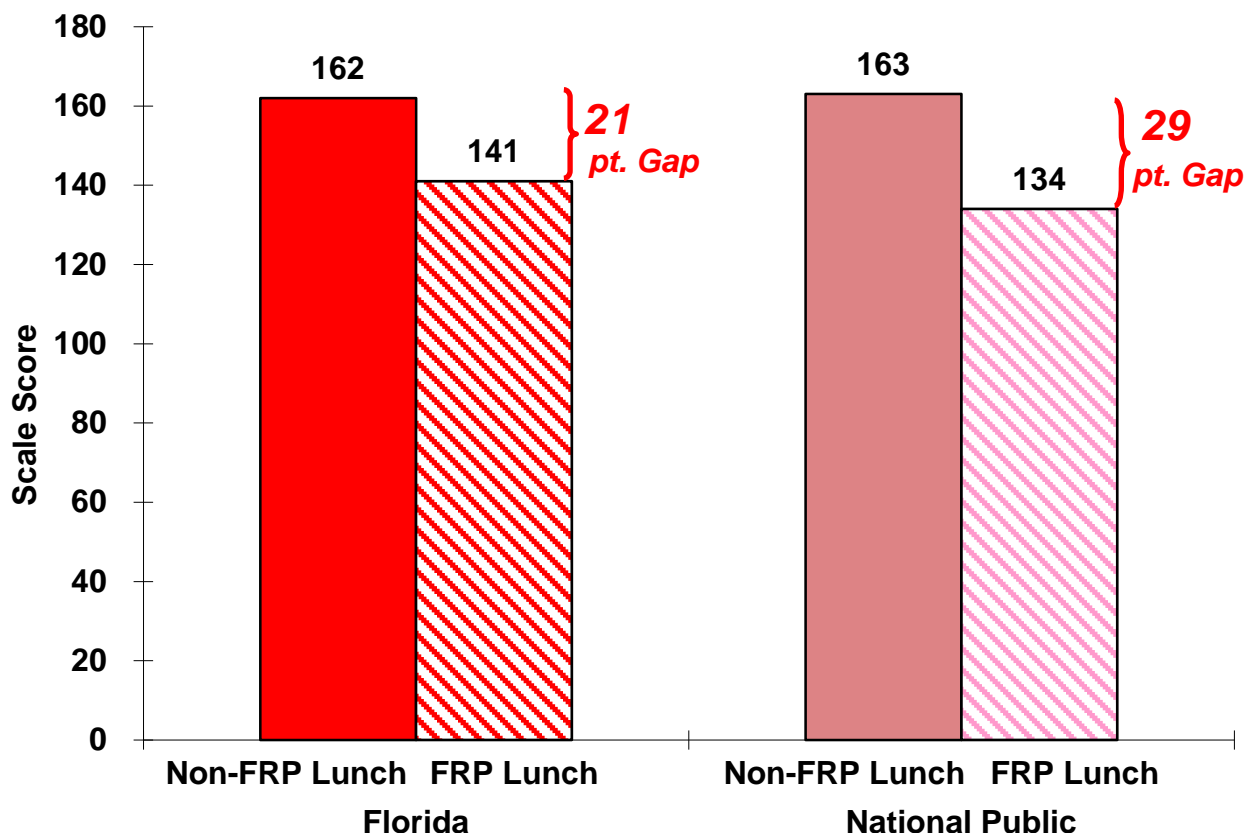
NAEP Data Explorer Search Criteria: Science, Grade 4. Jurisdictions: National Public, Florida. Year: 2009. Variables: Race/Ethnicity used to report trends, school-reported. Edit Reports: Statistics Options, Achievement Levels, Cumulative.

National School Lunch Program (NSLP) Eligibility

NAEP collects data on eligibility for the NSLP, which provides free or reduced-price school lunches. Results for this subgroup of students are included as an indicator of socioeconomic status (SES).

NAEP 2009 Science, Grade 4 Florida vs. National Public Schools Gaps in Average Scale Scores

Eligible/Not Eligible for the NSLP



Key Finding:

The average scale score gap between Florida's grade 4 public school students eligible and not eligible for the NSLP was 21 points. This gap is narrower than the national public school's 29-point gap between students eligible and not eligible for the NSLP.

Notes: Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at <http://www.fldoe.org/asp/naep/>. [NAEP Data Explorer](#) Search Criteria: Science, Grade 4. Jurisdictions: National Public, Florida. Year: 2009. Variables: NSLP=National School Lunch Program (used as an indicator of socioeconomic standing). Edit Reports: Statistics Options, Average Scale Scores.

NAEP 2009 Science, Grade 4 Cross-State Comparison of Average Scale Scores National School Lunch Program (NSLP) Eligibility

Scale scores range from 0 to 300 and serve as the basis for achievement levels.

NAEP 2009 Science Cut Scores: *Basic* 131 to 166; *Proficient* 167 to 223; *Advanced* 224 to 300; scores below 131 are classified as below *Basic*.



The NAEP 2009 Science average scale score of **141** of Florida’s grade 4 public school students eligible for the National School Lunch Program (NSLP) compares to the nation and the other states as follows:

- **The following 26 states and the national public had significantly lower average scale scores than Florida:** Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Georgia, Hawaii, Illinois, Louisiana, Maryland, Michigan, Mississippi, Nevada, New Jersey, New Mexico, New York, North Carolina, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, and Washington.
- **The following 12 states had average scale scores that were not significantly different from Florida’s:** Indiana, Iowa, Massachusetts, Minnesota, Missouri, Ohio, Oklahoma, South Dakota, Utah, Virginia, West Virginia, and Wisconsin.
- **The following 7 states had significantly higher average scale scores than Florida:** Idaho, Kentucky, Maine, Montana, New Hampshire, North Dakota, and Wyoming.

Notes: Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

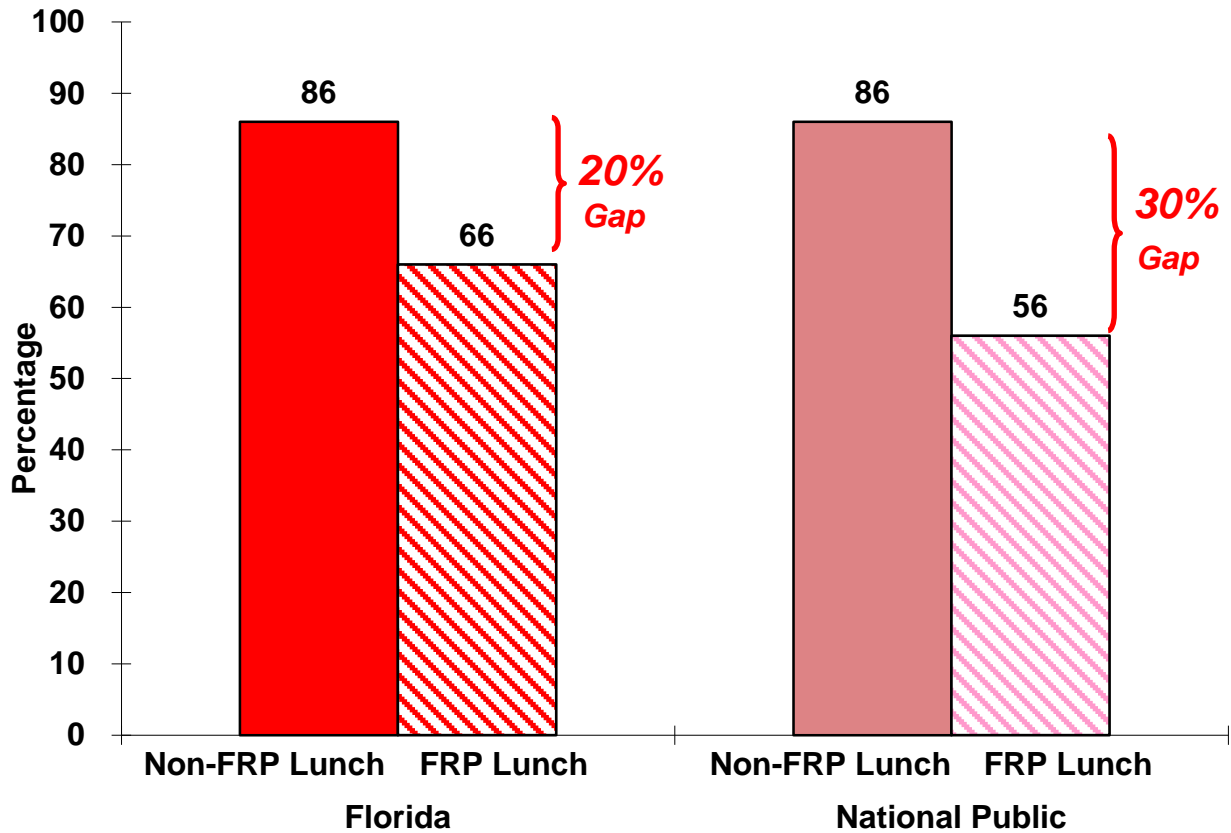
Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at <http://www.fldoe.org/asp/naep/>.

[NAEP Data Explorer](#) Search Criteria: Science, Grade 4. Jurisdictions: National Public, Florida. Year: 2009. Variables: NSLP=National School Lunch Program (used as an indicator of socioeconomic standing). Edit Reports: Statistics Options, Average Scale Scores.

**NAEP 2009 Science, Grade 4
Florida vs. National Public Schools
Gaps in Achievement-Level Scores – at or above *Basic***



National School Lunch Program (NSLP) Eligibility



Key Finding:

The gap between the percent of Florida’s grade 4 public school students eligible and not eligible for the NSLP performing at or above *Basic* was 20 percentage points. This gap is narrower than the national public school’s 30 percentage point gap between students eligible and not eligible for the NSLP scoring at or above *Basic*.

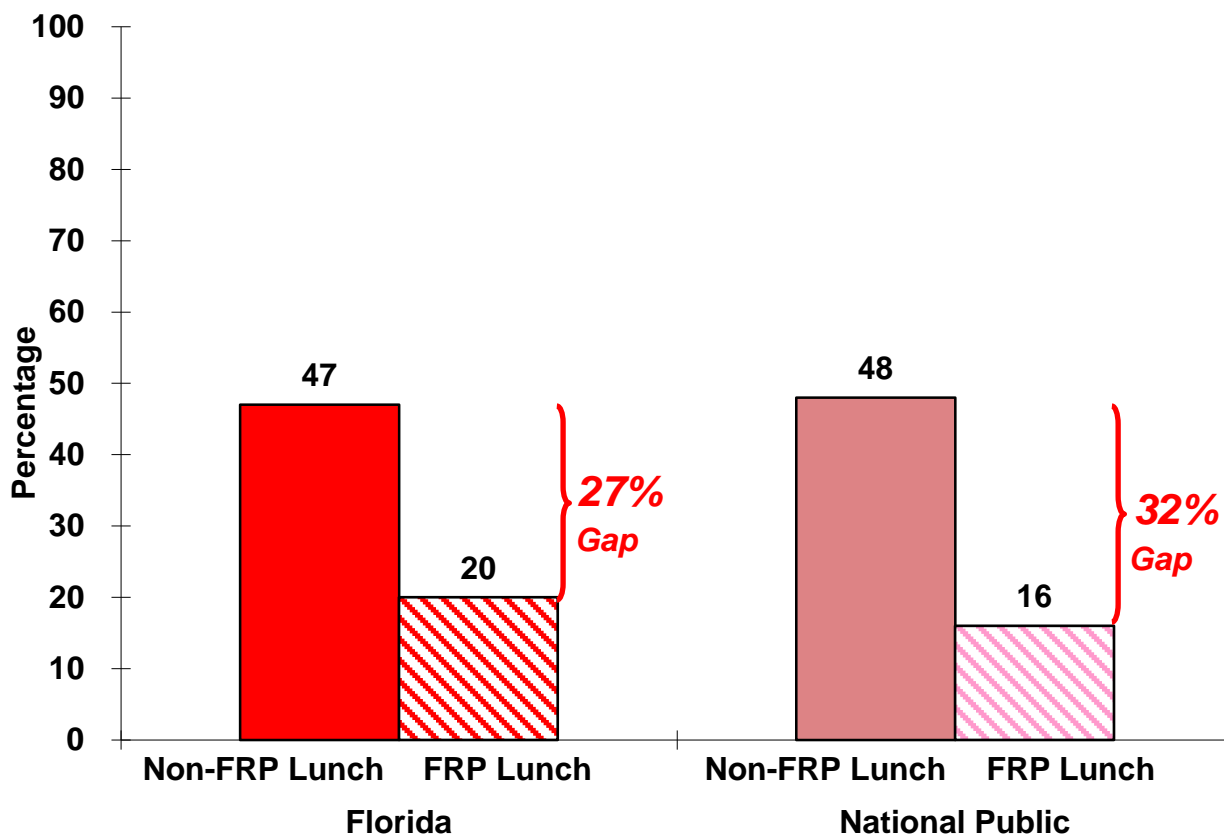
Notes: Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at <http://www.fldoe.org/asp/naep/>. [NAEP Data Explorer](#) Search Criteria: Science, Grade 4. Jurisdictions: National Public, Florida. Year: 2009. Variables: NSLP=National School Lunch Program (used as an indicator of socioeconomic standing). Edit Reports: Statistics Options, Achievement Levels, Cumulative.

**NAEP 2009 Science, Grade 4
Florida vs. National Public Schools
Gaps in Achievement-Level Scores – at or above *Proficient***



National School Lunch Program (NSLP) Eligibility



Key Finding:

The gap between the percent of Florida’s grade 4 public school students eligible and not eligible for the NSLP performing at or above *Proficient* was 27 percentage points. This gap is not significantly different from that of the national public school’s gap of 32 percentage points.

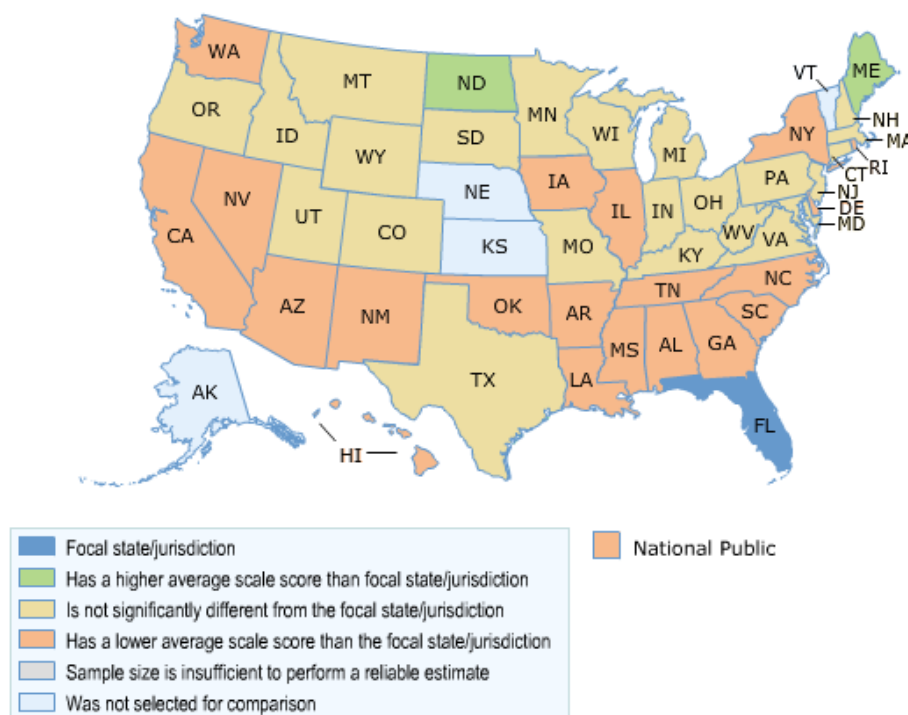
Notes: Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at <http://www.fldoe.org/asp/naep/>.
[NAEP Data Explorer](#) Search Criteria: Science, Grade 4. Jurisdictions: National Public, Florida. Year: 2009. Variables: NSLP=National School Lunch Program (used as an indicator of socioeconomic standing). Edit Reports: Statistics Options, Achievement Levels, Cumulative.

Students with Disabilities (SD)

School staff review the Individualized Educational Plans (IEPs) and Section 504 Plans of the SD selected to participate in NAEP to determine if the accommodations they might need are allowed by NAEP. The NAEP program furnishes tools to assist school personnel in making that decision. Inclusion in NAEP is encouraged if the student participates in the regular state assessment and if the student can participate in NAEP in a meaningful way with the accommodations NAEP allows. Because percentages of SD students excluded from NAEP may vary considerably across states and within a single state across years, comparisons of results across and within states over time should be interpreted with caution.

NAEP 2009 Science, Grade 4 Cross-State Comparison of Average Scale Scores Students with Disabilities



Florida's grade 4 public school students with disabilities' (SD) NAEP 2009 Science average scale score of **137** compares to the nation and the other states as follows:

- The following 20 states and the national public had lower average scale scores than Florida:** Alabama, Arizona, Arkansas, California, Delaware, Georgia, Hawaii, Illinois, Iowa, Louisiana, Mississippi, Nevada, New Mexico, New York, North Carolina, Oklahoma, Rhode Island, South Carolina, Tennessee, and Washington.
- The following 23 states had average scale scores that were not significantly different from Florida's:** Colorado, Connecticut, Idaho, Indiana, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, New Hampshire, New Jersey, Ohio, Oregon, Pennsylvania, South Dakota, Texas, Utah, Virginia, West Virginia, Wisconsin, and Wyoming.
- The following 2 states had significantly higher average scale scores than Florida:** Maine and North Dakota.

Notes: Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

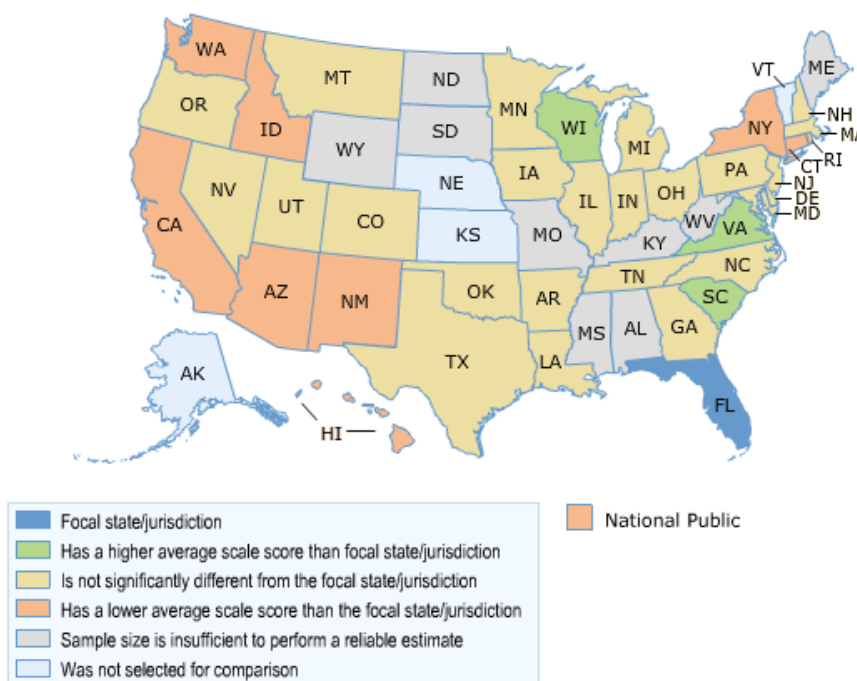
Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at <http://www.fldoe.org/asp/naep/>.

[NAEP Data Explorer](#) Search Criteria: Science, Grade 4. Jurisdictions: National Public, Florida. Year: 2009. Variables: SD=Students with Disabilities. Edit Reports: Statistics Options, Average Scale Scores.

English Language Learners (ELLs)

School staff decide whether to include an ELL in a NAEP assessment and which accommodations, if any, he or she should receive. The NAEP program furnishes tools to assist school personnel in making that decision. Inclusion in NAEP is encouraged if the student participated in the regular state assessment and if the student can participate in NAEP in a meaningful way with the accommodations NAEP allows. Because percentages of students excluded from NAEP may vary considerably across states and within a single state across years, comparisons of results across and within states over time should be interpreted with caution.

NAEP 2009 Science, Grade 4 Cross-State Comparison of Average Scale Scores English Language Learners



Florida's grade 4 public school English language learners (ELL) NAEP 2009 Science average scale score of **122** compares to the nation and the other states as follows:

- **The following 9 states and the national public had lower average scale scores than Florida:** Arizona, California, Connecticut, Hawaii, Idaho, New Mexico, New York, Rhode Island, and Washington.
- **The following 24 states had average scale scores that were not significantly different from Florida's:** Arkansas, Colorado, Delaware, Georgia, Illinois, Indiana, Iowa, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Montana, Nevada, New Hampshire, New Jersey, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Tennessee, Texas, and Utah.
- **The following 3 states had significantly higher average scale scores than Florida:** South Carolina, Virginia, and Wisconsin.

The sample size in the following 9 states was not large enough to permit a reliable estimate: Alabama, Kentucky, Maine, Mississippi, Missouri, North Dakota, South Dakota, West Virginia, and Wyoming.

Notes: Comparisons based on statistical tests (.05 level) using unrounded numbers that consider the magnitude of difference and standard errors.

Source: U.S. Department of Education, Institute of Education Sciences, National Center of Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment. Visit Florida NAEP on the web at <http://www.fldoe.org/asp/naep/>.

[NAEP Data Explorer](#) Search Criteria: Science, Grade 4. Jurisdictions: National Public, Florida. Year: 2009. Variables: ELL=English language learners. Edit Reports: Statistics Options, Average Scale Scores.

Appendix A: Grade 4, NAEP Science Demographic Description of Florida's and the Nation's Public School Sample, 2009

Schools report the racial/ethnic subgroups that best describe the students eligible to be assessed. Florida has reportable (sufficient size) populations in the White, African-American, Hispanic, and Asian-Pacific racial/ethnic groups.

Table 1
Grade 4 Science Demographic Description of Florida's and the Nation's Public School Sample

Year	White		African-American		Hispanic		Asian/Pacific Islander	
	Florida's Public Schools	Nation's Public Schools	Florida's Public Schools	Nation's Public Schools	Florida's Public Schools	Nation's Public Schools	Florida's Public Schools	Nation's Public Schools
2009	46%	54%	22%	16%	25%	22%	2%	5%

Florida's percentage of White and Asian/Pacific Islander students was significantly lower than the nation's. Florida's percentage of African-American and Hispanic students was significantly higher than the nation's.

Appendix B: Grade 4, NAEP Science Students with Disabilities (SD) Inclusion Rates for Florida's and the Nation's Public Schools

School staff review the Individualized Educational Plans (IEPs) and Section 504 Plans of the SD selected to participate in NAEP to determine if the accommodations they might need are allowed by NAEP. The NAEP program furnishes tools to assist school personnel in making that decision.

Inclusion in NAEP is encouraged if the student participates in the regular state assessment and if the student can participate in NAEP in a meaningful way with the accommodations NAEP allows. Because percentages of students excluded from NAEP may vary considerably across states and within a state across years, comparisons of results across and within states should be interpreted with caution.

The National Assessment Governing Board (NAGB) adopted a new Policy Statement on March 6, 2010, stipulating that the proportion of all students excluded from any NAEP sample should not exceed 5 percent. Also, they established an 85 percent inclusion goal for students classified as either SD or ELL.

Inclusion rates for Florida's and the nation's public schools for SD in the 2009 NAEP Science assessment are shown below in Table 2:

Table 2
2009 NAEP Science Grade 4 Overall and SD Inclusion Rates for Florida's and the Nation's Public Schools

Year	Florida's Public School Overall Inclusion Rate	Nation's Public School Overall Inclusion Rate	Florida's Public School SD Inclusion Rate	Nation's Public School SD Inclusion Rate
2009	98%	98%	92%	87%

Appendix C: Grade 4, NAEP Science English Language Learners (ELLs) Inclusion Rates for Florida’s and the Nation’s Public Schools

School staff decide whether to include an ELL in a NAEP assessment and which accommodations, if any, he or she should receive. The NAEP program furnishes tools to assist school personnel in making that decision.

Inclusion in NAEP is encouraged if the student participates in the regular state assessment and if the student can participate in NAEP in a meaningful way with the accommodations NAEP allows. Because percentages of students excluded from NAEP may vary considerably across states and within a state across years, comparisons of results across and within states should be interpreted with caution.

The National Assessment Governing Board adopted a new Policy Statement on March 6, 2010, stipulating that the proportion of all students excluded from any NAEP sample should not exceed 5 percent. Also, they established an 85 percent inclusion goal for students classified as either SD or ELL.

Inclusion rates for Florida and the nation’s public schools for English language learners (ELL) in the 2009 NAEP Science assessment are shown below in Table 3:

Table 3
2009 NAEP Science Grade 4 Overall and ELL Inclusion Rates for Florida’s and the Nation’s Public Schools

Year	Florida’s Public School Overall Inclusion Rate	Nation’s Public School Overall Inclusion Rate	Florida’s Public School ELL Inclusion Rate	Nation’s Public School ELL Inclusion Rate
2009	98%	98%	92%	93%

Appendix D: Grade 4, NAEP Science Participation of Florida’s and the Nation’s Public Schools and Students

A representative sample of the student population participates in NAEP. Results are then assembled to form projected state and national scores based on aggregated state and national results. NAEP does not provide school- or student-level results. The student and school participation counts for Florida and the nation in the Grade 4 NAEP 2009 Science Assessment are provided in Table 4.

Table 4
School and Student Participation

Jurisdiction	Total Number of Participating Schools	Total Number of Students Assessed
National Public Schools	8,780	151,500
Florida	180	4,700