NAEP
FLORIDA
NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS

2017
National Assessment of Educational Progress
Grade 8 Mathematics Results

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Achievement Level Descriptions
NAEP Grade 8 Mathematics (Scale Score Range: 0-500)

Basic **(262)**	**Eighth-grade students performing at the *Basic* level should exhibit evidence of conceptual and procedural understanding in the five NAEP content areas (number properties and operations; measurement; geometry; data analysis, statistics, and probability; algebra). This level of performance signifies an understanding of arithmetic operations—including estimation—on whole numbers, decimals, fractions, and percents.** Eighth-graders performing at the *Basic* level should complete problems correctly with the help of structural prompts such as diagrams, charts, and graphs. They should be able to solve problems in all NAEP content areas through the appropriate selection and use of strategies and technological tools—including calculators, computers, and geometric shapes. Students at this level also should be able to use fundamental algebraic and informal geometric concepts in problem solving. As they approach the *Proficient* level, students at the *Basic* level should be able to determine which of the available data are necessary and sufficient for correct solutions and use them in problem solving. However, these eighth-graders show limited skill in communicating mathematically.
Proficient **(299)**	**Eighth-grade students performing at the *Proficient* level should apply mathematical concepts and procedures consistently to complex problems in the five NAEP content areas (number properties and operations; measurement; geometry; data analysis, statistics, and probability; algebra).** Eighth-graders performing at the *Proficient* level should be able to conjecture, defend their ideas, and give supporting examples. They should understand the connections between fractions, percents, decimals, and other mathematical topics such as algebra and functions. Students at this level are expected to have a thorough understanding of *Basic* level arithmetic operations—an understanding sufficient for problem solving in practical situations. Quantity and spatial relationships in problem solving and reasoning should be familiar to them, and they should be able to convey underlying reasoning skills beyond the level of arithmetic. They should be able to compare and contrast mathematical ideas and generate their own examples. These students should make inferences from data and graphs, apply properties of informal geometry, and accurately use the tools of technology. Students at this level should understand the process of gathering and organizing data and be able to calculate, evaluate, and communicate results within the domain of statistics and probability.
Advanced **(333)**	**Eighth-grade students performing at the *Advanced* level should be able to reach beyond the recognition, identification, and application of mathematical rules in order to generalize and synthesize concepts and principles in the five NAEP content areas (number properties and operations; measurement; geometry; data analysis, statistics, and probability; algebra).** Eighth-graders performing at the *Advanced* level should be able to probe examples and counterexamples in order to shape generalizations from which they can develop models. Eighth-graders performing at the *Advanced* level should use number sense and geometric awareness to consider the reasonableness of an answer. They are expected to use abstract thinking to create unique problem-solving techniques and explain the reasoning processes underlying their conclusions.

NAEP Grade 8 Mathematics
Florida Complete Results

ASSESSMENT			AVERAGE SCORE		ACHIEVEMENT LEVELS		
Subject	Grade	Year	Score	Difference from National public (NP)	At or above Basic	At or above Proficient	At Advanced
Mathematics (scale range 0–500)	**8**	**2017**	**279**	**-3 ↓**	**66**	**29**	**7**
Mathematics (scale range 0–500)	8	2015	275	-6 ↓	64	26	5
Mathematics (scale range 0–500)	8	2013	281	-3 ↓	70	31	7
Mathematics (scale range 0–500)	8	2011	278	-5 ↓	68	28	6
Mathematics (scale range 0–500)	8	2009	279	-2 ↓	70	29	6
Mathematics (scale range 0–500)	8	2007	277	-3 ↓	68	27	5
Mathematics (scale range 0–500)	8	2005	274	-3 ↓	65	26	5
Mathematics (scale range 0–500)	8	2003	271	-5 ↓	62	23	4
Mathematics (scale range 0–500)	8	1996[1]	264	-7 ↓	54	17	2
Mathematics (scale range 0–500)	8	1992[1]	260	-7 ↓	49	15	1
Mathematics (scale range 0–500)	8	1990[1]	255	-6 ↓	43	12	1

↑ Significantly higher than National public
◆ Not significantly different from National public
↓ Significantly lower than National public

Rounds to zero.
[1] Accommodations were not permitted for this assessment.

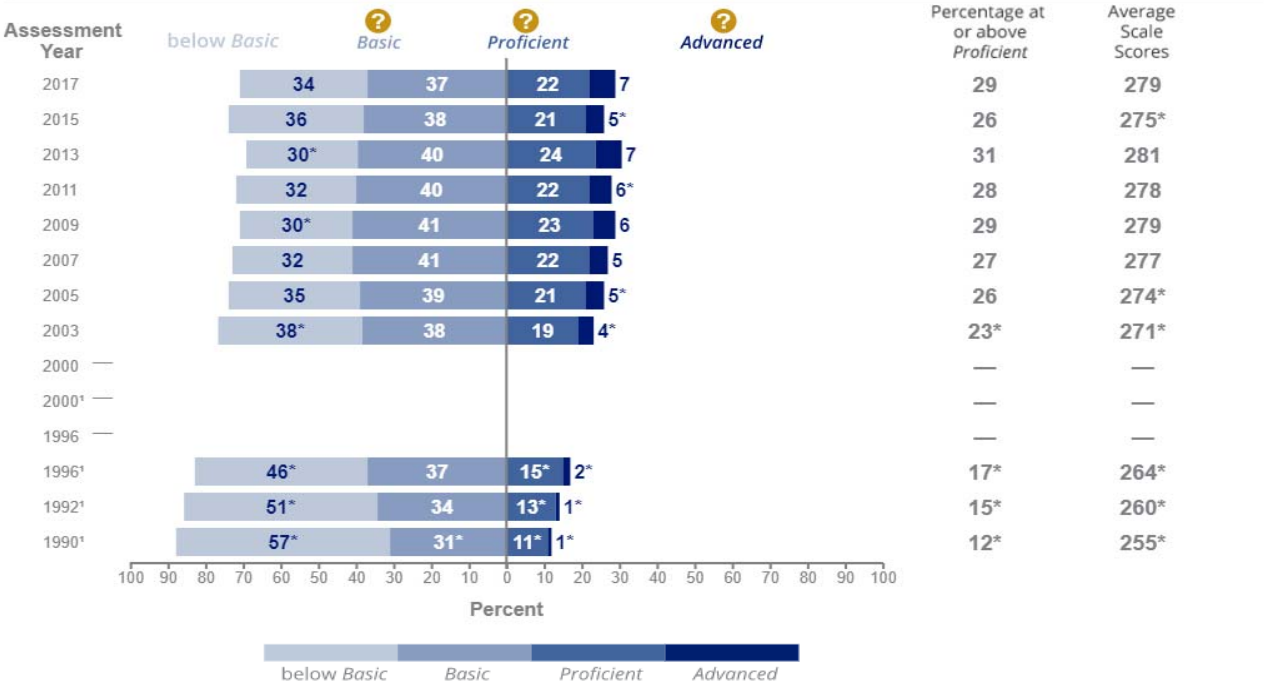
NOTE: Detail may not sum to totals because of rounding. Some apparent differences between estimates may not be statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, 1998, 2002, 2003, 2005, 2007, 2009, 2011, 2013, 2015, and 2017 Mathematics, and Reading, and Science, and Writing Assessments.

GRADE 8 | MATHEMATICS

Percentage below Basic, percentage at Basic, percentage at Proficient, percentage at Advanced, percentage at or above Proficient and average scale scores for grade 8 mathematics, by All students [TOTAL] and jurisdiction: 1990, 1992, 1996, 2000, 2003, 2005, 2007, 2009, 2011, 2013, 2015, and 2017

SET BASELINE AT: ○ at or above *Basic* ◉ at or above *Proficient*

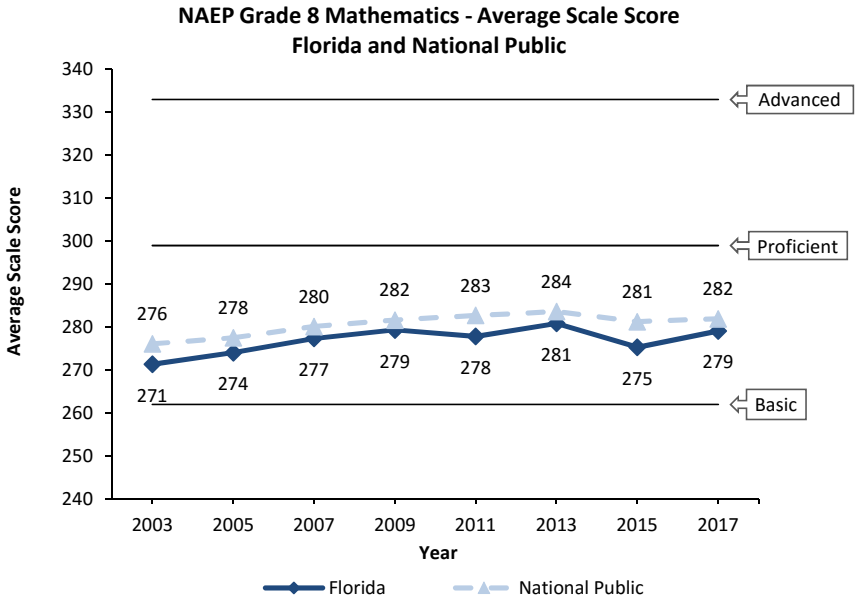


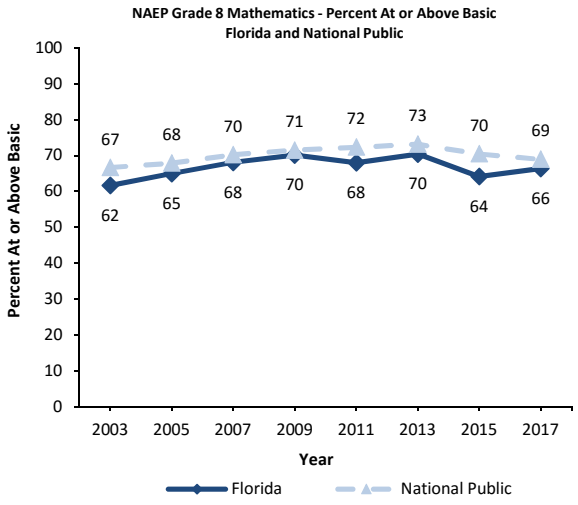
— Not available.
* Significantly different ($p < .05$) from 2017.
[1] Accommodations were not permitted for this assessment.
NOTE: Some apparent differences between estimates may not be statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, 2000, 2003, 2005, 2007, 2009, 2011, 2013, 2015, and 2017 Mathematics Assessments.

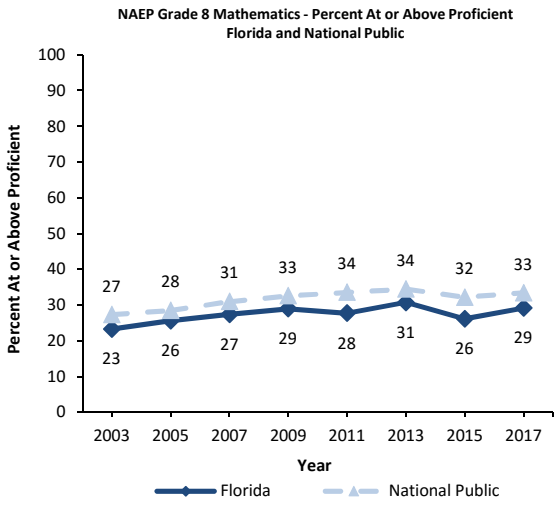
NAEP Grade 8 Mathematics - Overall Student Results

Florida and National Public

	Average Scale Score		Percent At or Above Basic		Percent At or Above Proficient	
Year	Florida	National Public	Florida	National Public	Florida	National Public
2003	271	276	62	67	23	27
2005	274	278	65	68	26	28
2007	277	280	68	70	27	31
2009	279	282	70	71	29	33
2011	278	283	68	72	28	34
2013	281	284	70	73	31	34
2015	275	281	64	70	26	32
2017	**279**	**282**	**66**	**69**	**29**	**33**







NOTE: Detail may not sum to totals because of rounding. Some apparent differences between estimates may not be statistically significant.

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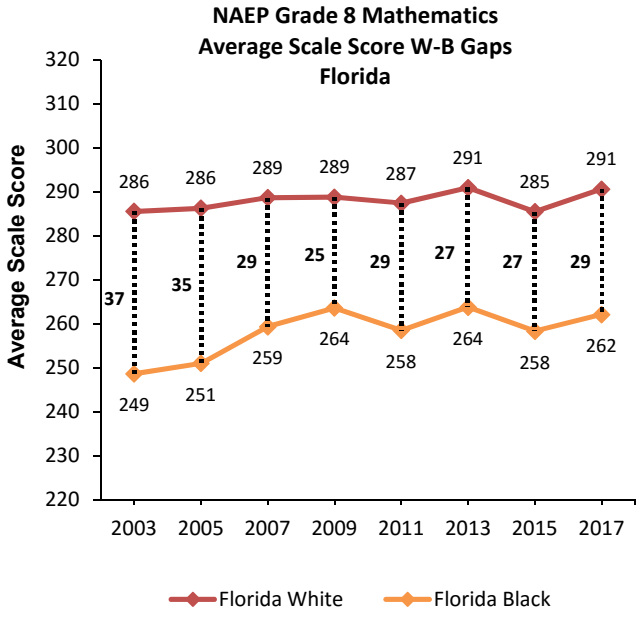
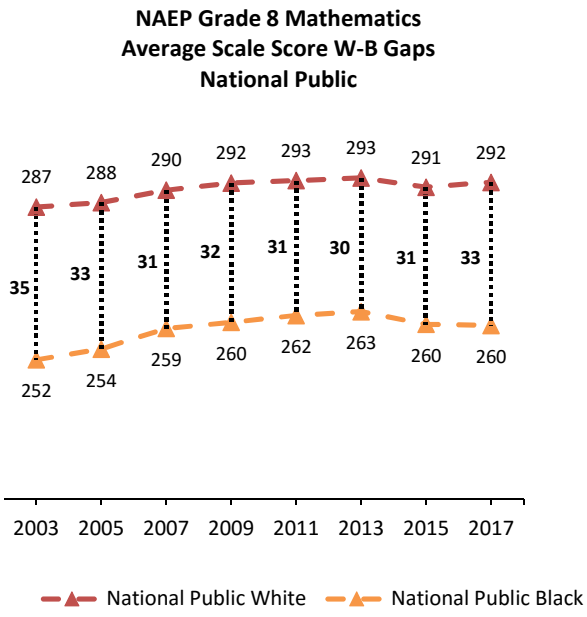
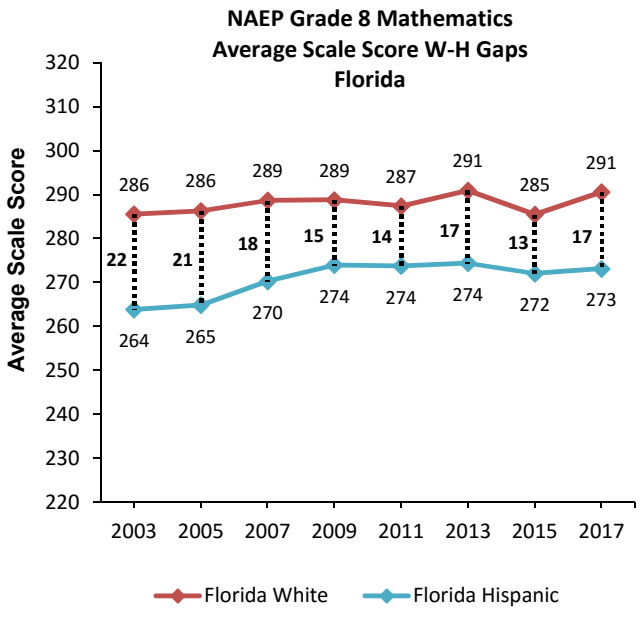
NAEP Grade 8 Mathematics - Average Scale Score Race/Ethnicity Gaps

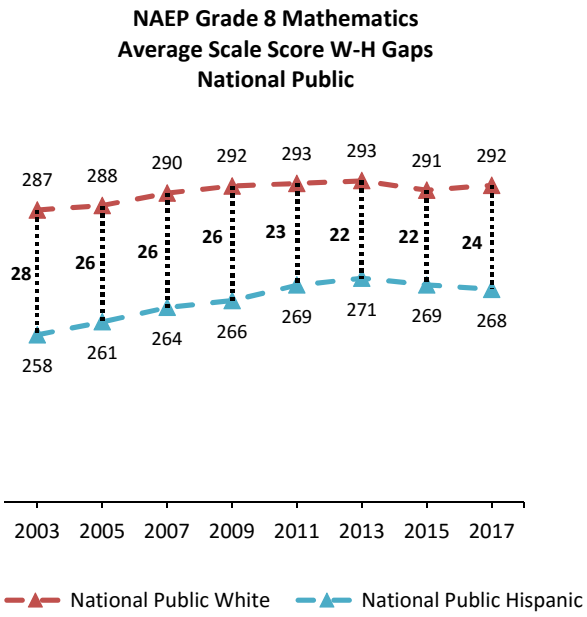
Florida and National Public

Year	Florida White	National Public White	Florida Black	National Public Black	Florida Hispanic	National Public Hispanic	Florida W-B Gap	National Public W-B Gap	Florida W-H Gap	National Public W-H Gap
2003	286	287	249	252	264	258	37	35	22	28
2005	286	288	251	254	265	261	35	33	21	26
2007	289	290	259	259	270	264	29	31	18	26
2009	289	292	264	260	274	266	25	32	15	26
2011	287	293	258	262	274	269	29	31	14	23
2013	291	293	264	263	274	271	27	30	17	22
2015	285	291	258	260	272	269	27	31	13	22
2017	**291**	**292**	**262**	**260**	**273**	**268**	**29**	**33**	**17**	**24**









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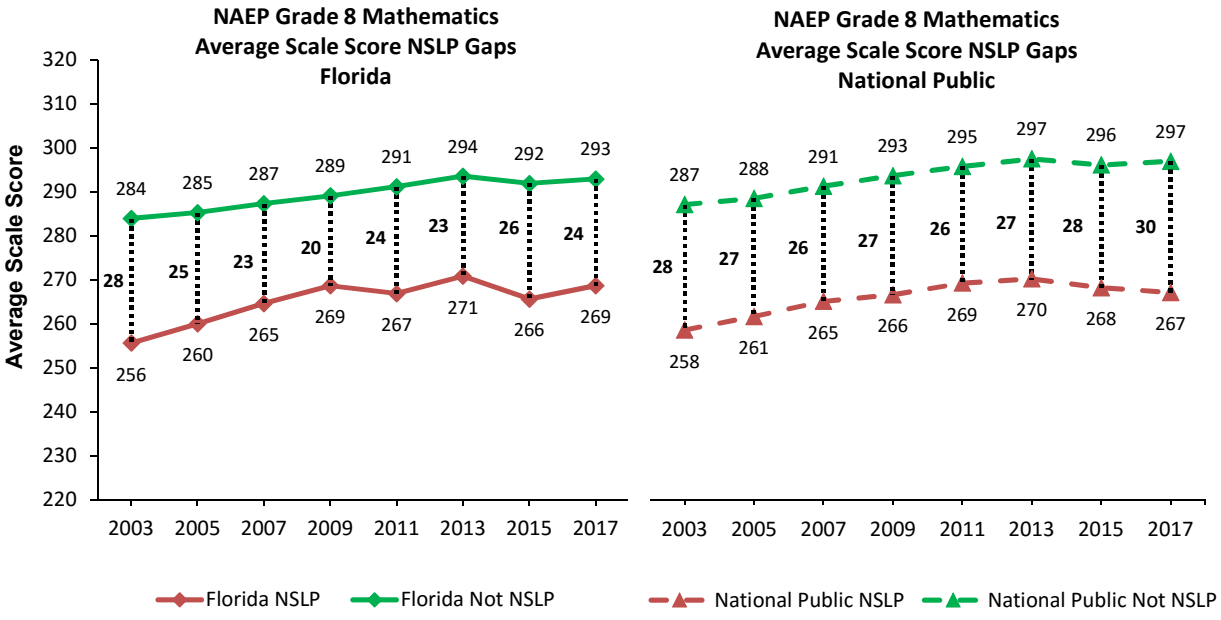
NAEP Grade 8 Mathematics - Average Scale Score National School Lunch Program (NSLP) Gaps

Florida and National Public

Year	Florida NSLP	National Public NSLP	Florida Not NSLP	National Public Not NSLP	Florida Not NSLP-NSLP Gap	National Public Not NSLP-NSLP Gap
2003	256	258	284	287	28	28
2005	260	261	285	288	25	27
2007	265	265	287	291	23	26
2009	269	266	289	293	20	27
2011	267	269	291	295	24	26
2013	271	270	294	297	23	27
2015	266	268	292	296	26	28
2017	**269**	**267**	**293**	**297**	**24**	**30**



NOTE: Detail may not sum to totals because of rounding. Some apparent differences between estimates may not be statistically significant.

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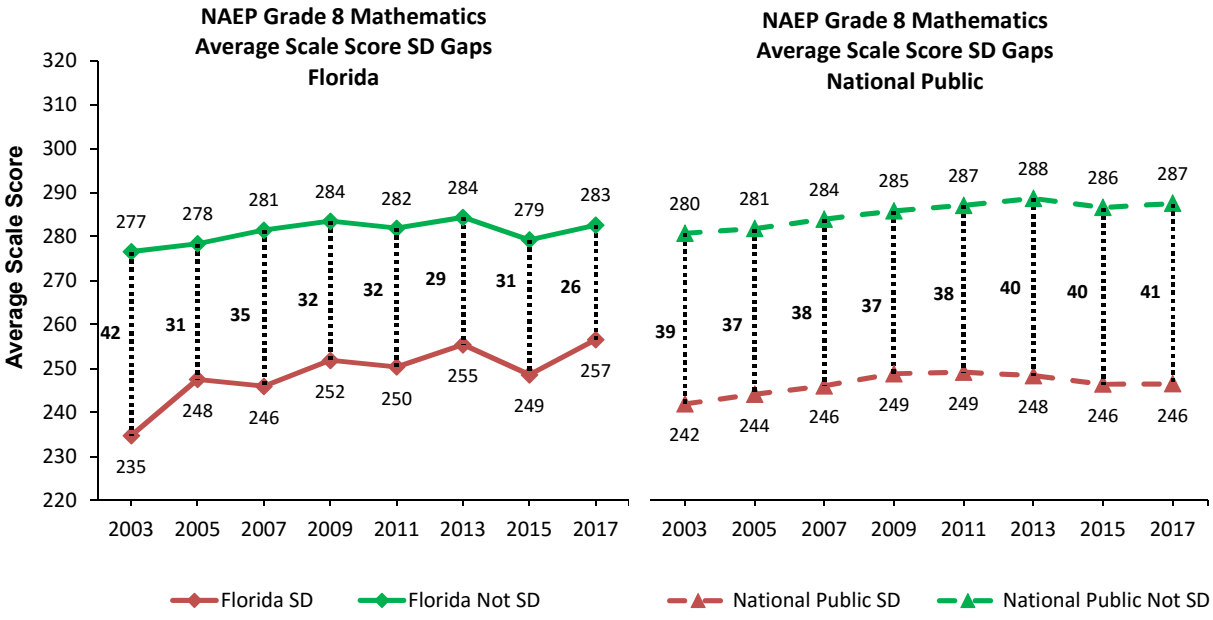
NAEP Grade 8 Mathematics - Average Scale Score Students with Disabilities (SD) Gaps
Florida and National Public

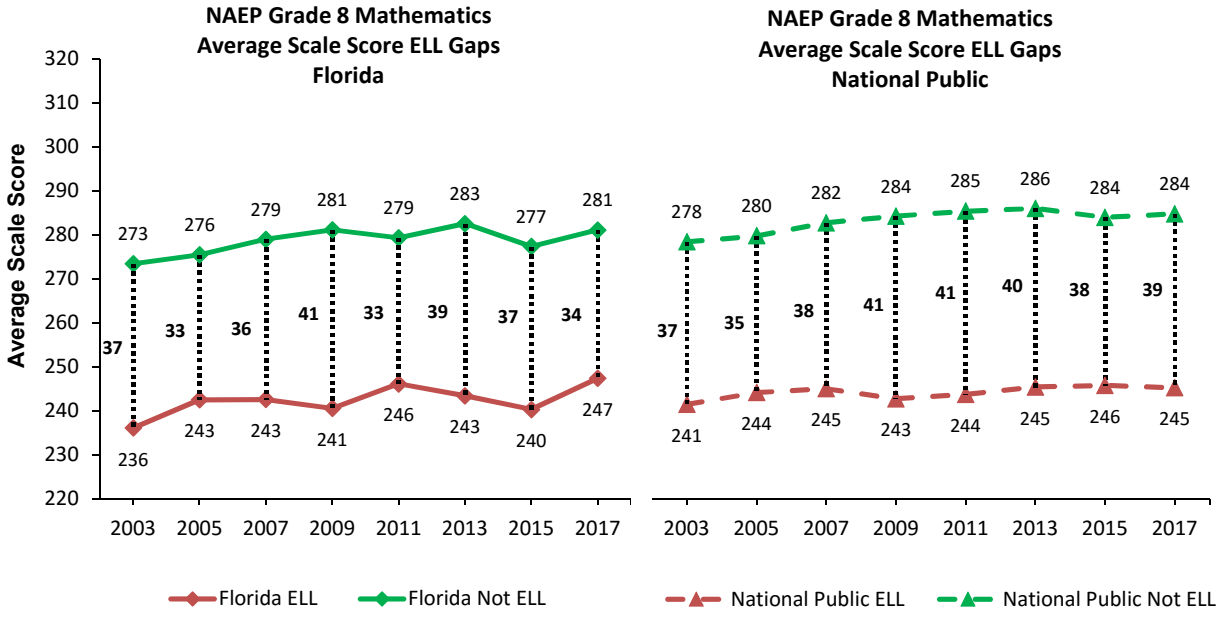
Year	Florida SD	National Public SD	Florida Not SD	National Public Not SD	Florida Not SD-SD Gap	National Public Not SD-SD Gap
2003	235	242	277	280	42	39
2005	248	244	278	281	31	37
2007	246	246	281	284	35	38
2009	252	249	284	285	32	37
2011	250	249	282	287	32	38
2013	255	248	284	288	29	40
2015	249	246	279	286	31	40
2017	**257**	**246**	**283**	**287**	**26**	**41**



NOTE: Detail may not sum to totals because of rounding. Some apparent differences between estimates may not be statistically significant.

NAEP Grade 8 Mathematics - Average Scale Score English Language Learner (ELL) Gaps Florida and National Public

Year	Florida ELL	National Public ELL	Florida Not ELL	National Public Not ELL	Florida Not ELL-ELL Gap	National Public Not ELL-ELL Gap
2003	236	241	273	278	37	37
2005	243	244	276	280	33	35
2007	243	245	279	282	36	38
2009	241	243	281	284	41	41
2011	246	244	279	285	33	41
2013	243	245	283	286	39	40
2015	240	246	277	284	37	38
2017	**247**	**245**	**281**	**284**	**34**	**39**



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