

About the WP (Working Paper) series on the Math Stagnation Nations (& what MMU1 can do about this quickly)

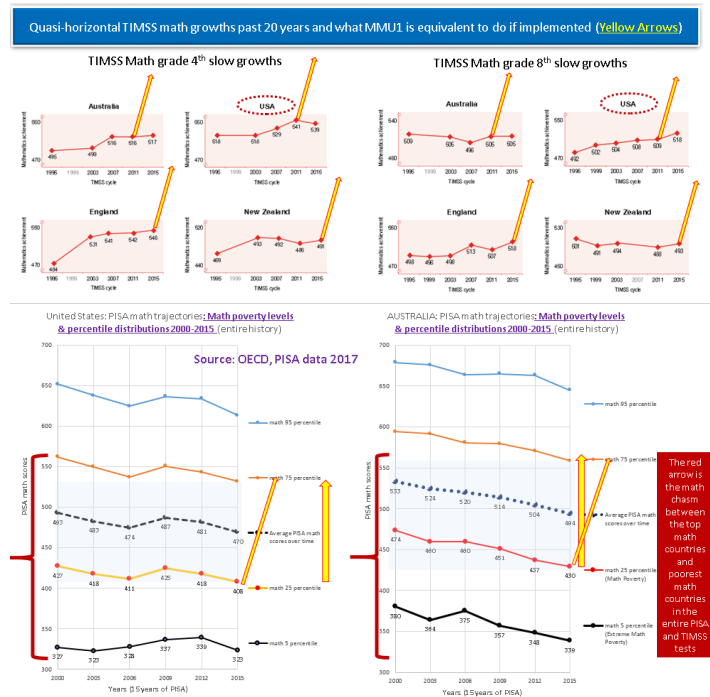
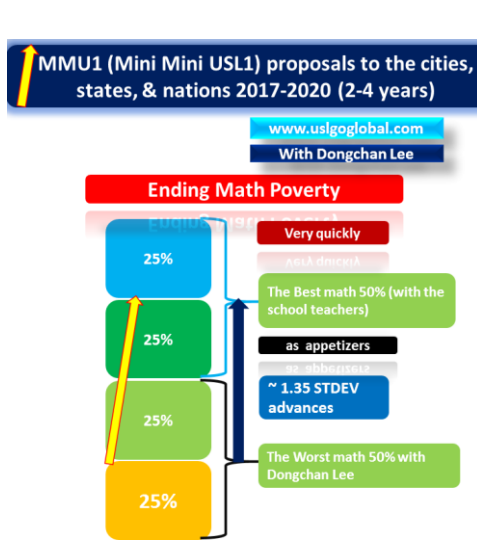
By Dongchan Lee

This paper is a part of the WP (Working Paper) series by Dongchan Lee about the math stagnations in the OECD, all the developed English-speaking or the majority of the Latin American countries.

In the WP series on the math stagnation nation series, for the USA, we observed and analyzed the following in part 1-5 in the USA series:

- 1) the math stagnations of the OECD countries, including the USA internationally (from the PISA 2000-2015, TIMSS 1995-2015);
- 2) the math stagnations of the 50 USA states;
- 3) the math stagnations of at least 85-90% of the big cities (or school districts) that have participated in the TUDA program of NAEP;
- 4) the math stagnations vs. the Common Core math for the NAEP math dips in 2015. Regardless of the Common Core math, the math stagnations are here to stay.
- 5) They key summaries of this series and beyond.

NOTE: throughout the math stagnation nations series, we use the yellow arrows for the MMU1 impacts to easy visual comparisons to the traditional quasi-flat growth over 10-20 years.



To boost the math poverty (math poorest 25 percentile) to the math prosperity (math richest 25 percentile)

Math saturations of all English-speaking countries

Lee's online repository to get updates about the WP series on "Math Stagnation Nations"
<http://uslglobal.com/wp-math-stagnation/>

WP series: Mathematics Stagnation Nation series: for the USA (Part 4)

Math Education stagnations in the USA played more roles than the Common Core math standards impacts for the stagnations on the NAEP 2015, but the math dipping (especially the grade 8) were most likely were due to the Common Core math

By Dongchan Lee (Date: February 8, 2017, Version 1.2)

Abstract

This paper is an extension of the previous paper by the author on the theme of the math stagnations in almost all developed (OECD) nations internationally, for all developed English-speaking and most of the Latin American countries. The author has covered this theme for the USA math stagnations in the international math assessments, national NAEP's national math growth stagnations, most of the states' math stagnations, and at least 90-95% of the large districts' (or cities') math stagnations over the past 5-10-15-20 years. In this paper, the author observes and demonstrates the following: 1) the longer the states had stayed with the Common Core math standards, the math grade 4 average and 25 percentile had declined more than the USA states that had never participated in the Common Core math or those that had opted out by the end of 2014 or so before the NAEP 2015 math dipping happened for both the grade 4 and 8; 2) The similar pattern was also observed for the grade 4, however, with much less effect; 3) Although the negative impacts of the Common Core math on the NAEP 2015 was not negligible for the grade, the dips for the grade 8 was more likely caused by the Common Core more so than for the grade 4th math. Regardless, the math stagnations are persistent with or without the Common Core math's overall negative effects for math for both grades will be as such. There were math dips in the grade 8 math for the states that had been out of the Common Core math, which means that the math stagnations in the USA may enter a worse phase in 2017 on even if the negative effect of the Common Core math is overcome.

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Key words: Math stagnations, math crisis, USL, MMU1, math education innovation, Education reforms, math crisis in the United States, Common Core Math



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Table of Contents

Introduction	3
Part 1. The USA states that pulled out of the Common Core maths before the NAEP math 2015	4
Section 1. The USA states that had opted out of the Common Core math standards by the end of 2014 so that they had less or minimal impacts on their performance of math in NAEP 2015.	4
Section 2. Merged list of the 6-13-18 USA states that had spent much less time on the Common Core math standards before the NAEP 2015 math took place.....	5
Part 2. Math stagnations of the grade 4	6
Section 3. NAEP math scores of the grade 4 for the states that had opted out of the Common Core math standards before the NAEP 2015 math took place.	6
Section 4. For the USA states that had not opted out of the Common Core math grade 4 by the end of 2014	8
Section 5. An undeniable pattern: the more the states stayed with the Common Core math standards, their loss of the average math scores in the grade 4 math got worse.	9
Section 6. Regardless of the impacts of the Common Core math on NAEP 2015 math’s dipping, the undeniable fact is that the math stagnations nationwide in the USA over the past a decade or so already	10
Part 3. Math stagnations of the grade 8.....	12
Conclusion.....	14
References	Error! Bookmark not defined.
APPENDIX	15
For the NAEP math grade 4 data	15
For the NAEP math grade 48data	17

Critical Note: Throughout in this observational report with timelines from the NAEP math scores, all the data were gathered from NAEP’s The National Report Card data. As such, all the data 1990-1996 had “Accommodations Not Permitted” while the data from 2000 on, I used the data with the Accommodations Permitted.

Introduction

The 2015 years were a tricky or catastrophic year for the math stagnations or collapses to most of the developed countries, be it English-speaking countries or the top tier math countries from the Eastern Asian countries. For the USA, the PISA 2015 math declined further and the TIMSS 2015 math grade 4 declined. For the NAEP 2015 math, it dropped for both of the grades 4 and 8 for the first time since more than 20 years. There have been various wild controversies to find out what had causes this and many have speculated that the Common Core Math standards had caused this. Although the Common Core math started around 2011, many states started joining around 2012 or 2013 and more than 10 pulled out of it by 2013 and 2014. This paper focused on which may have caused the math average declines more: simply that natural math stagnations that seemed to have

happened all across most of the developed countries or in the case of the USA, was it the Common Core math?

Part 1. The USA states that pulled out of the Common Core math before the NAEP math 2015

Section 1. The USA states that had opted out of the Common Core math standards by the end of 2014 so that they had less or minimal impacts on their performance of math in NAEP 2015.

No	13 States effectively out of the CCSS math by 2015 NAEP math	Adoption stance	Notes (from https://en.wikipedia.org/wiki/Common_Core_State_Standards_Initiative)	Author's notes for the CCSS math relevance for NAEP math 2015
1	Alaska	Non-member		
2	Florida	Non-Member	Dropped in favor of "Florida State Standards", which are based on Common Core standards. [83]	
3	Nebraska	Non-member	[91]	
4	Texas	Non-member		
5	Virginia	Non-member	[97]	
6	Minnesota	Partially Adopted	English standards only, math standards rejected.	
7	Indiana	Repealed	Implementation paused by law for one year in May 2013 and under public review. ^[m] formally withdrew in March 2014, but retained many of the standards. ^[m]	basically out of CCSS math in 2013-2014
8	Oklahoma	Repealed	Legislation restoring state standards signed June 5, 2014 [94]	June, 2014
9	Alabama	Formally adopted	State school board voted to rescind the agreement that commits the state to adoption. However, state standards are still aligned with Common Core State Standards. [81]	November, 2013
10	Louisiana	Formally adopted	Governor signed executive order to withdraw state from PARCC assessment program. (June 2014) [80]	June, 2014
11	Massachusetts	Formally adopted	Delayed Common Core testing for two years in November 2013. ^[m] Ballot question on future of standards in 2016 has been ruled against by Massachusetts Supreme Judicial	delayed CCSS for 2 years in November, 2013
12	New York	Formally adopted	Full implementation of assessment delayed until 2022 [92]	February, 2014
13	Pennsylvania	Formally adopted	Paused implementation in May 2013 [95]	May, 2013
	Mississippi	Formally adopted	Withdrew from PARCC testing on January 16, 2015 [90]	January, 2015
	South Carolina	Repealed	A bill to repeal the Standards beginning in the 2015-2016 school year was officially signed by Governor Nikki Haley in June 2014 after deliberation in the state legislature. ^[m]	repeals starting 2015-2016
	Arizona	Formally adopted	The Arizona State Board of Education voted to reject Common Core on October 26, 2015. The vote was 6-2 in favor of repeal. [82]	October, 2015

Source: based on the Wikipedia article on CCSS (the author adjusted the states to simplify the appearances here.) https://en.wikipedia.org/wiki/Common_Core_State_Standards_Initiative, Lee found out about these 13 states that effectively hadn't really participated on CCSS for math at least by the end of 2014 as the NAEP math took place.

Thus, out of the 51 jurisdictions of the USA (50 states and DC), 13 were not really involved with CCSS math assessments till the end of 2014. So these 13 states' math stagnations or declines in NAEP 2015 math should have nothing to do with the Common Core impacting the math scores.

For PARCC

PARCC test participations by states. Source: taken from Wikipedia article.

No	States from the PARCC of the CCSS	Current Participation Status	dropped yr before NAEP 2015 math	References [edit]
1	Alabama	dropped February, 2013[12]	2013	1. "About PARCC" Partnership for Assessment of Readiness for College and Careers . Retrieved March 1, 2015.
2	Kentucky	dropped January, 2013[13]	2014	2. "Partnership for Assessment of Readiness for College and Careers Web site (October 11, 2011).
3	Oklahoma	dropped July 2013[26]	2014	3. Hain, Bonnie (2011) "PARCC Consortium - A Five Component Assessment Model." <i>Reading Today</i> , 28(1): 24. Academic Search Premier. Web. Available on-line at: Read Today .
4	Georgia	dropped July, 2013[16]	2013	4. "[16] parcc selects open source platform for nonsummative assessments
5	North Dakota	dropped July, 2013[24]	2014	5. Web site of Governor of Florida: Florida withdraws from PARCC [16]
6	Indiana	dropped June, 2013[18]	2013	6. Cory Turner and Robert Siegel (July 25, 2013) "Common Core Could Be Disrupted As States Drop Out Of PARCC", NPR (National Public Radio). Available on-line at: NPR
7	Pennsylvania	dropped June, 2013[27]	2013	7. Strauss, Valerie (January 16, 2015). "Mississippi withdrawing from Common Core PARCC consortium" [18] . <i>Washington Post</i> . Retrieved March 1, 2015.
8	Tennessee	dropped June, 2013[28]	2014	8. http://www.cleveland.com/metro/index.ssf201506/ohio_dumps_the_parcc_common_core_tests_after_worful_first_year.html [19]
9	Arizona	dropped May, 2013[13]	2014	9. "Department of Defense Education Activity Joins PARCC" [19] . www.parcconline.org . Retrieved 2016-07-05.
10	Florida	dropped September 2013[15]	2013	10. "Bureau of Indian Education Strategic Plan" [20]
1	Arkansas	dropped July, 2015[14]	2015	11. http://www.chicagotribune.com/news/local/breaking/13-parcc-test-high-school-mat-20160711-story.html [21]
2	Mississippi	dropped January, 2015[22]	2015	12. "Alabama Withdraws From Both Testing Consortia" [21] . <i>Education Week</i> . Retrieved December 7, 2015.
3	Ohio	dropped June 2015[25]	2015	13. "Arizona withdraws from PARCC testing group" [22] . <i>The Arizona Republic</i> , May 30, 2014. Retrieved December 7, 2015.
1	District of Columbia	current user		14. "UPDATED: State Board of Education votes to change school test from PARCC to ACT" [23] . <i>Arkansas Times</i> , July 9, 2015. Retrieved December 7, 2015.
2	Maryland	current user		15. "Gov. Rick Scott calls for Florida to drop out of PARCC" [24] . <i>Tampa Bay Times</i> , September 23, 2013. Retrieved December 7, 2015.
3	New Jersey	current user		16. "Georgia The Latest State To Back Out Of K-12 PARCC Tests" [25] . http://npr.org , Updated July 25, 2013. Retrieved December 7, 2015.
4	New Mexico	current user		17. "Answer Sheet - Two more states pull out of Common Core" [26] . <i>Washington Post</i> , June 5, 2014. Retrieved December 7, 2015.
5	Illinois	current user grades 3-8[17]		18. "Illinois ends much-debated PARCC test for high school students" [27] . <i>Chicago Tribune</i> , July 11, 2016. Retrieved July 11, 2016.
6	Colorado	current user grades 3-9		19. "Kentucky Withdraws From PARCC Testing Consortium" [28] . <i>Education Week</i> , January 31, 2014. Retrieved December 7, 2015.
7	Rhode Island	current user grades 3-9		20. "Louisiana To Try Blend of PARCC and State-Developed Assessments - THE JOURNAL" [29] . <i>THE JOURNAL</i> . Retrieved 2016-07-05.
8	Louisiana	uses hybrid PARCC/state test[24]		21. "PARCC Is Down to DC Plus Ten States, and Louisiana Isn't One of Them" [30] . <i>Huff Post Education</i> , December 8, 2014. Retrieved December 7, 2015.
9	Massachusetts	current user[21]		22. "Next-Generation MCAS - Massachusetts' Comprehensive Assessment System" [31] . www.doe.mass.edu . Retrieved 2016-07-05.
1	District of Columbia	current user		23. "State withdraws from testing consortium" [32] . <i>djournal.com</i> , January 17, 2015. Retrieved December 7, 2015.
2	Maryland	current user		24. "North Dakota Drops Out of PARCC, Commits to Smarter Balanced" [33] . <i>Education Week</i> , May 17, 2013. Retrieved December 7, 2015.
3	New Jersey	current user		25. "Ohio dumps the PARCC Common Core tests after worful first year" [34] . <i>The Plain Dealer</i> , June 30, 2015. Retrieved December 7, 2015.
4	New Mexico	current user		26. "Oklahoma Pulls Out of PARCC" [35] . <i>Truth In American Education</i> , July 2013. Retrieved February 6, 2016.
5	Illinois	current user grades 3-8[17]		27. "A July 21, 2014, Update on Common Core, PARCC, and Smarter Balanced" [36] . <i>deutsch29 Blog</i> , July 21, 2014. Retrieved December 7, 2015.
6	Colorado	current user grades 3-9		28. "Who will develop Tennessee's next standardized test? Here are some contenders" [37] . <i>Chalkbeat Tennessee</i> , September 17, 2014. Retrieved December 7, 2015.
7	Rhode Island	current user grades 3-9		29. "Elementary and Secondary Education Act" [38] . Office of Superintendent of Public Instruction, OSPI, n.d. Web (October 11, 2011).
8	Louisiana	uses hybrid PARCC/state test[24]		30. "California Department of Education." <i>Adequate Yearly Progress</i> . N.p., n.d. Web. 11 Oct 2011. Available on-line at: California Dept. of Education .
9	Massachusetts	current user[21]		31. Au, Wayne (June 2007) "High-Stakes Testing and Curricular Control: A Qualitative Meta-synthesis", <i>Educational Researcher</i> , 36(5), 256-267. Available on-line at: Sage P
				32. Adams, Mastra, Lyons, Julie (2014). <i>PARCC Guidebook: Success Strategies for Teachers</i> . Lumen Learning. pp. 3-4. ISBN 1940464553

Source: Wikipeda on PARCC. <https://en.wikipedia.org/wiki/PARCC> (the author adjusted the states to simplify the appearances here.)

According to the PARCC article from the Wikipedia, there seem to be 10 states (in grey color) that had been out of the Common Core math by 2013-2014.

So, the 10 states that dropped out of PARCC effectively 1-2 years before 2015 NAEP math declines:

Section 2. Merged list of the 6-13-18 USA states that had spent much less time on the Common Core math standards before the NAEP 2015 math took place
When I combined these 2 tables from Wikipedia data about CCSS, I got this merged table.

No	13 States effectively out of the CCSS math by 2015 NAEP math	Adoption stanc e	Notes (from https://en.wikipedia.org/wiki/Common_Core_State_Standards_Initiative)	Author's notes for the CCSS math relevance for NAEP math 2015	No	States from the PARCC of the CCSS	Current Participation Status	dropped yr before NAEP 2015 math
1	Alaska	Non-member						
2	Florida	Non-Member	Dropped in favor of "Florida State Standards", which are based on Common Core standards.[83]			Florida	dropped September	2013
3	Nebraska	Non-member	[91]					
4	Texas	Non-member						
5	Virginia	Non-member	[97]					
6	Minnesota	Partially Adopted	English standards only, math standards rejected.					
7	Indiana	Repealed	Implementation paused by law for one year in May 2013 and under public review. ^[98] formally withdrew in March 2014, but retained many of the standards. ^[99]	basically out of CCSS math in 2013-2014		Indiana	dropped June 2014[18]	2014
8	Oklahoma	Repealed	Legislation restoring state standards signed June 5, 2014.[94]	June, 2014		Oklahoma	dropped July 2013[26]	2013
9	Alabama	Formally adopted	State school board voted to rescind the agreement that commits the state to adoption. However, state standards are still aligned with Common Core State Standards.[81]	November, 2013		Alabama	dropped February	2013
10	Louisiana	Formally adopted	State school board voted to rescind the agreement that commits the state to adoption. However, state standards are still aligned with Common Core State Standards.[81]	June, 2014				
11	Massachusetts	Formally adopted	Delayed Common Core testing for two years in November 2013. ^[90] Ballot question on future of standards in 2016 has been ruled against by Massachusetts Supreme Judicial	delayed CCSS for 2 years in November, 2013				
12	New York	Formally adopted	Full implementation of assessment delayed until 2022.[92]					
13	Pennsylvania	Formally adopted	Paused implementation in May 2013.[95]	February, 2014		Pennsylvania	dropped June 2013[27]	2013
14	Arizona	Formally adopted	The Arizona State Board of Education voted to reject Common Core on October 26, 2015. The vote was 6-2 in favor of repeal.[82]	October, 2015	1	Arizona	dropped May 2014[13]	2014
15	Georgia	Formally adopted			2	Georgia	dropped July 2013[16]	2013
16	Kentucky	Formally adopted			3	Kentucky	dropped January	2014
17	Tennessee	Under review	[73]		4	Tennessee	dropped June 2014[28]	2014
18	North Dakota	Formally adopted			5	North Dakota	dropped July 2013[24]	2013
1	Mississippi	Formally adopted	Withdrew from PARCC testing on January 16, 2015.[90]	January, 2015		Mississippi	dropped January 2015[23]	2015
2	Ohio	Formally adopted	There is currently legislation in progress to repeal Common Core from the state.[93]			Ohio	dropped June 2015[25]	2015
3	Arkansas	Formally adopted				Arkansas	dropped July 2015[14]	2015
4	South Carolina	Repealed	A bill to repeal the Standards beginning in the 2015-2016 school year was officially signed by Governor Nikki Haley in June 2014 after deliberation in the state legislature. ^[96]	repeals starting 2015-2016				

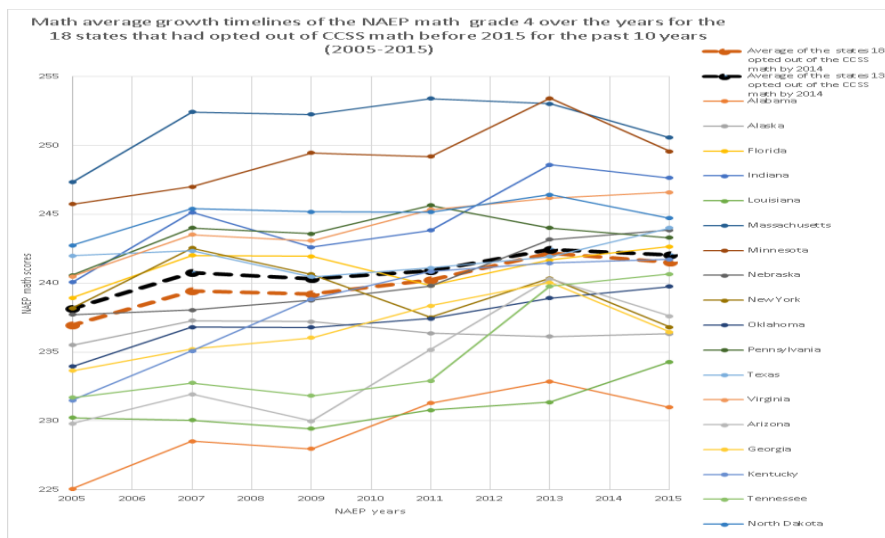
Source: the author merged the data together from the Wikipedia article on Common Core Standards Initiative and PARCC, focusing only on the CCSS implementation substantially before the NAEP 2015 tests for math.

In summary, according to this merged table, there were 6 states that had never been with the Common Core Math, other 7 states that had been out of it by 2013-2014, and another 5 states that dropped out according to the list from the PARCC (Wikipedia).

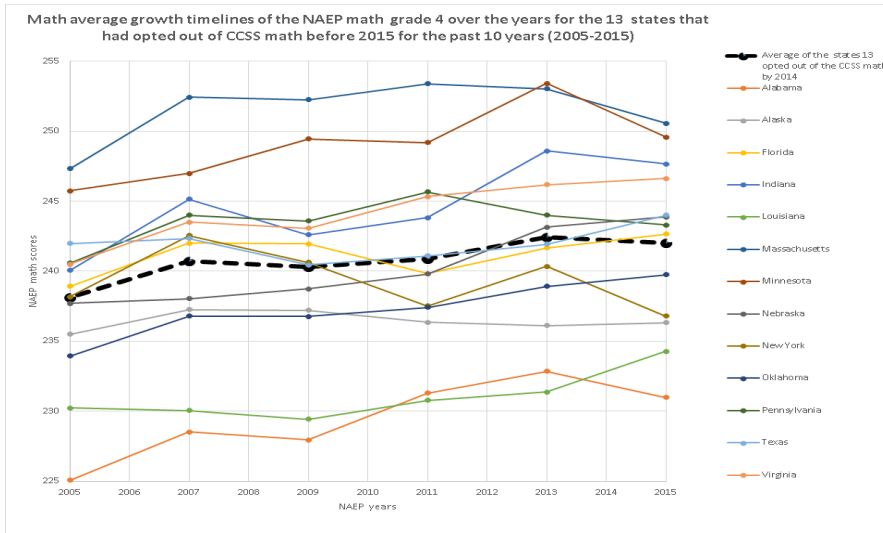
Part 2. Math stagnations of the grade 4

Section 3. NAEP math scores of the grade 4 for the states that had opted out of the Common Core math standards before the NAEP 2015 math took place.

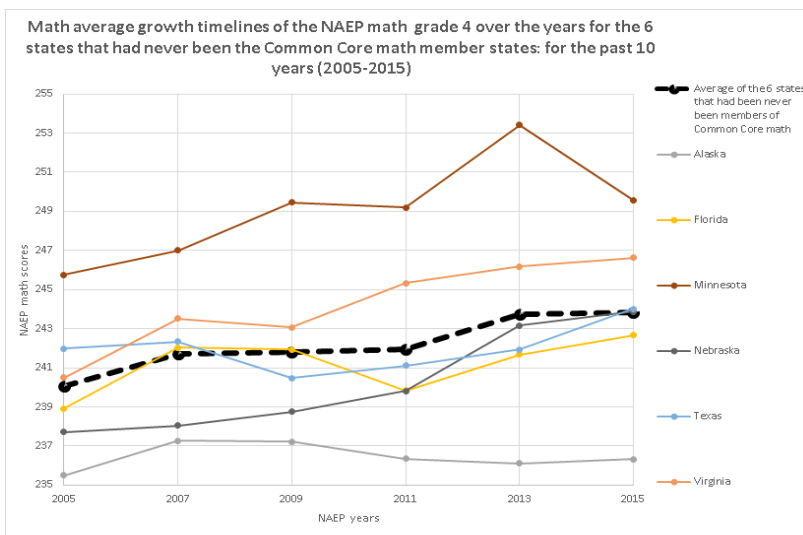
Math average growth timelines of the NAEP math grade 4 over the years for the 18 states that had opted out of CCSS math before 2015 for the past 10 years (2005-2015)



Math average growth timelines of the NAEP math grade 4 over the years for the 13 states that had opted out of CCSS math before 2015 for the past 10 years (2005-2015)

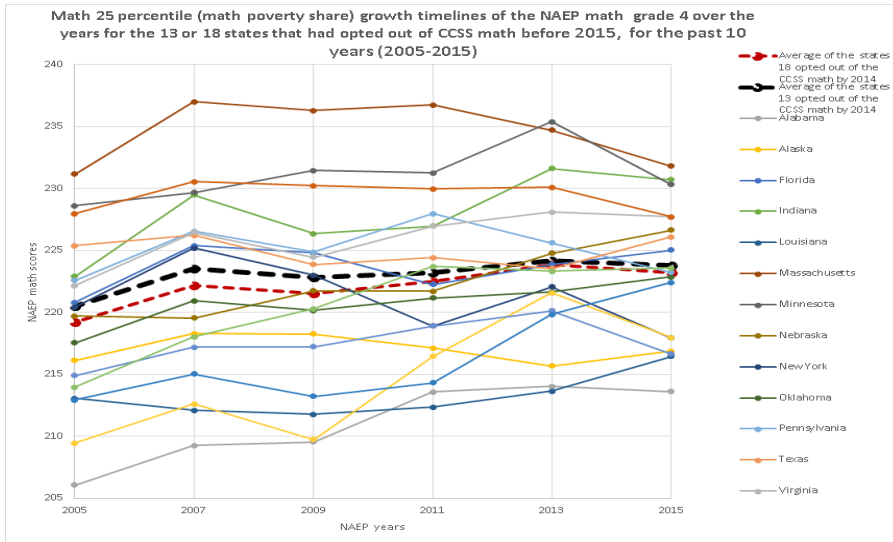


Math average growth timelines of the NAEP math grade 4 over the years for the 6 states that had never been the Common Core math member states: for the past 10 years (2005-2015)

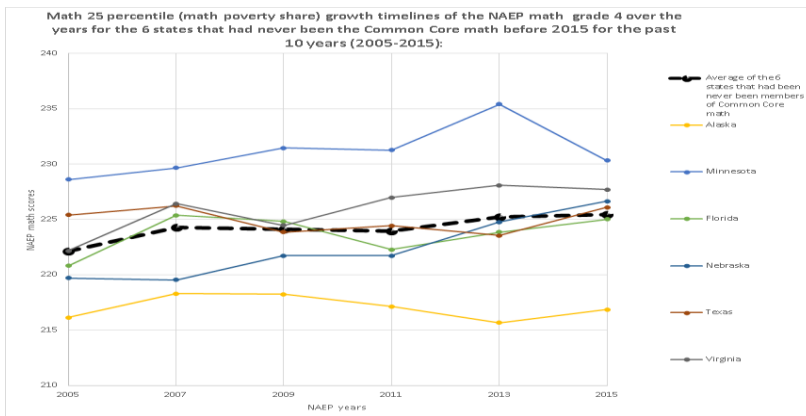


25 percentile of math growth trajectories

Math 25 percentile (math poverty share) growth timelines of the NAEP math grade 4 over the years for the 13 or 18 states that had opted out of CCSS math before 2015, for the past 10 years (2005-2015)

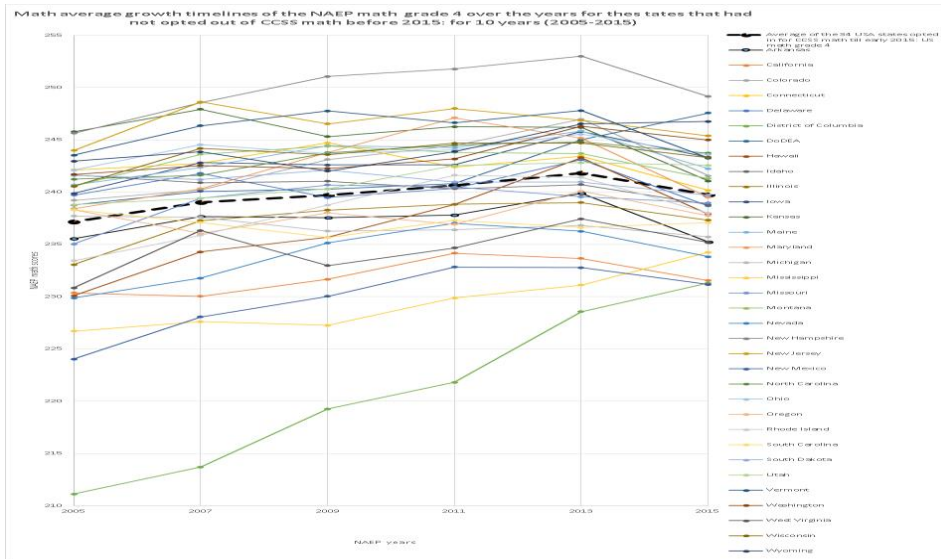


Math 25 percentile (math poverty share) growth timelines of the NAEP math grade 4 over the years for the 6 states that had never been the Common Core math before 2015 for the past 10 years (2005-2015)

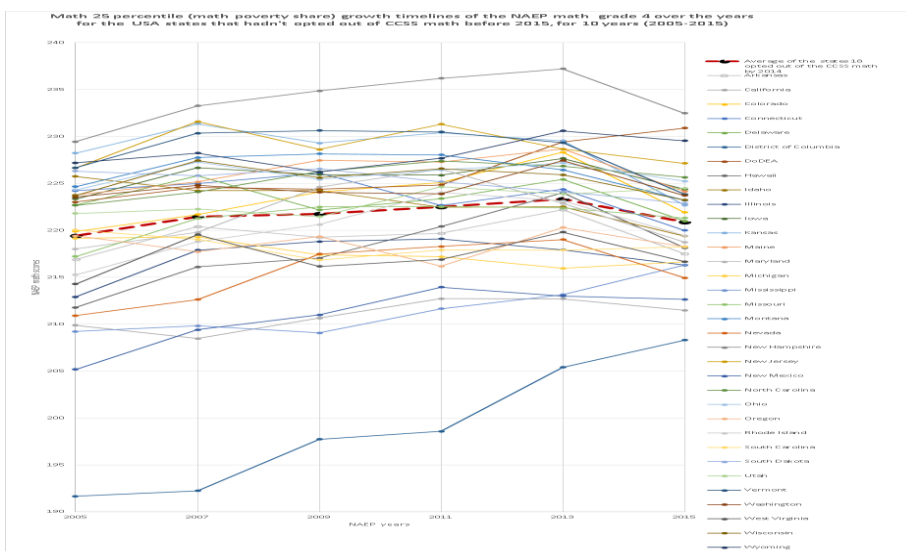


Section 4. For the USA states that had not opted out of the Common Core math grade 4 by the end of 2014

Math average growth timelines of the NAEP math grade 4 over the years for these states that had not opted out of CCSS math before 2015: for 10 years (2005-2015)



Math 25 percentile (math poverty share) growth timelines of the NAEP math grade 4 over the years for the USA states that hadn't opted out of CCSS math before 2015, for 10 years (2005-2015)



Section 5. An undeniable pattern: the more and longer the states stayed with the Common Core math standards, their average math score declined more for the grade 4 math in NAEP 2015.

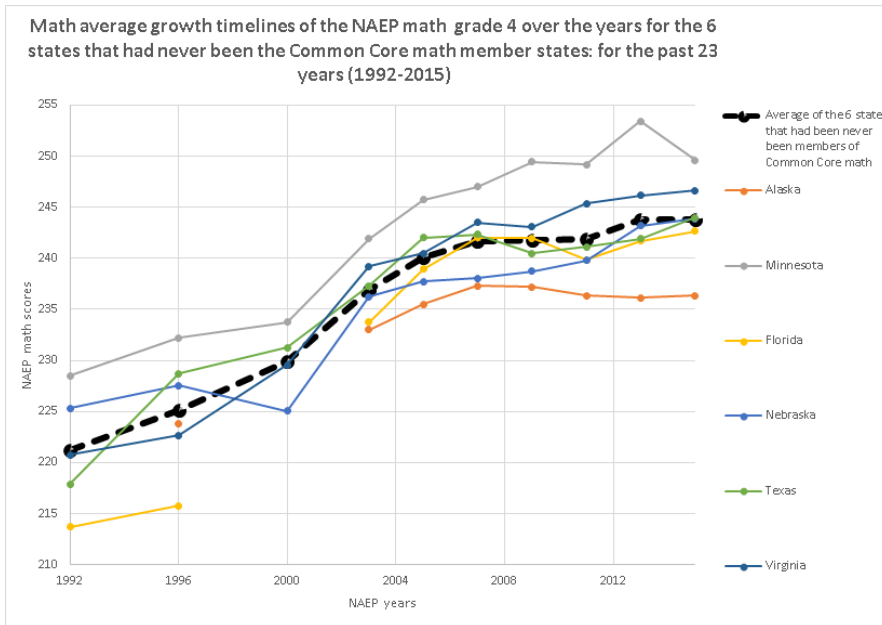
As we can see below in the table, the difference between the states that had opted out by the end of 2014 or never embraced the Common Core Math before the NAEP 2015 math is about 0.5-2 points in NAEP math grade 4, which are roughly 1.6-6.5% of a Standard Deviation differences. 3-7% of Standard Deviation is not a negligible effects although we can dismiss a few 5 of a standard deviations. So for the grade 4 math, the Common Core Math apparently impacted the math education negatively.

Math Grade 4 Average for states	2013	2015	Grade 4 math average difference 2015 - 2013
Average of the 6 states that had been never been members of Common Core math	243.7467417	243.8412242	0.094482589
Average of the states 13 opted out of the CCSS math by 2014	242.432536	242.0303292	-0.402206776
Average of the states 18 opted out of the CCSS math by 2014	242.2024792	241.5315302	-0.670948988
Average of the 34 USA states opted in for CCSS math till early 2015: US math grade 4	241.8179747	239.762545	-2.055429699

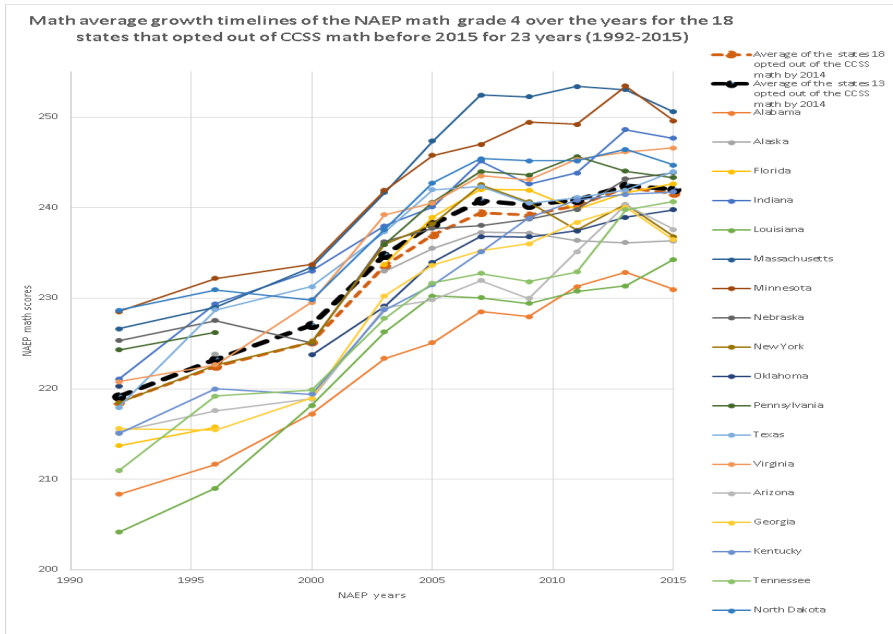
Section 6. Regardless of the impacts of the Common Core math on NAEP 2015 math's dipping, the undeniable fact is that the math stagnations nationwide in the USA over the past a decade or so already.

For the states that had opted out of the Common Core Math by the end of 2014, sufficiently before the NAEP 2015 math was administered, the black or red dotted lines are their average scores and they have reached their math saturations, but not the declines.

For the 6 states that had never joined the Common Core math standards:

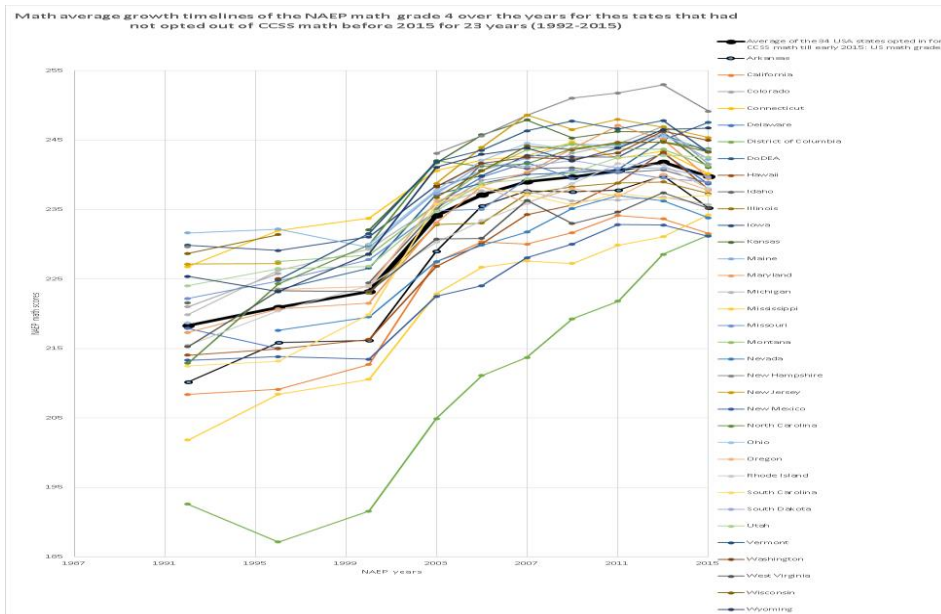


For the 13-18 states that had never joined or had joined the Common Core math standards but had opted out earlier before the NAEP math 2015:

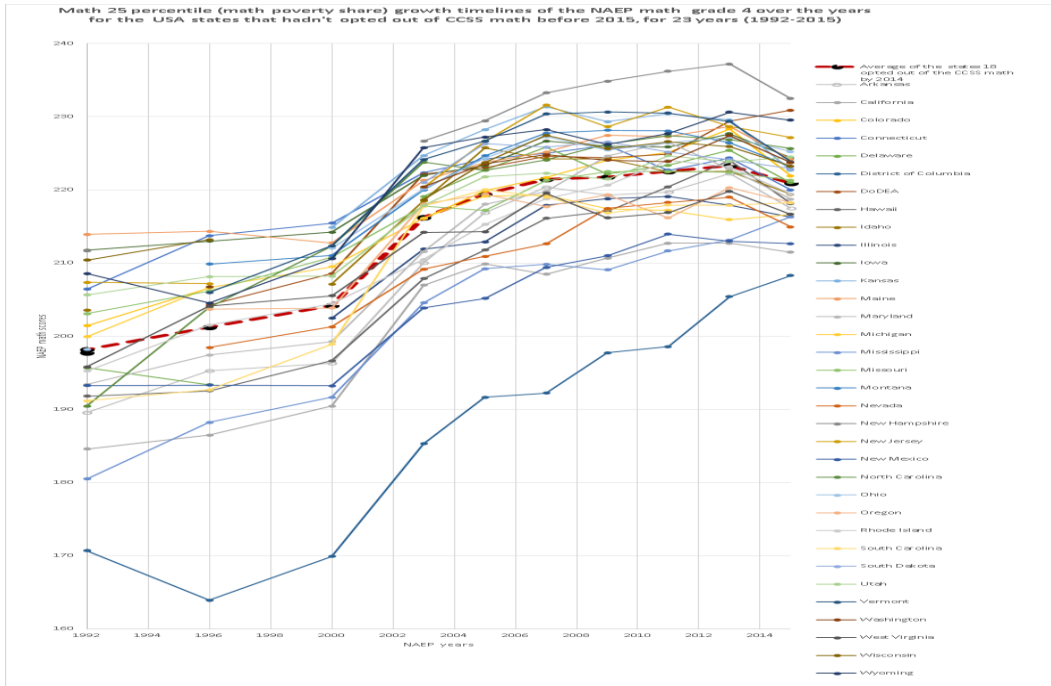


The states that had stayed with the Common Core math till at least nearly before the NAEP 2015:

For the states that had stayed with the Common Core math at least by the end of 2014 mostly declined in math average in NAEP math 2015 for the grade 4.



Their 25 percentile growth trajectories:



Conclusion for the math grade 4:

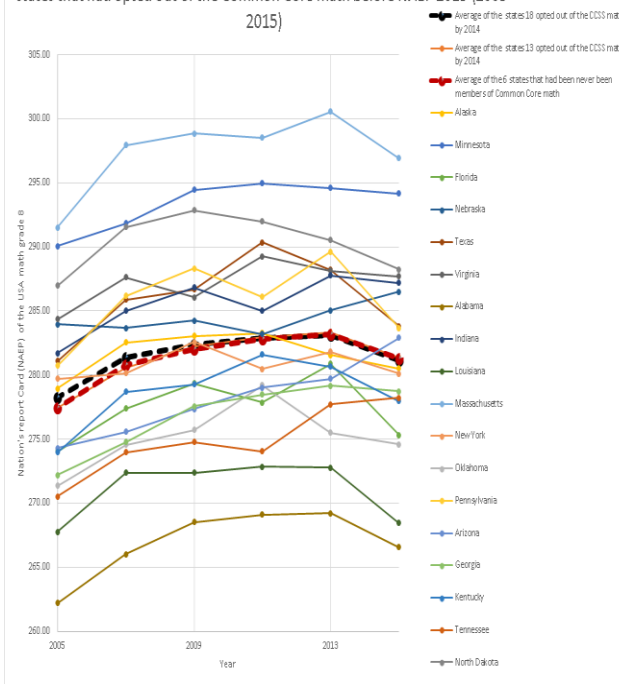
Regardless of the durations that the states stayed with the Common Core math, the inevitable math growth stagnations kicked in by around 2005-2007 for most of these USA states for the grade 4. The only real difference is that the states that had stayed with the Common Core math till around the time of the NAEP math 2015 had a dip stronger.

Part 3. Math stagnations of the grade 8

The USA states that had pulled out of the Common Core Math by the end of 2014 or earlier

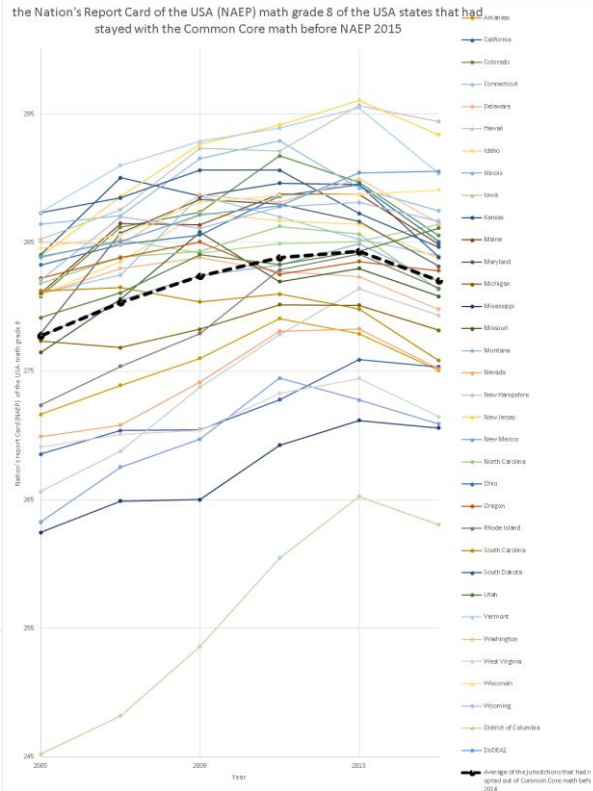
USA states that had stayed with the Common Core Math by the end of 2014 or later

the Nation's Report Card of the USA (NAEP) math grade 8 of the up to 18 USA states that had opted out of the Common Core math before NAEP 2015 (2005-2015)

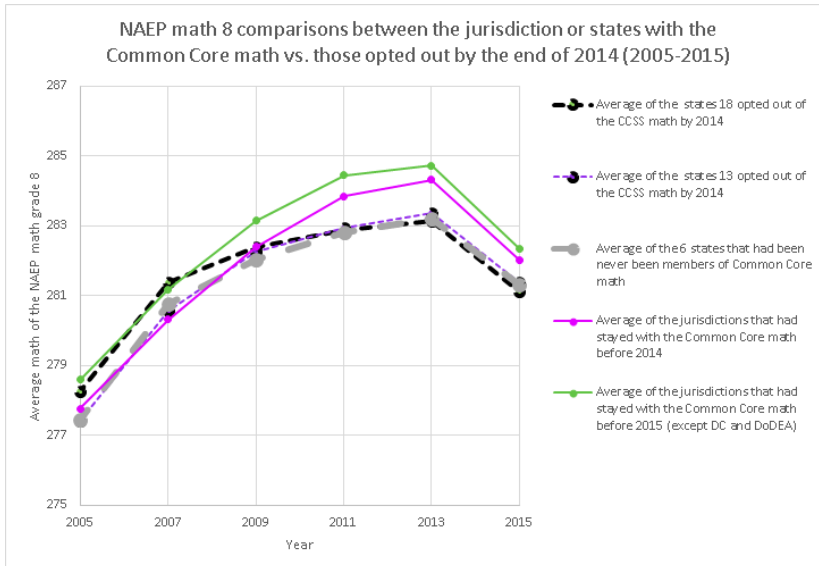


For the math grade 8, the math average decline slope is a bit steeper than otherwise.

the Nation's Report Card of the USA (NAEP) math grade 8 of the USA states that had stayed with the Common Core math before NAEP 2015

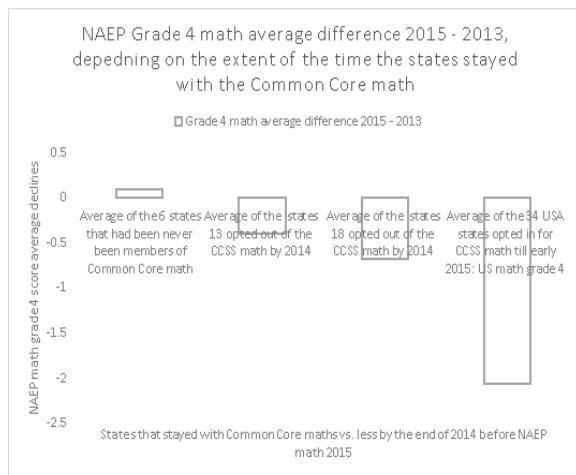


The overall comparisons of the states out of the Common Core Math vs. those stayed with it till at least early 2015 NAEP time for the math grade 8.



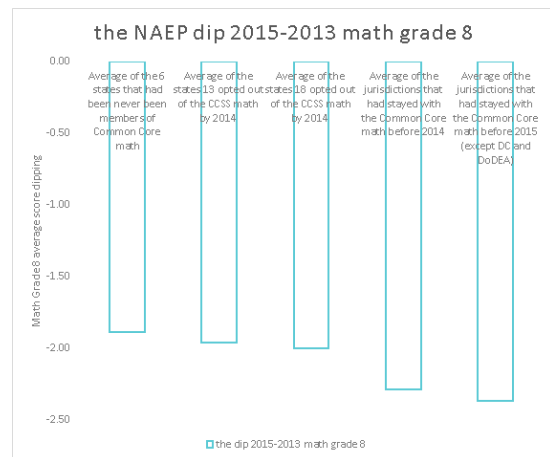
NAEP math grade 8 score dip 2013-2015	2013.00	2015.00	the dip 2015-2013 math grade 8
Average of the 6 states that had been never been members of Common Core math	283.19	281.30	-1.89
Average of the states 13 opted out of the CCSS math by 2014	283.35	281.39	-1.96
Average of the states 18 opted out of the CCSS math by 2014	283.13	281.13	-2.00
Average of the jurisdictions that had stayed with the Common Core math before 2014	284.31	282.02	-2.29
Average of the jurisdictions that had stayed with the Common Core math before 2015 (except DC and DoDEA)	284.72	282.35	-2.37

Math grade 4



The states that had stayed with the Common Core math did about 1.5-2 NAEP point's worse or about 3-4% to 6-7% of 1 Standard Deviation worse for the math grade 4.

Math grade 8



For the math grade 8, the difference is almost negligible by about 0.3-0.4 NAEP math points or about 1% of 1 Standard Deviation.

Conclusion

The interesting patterns we saw here for the grade 4 math scores are the following:

- 1) For the grade 4, it seems that the Common Core Math have caused the math score decline in NAEP math for the first time since at least 20 years because the decline was none or negligible for the 6-13-18 states that had not in it or pulled out of it.
- 2) For the grade 8, the differences are much smaller than for the grade 8. Those that had stayed with the Common Core till at least around early 2015, however, did slightly worse than the states than those that had been out of it by then.
- 3) Regardless, the math stagnations had taken place in either cases as we can clearly see from the math stagnations starting around 2005-2007 for the grade 4; and for the grade 8, the math stagnations were starting around 2009-2011 mostly and then the sudden drops in 2015 were more likely due to the Common Core effects because as we demonstrated in our Part 3 of this series of math stagnations in the USA that there are usually about 4 years of time lag between the declines of the math stagnations of the grade 4 that may lead to the declines in the math grade 8. In 2015, the vast majority of the states suddenly dropped. So this is almost definitely caused by the Common Core math although the overall declines may have taken to various states for sure.
- 4) By 2017, the chances are that the states out of the Common Core math may continue stagnates and the who continued staying may depend on the efficiency improvements of the Common Core math implementations, but the chances are there may not be good improvements that the Common Core Math was originally promising to deliver.
- 5) There were math dips in the grade 8 math for the states that had been out of the Common Core math, which means that the math stagnations in the USA may enter a worse phase in 2017 on even if the negative effect of the Common Core math is overcome.

APPENDIX

For the NAEP math grade 4 data

Data source: all from NAEP. The Nation's Report Card web pages.

The USA states that had opted out of the Common Core math before the 2015 NAEP math

Category	all students	all students	all students	all students	all students	all students	all students	all students	all students	all students
Year	1992	1996	2000	2003	2005	2007	2009	2011	2013	2015
Average of the states 18 opted out of the CCSS math by 2014	218.522386	222.4508966	225.1455881	233.6011067	236.9526027	239.4489576	239.2247426	240.2181113	242.2024792	241.5315302
Average of the states 13 opted out of the CCSS math by 2014	219.114377	223.2137345	227.0295828	234.7380595	238.1379276	240.7444463	240.3210596	240.8856639	242.432536	242.0303292
Average of the 6 states that had been never been members of Common Core math	221.2395407	225.1150419	229.8993229	236.8993135	240.0637015	241.698934	241.8161853	241.9352459	243.7467417	243.8412242
Alaska		223.8334546		232.9916543	235.5107055	237.2738932	237.2122843	236.359658	236.1220044	236.328417
Minnesota	228.4935963	232.1930884	233.7200903	241.9122956	245.7461911	246.9977624	249.4555342	249.1866861	253.4209611	249.575847
Florida	213.6897512	215.7635826		233.7288115	238.9306496	242.02025	241.9449094	239.826451	241.6758096	242.6643209
Nebraska	225.3326475	227.5439927	225.0573925	236.2541084	237.7061785	238.0408086	238.7484634	239.8032687	243.1579291	243.8636669
Texas	217.9187445	228.7129198	231.2783286	237.3059218	241.9909163	242.3397599	240.4646237	241.1017937	241.9262887	244.002472
Virginia	220.7629642	222.643213	229.5414802	239.2030891	240.4975682	243.5211298	243.0712969	245.3336181	246.1774569	246.6126217
Alabama	208.3278759	211.6469735	217.2232192	223.3446426	225.0712362	228.5200018	227.9626504	231.286019	232.8613325	230.9774227
Indiana	221.0377425	229.3944436	233.0256168	237.9682799	240.0690988	245.144255	242.6168096	243.836876	248.5967774	247.6521836
Louisiana	204.1402113	209.02067	218.1868241		226.2477291	230.2311964	230.0431193	229.4324555	230.7788693	231.3663086
Massachusetts	226.5979178	228.9664026	233.3941162	241.6645274	247.337049	252.4303198	252.2547897	253.3964558	253.0337852	250.5657778
New York	218.4455353	222.6340587	225.139222	235.9300755	238.1739767	242.5430182	240.6410988	237.5199426	240.3498169	236.796927
Oklahoma	220.3198059		223.7295381	229.0966213	233.9553288	236.8021942	236.7809856	237.4290823	238.9218775	239.7604814
Pennsylvania	224.3057316	226.2120147		235.9470171	240.5729633	244.0012735	243.5878732	245.6549103	244.01262	243.3122399
Arizona	215.253932	217.5759405	218.8676202	228.9113961	229.8006731	231.9369335	229.9911052	235.157597	240.3049115	237.6117554
Georgia	215.5949062	215.4558617	218.9768855	230.2549768	233.6357378	235.2090171	236.0295729	238.3665421	240.0472366	236.4525193
Kentucky	215.0481577	219.988195	219.3802758	228.7263433	231.4923054	235.0879202	238.8359023	240.8307002	241.4699268	241.7277619
Tennessee	210.9482274	219.176248	219.8471108	227.7550447	231.6880797	232.7537101	231.8254862	232.901117	239.774787	240.6673957
North Dakota	228.6628153	230.9041832	229.8161019	237.5773868	242.7369951	245.4158542	245.1895263	245.156416	246.4247949	244.7138306

For the 25 percentile of math grade 4 in NAEP

Category	25 percentile	25 percentile	25 percentile	25 percentile	25 percentile	25 percentile	25 percentile	25 percentile	25 percentile	25 percentile
Year	1992	1992	1996	2000	2003	2005	2007	2009	2011	2013
Average of the states 18 opted out of the CCSS math by 2014	198.5444713	198.5444713	203.2392948	206.3848002	215.4983339	219.2098889	222.1875558	221.5108892	222.4883328	223.8610831
Average of the states 13 opted out of the CCSS math by 2014	199.103834	199.103834	203.9696676	208.7301996	216.7063082	220.506	223.537692	222.8092309	223.1884604	224.1985764
Average of the 6 states that had been never been members of Common Core math	201.1920001	201.1920001	205.6556676	211.3189987	218.8130005	222.1366664	224.2519999	224.0920008	223.9633321	225.2198332
Alaska			204.7500031		213.8200012	216.1399994	218.2859985	218.2519989	217.1279999	215.6750008
Minnesota	209.4800018	209.4800018	214.602002	215.4259979	223.776001	228.6160004	229.6640015	231.4480011	231.2679993	235.3955009
Florida	193.0700012	193.0700012	194.8899994		214.6119995	220.8059998	225.3679993	224.8100006	222.2679993	223.8544991
Nebraska	205.7200012	205.7200012	208.8679993	204.1799988	218.8600006	219.7039978	219.5440002	221.7300018	221.7119965	224.7565002
Texas	198.3279968	198.3279968	208.7780029	214.4699982	220.4840027	225.3940002	226.2160004	223.8620026	224.4279968	223.5584999
Virginia	199.3619995	199.3619995	202.0459991		211.2	221.3259979	222.1600006	226.4339996	224.45	226.976001
Alabama	186.1880005	186.1880005	190.1160034	197.373999	205.1540009	206.0759979	209.2700012	209.5519989	213.5919983	214.0359993
Indiana	201.7560028	201.7560028	211.4800018	215.3540009	221.1220001	222.9099976	229.4899994	226.3399994	226.95	231.5959999
Louisiana	183.2620026	183.2620026	189.5639954	200.1700012	207.5779999	213.0679993	212.0819977	211.7860016	212.3459991	213.643499
Massachusetts	207.2000031	207.2000031	210.7920013	215.7660034	223.5240021	231.1600037	236.9900024	236.2859985	236.7359985	234.6989999
New York	197.6820007	197.6820007	203.1880005	205.9519989	217.5180023	220.4220032	225.1779999	222.9960022	218.9160004	222.048999
Oklahoma	202.8259979	202.8259979		207.4099976	212.6540009	217.5480011	220.923999	220.1459991	221.1579987	221.6369995
Pennsylvania	204.3720001	204.3720001	208.5620026		216.7539978	222.573999	226.5439972	224.8619965	227.9719971	225.6019981
Arizona	194.6220001	194.6220001	197.9160004	198.4079987	209.1920044	209.4439972	212.6100006	209.7260004	216.4639984	221.5775017
Georgia	193.7440002	193.7440002	195.3820007	198.402002	210.9100006	214.8920013	217.1760001	217.2300018	218.8940002	220.1120018
Kentucky	195.2160034	195.2160034	200.6399994	199.5920013	211.6519989	213.9700012	218.0200012	220.2760001	223.7120026	223.3214989
Tennessee	190.5040009	190.5040009	199.2920013	199.5820038	208.6460022	212.9320007	215.0280029	213.2199982	214.3060028	219.8269989
North Dakota	211.9239999	211.9239999	214.2019989	212.4860016	221.3879974	227.9619995	230.552002	230.2239999	229.9640015	230.0800003

The USA states that had not opted out of the Common Core math before the 2015 NAEP math

Category	1992	1996	2000	2003	2005	2007	2009	2011	2013	2015
Year										
the 34 USA states opted in for CCSS math till										
Arkansas	218.333773	220.9625	223.1833	234.117	237.1574	239.0156	239.695	240.6242	241.818	239.7625
California	210.206028	215.8464	216.1756	229.0066	235.5455	237.6707	237.5406	237.8102	239.8905	235.2155
Colorado	208.398961	209.1291	212.6941	227.455	230.367	230.0341	231.6749	234.165	233.6545	231.5493
Connecticut	221.023429	225.8059		235.1931	239.2159	240.2059	243.1324	244.4561	246.9757	241.5636
Delaware	226.79848	232.0266	233.7682	240.6152	242.1207	242.7556	244.7177	242.4134	243.4403	240.1595
District of Columbia	217.899972	215.0251		235.8594	239.7169	241.7949	239.4906	240.3598	243.1078	238.678
DoDEA	192.600553	187.1347	191.5821	204.9199	211.1223	213.6989	219.2601	221.8083	228.5673	231.3075
Hawaii	223.5179	226.5843	237.1937	238.7762	240.0846	240.2891	240.821	245.011	247.5751	
Idaho	214.056666	214.9656	216.3191	226.8346	230.0969	234.2861	235.6798	238.8219	243.3086	237.8958
Illinois	221.562534		224.4718	234.9438	241.6501	240.9028	241.0428	240.3288	240.722	238.7996
Iowa		222.976	232.8568	233.0675	237.387	238.2857	238.8369	239.0002	237.3078	
Kansas	229.884078	229.1262	231.0729	238.4767	239.8808	242.8196	242.5956	242.6049	245.7935	243.3399
Maine		232.0922	241.7474	245.782	247.9237	245.3087	246.2553	246.1857	241.0672	
Maryland	231.63884	232.2027	229.5451	237.6157	240.6915	242.3706	244.4557	244.257	245.847	242.2447
Michigan	217.317708	220.695	221.5365	233.0799	238.4217	240.3282	243.795	247.1066	245.1694	239.4998
Mississippi	219.878352	226.2581	229.3096	235.687	237.706	237.6056	236.2797	236.4022	236.8198	235.7289
Missouri	201.828261	208.4341	210.5576	222.8906	226.6988	227.6124	227.2623	229.868	231.1057	234.2431
Montana	222.2156	224.7345	227.801	234.8364	235.0355	239.4111	240.6844	240.4948	239.5484	238.9649
Nevada		227.5162	228.4718	235.7549	240.5755	243.6188	244.4008	243.7966	243.6989	241.287
New Hampshire	217.6226	219.5508	227.5136	229.8716	231.7816	235.1523	237.0319	236.2629	233.827	
New Jersey	229.664564			243.1101	245.6259	248.5715	251.0718	251.7788	252.9935	249.1506
New Mexico	227.148047	227.2402		238.7765	243.9789	248.6215	246.5299	248.0042	246.8709	245.3832
North Carolina	213.29909	213.844	213.4764	222.518	224.0272	228.0643	230.0296	232.8404	232.7814	231.1672
Ohio	212.88449	224.3251	229.9018	242.0401	241.2355	241.618	243.7785	244.5179	244.8017	243.7423
Oregon	218.711935		230.0075	237.7821	242.1059	244.5327	243.6876	244.0386	245.5498	243.5986
Rhode Island	223.4762	223.9138	236.3059	238.3249	236.0397	238.0323	236.9145	240.0993	237.7467	
South Carolina	215.449248	220.4181	224.0698	230.298	233.4368	235.8779	238.7669	241.6248	241.4167	238.0017
South Dakota	212.496714	213.1944	219.8694	235.7932	238.3027	237.1074	235.6683	237.303	236.6259	237.0896
Texas				237.2648	241.5942	241.2134	242.0978	240.9798	240.9811	239.7231
Utah	224.042248	226.5158	226.8088	234.783	238.7974	239.405	240.3187	242.5375	242.8207	242.5628
Vermont		224.8811	231.5636	241.9261	243.5289	246.3574	247.7672	246.6397	247.8033	243.2504
Washington		225.0533		238.2928	241.6847	242.5422	242.2571	243.1829	246.2883	244.9814
West Virginia	215.268928	223.3501	223.2036	230.7677	230.8433	236.3378	232.9831	234.6558	237.4406	235.2047
Wisconsin	228.692001	231.4119		236.7554	240.5686	244.1812	243.5853	244.6919	244.7063	243.3102
Wyoming	225.377592	223.196	228.6266	241.0857	242.9559	243.8669	242.0092	243.8744	246.5224	246.7598

25 percentile

Category	1992	1996	2000	2003	2005	2007	2009	2011	2013	2015	
Year											
of the states 18 opted out of the											
Arkansas	197.7278	198.1616	201.2628	204.2092	216.1924	219.403	221.4638	221.767	222.5136	223.332	220.9023
California	189.542	189.542	195.256	196.302	210.006	216.894	220.38	219.288	219.678	222.2215	217.5015
Colorado	184.594	184.594	186.484	190.466	206.964	209.874	208.47	210.658	212.712	212.703	211.48
Connecticut	201.448	201.448	206.622		216.088	219.882	221.68	224.068	225.102	228.327	221.917
Delaware	206.414	206.414	213.742	215.452	222.344	224.224	224.972	226.11	222.67	224.3675	219.9895
District of Columbia	195.682	195.682	193.376		219.084	222.694	225.824	222.182	223.372	225.4185	220.9855
DoDEA	170.704	170.704	163.91	169.902	185.296	191.666	192.238	197.742	198.586	205.4015	208.299
Hawaii	204.252	208.572	222.154	223.02	224.588	224.372	224.852	229.4215	230.897		
Idaho	191.796	191.796	192.542	196.64	207.868	211.778	216.098	217.044	220.404	224.025	218.131
Illinois	203.528	203.528		207.114	218.498	225.742	224.226	224.24	222.474	222.513	219.3935
Iowa		202.448	211.908	212.902	217.898	218.802	219.092	219.9315	216.297		
Kansas	211.758	211.758	212.984	214.21	221.98	223.338	226.662	225.938	225.87	227.659	224.375
Maine		214.848	224.694	228.228	231.352	229.306	230.41	229.5525	222.68		
Maryland	213.902	213.902	214.336	212.75	221.278	223.764	225.158	227.456	227.284	228.6595	224.1575
Michigan	193.404	193.404	197.438	199.258	211.578	218.024	219.782	224.62	226.52	222.862	218.7265
Mississippi	199.932	199.932	206.67	209.51	216.144	219.142	219.292	217.396	217.186	215.9435	216.641
Missouri	180.492	180.492	188.23	191.67	204.554	209.226	209.818	209.08	211.646	213.147	216.312
Montana	203.074	203.074	206.176	210.778	217.806	217.21	221.272	222.496	222.534	222.3875	221.316
Nevada		209.858	211.03	219.986	224.664	227.762	228.15	228.042	226.4345	223.2105	
New Hampshire		198.442	201.272	209.166	210.918	212.624	217.474	218.288	219.0155	214.9295	
New Jersey	211.654	211.654		226.668	229.45	233.272	234.864	236.198	237.2075	232.474	
New Mexico	207.372	207.372	207.176		220.296	226.654	231.588	228.62	231.314	228.66	227.1385
North Carolina	193.254	193.254	193.326	193.232	203.884	205.172	209.41	210.996	213.934	212.996	212.643
Ohio	190.454	190.454	203.946	212.314	223.77	222.66	224.084	226.26	227.39	226.8435	225.6515
Oregon	198.218	198.218		212.032	220.14	224.326	227.288	225.432	226.444	227.171	225.2345
Rhode Island			203.686	203.838	218.078	219.414	217.718	219.334	216.18	220.2895	218.26
South Carolina	195.244	195.244	201.53	204.438	210.498	215.26	218.792	220.62	224.032	223.1385	219.4415
South Dakota	191.18	191.18	192.692	198.894	217.76	220.028	219.038	216.828	217.916	217.8975	218.24
Texas				220.996	226.318	225.826	226.564	225.18	224.107	222.87	
Utah	205.632	205.632	208.136	208.212	217.868	221.802	222.266	221.46	224.644	223.8755	224.4805
Vermont		205.962	212.354	224.142	226.666	230.358	230.628	230.48	229.3465	223.846	
Washington		206.756		220.42	223.552	224.81	224.058	223.882	227.436	223.725	
West Virginia	195.794	195.794	204.098	205.534	214.186	214.284	219.546	216.162	216.894	219.811	216.6615
Wisconsin	210.394	210.394	213.188		218.664	223.724	227.448	225.62	226.568	225.9135	223.2295
Wyoming		208.574	204.544	210.578	225.776	227.202	228.228	226.21	227.686	230.605	229.5425

For the NAEP math grade 8 data

Data source: arranged by the author from the NAEP website for the math grade 8.

Year for the NAEP math grade 8	1992	1996	2000	2003	2005	2007	2009	2011	2013	2015
Average of the 6 states that had been never been members of Common Core math	265.769	269.392	270.7872	275.9464	277.4518	280.7688	282.0288	282.8005	283.1867	281.3017
Average of the states 13 opted out of the CCSS math by 2014	266.2966	269.6872	271.3393	276.0997	277.4146	280.5534	282.2515	282.9353	283.3549	281.3905
Average of the states 18 opted out of the CCSS math by 2014	266.9791	270.3089	274.1005	276.832	278.2445	281.3703	282.3949	282.8665	283.1261	281.1255
Average of the jurisdictions that had stayed with the Common Core math before 2014	266.1891	270.2465	270.693	277.0602	277.7583	280.3209	282.4004	283.8428	284.3138	282.0245
Average of the jurisdictions that had stayed with the Common Core math before 2015 (except DC and DoDEA)	267.4918	271.6676	271.9407	277.882	278.5833	281.1764	283.1522	284.4481	284.7182	282.3514

For the NAEP math grade 8. The 6-13-18 states are those above the red, horizontal line are those that had pulled out of the Common Core math by 2013-2014 or never tried. Those below the red line are those that had stayed with it at least till around the NAEP 2015 math.

No	Category	all studen 1992	all studen 1996	all studen 2000	all studen 2003	all studen 2005	all studen 2007	all studen 2009	all studen 2011	all studen 2013	all studen 2015	the dip 2015-2
	Average of the states 18 opted out of the CCSS math by 2014	266.98	270.31	274.10	276.83	278.24	281.37	282.39	282.87	283.13	281.13	-2.00
	Average of the states 13 opted out of the CCSS math by 2014	266.30	269.69	271.34	276.10	277.41	280.55	282.25	282.94	283.35	281.39	-1.96
	Average of the 6 states that had been never been members of Common Core math	265.77	269.39	270.79	275.95	277.45	280.77	282.03	282.80	283.19	281.30	-1.88
1	Alaska		278		279	279	283	283	283	282	280	
2	Minnesota	282	284	287	291	290	292	294	295	295	294	
3	Florida	260	264		271	274	277	279	278	281	275	
4	Nebraska	278	283	280	282	284	284	284	283	285	286	
5	Texas	265	270	273	277	281	286	287	290	288	284	
6	Virginia	268	270	275	282	284	288	286	289	288	288	
7	Alabama	252	257	264	262	262	266	269	269	269	267	
8	Indiana	270	276	281	281	282	285	287	285	288	287	
9	Louisiana	250	252	259	266	268	272	272	273	273	268	
10	Massachusetts	273	278	279	287	292	298	299	299	301	297	
11	New York	266	270	271	280	280	280	283	280	282	280	
12	Oklahoma	268		270	272	271	275	276	279	276	275	
13	Pennsylvania	271			279	281	286	288	286	290	284	
14	Arizona	265	268	269	271	274	276	277	279	280	283	
15	Georgia	259	262	265	270	272	275	278	278	279	279	
16	Kentucky	262	267	270	274	274	279	279	282	281	278	
17	Tennessee	259	263	262	268	271	274	275	274	278	278	
18	North Dakota	283	284	282	287	287	292	293	292	291	288	
1	Arkansas	256	262	257	266	272	274	276	279	278	275	
2	California	261	263	260	267	269	270	270	273	276	275	
3	Colorado	272	276		283	281	286	287	292	290	286	
4	Connecticut	274	280	281	284	281	282	289	287	285	284	
5	Delaware	263	267		277	281	283	284	283	282	280	
6	Hawaii	257	262	262	266	266	269	274	278	281	279	
7	Idaho	275		277	280	281	284	287	287	286	284	
8	Illinois			275	277	278	280	282	283	285	282	
9	Iowa	283	284		284	284	285	284	285	285	286	
10	Kansas			283	284	284	290	289	290	290	284	
11	Maine	279	284	281	282	281	286	286	289	289	285	
12	Maryland	265	270	272	278	278	286	288	288	287	283	
13	Michigan	267	277	277	276	277	277	278	280	280	278	
14	Mississippi	246	250	254	261	262	265	265	269	271	271	
15	Missouri	271	273	271	279	276	281	286	282	283	281	
16	Montana		283	285	286	286	287	292	293	289	287	
17	Nevada			265	268	270	271	274	278	278	275	
18	New Hampshire	278			286	285	288	292	292	296	294	
19	New Jersey	272			281	284	289	293	294	296	293	
20	New Mexico	260	262	259	263	263	268	270	274	273	271	
21	North Carolina	258	268	276	281	282	284	284	286	286	281	
22	Ohio	268		281	282	283	285	286	289	290	285	
23	Oregon		276	280	281	282	284	285	283	284	283	
24	Rhode Island	266	269	269	272	272	275	278	283	284	281	
25	South Carolina	261	261	265	277	281	282	280	281	280	276	
26	South Dakota				285	287	288	291	291	287	285	
27	Utah	274	277	274	281	279	281	284	283	284	286	
28	Vermont		279	281	286	287	291	293	294	295	290	
29	Washington		276	281	285	285	289	288	288	290	287	
30	West Virginia	259	265	266	271	269	270	270	273	274	271	
31	Wisconsin	278	283		284	285	286	288	289	289	289	
32	Wyoming	275	275	276	284	282	287	286	288	288	287	
33	District of Columbia	235	233	235	243	245	248	254	260	265	263	
34	DoDEA ¹		274	277	285	284	285	287	288	290	291	
	Average of the jurisdiction	266	270	271	277	278	280	282	284	284	282	-2.29
	Average of the jurisdiction	267	272	272	278	279	281	283	284	285	282	-2.37

Table: the USA 50 states and 2 jurisdictions (DC and DoDEA) and their math grade 8 of NAEP scores.

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Lee’s online repository to get updates about the WP series on “Math Stagnation Nations”
<http://uslgoglobal.com/wp-math-stagnation/>