

# THE WASHINGTON STATE BOARD OF EDUCATION

## Statewide Indicators of Education System Health

### Data Tables and Figures to Supplement the 2016 Biennial Report

December 1, 2016

The following data tables and images are provided to supplement data presented in the 2016 Biennial Report to the Education Committees of the Legislature on the Statewide Indicators of Education System Health. The tables show the most recent results for the respective measures and the images provide additional context for the national and peer state comparisons. All questions about these data should be directed to [Andrew.Parr@K12.wa.us](mailto:Andrew.Parr@K12.wa.us) via email.

## Status of Indicators

### Kindergarten Readiness

The Kindergarten Readiness indicator is measured through the Washington Kindergarten Inventory of Developmental Skills (WaKIDS), and is the percentage of children who are kindergarten-ready in the fall of a given year. In this case, kindergarten-ready means that the students meet the standards on all six WaKIDS kindergarten-ready domains. On Table 1, the highlighted cells in the far right column indicate that no student group met their individual gap reduction targets and by how much the target was missed.

Table 1: Performance on the Kindergarten Readiness indicator by student group.

Kindergarten Readiness	2014-15	2015-16	Annual Step Increase*	2015-16 Target	Difference 2015-16 <sup>†</sup>
<b>All Students</b>	<b>39.5%</b>	<b>44.2%</b>	<b>4.4</b>	<b>51.8%</b>	<b>-7.6</b>
Black / African American	39.3%	41.2%	4.4	51.4%	-10.2
American Indian / Alaskan Native	34.4%	35.2%	4.9	46.6%	-11.4
Asian	43.2%	51.5%	4.2	54.0%	-2.5
Hispanic / Latino	25.1%	31.1%	5.2	42.6%	-11.5
Native Hawaiian / Pacific Islander	30.2%	33.9%	5.0	45.3%	-11.4
White	48.5%	50.5%	3.7	59.6%	-9.1
Two or More	46.5%	49.4%	3.9	57.0%	-7.6
Students with a Disability	17.4%	19.8%	5.9	35.5%	-15.7
Limited English	21.0%	27.8%	5.5	39.1%	-11.3
Low-Income	30.6%	33.7%	4.9	46.4%	-12.7

\*Note: The annual step increase is shown as percentage points per year.

<sup>†</sup>Note: Difference shown in percentage points as the Target minus the actual performance value.

While it is not possible to compare the WaKIDS on a national or peer state level analysis, national and peer state comparisons can be made of enrollment in early childhood educational opportunities. In 2014, the SBE resolved to include data from the American Community Survey on the percentage of 3- and 4-year old children enrolled in early childhood education as a sub-indicator of Kindergarten Readiness (Figures 1 and 2). This data has been compiled and is reported on the KIDS COUNT Data Center developed by the Annie E. Casey Foundation (Figure 1) and can be found at <http://datacenter.kidscount.org>.

Figure 1: shows the trend of early childhood education enrollment as reported by the Annie E. Casey Foundation.

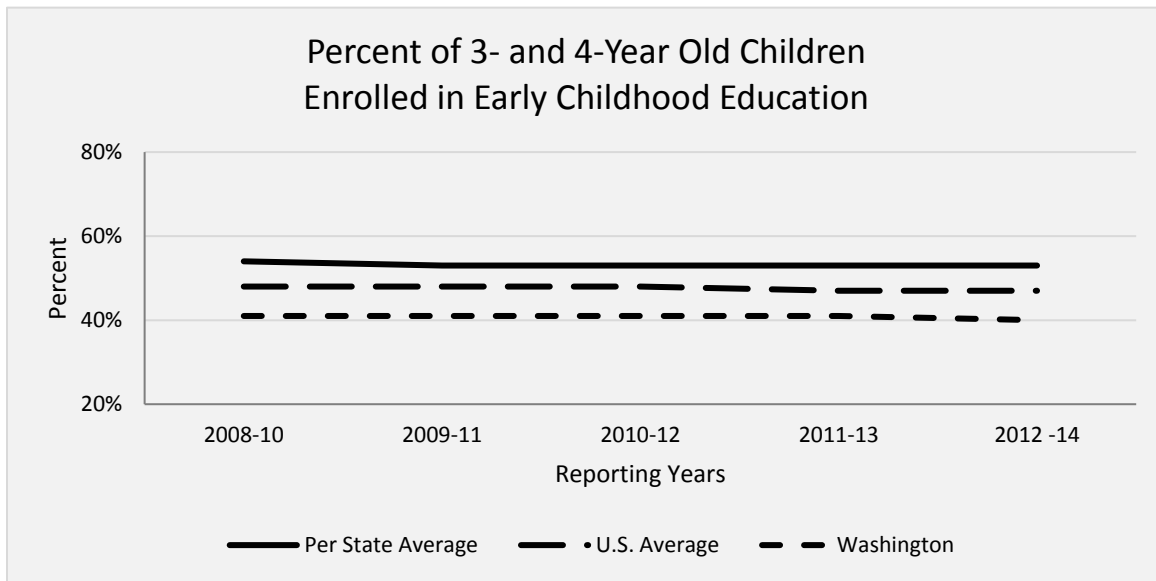
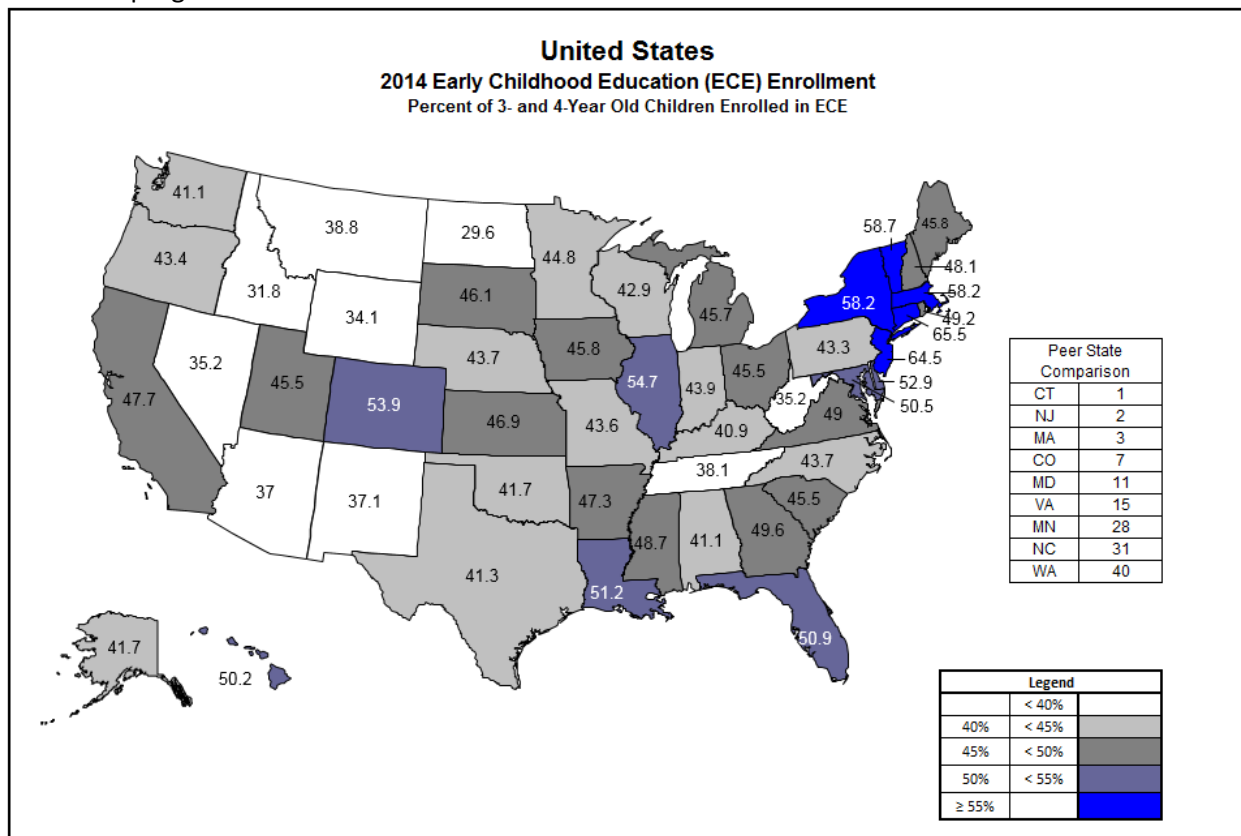


Figure 2: Shows the percent of 3- and 4-year old children who were enrolled in early childhood education programs in 2014.



### **3<sup>rd</sup> Grade Literacy**

The recommended measure for the 3<sup>rd</sup> Grade Literacy indicator is the percentage of students meeting standard on the 3<sup>rd</sup> grade English/language arts (ELA) assessment developed by the Smarter Balanced Assessment (SBA) Consortium. Because the computed annual targets are specific to an assessment, annual performance targets need to be and were reset or recomputed for the new Smarter Balanced assessments (Table 2). Because the two most recent years serve as the baseline, the performance on the 2016-17 SBA assessments will be the first to determine whether gap reduction targets are met for this indicator.

Table 2: Performance on the 3<sup>rd</sup> Grade Literacy Indicator by ESEA subgroup.

<b>3<sup>rd</sup> Grade Literacy</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2-Year Baseline</b>	<b>2016-17 Target</b>	<b>Annual Step Increase*</b>
<b>All Students</b>	<b>52.1%</b>	<b>54.3%</b>	<b>53.2%</b>	<b>56.5%</b>	<b>3.3</b>
Black / African American	34.2%	37.0%	35.6%	40.2%	4.6
American Indian / Alaskan Native	25.9%	26.4%	26.2%	31.4%	5.3
Asian	69.6%	72.8%	71.2%	73.3%	2.1
Hispanic / Latino	33.8%	35.1%	34.5%	39.1%	4.7
Pacific Islander / Native Hawaiian	31.6%	32.5%	32.1%	36.9%	4.9
White	59.9%	62.4%	61.2%	63.9%	2.8
Two or More	54.6%	58.9%	56.8%	59.8%	3.1
Students with a Disability	26.7%	26.3%	26.5%	31.8%	5.3
Limited English	19.2%	20.6%	19.9%	25.6%	5.7
Low-Income	36.0%	37.7%	36.9%	41.4%	4.5

\*Note: The annual step increase is shown as percentage points.

### **4<sup>th</sup> Grade Reading**

The indicator specified in RCW 28A.150.550 is the percentage of 4<sup>th</sup> grade students meeting or exceeding standard on the 4<sup>th</sup> Grade English/language arts assessment developed by the Smarter Balanced Assessment Consortium. The initial goal attainment determination based on the reset targets (Table 3) will be made based on the 2016-17 assessment results to be reported in fall 2017. For the 4<sup>th</sup> Grade Reading indicator, the 4<sup>th</sup> Grade National Assessment of Educational Progress (NAEP) in Reading (Figure 3 and 4) results are utilized for national and peer state comparisons.

Table 3: Performance on the 4<sup>th</sup> Grade ELA Indicator by ESEA subgroup.

4 <sup>th</sup> Grade ELA	2014-15	2015-16	2-Year Baseline	2016-17 Target	Annual Step Increase*
<b>All Students</b>	<b>54.6%</b>	<b>57.0%</b>	<b>55.8%</b>	<b>59.0%</b>	<b>3.2</b>
Black / African American	36.4%	38.7%	37.6%	42.0%	4.5
American Indian / Alaskan Native	26.5%	29.9%	28.2%	33.3%	5.1
Asian	72.8%	75.1%	74.0%	75.8%	1.9
Hispanic / Latino	36.1%	38.8%	37.5%	41.9%	4.5
Native Hawaiian / Pacific Islander	34.7%	36.1%	35.4%	40.0%	4.6
White	62.6%	65.0%	63.8%	66.4%	2.6
Two or More	56.1%	58.5%	57.3%	60.4%	3.1
Students with a Disability	24.3%	24.9%	24.6%	30.0%	5.4
Limited English	17.4%	20.6%	19.0%	24.8%	5.8
Low-Income	37.9%	40.2%	39.1%	43.4%	4.4

\*Note: Annual step increase is shown as percentage points.

Figure 3: Shows the average scaled scores for the national and peer state comparisons using the 4<sup>th</sup> Grade NAEP Reading results.

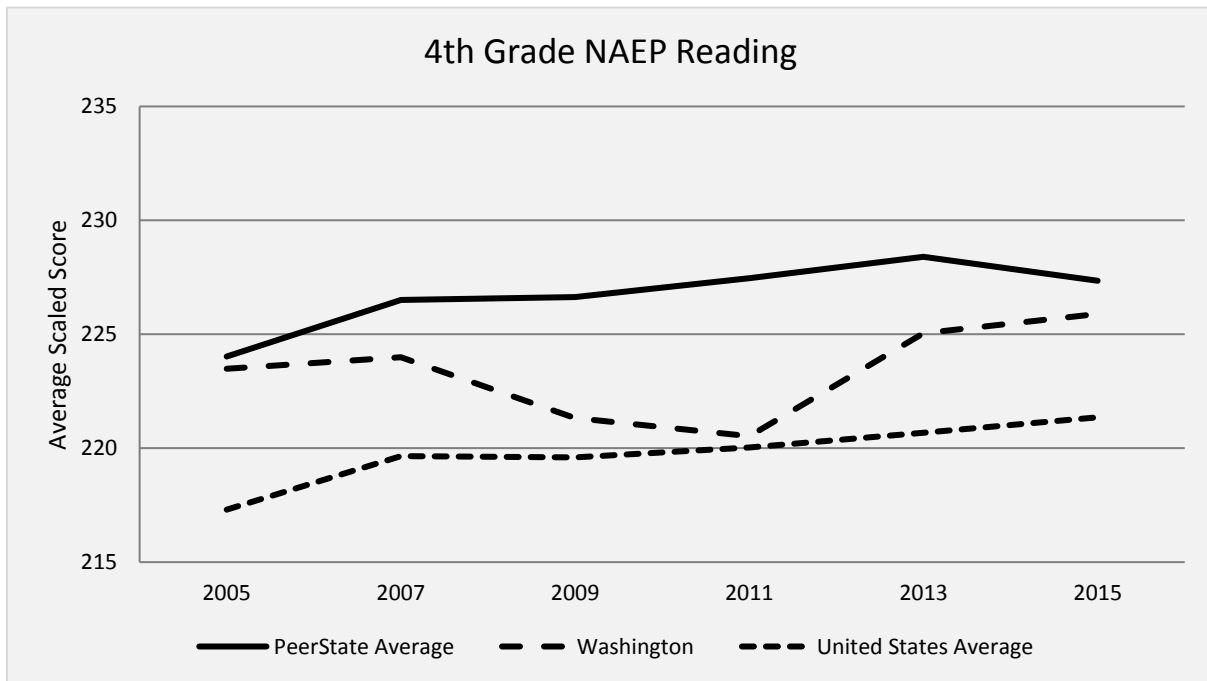
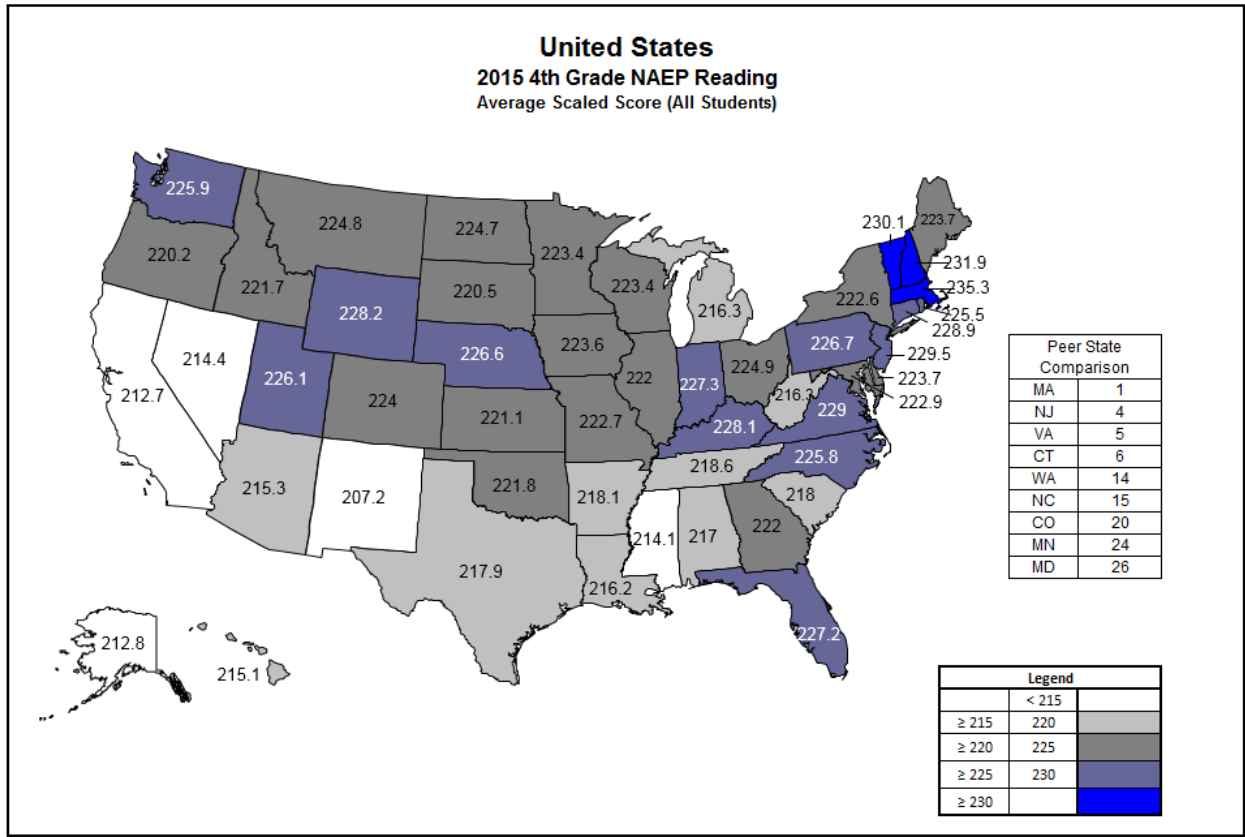


Figure 4: Shows the average scaled score by state for the All Students group on the 2015 4<sup>th</sup> Grade NAEP in Reading.



**8<sup>th</sup> Grade Math**

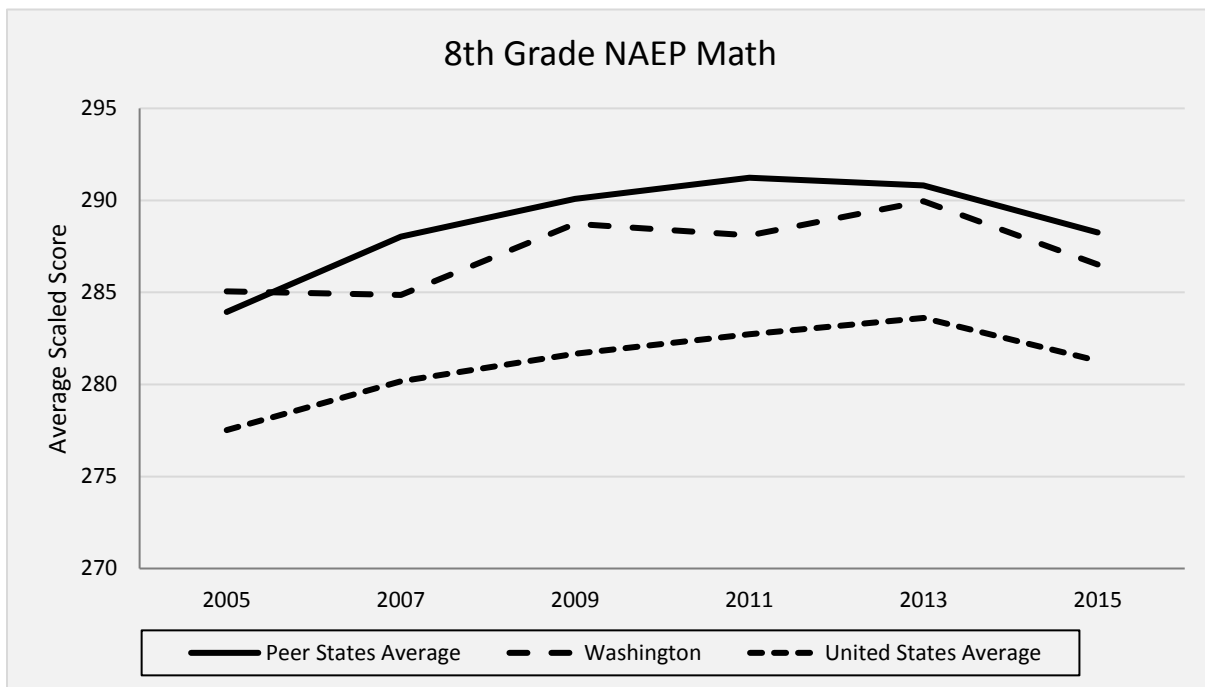
The indicator is the percentage of 8<sup>th</sup> grade students meeting or exceeding standard on the 8<sup>th</sup> Grade Smarter Balanced Assessment in Math. The initial goal attainment determination based on the reset targets (Table 4) will be made based on the 2016-17 assessment results to be reported in fall 2017. The 8<sup>th</sup> Grade NAEP in Math was used for the national and peer state comparisons (Figure 5).

Table 4: Performance on the 8<sup>th</sup> Grade Math Indicator by ESEA subgroup

8 <sup>th</sup> Grade Math	2014-15 SBA	2015-16 SBA	2-Year Baseline	2016-17 Target	Yearly Step*
<b>All Students</b>	<b>46.1%</b>	<b>47.8%</b>	<b>47.0%</b>	<b>50.7%</b>	<b>3.8</b>
Black / African American	25.2%	27.0%	26.1%	31.4%	5.3
American Indian / Alaskan Native	20.9%	22.0%	21.5%	27.1%	5.6
Asian	71.5%	74.2%	72.9%	74.8%	1.9
Hispanic / Latino	28.5%	29.6%	29.1%	34.1%	5.1
Native Hawaiian / Pacific Islander	27.9%	26.4%	27.2%	32.4%	5.2
White	51.6%	53.6%	52.6%	56.0%	3.4
Two or More	48.1%	48.8%	48.5%	52.1%	3.7
Students with a Disability	10.1%	10.7%	10.4%	16.8%	6.4
Limited English	11.7%	11.6%	11.7%	18.0%	6.3
Low-Income	30.2%	30.4%	30.3%	35.3%	5.0

\*Note: Annual step increase is shown as percentage points.

Figure 5: Shows the average scaled scores for the 8<sup>th</sup> Grade NAEP Math results.



### 8<sup>th</sup> Grade High School Readiness

The indicator is the percentage of 8<sup>th</sup> grade students who meet or exceed standard on the 8<sup>th</sup> Grade SBA in ELA and math and the MSP in science. The initial goal attainment determination based on the reset targets (Table 5) will be made based on the 2016-17 assessment results to be reported in fall 2017. The 8<sup>th</sup> Grade NAEP in Reading (Figure 6) can be utilized for the national and peer state comparisons in combination with the 8<sup>th</sup> Grade NAEP in Math (Figure 7).

Table 5: Shows the annual steps by student group and other data elements for the 8<sup>th</sup> Grade High School Readiness indicator.

8 <sup>th</sup> Grade High School Readiness	2014-15	2015-16	2-Year Baseline	2016-17 Target	Annual Step Increase*
<b>All Students</b>	<b>37.5%</b>	<b>39.0%</b>	<b>38.3%</b>	<b>42.7%</b>	<b>4.4</b>
Black / African American	16.6%	19.5%	18.1%	23.9%	5.9
American Indian / Alaskan Native	14.2%	15.7%	15.0%	21.0%	6.1
Asian	60.9%	64.2%	62.6%	65.2%	2.7
Hispanic / Latino	19.9%	21.3%	20.6%	26.3%	5.7
Native Hawaiian / Pacific Islander	20.5%	19.3%	19.9%	25.6%	5.7
White	43.3%	45.0%	44.2%	48.1%	4.0
Two or More	40.0%	40.5%	40.3%	44.5%	4.3
Students with a Disability	3.8%	4.8%	4.3%	11.1%	6.8
Limited English	3.1%	3.4%	3.3%	10.2%	6.9
Low-Income	21.4%	22.1%	21.8%	27.3%	5.6

\*Note: Annual step increase is shown as percentage points.

Figure 6: Shows the Average Scaled Scores for the 8<sup>th</sup> Grade NAEP Reading Results.

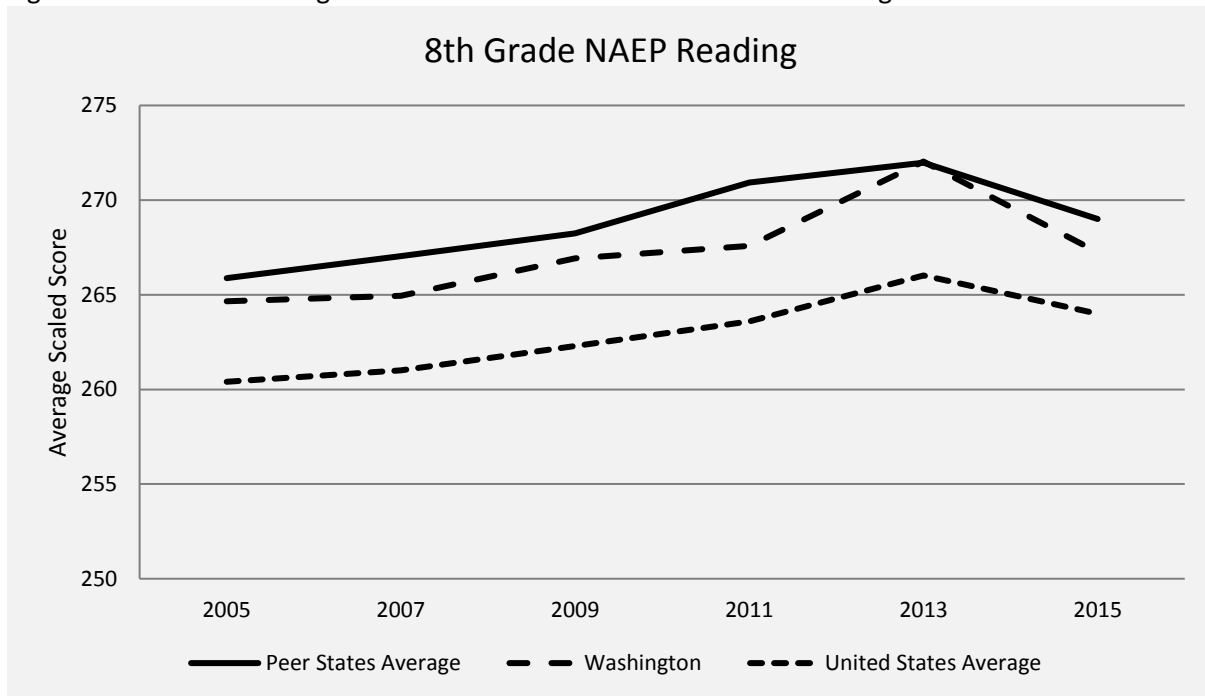
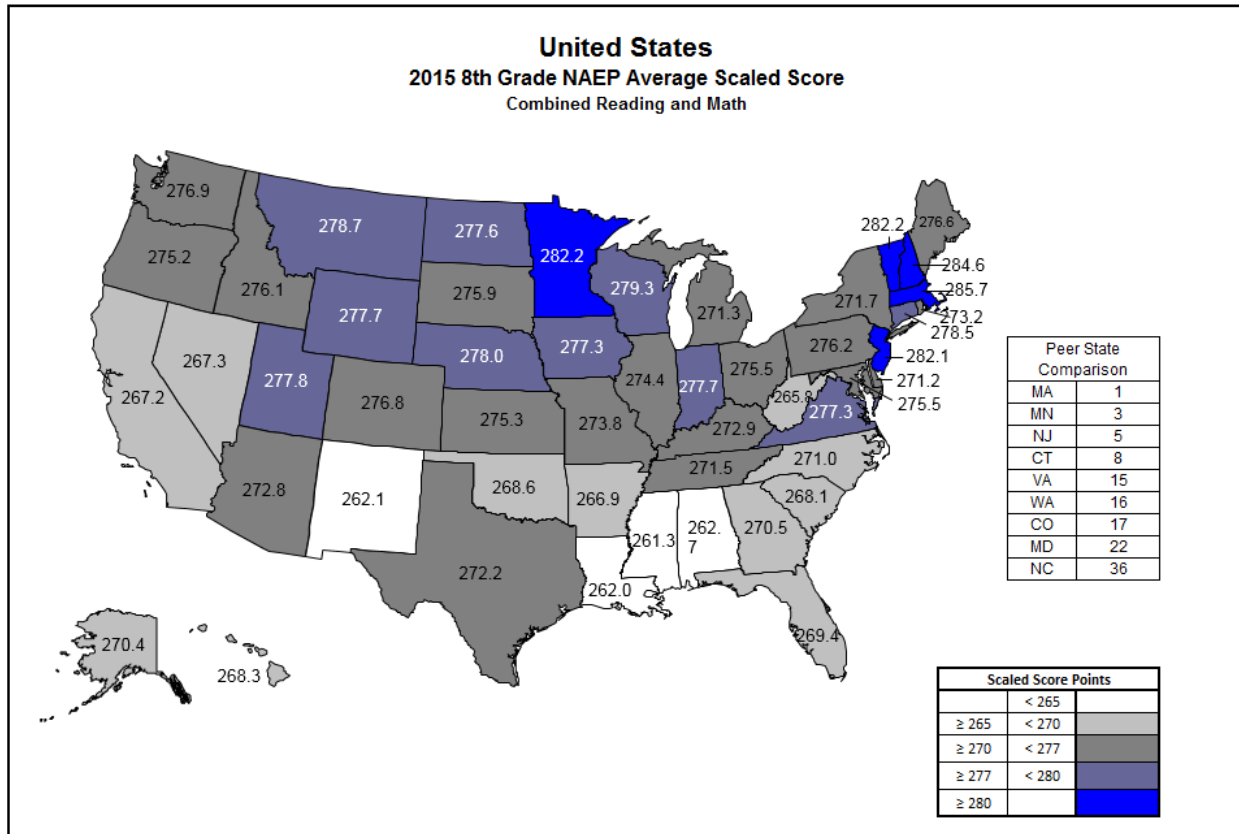




Figure 7: Shows the average scaled score for the 2015 8<sup>th</sup> Grade NAEP in reading and math combined.



**4-Year Adjusted Cohort Graduation Rate (ACGR)**

The indicator is the official on-time graduation rate following the Adjusted Cohort methodology utilized by all of the United States. The cells highlighted in purple in the "Difference" column (Table 6) indicate that no student group met their individual gap reduction targets and shows by how much the target was missed by each group.

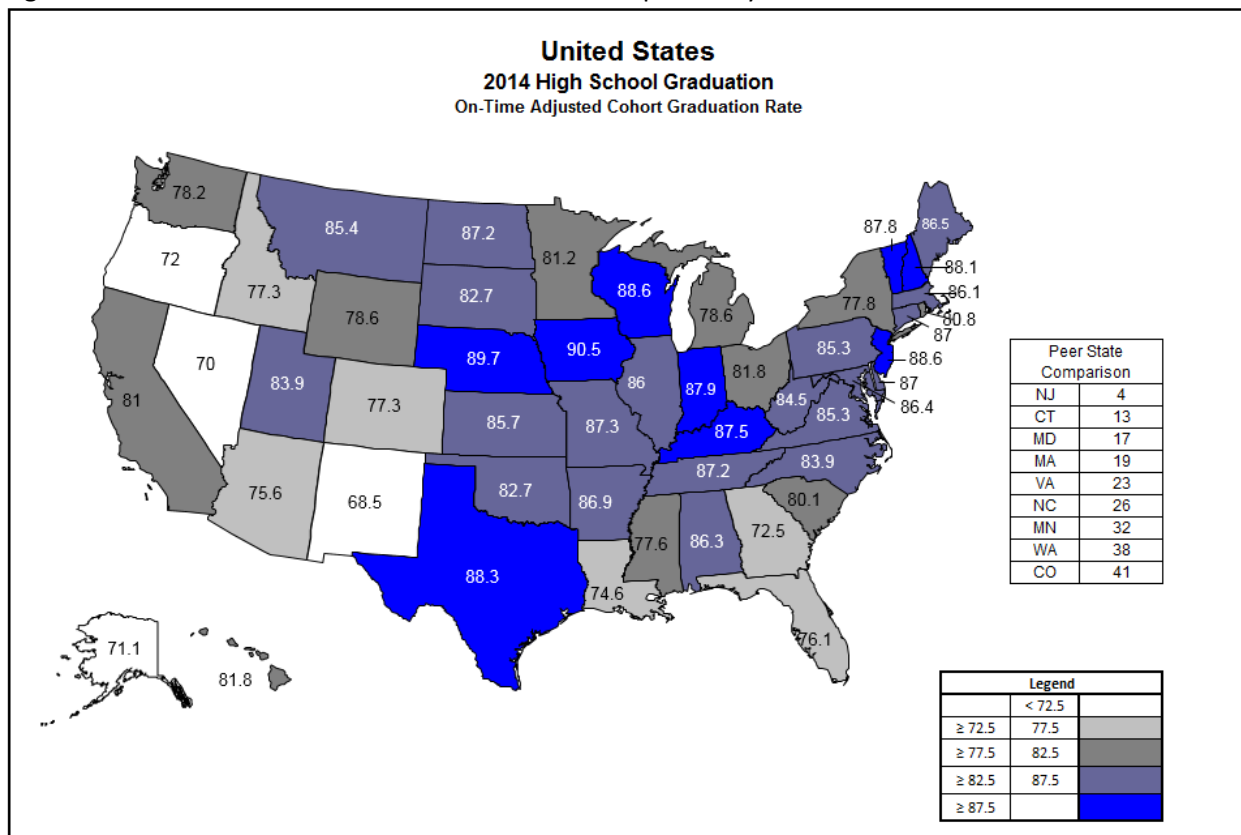
The methodology to compute the Adjusted Cohort Graduation Rate is uniform across the country, so it is possible to compare the ACGR for Washington to other states. These comparisons are made using data (Figure 8) from the National Center for Education Statistics (NCES) found at [https://nces.ed.gov/programs/digest/d15/tables/dt15\\_219.46.asp?current=yes](https://nces.ed.gov/programs/digest/d15/tables/dt15_219.46.asp?current=yes), which differs a little from the ACGR computed by the OSPI.

Table 6: Shows the On-Time Adjusted Cohort Graduation Rate by ESEA Subgroup.

On-Time High School Graduation	2013-14	2014-15	Target 2014-15	Difference 2014-15*	Annual Step Increase*
<b>All Students</b>	<b>77.2%</b>	<b>78.1%</b>	<b>81.9%</b>	<b>-3.8</b>	<b>1.7</b>
Black / African American	67.8%	68.8%	74.8%	-6.0	2.3
American Indian / Alaskan Native	53.7%	56.4%	68.0%	-11.6	2.9
Asian	86.5%	87.8%	87.9%	-0.2	1.1
Hispanic / Latino	67.3%	69.6%	74.1%	-4.5	2.4
Pacific Islander / Native Hawaiian	64.6%	67.0%	73.0%	-6.0	2.5
White	80.5%	80.9%	85.1%	-4.2	1.4
Two or More	75.5%	77.9%	81.0%	-3.1	1.7
Students with a Disability	55.7%	57.9%	67.4%	-9.5	3.0
Limited English	53.7%	55.8%	64.0%	-8.2	3.3
Low-Income	66.4%	68.0%	74.3%	-6.3	2.3

\*Note: Annual step increase and Difference values are shown as percentage points.

Figure 8: Shows the 2014 ACGR for the 50 states as reported by the NCES.



### Access to Quality Schools

This indicator is a measure of the percentage of students attending schools rated as Good, Very Good, or Exemplary as shown on the Washington Achievement Index data file (Table 7). This indicator was recommended for inclusion in the Educational System Health Indicators in the 2013 Initial Report.

Table 7: Shows the Percentage of Students Attending Good or Better Rated Schools.

Access to Quality Schools	Index Version		
	2012-13	2013-14	2014-15
Number of Students in Good or Better Schools	533,871	553,659	564,568
Percent of Students in Good or Better Schools*	53.6	55.2	55.3
*Note: the denominator is the total number of students enrolled in schools with an Index tier assignment.			

### Readiness for College Coursework

The indicator is the percentage of high school graduates who bypass remedial courses in college during the year immediately following graduation. The December 2014 report to the legislature recommended a change to the Readiness for College Coursework indicator but continued to report on the indicator specified in the original legislation (ESSB 5491 of 2013) until updated data files could be delivered. By reporting on the recommended indicator (Table 8), the legislature and other stakeholders will be provided a clearer picture about the remedial course taking patterns of the recent high school graduates who actually enroll in higher education (Table 9). The recommended change requires that annual targets be reset.

Table 8: Shows how the definition of the recommended indicator differs from the definition of the indicator specified in ESSB 5491 (2013) that was signed into law.

Specified Indicator in Bill	Current Reporting	Recommended Indicator
The percentage of high school graduates enrolled in precollege or remedial courses in public post-secondary institutions.	The percentage of recent high school graduates who bypass remedial courses.	The percentage of recent high school graduates who <b>enroll in higher education and</b> bypass remedial courses.

Table 9: Shows the annual steps by student group and other data elements for the Readiness for College Coursework indicator.

Readiness for College Coursework	2011-12	2012-13	2-Year Baseline	Annual Step Increase <sup>+</sup>
All Students	73.1%	73.6%	73.3%	1.9
Black / African American	62.4%	63.8%	63.1%	2.6
American Indian / Alaskan Native	61.1%	65.0%	63.1%	2.6
Asian	79.1%	79.8%	79.4%	1.5
Hispanic / Latino	54.9%	56.2%	55.5%	3.2
Native Hawaiian / Pacific Islander	68.5%	64.1%	66.3%	2.4
White	76.0%	76.7%	76.3%	1.7
Two or More	73.8%	72.7%	73.3%	1.9
Students with a Disability	42.4%	44.4%	43.4%	4.0
Limited English	35.8%	36.7%	36.3%	4.6
Low-Income	59.3%	59.6%	59.5%	2.9

<sup>+</sup>Note: Yearly step values and the gap values are shown as percentage points.

### Post-Secondary Attainment

The SBE-recommended measure for the Post-Secondary Attainment indicator is the percentage of high school graduates attaining a credential, certificate, or completing an apprenticeship prior to age 26. The ERDC conducted the initial analysis of this measure (Table 10). The ERDC examined the post-secondary educational outcomes for the class of 2006 because these graduates would be turning 26 years old (18 years old at graduation plus seven years of time for post-secondary attainment) at the time this first analysis was made.

The ERDC report may be found at <http://www.erd.wa.gov/sites/default/files/publications/201507.pdf>.

Table 10: shows the percent of students completing a credential, certificate, or apprenticeship before age 26.

Percent of High School Graduates Earning a Credential or Certificate by Age 26	Class of 2006
	Reported in Spring 2015
<b>All Students</b>	<b>42%</b>
Black / African American	29%
American Indian / Alaskan Native	23%
Asian	55%
Hispanic / Latino	24%
Native Hawaiian / Pacific Islander	25%
White	44%
Two or More	39%
Students with a Disability	11%
Limited English	25%
Low-Income	25%

The percentage of high school graduates who are enrolled in post-secondary education, training or are employed in the 2<sup>nd</sup> quarter and the percentage of high school graduates who are enrolled in post-secondary education, training or are employed in the 4<sup>th</sup> quarter after graduation was identified as a two-part secondary measure in the 2014 report to the legislature but is specified in the ESSB 5491 legislation (Table 11).

Table 11: shows the results of the Post-Secondary Engagement measure by year for the 2<sup>nd</sup> and 4<sup>th</sup> quarters.

	Class of 2011		Class of 2012		Class of 2013	
	Reporting Year 2012		Reporting Year 2013		Reporting Year 2014	
	2nd Quarter	4th Quarter	2nd Quarter	4th Quarter	2nd Quarter	4th Quarter
<b>All Students</b>	<b>76.7%</b>	<b>75.9%</b>	<b>73.7%</b>	<b>75.8%</b>	<b>76.3%</b>	<b>76.9%</b>
Black / African American	70.7%	68.0%	68.3%	71.2%	73.4%	74.2%
American Indian / Alaskan Native	60.0%	57.0%	58.0%	60.7%	59.0%	61.9%
Asian	82.5%	81.6%	80.6%	82.5%	83.7%	84.9%
Hispanic / Latino	62.8%	62.9%	64.6%	68.7%	67.2%	69.5%
Native Hawaiian / Pacific Islander	57.5%	58.0%	57.5%	63.4%	64.6%	62.8%
White	77.6%	76.8%	75.8%	77.4%	78.1%	78.3%
Two or More			72.8%	74.9%	76.0%	76.5%
Students with a Disability	53.2%	50.9%	45.4%	48.8%	48.1%	50.4%
Limited English	59.1%	60.4%	52.9%	60.9%	56.1%	60.1%
Low-Income	66.1%	65.2%	64.7%	68.0%	67.1%	68.7%

### Disproportionality in Discipline and the Composition Index

There are different manners in which one might examine disproportionality in student behavior and discipline. The OSPI discipline equity workgroup considered several measures for representing disproportionality and opted to use and report the Disproportionality Composition Index (CI). The Composition Index is a measure of whether students assigned to a student group are suspended at a rate proportionate to their representation in the total student population. The Disproportionality Composition Index (CI) is computed as follows.

$$CI = \frac{\text{(number of suspended students from XYZ group} \div \text{total number of suspended students)}}{\text{(number of students in XYZ group} \div \text{total number of students)}}$$

A Composition Index greater than one indicates the group makes up more of the suspensions and expulsions than their representation in the population generally (Table 12). A Composition Index equal to less than 1.00 indicates the group makes up less of the suspensions and expulsions than their representation in the population generally. On this measure, a Disproportionality Composition Index of 1.00 for all student groups means that no student group is being subjected to suspensions and expulsions at a disproportionately high or low rate.

Learn more about the OSPI's Disproportionality Composition Index at <http://www.k12.wa.us/DataAdmin/PerformanceIndicators/DataAnalytics.aspx>.

Table 12: Shows the Disproportionality Composition Index for student groups for the three most recent years.

<b>Discipline Disproportionality Composite Index</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16 Target</b>
<b>All Students</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	
Black / African American	2.46	2.27	2.21	2.15
American Indian / Alaskan Native	1.75	1.78	1.94	1.80
Asian	0.38	0.35	0.30	NA
Hispanic / Latino	1.21	1.19	1.16	1.16
Native Hawaiian / Pacific Islander	1.45	1.42	1.38	1.37
White	0.83	0.84	0.86	NA
Two or More	1.11	1.14	1.29	1.20
Students with a Disability	1.87	1.94	2.03	1.91
Limited English	1.00	0.97	0.98	NA
Low-Income	1.51	1.50	1.53	1.48

Note: NA = Not Analyzed