



Washington Achievement Index

Andrew Parr, State Board of Education
March 6, 2018

Setting the Stage



Student Group Performance is More Visible



The new methodology of aggregating three years of student data resulted in the calculation of school ratings for many more schools and student groups at schools.

Number of Schools Reporting on High School Graduation Measure

	All Students (AI)	Asian	White	Two or More	Native American	Black	Hispanic	Pacific Islander	English Learners	Low Income	Special Education
2016	1800	93	322	84	5	57	209	5	28	343	10
2017	1971	144	375	194	22	127	301	33	165	396	58

Increase in the Number of Reporting Schools

Change	171	51	53	110	19	70	92	28	137	53	48
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Taken from text on page 66 of the printed Board Packet

Index Performance by School Level



The new Index appears to favor elementary schools, as these schools have the highest average Index rating and appear to be disproportionately over-represented in the highest performing school list.

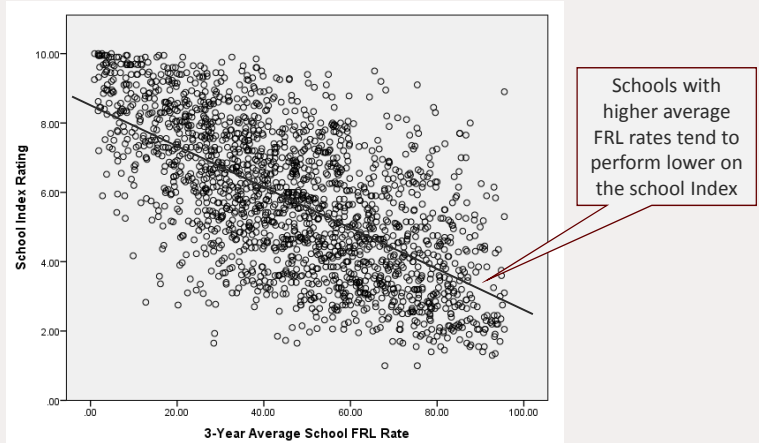
	Elementary Schools	Middle Schools	High Schools	All Schools
Number	1037	354	352	1971
Mean (Index)	6.044	5.499	5.269	5.717
Distribution of Highest/Lowest Performing Schools				
Schools in Top Five Percent*	81	16	< 10	103
Schools in Bottom Five Percent*	50	19	17	105
*Note: the number of schools in the top five percent and bottom five percent is different because of counting tie scores at the threshold cut points.				

Modified from Figure 1, page 66 of the printed Board Packet

Correlation of School Index Rating to Socioeconomic Status



The new Index ratings are moderately to strongly and negatively correlated to the socioeconomic status of the school.



Taken from text on page 67 of the printed Board Packet

Performance on the SQSS Indicator



The performance on the School Quality and Student Success (SQSS) measures differs on the basis of school level. The inclusion of the SQSS indicator appears to favor elementary schools over middle and high schools.

	Elementary Schools	Middle Schools	High Schools	All Schools
Schools with an Index Rating	1037*	354*	352*	1971*
Decile Ratings				
School Quality and Student Success (SQSS)	6.420	4.728	4.946	5.736
Regular Attendance	6.420	4.650	3.000	5.380
Ninth Grade On-Track		7.750	5.180	5.540
Dual Credit		4.500	6.760	6.170
Percent of Students				
Regular Attendance	89.7	85.1	73.1	85.1
Ninth Grade On-Track		82.5	68.4	70.0
Dual Credit		25.1	46.2	40.1

*Note: the value represents the number of schools by school level with an Index rating ≥ 1.000 .

Modified from Figure 6 page 70 of the printed Board Packet

Index Performance of Schools in the Required Action Districts



The SBE agreed to not release any specific information on the Required Action Districts until all the school data and identifications for school support are released to the public near the middle of March.

School District	Total Schools	Number of Schools Preliminarily Identified for Comprehensive or Targeted Support
Marysville SD	27	More than ten schools
Soap Lake SD	3	Intentionally suppressed
Tacoma SD	64	More than ten schools
Wellpinit SD	8	More than one school
Yakima SD	28	More than ten schools

Modified from bulleted text, page 71 of the printed Board Packet

7



Washington Achievement Awards

Recap from Last Year



- The current award identification methodologies tends to identify lower poverty schools, many along the I-5 corridor.
- One in six schools with an Index rating received an award last year.
- More than 10 percent of the awarded schools came from one district and the average FRL rate for those awarded schools was 7.0 percent.

Washington Achievement Awards	Corresponding AI Year		
	2014	2015	2016
Overall Excellence	91	69	72
High Progress	187	119	135
Math Growth	84	67	72
ELA Growth	90	71	75
Five-Year Graduation Rate	26	3	4
English Language Acquisition	26	32	16
Achievement Gap Reduction	95	2	77
Total Awards	599	363	451
Total Schools Receiving Awards	402	258	280

9

Washington Achievement Awards



The award methodologies do not routinely consider school enrollment, school FRL rate, or the presence of performance gaps...but maybe the methodologies should.

Award	Does current practice factor in the following elements into each award criteria?					
	Low Participation on Testing	Identified for Support	Proficiency Gap	Graduation Gap	Enrollment	School Poverty Rate
Overall Excellence	Yes	Yes	No	No	No	No
High Growth	Yes	No	No	No	No	No
High Graduation	Yes	Yes	No	Yes	No	No
English Language Acquisition	Yes	No	No	No	Yes*	No
Achievement Gap Reduction	Yes	Yes	Yes	No	No	No
High Progress	Yes	Yes	No	No	No	No

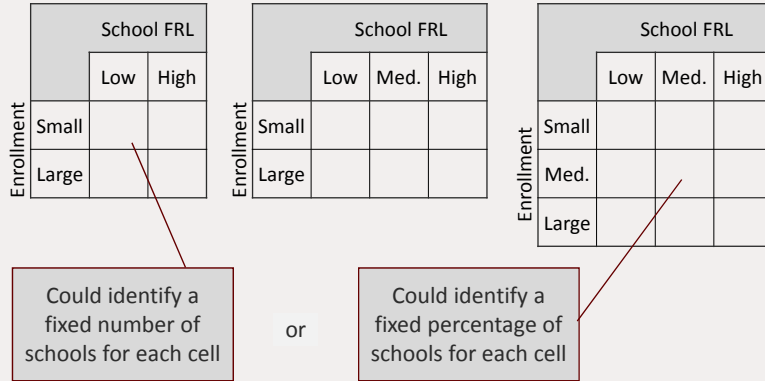
*Note: the first year of the English Language Acquisition award differentiated small program success from large program success.

10

More Sophisticated Approaches to the Identification of Schools for Recognition

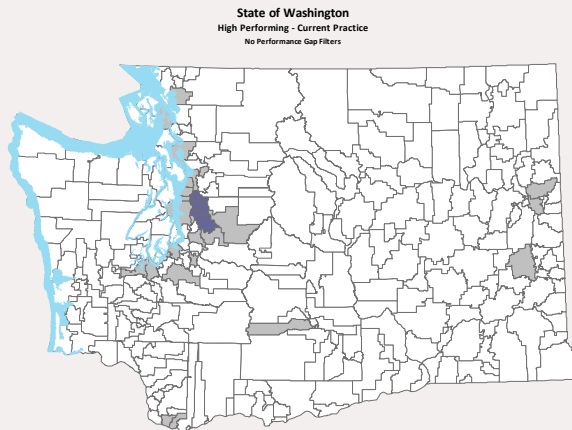


- Since school enrollment and school FRL rate are known to influence educational outcome measures, a matrix approach could be developed to ensure the ID of differently types of schools.
- Regression modeling could accomplish the ID of different types of schools and could factor in other elements such as urban/rural setting and student mix.



11

Overall Excellence (current practice) The methodology identified 88 schools (mostly wealthier and in the Puget Sound region. No consideration was given to the presence or absence of performance gaps.



Identify then Exclude

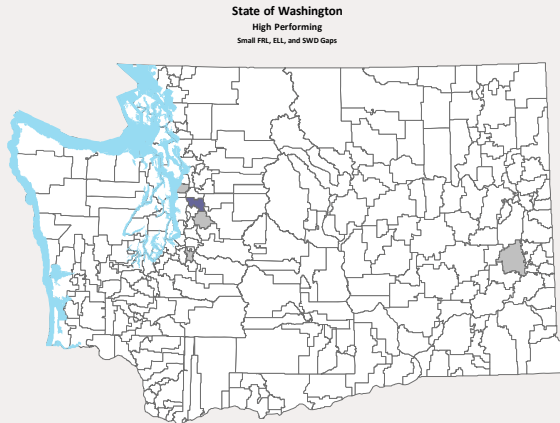
- ID top 5% based on AI (≥ 9.300)
- Exclude if participation rate is $< 95\%$
- Exclude if identified for support

Identify 88 Schools

- FRL Average = 17%
- Enrollment Average = 536

12

By adding the FRL, ELL, and SWD gap filters the number of highest performing schools decreases from 88 to 8 schools.



Identify then Include/Exclude based on the following.

- Identify the top 5% based on AI (≥ 9.300)
- $\geq 95\%$ Part (3-Years)
- FRL-Not FRL Gap $\geq 8^{\text{th}}$ Decile*
- ELL-Not ELL Gap $\geq 8^{\text{th}}$ Decile*
- SWD-Not SWD Gap $\geq 8^{\text{th}}$ Decile*

Identify 8 Schools

- FRL Average = 13%
- Enrollment Average = 278

*Note: schools with smaller gaps are placed into the higher deciles. So, a higher decile indicates a smaller performance gap.

13

Overall Excellence: This methodology to ID the highest performing schools creates a pool of award-eligible schools ($\geq 8^{\text{th}}$ decile for gaps) then applies an AI threshold.



Establish a Pool of Award Eligible Schools and Apply AI threshold

- $\geq 95\%$ Part (3-Years)
- No Supports
- AI $\geq 8^{\text{th}}$ Decile (>7.034)
- FRL-Not FRL Gap $\geq 8^{\text{th}}$ Decile*
- ELL-Not ELL Gap $\geq 8^{\text{th}}$ Decile*
- SWD-Not SWD Gap $\geq 8^{\text{th}}$ Decile*
- AI $\geq 8^{\text{th}}$ Decile (>7.034)

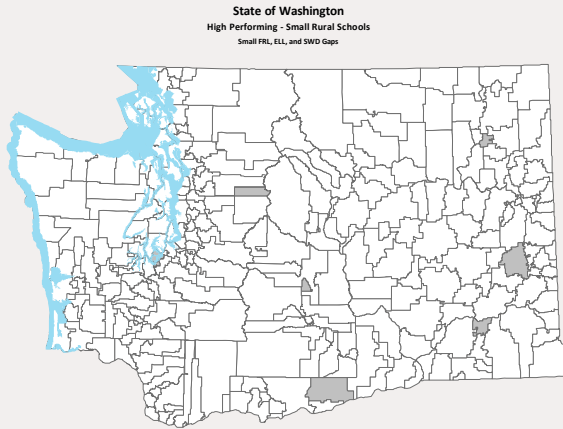
Identify 24 Schools

- FRL Average = 30%
- Enrollment Average = 243

*Note: schools with smaller gaps are placed into the higher deciles. So, a higher decile indicates a smaller performance gap.

14

Overall Excellence: This methodology to ID the highest performing schools creates a pool of award-eligible schools based on location, enrollment, and gaps and then applies an AI threshold.



Establish a Pool of Award Eligible Schools

- Geopolitical code = Rural
- Enrollment ≤ 100
- No School Supports
- $\geq 95\%$ Part (3-Years)
- FRL-Not FRL Gap $\geq 8^{\text{th}}$ Decile*
- ELL-Not ELL Gap $\geq 8^{\text{th}}$ Decile*
- SWD-Not SWD Gap $\geq 8^{\text{th}}$ Decile*
- AI $\geq 8^{\text{th}}$ Decile (7.034)

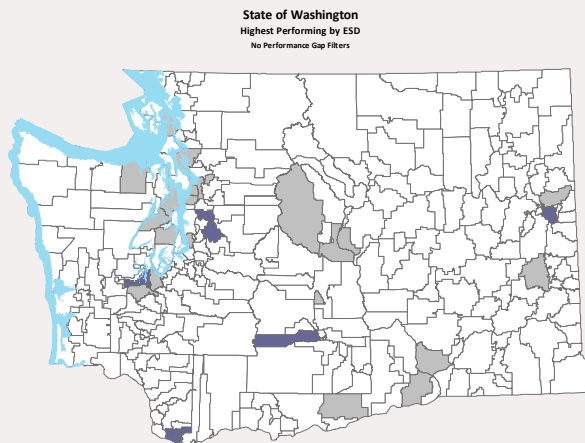
Identify 7 Schools

- FRL Average = 43%
- Enrollment Average = 47

*Note: schools with smaller gaps are placed into the higher deciles. So, a higher decile indicates a smaller performance gap.

15

Overall Excellence: Statewide Awards based on Regions - Identify the top five performing schools by ESD. Performance gaps were not considered*.



Identify then Exclude

- ID top 5 schools based on AI in each ESD and the SCSA school
- Exclude if participation rate is $< 95\%$
- Exclude if identified for support

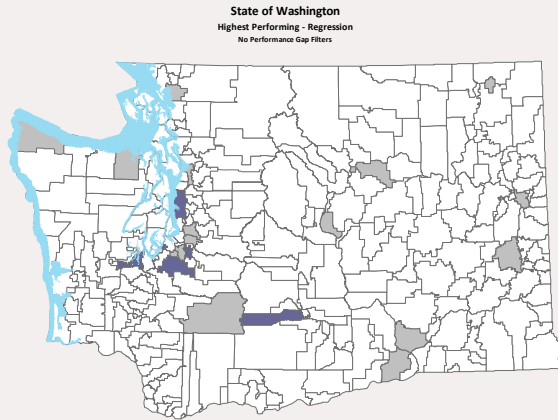
Identify 39 Schools

- FRL Average = 25%
- Enrollment Average = 425
- AI Average = 9.296 (range is 8.000 to 10.000)

*Note: only seven schools would remain on the list if performance gaps ($\geq 8^{\text{th}}$ decile) were to be considered in the methodology.

16

Overall Excellence: This methodology to ID the highest performing schools creates a pool of award-eligible schools and compares actual performance on the Index to the predicted performance.



Establish a Pool of Award Eligible Schools

- No School Supports
- $\geq 95\%$ Part (3-Years)
- Index Rating ≥ 1.000
- Pool = 700 schools

Multivariate Regression Model controls for the following

- FRL
- Enrollment
- Geopolitical setting

Identifies top 35 performers

- AI Average = 8.792 (7.000 to 9.900)
- FRL Average = 60% (30 to 88%)
- Enrollment Average = 460 (50 to 1200 students)

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