

BELLINGHAM SCHOOL DISTRICT
Bellingham, Washington

MEMORANDUM

TO: Board of Directors
FROM: Dr. Greg Baker, Superintendent
DATE: December 4, 2016
SUBJECT: Ends Monitoring Report 2.1, Part 1

I am pleased to submit this Ends monitoring report (Ends 2.1 - Student Competence, Part 1) to the school district's board of directors. Ends 2.1, Part 1 explores student performance in reading, math and science, and compares our progress to comparable high performing districts. Part 2 of Ends 2.1 will be presented at the February 16 board meeting, taking a deep look at students' coursework/course-taking participation in college and advanced placement experiences, relative to our high performing comparable districts. Part 3 will be presented at the March 23 board meeting and will focus on students' continuous improvement toward graduation in comparison to high performing peer districts, and a summative conversation in anticipation of the Board's evaluation of our reporting on Ends 2.1 overall.

Introduction

The report that follows focuses on the Bellingham School District's student achievement performance levels overall, and compares our progress to selected comparable high performing districts. By way of reminder, the Ends 2.1 policy is included in the text box below.

Given that last year was the inaugural implementation year of the new Smarter Balanced state assessment, we now have the ability to measure our progress against that initial benchmark. That said, it is important to understand that reporting on two data points is not sufficient to call any given result a "trend." With this caveat in mind, we've done our best to dig down into this limited data and provide the board with a balanced picture of system performance.

In this Part 1 report, we focus on numbers 1-3 below. I remind you that the data we rely on for this particular report comes primarily from our state tests and, as such, offers one set of lenses on student learning. Most of the *Bellingham Promise* outcomes are not the subject of these Ends 2.1 comparisons. However, these data do offer us the ability to observe the performance of

E - 2.1: Consistent with the district Vision and Mission, all children of the Bellingham Public Schools Community will attain high academic achievement, develop essential skills and attributes necessary for continuous growth in learning, and graduate from high school. All students will succeed and grow regardless of ethnicity, socio-economic status, English language proficiency or disabilities.

1. Every student’s achievement, skills and attributes will exceed: (a) the Washington State benchmarks and (b) similar students in comparable high performing districts, as measured by state assessments and other available data, as appropriate.
2. Every student’s achievement, skills and attributes will show continuous significant growth relative to similar students in comparable high performing districts as measured by state assessments and other available data, as appropriate.
3. Every student with a gap in achievement, skills and attributes will close the gap. For state or federally identified student populations, any gap will be eliminated and annual progress will be greater than that of similar students in comparable high performing districts.
4. Student participation in post-secondary and career-ready courses shall increase and exceed participation in comparable high-performing districts. This shall include high school credits in middle school, college credits in high school, technical and career ready coursework, Advanced Placement, and other advanced learning opportunities.
5. All children of the Bellingham Public Schools community shall make continuous advancement toward on-time graduation or extended graduation, thereby reducing Bellingham Public Schools’ drop-out rates.

particular subgroups of students, and to chart the big picture of how Bellingham students’ proficiency and growth on the Smarter Balanced exam stacks up against some of our highest performing peer districts. The addition of student growth percentile data adds a new dimension to this reporting process this year, allowing us to examine both overall proficiency rates as well as rates of growth across the district and within individual schools.

Methodology for Identifying Comparable High Performing Districts

Ends 2.1 relies on big picture comparisons to a total of fifty districts that were selected on the basis of being somewhat demographically similar to Bellingham. The main sections of our report focus in on three comparable high performing districts: Bellevue, Olympia and Shoreline. Those districts comprise a group of relatively close demographic peer districts that typically outperform our system on measures of student achievement and graduation rates. Table A below includes the parameters that guided the choice of comparison districts. Table B arrays Bellingham’s key demographic data alongside of the three comparison high performing peer districts.

Table A: Parameters to Determine Comparable District Pool

Criteria	Parameters	Low	Bellingham	High
Enrollment	0.67 above and below	3725	11287	18849
% Free/Reduced Meal	no lower than 0.5 below	19	37	100
% Asian and White	no higher than 0.15 above	0	74	85
% Limited English	no lower than 0.67 below	2	6	100

Table B: Demographic Data for Bellingham and High Performing Comparison Districts

Criteria	Bellingham	Bellevue	Olympia	Shoreline
Enrollment	11287	20054	9971	9231
% Free/Reduced Meal	37	18	30	26
% Asian and White	74	76	77	68
% Limited English	6	12	2	6

▪ **Washington State Compared with Other Smarter Balanced Exam States**

In addition to comparing our district’s overall performance to high performing comparable districts, we also compare ourselves to the state. Similar to 2015, Washington state once again compared quite favorably to other states in terms of overall proficiency rates in both English language arts (ELA) and math on the 2016 Smarter Balanced exam, and this is true across all tested grade levels. Page 1 of the data set shows how Washington’s proficiency rates stack up across all other states administering the Smarter Balanced exam over the past two years. Understanding where Washington falls as a state provides a better context for understanding what it means to exceed state percentages. Our district tends to outperform our state, and in fact outperforms many of the other states that administer the Smarter Balanced exam.

▪ **Bellingham Compared to the Group of 50 Comparable Districts**

Pages 2-3 of the data set show the proficiency bar charts of the fifty districts in the larger comparable set. The dark blue highlighted line shows where Bellingham is positioned versus the three comparison high performing districts (highlighted in red) in terms of student achievement on the Smarter Balanced test in both ELA and math, grades 3-8 in 2016.¹ As the bar chart illustrates, student populations from Bellevue, Shoreline and Olympia, the three districts in our comparison set, achieve at a higher rate than Bellingham students overall. Bellingham ranked number nine out of the fifty comparable districts in 2016 English language arts, and number ten overall in math.

We were curious to go a little deeper this year with this big picture analysis, due to the fact that we now are able to observe student growth percentiles (SGP) in addition to overall proficiency rates and compare that with our comparable district set. Pages four through five offer a three-dimensional view of how we compare to the fifty comparable districts that factor in both SGP and income level along with proficiency rates. The y-axis represents proficiency on the state test, the x-axis factors in SGP², and the circle size represents the magnitude of each district’s population of students eligible for free or reduced meals. There are a few points to make about these pictures. First, Bellingham students scored well by comparison to our fifty comparable districts on both proficiency and SGP. Our scores position us in the upper right quadrant

¹ We do not include the high school testing data in our comparisons due to its instability. With a number of students’ families opting them out of taking the state test in high school, the data picture we are left with (in our district as well as in the comparison group of districts) does not accurately reflect student performance levels.

² Note that the growth data looks at grades 4-8, excluding grade 3 because we have only the initial year of data on third graders.

clustered near our three high performing comparable districts and, in fact, ahead of Shoreline on SGP in 2016, despite the fact that Bellingham’s student population includes a substantially higher percentage of students eligible for free or reduced meals. The scatterplot further illustrates the relationship, overall, between income and test proficiency across the whole set of fifty districts. Simply using an “eyeball” test of linearity, it is clear to see that, generally speaking, as the percentage of students from higher income homes increases, proficiency rates on both the math and ELA Smarter Balanced test rise. Furthermore, R^2 values for ELA and math scores by income are 0.63 and 0.55 respectively, suggesting that, statistically speaking, a large part of any given district’s average score on the state exams can be explained by that district’s overall percentage of students eligible for free or reduced priced meals.

By choosing districts that are typically wealthier for inclusion in our comparison group, we are, in essence, refusing to take as given the statistical fact that higher income drives higher proficiency. We do this because we know of outlier examples from schools elsewhere that show that the effects of poverty can be reduced with effort.³ We also believe we gain a better sense of what we need to strive for as a system in terms of student performance on these measures by choosing to compare ourselves to these districts. That said, given what we know about the relationship between income and test proficiency, the choice of these districts with lower percentages of students eligible for free or reduced priced meals is likely to position Bellingham student proficiency rates consistently below the other three.

To enrich the analysis this year, the board will see that we have taken one more step to include some additional data in this report that also compares Bellingham’s student performance to that of districts that are closer to us in terms of percentages of students from lower income homes. Page 6 of the data set reveals how Bellingham students compare on proficiency to the subset of districts from our comparable group of fifty that fall in the range of plus or minus five percent from Bellingham’s free and reduced meals percentage. The percent of Bellingham students eligible for free and reduced meals in 2016 was 37% percent, so we’ve included only districts here that ranged between 32-42% eligibility. We’ve also included the state for comparison purposes. As is evident from the graphs, three districts within this band scored higher than Bellingham (University Place, Sumner and Central Kitsap) and eight districts scored lower, including some with slightly lower rates of free/reduced meal eligibility. This provides some additional context that even when taking into account income level, as a system Bellingham students scored comparably well.

▪ **District Smarter Balanced Scores Compared to Comparable High Performing Peers**

2.1.1 (Exceed state benchmarks). In the data set provided for the board, we also present overall comparisons against the state benchmarks on the first two years of the Smarter Balanced test to the high performing comparable school districts. Several different indicators of achievement are tracked and presented. These include:

³ See for example schools included in the studies conducted by Education Trust, https://edtrust.org/dispelling_the_myth/

- ELA in grade bands 3-5 and 6-8;
- math in grade bands 3-5 and 6-8;
- science in grade bands 3-5 and 6-8.

Pages 7-11 of the data set compare percentages of Bellingham students who *met* standard on the state test with percentages of students from the other three comparable high performing districts, as well as with the state overall. Pages 12-16 compare the percentages of Bellingham students who exceeded standard to our comparison group. Bar graphs include student overall comparisons, and comparisons on the four subgroup populations we have typically tracked: Hispanic/Latino students; English language learners; students with individualized education plans (IEPs); and students eligible for free and reduced price meals. We have included the 2015 and 2016 data to give at least a nod to how these scores are “trending” but again, two years does not constitute a reasonable data set to do very deep comparison work.

That said, overall Bellingham students and those within subgroups tended to outperform the state averages on the Smarter Balanced test once again this year, and underperform (with a few exceptions) those students from our high performing comparable set (Shoreline, Bellevue, Olympia). Some slight dips in year-over-year performance were noted, and particularly in the area of math in which scores dropped a small amount overall, and dipped within several subgroups (ELA, Hispanic/Latino, low income). Given that this data represents the performance of students who experienced the new math curriculum adoption during the middle of their experience in our district, it is not unexpected to see a performance dip. We would anticipate that, as grade levels who have experienced the full continuum of the updated math curriculum that is specifically designed to align with the standards that underpin the Smarter Balanced test, we would expect to see math scores pick back up and hopefully ascend.

School board members’ comments on last year’s Ends 2.1, Part 1 report inquired as to whether we could include an analysis of proficiency trends in our population of students identified as highly capable. Because the state does not report on this particular population, we do not have

Table C: Percentage of Bellingham Identified HCL Students Meeting and Exceeding Standard Compared to All Students

<u>ELA Met</u>	<u>Gr 3-5</u>	<u>Gr 6-8</u>	<u>Math Met</u>	<u>Gr 3-5</u>	<u>Gr 6-8</u>
All Students	63%	70%	All Students	58%	58%
Not HCL	57%	65%	Not HCL	52%	52%
HCL All	84%	86%	HCL All	99%	98%
HCL Verbal	84%	88%	HCL Quant	98%	98%
<u>ELA Exceed</u>	<u>Gr 3-5</u>	<u>Gr 6-8</u>	<u>Math Exceed</u>	<u>Gr 3-5</u>	<u>Gr 6-8</u>
All Students	33%	32%	All Students	30%	36%
Not HCL	27%	24%	Not HCL	23%	28%
HCL All	84%	86%	HCL All	87%	91%
HCL Verbal	84%	88%	HCL Quant	90%	95%

the ability to compare the proficiency or growth of our students identified highly capable to those students similarly identified in our group of high performing comparable districts. That said, we did make an effort to tease out exam results for this specific sub-population in Bellingham in order to give the board a sense of this group's proficiency on the state test compared to the overall population in Bellingham. Table C included above displays the results of this inquiry. As might be expected, our students identified highly capable in grades 3-5 and 6-8 meet and exceed standard at a significantly higher rate than the overall student population in those grade bands. In addition, we also conducted an inquiry comparing the SGP for students identified as highly capable versus the student population overall. Speculation was that we might discover our identified HCL population experiencing a "ceiling effect" with their growth scores, given that more of the HCL-identified students score so highly on the proficiency scale. However, we found exactly the reverse in all comparisons except one. Higher percentages of identified HCL students experienced high growth compared to the whole student population in grades 4-5 and 6-8 ELA, and in grade 4-5 math. The one outlier was with regard to the high growth percentage for 6-8 students identified HCL in math. This group's SGP was 1% lower than high growth percentage for 6-8 students overall, and we believe this *was* likely evidence of a "ceiling effect" in that group because such a high percentage (95%) exceeded standard in proficiency in year-over-year comparisons.

Additional interesting storylines emerged from the available subgroup data. One of these is the percentage of middle level students who are on IEPs meeting standard. Overall we saw slight to modest gains in ELA, math and science in year-over-year comparisons. We also saw small improvements in the elementary population receiving special education services in ELA. Our special education teachers and leaders have been working hard to improve our overall program, and so it is good to see that group emerge as improving in this year when a number of our overall percentages dipped slightly. Again, whether this constitutes a trend or not will play out over the next few years. A second positive outcome observed was in the area of science, where we saw scores increase for Hispanic/Latino, low income and special education subgroups across the middle level.

However, the overall data picture both with regard to students meeting and students exceeding standards remained relatively constant compared to the state and to our three high performing comparison districts. Overall, proficiency rates were slightly down or flat in more areas and subgroups than they were up. More work to do, obviously, when we continue to shoot for higher achievement, particularly with identified subgroups of students. Now we turn to the growth picture.

2.1.2 (Show continuous significant growth).

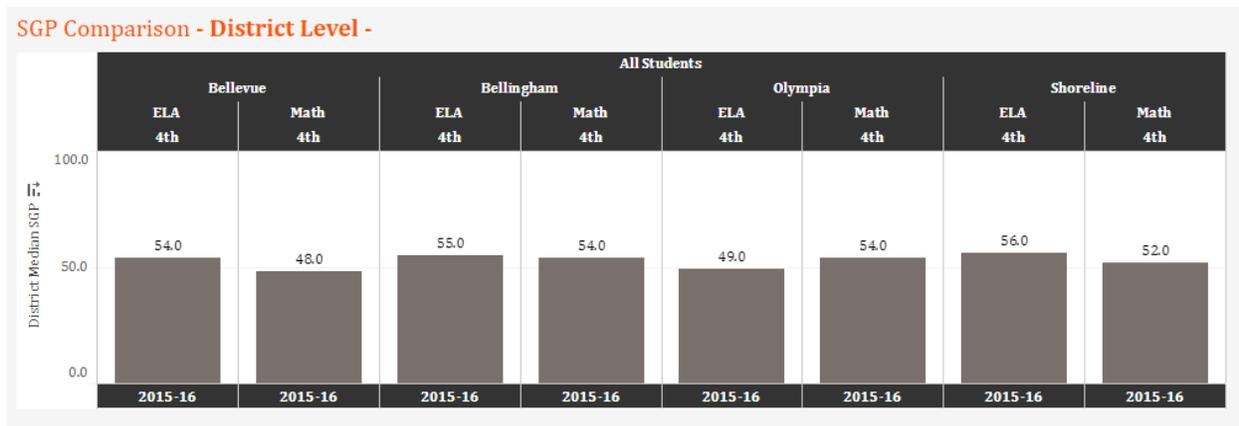
The growth discussion for this report is helped by the availability of some new data tools that our state has developed. These help us to compare how much growth our students make in year over year comparisons to students in our high performing comparable district set. To keep the report from becoming overly lengthy, we focus in here on two grade levels, fourth grade and seventh grade, to give representations of how we compare in elementary and middle school to our high performing comparable systems. If the board is interested in going deeper into these

comparisons by adding grade levels, we are happy to accommodate that interest over the course of future meetings.

Student growth percentile is an indicator that shows how a given population of students grew compared with the expected growth overall from the state. The median state growth score for the entire population of students in the state sits precisely at the 50th percentile; this represents the overall midpoint of growth scores across all districts in Washington. So, when we compare our students overall on growth, we like to see percentiles both above 50% (doing better growth-wise than the state) and as high or higher compared to our high performing comparable district peers.

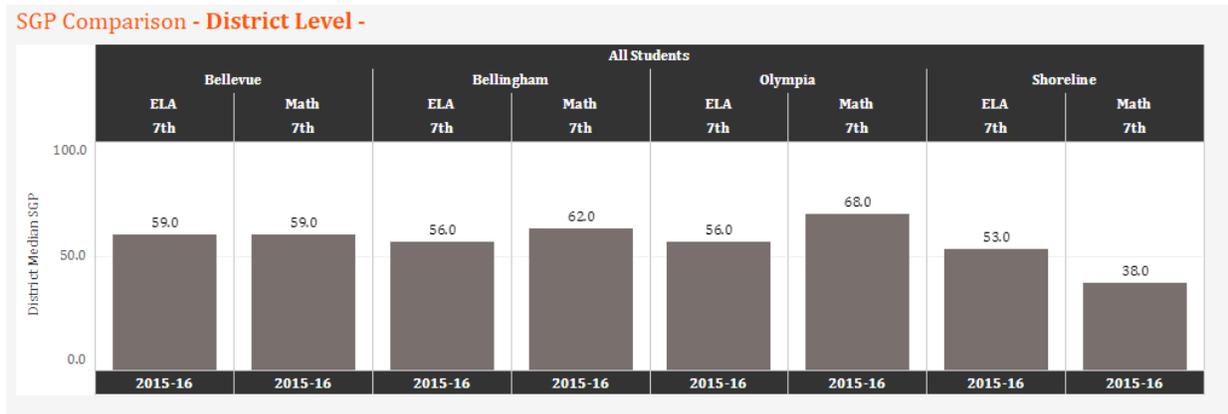
In grade 4 overall, the SGP picture (Figure 1) shows that on average Bellingham students grew more than those across the state, and also demonstrated higher growth than some of our high performing comparable districts’ fourth graders. We specifically honed in on the math data, as it provides a more robust understanding of what we saw in the proficiency data. Our fourth grade students “outgrew” Bellevue and Shoreline in math this past year, and grew at a comparable rate to those in Olympia.

Figure 1. Bellingham Grade 4 SGP Compared to High Performing District Peers



The overall picture in grade 7 (Figure 2) is similar in that Bellingham seventh graders “outgrew” Bellevue and Shoreline in math, outgrew Shoreline in ELA, and displayed comparable growth in ELA to Olympia students. All growth measures for Bellingham’s seventh graders were also well above the state median of the 50th percentile.

Figure 2. Bellingham Grade 7 SGP Compared to High Performing District Peers

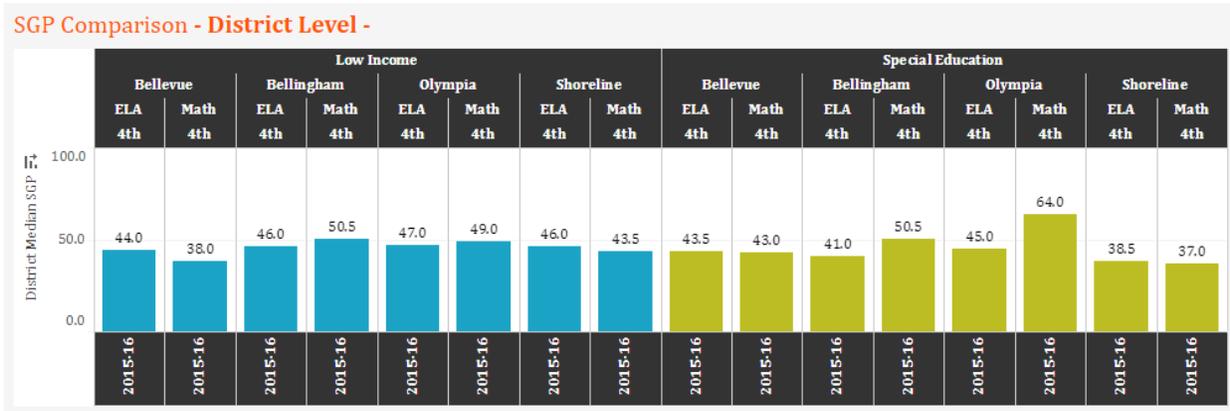
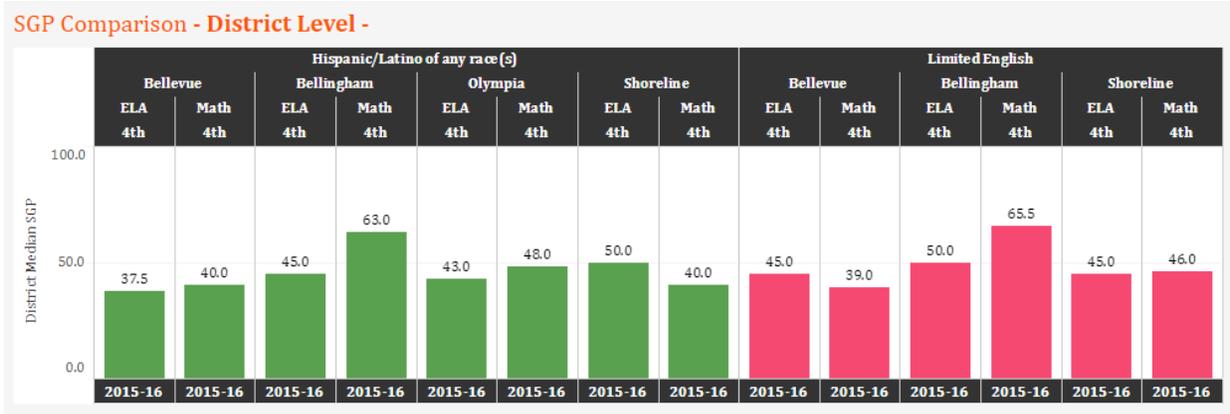


We also examined the growth data for the four student subgroups that we track annually. In addition, the state has established median scores for each of the subgroups we include in our analyses. These median scores fall below the 50th percentile for each of the groups we study, so in the paragraphs that follow we will make a specific reference with regard to each subgroup about where Bellingham’s student growth measures up to the state medians for that specific subgroup.

Figure 3 shows the comparisons for grade 4 students who represent the Hispanic/Latino, ELL, special education and low income populations against our high performing comparable district’s fourth graders. The data reveals that Bellingham’s fourth grade Hispanic/Latino and limited English-speaking students, specifically in math, grew at a rate well above those in our high performing comparable systems⁴. Similarly, the scores of Bellingham fourth graders with IEPs, and those who are eligible for free/reduced price meals, grew at a higher rate in math than nearly any other high performing comparable district’s fourth graders. The one exception was that the fourth grade students on IEPs from Olympia achieved a higher math SGP than did Bellingham students. In addition, each of the fourth grade subgroups examined in Bellingham scored at or above the state medians in both ELA and math.

⁴ Note: n size of the Limited English cohort of fourth graders for Olympia was too small to allow for state reporting.

Figure 3. Bellingham Grade 4 Student Subgroups SGP Compared to High Performing District Peers



In grade seven, the subgroup analysis revealed some similar encouraging growth trends, although not as strong as those in grade 4. Figure 4 displays the data on the four student subgroups from each of the four districts' seventh grade students. ELA and math performance of our Hispanic and limited English populations was again above the state median percentiles, and higher than Shoreline in math for both groups. Bellingham seventh grade students with IEPs, and those eligible for free/reduced price meals, outgrew two of our three high performing comparable districts' seventh graders in math. Growth in ELA and math for both groups was well below the comparable group, however, and in one case (Special Education grade 7 ELA) also slightly below the state median.

Figure 4. Bellingham Grade 7 SGP Compared to High Performing District Peers



Overall, this SGP analysis offers a useful counter point to the proficiency analysis in the first part of the report. The SGP story in Bellingham for 2016 overall appears to be a hopeful one, particularly in the area of math. While our overall proficiency rates in math dipped a bit, the growth data reveals that in many cases our students are growing their learning at a higher rate than high performing comparable district peers. This trend in math further supports the notion that we would expect to see overall proficiency rates rise in the coming years, and that we might expect to see reductions in some of the proficiency gaps compared with our high performing comparable peer districts in that area. Next, we turn our attention to the question of closing achievement gaps.

2.1.3 (Close achievement gaps).

The final section of the report focuses on the degree to which achievement gaps between subgroups is shrinking or closing. Pages 16-18 display the proficiency gaps for the three of the subgroup populations that we track annually. These are presented again in grade bands (3rd-5th and 6th-8th) and show the difference between the subgroup population and their counterpart comparison group. We've run comparisons on the proficiency gaps that divide:

- students eligible for free/reduced price meals with those not eligible
- students who have IEPs with those not having IEPs
- Hispanic students with White students

The trends we aim for in this data are reductions in year-over-year comparisons. If the 2016 bar (gray on the graphic) is smaller than the 2015 bar (blue on the graphic), this indicates a reduction in the gap separating the two subgroups being compared. We've also included a "pancake" column that shows the relative percentage of each subgroup for each of the four districts. As we reported last year, this is an area where we've seen large gaps that separate subgroups and has been a strong focus of our equity work as a system, trying to ensure greater and greater opportunities for all students regardless of income, race or learning handicap.

The income gaps remain fairly constant across both grade level bands. We noted a slight year-over-year increase in the gap for science, for both grades 3-5 and grades 6-8. That said, in some areas we fare comparably well when looking at our high performing comparable peer districts. Income gaps for Bellingham students are smaller than those in Bellevue for example in grade 3-5 ELA, math and science, and we work with a population that has a much higher percentage of students eligible for free and reduced price meals. However, compared against the state averages, we tend to have slightly larger gaps overall.

Comparing White and Hispanic students, Bellingham achievement gaps are notably smaller at the middle level than those in Bellevue, but also larger than our other high performing comparables, and larger than the state across the board (3rd-8th). The silver lining in this particular gap data this year is with regard to students receiving special education services. The year-over-year gap dropped in all areas with the exception of grades 3-5 science, and math comparisons show near or below gaps for our high performing comparable districts peers. Again, while it is very difficult to discern causality, there is a plausible story line that connects this change to the investments and good work being done by teachers and leaders in the area of special education in our district.

These persisting gaps show that we continue to have a long way to go toward our goal of ensuring that ALL students are enabled and supported to perform at standard. This remains also true for our state overall, and for the three comparable high-performing peer districts. That said, we applaud and appreciate that some particular progress is noted this year in closing achievement gaps in the area of special education.

School Level Comparisons with High Performing Comparable Peers

In last year's report, we highlighted Whatcom Middle School's story as it had emerged as a high performing outlier on a number of indicators compared to those schools in the high performing comparable districts. As we peeled back the story of the school in last year's report, we made an effort to help the board understand what some of the underlying data could help explain about what was occurring at the school. This year, given how the report to this point has shone the light on the effects of poverty on student achievement, we shift and focus on a growth story comparing middle schools from across the comparison group of districts with the highest percentage of students eligible for free/reduced price meals. Even though our comparison group of districts all have smaller percentages of students in poverty than does Bellingham, each of the districts has individual schools with greater challenges around race, language and poverty. We

focused in on seventh grade, given that we conducted the earlier district wide analysis at that grade level.

Sample demographics from each of the schools that we examined from across the four districts are included as Table D below. All four of these comparison schools have over 30% of their student population eligible for free/reduced price meals; each is the highest poverty school in its home district; all have a significant percentage of Hispanic/Latino students; two of the four have higher percentages of transitional bilingual students. All of these schools face many of the challenges that we noted earlier in trying to close achievement gaps and grow student learning at

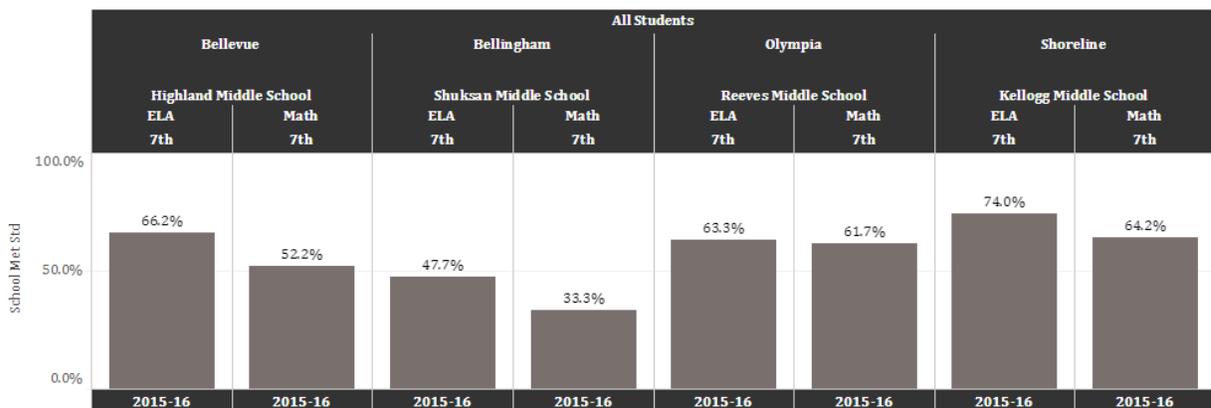
Table D. Middle Schools with Highest Percent of FRM within the Four District Comparison Group

School Name/District	School Size 2015-16	% Free/Reduced Meals	% Hispanic	% Transitional Bilingual
Highland (Bellevue)	565	40.3%	28.8%	13.5%
Kellogg (Shoreline)	655	32.1%	12.7%	3.6%
Reeves (Olympia)	412	31.9%	11.4%	0.7%
Shuksan (Bellingham)	608	61.5%	26.5%	8.7%

higher rates than the norm. Proficiency rates on the 2015-16 Smarter Balanced exam for seventh graders ranged widely among this group. As we might predict, Shuksan, with the highest poverty rate (more than twenty percent higher than the next closest school), lagged behind the others in state test proficiency. Figure 5 displays the proficiency rates for seventh graders in all four schools in 2015-16.

Figure 5. Four Middle Schools Seventh Grade Smarter Balanced Test Proficiency 2015-16

Proficiency Comparison - School Level -

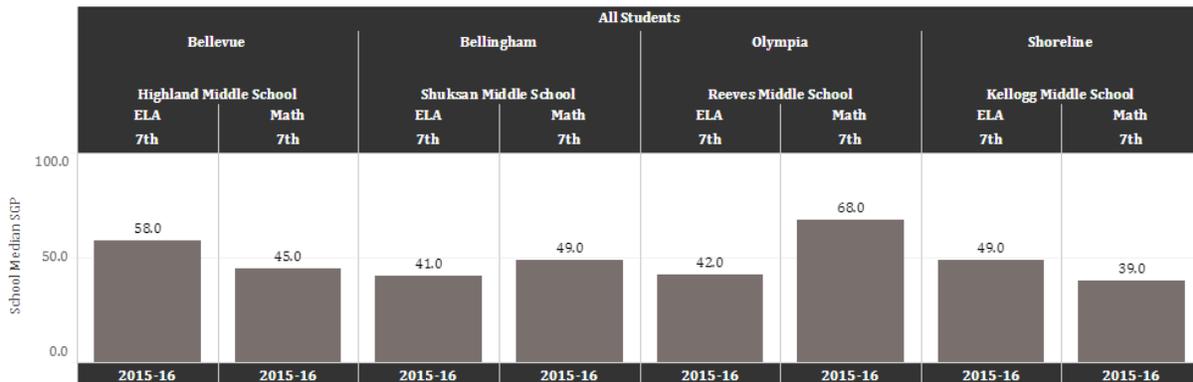


We also observed the SGP for all four schools, in an effort to get a more complete picture of exactly what is underneath the proficiency rates. As Figure 6 displays, it is a much different

picture, showing that Shuksan seventh graders' growth rates more closely approximate, or even exceed, some of the comparison schools. Shuksan seventh grade SGP in math, for example, was nearly on the state median, and above two of the three comparison schools. This finding caused

Figure 6. Four Middle Schools Seventh Grade SGP 2015-16

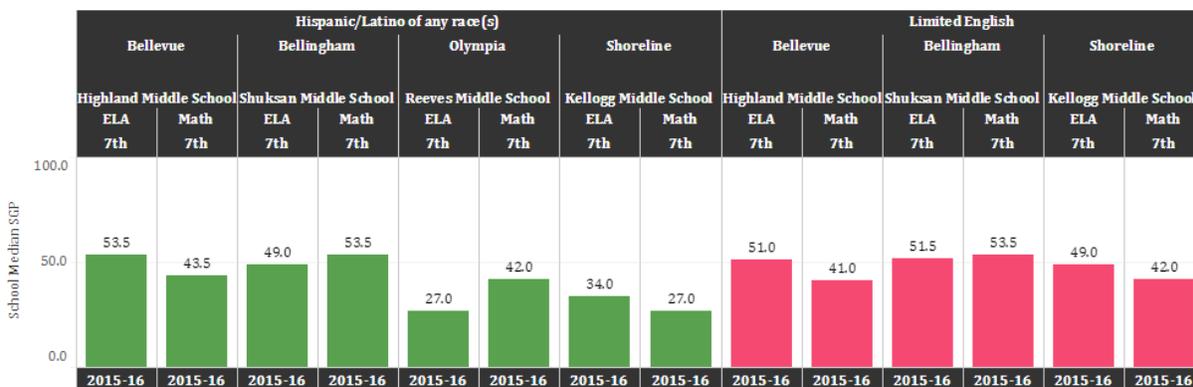
SGP Comparison - School Level -



us to peel the onion a bit further. Figure 7 breaks down the SGP data for particular subgroups of Hispanic students and limited English speakers. In both areas, Shuksan's growth data is at or near the top of comparable schools.

Figure 7. Four Middle Schools Seventh Grade SGP 2015-16 by Hispanic and Limited English

SGP Comparison - School Level -



Considering the work that has occurred over the past several years at Shuksan, efforts to improve the educational experience for our Hispanic students and families, many of whom come to school as second language learners, has been a paramount concern. Again, while difficult to draw a direct causal line back to the work at the school, when we see that Shuksan teachers are adding value as measured by growth in state test scores at a level that is above peer schools, and arguable less challenging peer schools, such a result does tend to reinforce that the direction for the school, led by the district work around equity and access, is heading in a good direction.

When one considers the question of whether it is realistic to ever expect that a school or school system can overcome the overwhelming impact that poverty has on children's learning, we know that there are examples of this very change that happen every year, all over the country. While the results at Shuksan are still not where we'd like them to be overall, we recognize it is a school in our district that is beating the competition in terms of annual student growth.

Concluding Statement

We believe that this Ends 2.1 (Part 1) monitoring report, in combination with the remaining parts of the report that will follow, serves as evidence of a reasonable interpretation of Ends 2.1 that aligns with our vision, mission and outcomes, and is supported by data that demonstrates progress toward achievement of these Ends. Further, we hope this report serves as a useful tool in support of the board's ability to regularly review our ends to ensure they remain relevant and inspire meaningful work throughout the organization and community.

We appreciate the direction provided by the School Board to focus on the development of exceptional students with strong character, a passion for learning and graduates who are ready for the widest range of educational and vocational options to support a diversity of life choices.