

BELLINGHAM SCHOOL DISTRICT
Bellingham, Washington

MEMORANDUM

TO: Board of Directors
FROM: Dr. Greg Baker, Superintendent
DATE: February 11, 2016
SUBJECT: Ends Monitoring Report 2.1, Part 2

I am pleased to submit this Ends monitoring report (End 2.1, Part 2 - Student Participation in Post-Secondary and Career-Ready Courses) to the school district's board of directors. Monitoring reports are intended to provide members of the school board, and the community we serve, with a snapshot in time of our progress toward the mission, vision, and outcomes defined within our district's strategic plan, *The Bellingham Promise*. As per school board request, our process for reporting on Ends 2.1 during the 2015-16 school year is occurring over a series of meetings, beginning with the previously submitted Part 1 report at the December 10, 2015 meeting, and continuing with Part 2 for the February 18, 2016 meeting.

Ends 2.1, Part 1, explored student performance in reading, mathematics, writing and science, and compared our progress to comparable high-performing districts. Part 2 takes an in-depth look at student participation in post-secondary and career-ready courses. This focus includes information about college credits in high school, as well as technical and career ready coursework, Advanced Placement courses, and other advanced learning opportunities. Our staff has also analyzed student participation and comparisons in SAT testing trends relative to our comparable high-performing districts. Where possible, we've examined comparisons of Bellingham School District student trends to those in comparable high-performing districts.

By way of reminder, this Ends monitoring report is intended to serve as both an analytic and evaluative tool that allows us to:

- demonstrate a reasonable interpretation of Ends 2.1, focusing specifically on data and evidence in reading and mathematics that includes comparison to comparable, high performing districts,
- identify areas where our interpretation does not align with our mission and outcomes,
- use data to demonstrate progress toward achievement of these Ends, and
- review our Ends to ensure they remain relevant and inspire meaningful work throughout the organization and community.

Introduction

Our reporting on Ends 2.1 extends over the course of three meetings, where we present on various aspects of the outcomes noted for analysis by the Ends 2.1 policy. By way of reminder, the Ends 2.1 policy follows:

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.

This report, Part 2, focuses specifically on the *fourth point* listed above – student participation in post-secondary and career-ready courses. We've relied on the same methodology for identifying the comparable high performing districts that was used in Part 1, so for purposes of brevity we will not recount that here.

▪ **Bellingham SD Dual Credit Opportunities and Trends**

Page 1 of the data set reveals 2012-15 trends of Bellingham student enrollment in all dual-credit courses offered within the system. To be clear, dual credit courses include any course that provides students with both a high school credit and a college or career-preparatory credit. Types of such courses are arrayed in the table on the top of page 1. These include:

- *Advanced Placement (AP) courses.* These are courses that are nationally normed by the College Board and include assessments that are common, regardless of the district or state in which the course is taken. Students who take an AP course are encouraged to take the associated AP exam, which is scored on a five-point rubric. Students scoring at a

level three, four or five are often able to claim credit for the high school AP course when enrolling in a college or university post-high-school graduation¹.

- *College in the High School (CHS) courses.* CHS courses offer students the ability to earn college credit by taking an equivalent course while still enrolled in high school.
- *Running Start courses.* Running Start is a state-sponsored program that offers students enrolled in high school to co-enroll in college level courses and earn dual credit. Students taking high numbers of Running Start courses can, for example, earn the equivalent of an Associate of Arts (AA) community college degree concurrent with the completion of high school.
- *Tech Prep courses.* Tech prep courses are advanced courses that can lead to certificates of study within technology related fields.

In addition, we have included evidence focused on other types of courses that represent advanced learning, or opportunities designed to enhance or promote college and career readiness. These include:

- *AVID courses.* AVID (Advancement Via Individual Determination) data is included here, not specifically as an advanced course, but as a program that some Bellingham schools have implemented that is designed to increase school-wide learning and performance. The mission of AVID is to ensure that all students, and most especially the least served students capable of completing a college path, will succeed in a rigorous curriculum, will enter mainstream activities of the school, will increase their enrollment in four-year colleges, and will become educated and responsible participants and leaders in a democratic society.
- *CTE completers data.* We have also included data on the numbers of students completing career and technical programs of study that align with a specialized career or technical pathway.

As the data trends on page one of the data set reveal, Bellingham students overall attempted more dual credit courses in 2015 than in any of the previous three years, and, as a result, earned more dual credits. The largest single area of increase occurred in students attempting and earning CHS credits, which is not surprising given an increased focus on offering more CHS options for students. Advanced placement course participation and enrollment in career and technical courses also increased slightly, while participation in Running Start course options held relatively constant with the prior three year trends.

While these trends show another year of increases in advanced course-taking overall, we also analyzed these trends within some of our most challenged student demographic groups. The graph at the bottom of page one reveals that, overall, percentages of Hispanic and low-income students attempting dual credit in 2015 remained flat overall, with slight reductions in Advanced Placement, and slight growth in Tech Prep options compared with percentages from 2014.

¹ Students scoring at a level 3, 4 or 5 on the AP exam are eligible to earn college credit at some universities. Our analysis of Washington state institutions of higher education this past fall indicates, for example, that Western Washington University grants credit for almost all AP exams scoring 3 or higher, while standards at the University of Washington are tending to rise, granting credit in many cases only for exams scoring at 4 or above.

Page two graphically represents some specific dual credit trend comparisons with our highest performing comparable district, Bellevue SD. These trends suggest that Bellingham students in the four observed subgroups accessed dual credit opportunities at percentages well below their demographically similar peers in the Bellevue SD. In addition, dual credit representation by Bellingham students receiving special education services, and by students identified as low income dropped slightly in 2015 compared to 2014 data. These data suggest that we must do a better job helping our students in the four subgroups we observed accessing dual credit opportunities. We would expect to see these trends going up, not remaining flat or declining over time.

- **Overall College Preparatory Courses and Testing Trends Comparison to Comparable High Performing Districts**

The ability to compare the performance of our Bellingham students with that of students in comparable high performing school districts is limited by the availability of data on course-taking trends that are observed in common. Common experiences with College Board sponsored courses and tests provide one area where we do have relatively good ability to make comparisons with our comparable high-performing district peers. The table and graph on the top of page three of the data set offers some overall comparisons to comparable high performing districts (Bellevue, Olympia, Shoreline) regarding trends in Advanced Placement (AP) course-taking. The number of Bellingham students taking AP courses, and the total number of AP exams taken, both increased slightly in year-over-year comparisons. Conversely, the number of exams that were scored a three, four or five, as well as the percentage of exams scoring at those levels, dipped slightly this year compared to last. The percentage of Bellingham students scoring at a level three or higher also falls below percentages in our three comparable high performing districts. Bellevue SD continues to be the high bar comparison in this particular category, with sizeable increases in test takers, total exams, and number and percent of exams scored at three or higher.

We are also able to compare trends in both test-taking and mean scores on the Scholastic Aptitude Test (SAT), which remains a required assessment as part of the application process for many colleges and universities. As shown via the table and graph on the bottom of page three of the data set, comparing the trends across three years of test data, trends tend to be relatively flat. Three of the four districts compared, including Bellingham, had fewer test takers in 2015 compared with 2014. Scores also remained relatively stable in year-over-year comparisons, with Bellingham students scoring slightly better than students in Shoreline, about on par with students in Olympia, and below students in the Bellevue system.

Page four of the data set provides a listing and graphical array of the overall AP exam counts and percentage of students scoring at three or higher. Highest enrollments by percentage are observed in the human geography course, followed by psychology, English language/composition, calculus A/B, environmental science and world history.

- **AP and SAT School Level Comparisons with Comparable High Performing Peers**

As with our approach to the Ends 2.1, Part 1 report, we took a deeper dive into comparisons between one of our comprehensive high schools, and one from each of the comparable high performing peer districts. We have circled back to take another look at trends in the comparable group of schools we analyzed last year in this part of the report, which included Squalicum HS, Sammamish HS (Bellevue), Olympia HS and Shorecrest HS (Shoreline). Page five of the data set includes a demographic comparison of the four schools. Of note in that comparison, Squalicum enrolls a significantly higher percentage of students eligible for free or reduced-price meals than the comparable schools.

As the data on page six reveals, Squalicum continued to have higher overall numbers of AP test takers, as well as more overall exams taken than any of the three comparable group schools, and was second only to Olympia HS in terms of numbers of exams scored at three or higher. This trend is consistent with the expectation established at Squalicum to open the doors of AP to all students. While overall access is higher, both Olympia and Shorecrest outperformed Squalicum and Sammamish in terms of the percentage of exams scored at 3 or higher. It is important to recognize that opening the AP door to higher percentages of students at both Squalicum and Sammamish is likely to lead to lower overall pass rates because a broader cross section of students are included. The thinking at Squalicum has been that access should not be limited, and that even if a student takes AP and does not score at three or higher on the test, there is value in the experience of the advanced course opportunities.

On the bottom of page six, we've displayed the data for SAT test takers and scoring for all four schools included in the comparison. Trends held fairly constant, showing Squalicum students outperforming Sammamish, and underperforming Olympia and Shorecrest. Year-over-year numbers of students taking the SAT dipped slightly at Squalicum, but overall held fairly constant across the group of included comparison schools.

- **Overall Career and Technical Education Enrollment Trends Comparison to Comparable High Performing Districts**

Under the leadership of CTE Director Jeff Tetrick, Bellingham School District has been working to expand student access and participation in various career and technical course opportunities. For many students in our district, CTE course participation becomes the springboard to rich career opportunities post-high-school. We were interested to see how our student participation stacks up against some of our high performing comparable districts, and were able to gather data from two of those districts, Bellevue and Olympia, to include in the report this year. Page seven of the data set reveals those comparisons. Overall, the number of Bellingham students enrolling in CTE courses is up 30% in 2015 compared to the prior year. As well, the overall number of CTE course enrollments, which captures students who are enrolling in multiple CTE courses, is up 24% in year-over-year comparisons. The cohort of students who are considered "CTE Completers" each earn 2.0 or more credits within a program area. CTE Completers as a group have a 90.4% statewide graduation rate.

That said, when we look at our student participation rates compared with Bellevue and Olympia, even taking into account the overall populations of the districts (e.g., Bellevue’s significantly larger student population than Bellingham), we fall short of both systems in terms of how fast our CTE enrollments are growing, and in the overall number of courses being taken. Both Bellevue and Olympia are enrolling more students, and are growing the number of students in CTE courses, at higher rates than Bellingham. We speculated that an important contributing factor in the particularly outsized differences with Bellevue could be the fact that Bellevue high schools operate on a seven period day, compared to our current six period schedule in Bellingham. We believe it is likely that as our district moves to a new high school schedule that will include either seven or eight periods, we will see the numbers of students accessing CTE course opportunities increase.

Finally, we thought the board might be interested to learn more about what courses students are accessing in CTE. On the bottom of page seven we’ve included a graphic that arrays the courses available to students, and calls out those with the highest completion rates. Courses in principles of technology, sign language and robotics enroll the most CTE course completers at present in Bellingham.

- **Student Course-taking and Career Success in CTE Programs**

To conclude the report, we wanted to once again take a deeper dive into the experiences and trajectories of students in our district related to advanced course-taking opportunities. Last year, we featured the stories of a few Squalicum students whose experiences in AVID and AP course taking had put them on a trajectory to become first generation college goers. For this year’s report, we’ve chosen to highlight some stories of students who have benefitted from course taking and certificate programs in the realm of career and technical education. As noted earlier in the report, CTE is an area that is rapidly expanding in Bellingham, and likely to continue to grow with the advent of a new high school schedule that creates more opportunities for elective course-taking. We were curious to explore some individual cases of student trajectories and tell their stories here, to offer the board a few glimpses of what happens for Bellingham students who persevere in taking CTE courses and who participate in career and tech preparatory certificate programs. Below you’ll read about experiences of students and recent graduates in three areas of CTE programming -- robotics, engineering and culinary arts.

- **Robotics**

- **Mitch Loepky: Graduate**

Mitch graduated from Sehome High School in 2011. His teacher, Kevin Criez, asked him to reflect on how his experiences in the robotics courses helped to shape his career choices post-high-school. Mitch noted, “Sehome robotics was the single most exciting and transformative piece of my high school experience. Like most high schoolers, I had little idea of what I wanted to do as a career. However, I did know that I liked building with Legos, had a constant curiosity about how things worked, and enjoyed math



and science most in school. In my sophomore year I decided to take the applied physics elective class offered at Sehome because it looked like a fun combination of my interests.” Mitch went on to compete in robotics competitions as a member of Sehome’s team and those experiences crystalized his desire to pursue engineering at the University of Washington. He describes how the “skills and experiences acquired through the Sehome robotics program really set me apart at UW.” At the start of Mitch’s senior year at the University of Washington he had already secured a full-time position at Amazon starting after graduation. He concludes, “Without a doubt, the experiences I gained by participating in Sehome Robotics have been essential in getting to where I am today in my position at Amazon.....the things I was learning in math and physics classes frequently had tangible connection to the things I had learned building robots and were therefore more engaging and practical to me.”

- **Culinary Arts**

- **Brittany Larsen: Current Student**

Brittany is a current 11th grader at Squalicum High School who is in a culinary arts course and is planning on furthering her training in this career pathway by taking the Northwest Career and Technical Academy Culinary program in Mount Vernon. She plans to attend the program next fall as a senior, as well as being a teacher assistant for teacher Debbie Knudsen at Squalicum. She has plans to stay motivated, participate in FCCLA (Family Career and Community Leaders of America) and encourage other students to learn about nutrition and the food service industry. Her teacher, Mrs. Knudsen says, “Brittany is a great example of a student who tried an exploratory CTE program that leads to an entire program of study available to our students. She is enthusiastic about the opportunities in front of her I will continue to encourage her to pursue her goals.”



- **Andy Nguyen: Graduate**

Andy is a 2008 graduate of Squalicum High School and participated in CTE courses such as Nutrition and Wellness and Introduction to Culinary Arts. Through his experience within these programs, Andy discovered his love of cooking and gained a clear career pathway. Andy attempted the industry recognized certification test, *Serve Safe*, but failed the first time he attempted the exam. This didn’t derail Andy’s plans for a culinary future. He tried the exam again after graduation and passed. Mrs. Knudsen noted, “When Andy was in my program, he had the skills and I encouraged him to keep pursuing his career goals. He only needed some career guidance and confidence, which he found in the culinary program.” Now, Chef Andy Nguyen is a graduate of Bellingham Tech’s Culinary Arts and Pastry Program. He is a Certified Chef and Pastry Chef with the American Culinary Federation and Washington State Chef’s



Association. He presents demos and cooking events at *Drizzle Olive Oil Room* in Fairhaven, does private catering, and demonstrates his cooking at a variety of culinary studios around the northwest. He is currently the Sous Chef at *Chuckanut Manor Seafood and Grill*.

- **Engineering**

- **Jacob Stahl: Graduate**

Jacob graduated from Bellingham High School last year, and transitioned to California Maritime in the California State University system. California Maritime trains all job descriptions in the merchant marines from deckhands to ship captains. The curriculum is multidisciplinary and applied in nature. During his first semester, Jacob had the opportunity to sail the school's freighter from San Francisco Bay through the Panama Canal to the Mediterranean. During this sailing he was very much a part of the operational crew of the ship and brought back stories that he shared with his BHS teacher, Paul Clement.



In the Panama Canal, his ship was billed for passage by the overall length. The crew calculated that if the ship were slightly shorter, the cost would be significantly less. Jacob was put on the team to re-engineer the bow and shorten the ship by a few feet. Jacob shared that his experience with problem solving and applying the Design Loop at BHS in Mr. Clement's courses was key in gaining the confidence of his superiors. His teacher, Mr. Clement, noted, "I am always amazed and somewhat envious of his adventures."

Concluding Statement

We believe that this Ends 2.1, Part 2 monitoring report, in combination with the previous and remaining parts of the report that will follow, serve 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 school 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.