



College Readiness Math Initiative: Bridge to College Impact Evaluation

Prepared for College Spark Washington

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EXECUTIVE SUMMARY

College Spark Washington (CSW) is a grant making organization dedicated to improving educational outcomes for low-income students in Washington State. In 2014, CSW launched a multifaceted Math Initiative designed to support college readiness. The goal of the initiative was to prepare students to transition into college level math/ELA without the need of remediation or other placement courses. CSW is in the implementation stage of this multi-pronged strategy focused on college readiness expectations. The seven-year initiative includes strategies for students who perform at all levels on the Smarter Balanced Assessment.

Despite sustained efforts to eliminate barriers to postsecondary success, several barriers remain for students in Washington State. Mandatory testing in high school, placement testing in college, and placement into pre-college courses once enrolled increase the likelihood that students will not persist in college. Bridge to College (BtC) high school courses were designed to reduce the number of barriers students experience in their pursuit of postsecondary opportunities. These courses are intended to be one intervention among many to help students prepare for and succeed in college level math and English course work.

To conduct an impact evaluation, researchers collected qualitative and quantitative data from fall 2017 to Spring 2018. BtC students from the graduating class of 2017 were surveyed and interviewed to learn about the support they received in their BtC courses, and eleven Community and Technical Colleges (CTCs) were contacted or visited to better understand the math and English placement procedures across the state. Additionally, researchers analyzed quantitative data from 2016 high school graduates into their first year of college. A comparison group of 2016 Washington State graduates not taking BtC courses was identified and used to explore differences between groups.

Overall, students responded positively when asked about the support and instruction offered in their high school BtC courses. Many felt the courses helped them develop a growth mindset and become more efficacious students. Quantitative data support these perspectives. Students taking BtC math and English courses were statistically more likely to enroll in college-level math or English than their (comparison group) peers. Additionally, 50% of BtC students who scored at Level 2 on their 11th grade SBA English test earned an “A” in their first college-level English course, while 18.2% of their comparison peers earned an “A”. For BtC math students who scored at Level 2 on their 11th grade SBA, there were no reported grades of “D” or “F” during their 1st quarter in college level math, compared to 20% of their comparison peers earning a “D” or “F”.

Despite some promising preliminary outcomes and perceptions of the BtC courses, students and college faculty reported inconsistent experiences using these courses as alternative placement

options in college. Several students were not clear about the benefits of their BtC course in helping place them into college level coursework. Many of these students acknowledged that they were generally unaware of how to advocate for their placement into college level coursework. College faculty, while extremely knowledgeable about multiple placement options at their respective colleges, shared that they had seen very few students present BtC documentation when enrolling. There were also a few colleges that seemed unaware of any agreement between the state and colleges to use a grade of “B or better” in BtC courses as an alternative placement option.

BtC courses offer the unique opportunity to focus on content and context to help holistically prepare students for postsecondary success. Several recommendations were made as a result of these impact evaluation findings.

- Continue to develop and expand the Bridge to College courses
- Grow opportunities for regional PLCs
- Continue to provide Implementation and Sustainability Grants
- Continue to update and clarify policy shifts impacting BtC.
- Fund new math cohorts to track outcomes, and measure the success of future iterations of the BtC courses.
- Align teaching practices at CTCs with research based best practices in instruction.



INTRODUCTION

College Spark Washington (CSW) is a grant making organization dedicated to improving educational outcomes for low-income students in Washington State. In 2014, CSW launched a multifaceted Math Initiative designed to support college readiness around the state. The goal of the initiative was to prepare students to transition into college level math/ELA without the need of remediation or other placement courses. CSW is in the implementation stage of this multi-pronged strategy focused on college readiness expectations. The seven-year initiative includes strategies for students who perform at all levels on the Smarter Balanced Assessment.

During the second year of program implementation, the grantors identified several impact questions regarding the Bridge to College (BtC) courses, in addition to the original research questions proposed in 2014. Specifically, the grantors hoped to evaluate preliminary outcomes and perceptions from the first two cohorts of BtC students to better understand how the Bridge courses are being utilized. The goal is to better understand the relationship between student success in college level math/ ELA and participation in the BtC classes.

EVALUATION DESIGN

College Spark Washington's Math Initiative is unique because of the multi-prong strategy to improve college readiness. The plan described below is intended to serve as a supplemental, formative evaluation project that will help understand preliminary outcome and perception data from the first two cohorts of students participating in the BtC Program. The evaluation will include qualitative and quantitative data collection. By using both measures, and providing formative evaluation data, we will be able to measure the relationship between program participation and student outcomes in math/ ELA, as well as provide information for on-going program advocacy and development.

As part of the primary evaluation activities 15 Bridge schools were selected for site visitations. Evaluators observed BtC math/ ELA and equivalent senior level courses during the 2015-2016 and the 2016 – 2017 school years. Additionally, school-level stakeholders were interviewed regarding their participation in the BtC Initiative. Findings from the 2015 – 2016 site visits were incorporated into the College Ready Math Initiative Year 1 Report (July 2017). For this supplemental study, researchers analyzed quantitative data for Cohort 1 students provided by the ERDC, including college enrollment and outcome data, as well as qualitative data from surveys and interviews conducted with Cohort 2 students and community and technical colleges around the state.

The supplemental evaluation project will serve as a follow-up study to explore outcomes of Cohort I students, as well as perceptions, experiences, and self-reported outcomes for Cohort II students. Together, the evaluation will provide a more complete picture of the BtC program for students transitioning from high school into college.

RESEARCH QUESTIONS

Researchers explored a series of questions designed to provide quantitative and qualitative data for two cohorts of Washington State Bridge to College students.¹

Cohort 1 Research Questions

- 1) *For 2016 Washington State high school graduates: What percentage of those who received a 3 or 4 on the 11th grade SBA and attended a WA CTC were successful in directly enrolling into college-level Math/ELA w/out additional (remedial) placement measures?*
- 2) *For 2016 Bridge Course Completers (Cohort I): What percentage of those who received a B or better in the Bridge Course and attended a WA CTC were successful in directly enrolling into college-level Math/ELA w/out additional (remedial) placement measures?*
- 3) *For 2016 Washington State high school graduates: What were the first quarter grades for students who received a 3 or 4 on the 11th grade SBA and succeeded in directly enrolling into college-level Math/ELA?*
- 4) *For 2016 Bridge Course Completers (Cohort I): What were the first quarter grades for students who received a B or better in the Bridge Course and succeeded in directly enrolling into college-level Math/ELA?*

Cohort 2 Research Questions

- 5) *For 2017 Bridge Course Completers: What were the supports/contextual factors for students who received a B or better in the Bridge Course and succeeded in directly enrolling into college-level Math/ELA?*
- 6) *For 2017 Bridge Course Completers: What were the barriers/contextual factors for students who received a B or higher in the Bridge Course and a 2 or higher on the SBA but DID NOT succeed in directly enrolling into college-level Math/ELA?*
- 7) *For 2017 Bridge Course Completers: What were the first quarter grades for students who received a B or better in the Bridge Course and succeeded in directly enrolling into college-level Math/ELA?*

¹ There were two original research questions that were omitted from the report due to lack of access to non-Bridge to College students on college campuses.



ASSESSMENT MEASURES

Researchers conducted a mixed-methods study using both qualitative and quantitative data to comprehensively analyze the relationship between the BtC Courses and direct enrollment into college level math/ ELA courses. The following measures were used to obtain qualitative and quantitative data to answer the research questions.

Analysis of existing data

Researchers utilized existing 2016 graduate data from ERDC (from the primary CRMI evaluation) and matched it with college enrollment data.

Student Surveys

For 2017 graduates, researchers designed and implemented student surveys to better understand students' placement in college-level math and ELA courses, the supports they received in choosing these courses, and their perceptions of the preparation they received to be successful in college level courses, and challenges or barriers to their success as a math/ ELA student.

Structured interviews /focus groups

Researchers conducted interviews with a sample of community and technical colleges throughout Washington State. The purpose of these interviews was to learn more about student placement into (and readiness for) college level courses, and to better understand the schools' course selection and student support processes. Additionally, researchers conducted follow-up phone interviews with a sample of student survey respondents to gather richer descriptive data to understand the impact of the BtC program on student efficacy and success.

EVIDENCE OF IMPACT

Bridge to College Cohort 1 Student Demographics

Within the Bridge to College grantee schools, researchers defined the Cohort 1 population as 12th grade students with an expected graduation year of 2016. There were 1,263 students enrolled in BtC Math, and 1,379 students enrolled in BtC English Language Arts (ELA) that met these criteria and were included in the analysis. Students enrolled in school for less than 90 days were eliminated, and researchers accounted for missing student data when running all analyses. Additionally, Washington State students were defined as students that did not take BtC courses, and were present for more than 90 days. The Education Research Data Center (ERDC) provided college enrollment data for the 2016 graduates after completion of their first year in college.

Cohort 1 (2016 High School Graduates)

Researchers analyzed Cohort 1 data at several levels to understand overall enrollment patterns for BtC students and the comparison group. Figures 1 and 2 display the percentage of Cohort I BtC and comparison students who enrolled directly into a 4-year college or CTC directly from high school. Overall, students who participated in BtC math and English went to 4-year postsecondary institutions at similar rates as students in the comparison group. When looking at CTC enrollment, 38.5% of students taking BtC math went into a CTC the fall following their high school graduation, while 27% of the comparison group enrolled in a CTC.

Figure 2 disaggregates the postsecondary enrollment rates by 11th grade SBA scores. The data shows that BtC math students at each SBA level went to 4-year colleges at a higher rate than comparison students. This data should be interpreted with caution, however, as the group of BtC students is smaller than the comparison group. Additionally, for all levels except level 4, a higher percentage of BtC math students enrolled in a CTC in the fall immediately following their high school graduation. Results by SBA level were less consistent for students taking BtC English, although enrollment in a CTC for BtC English students was 9.5-percentage points higher than for the comparison group students.

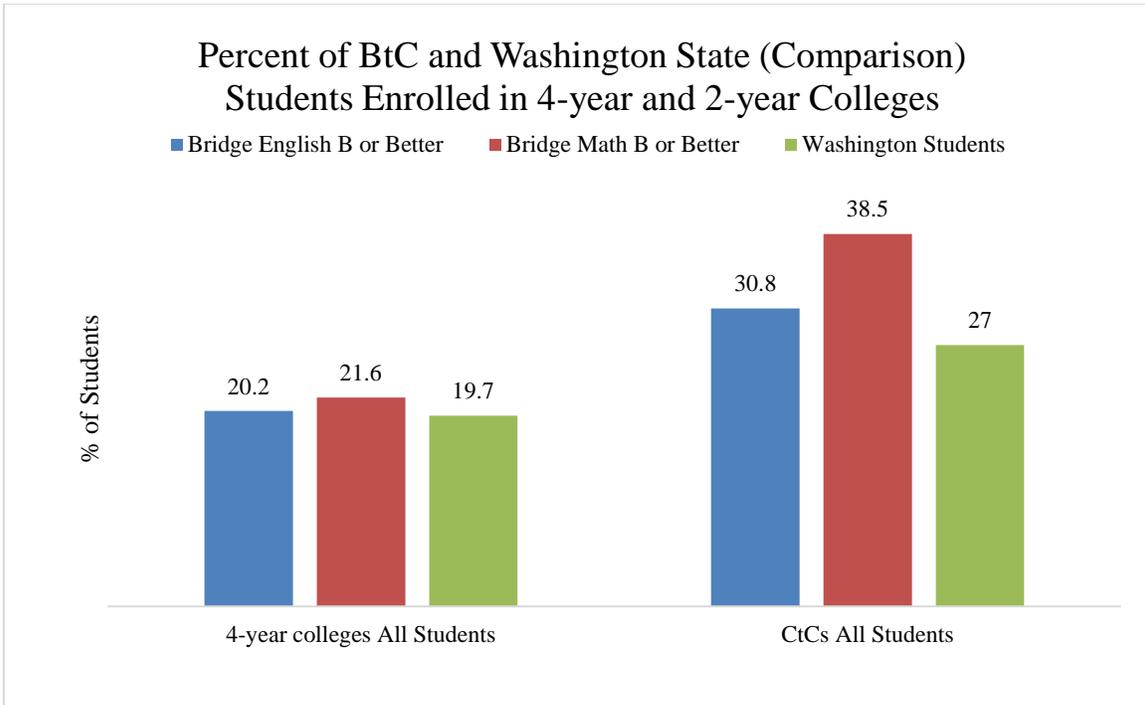


Figure 1.

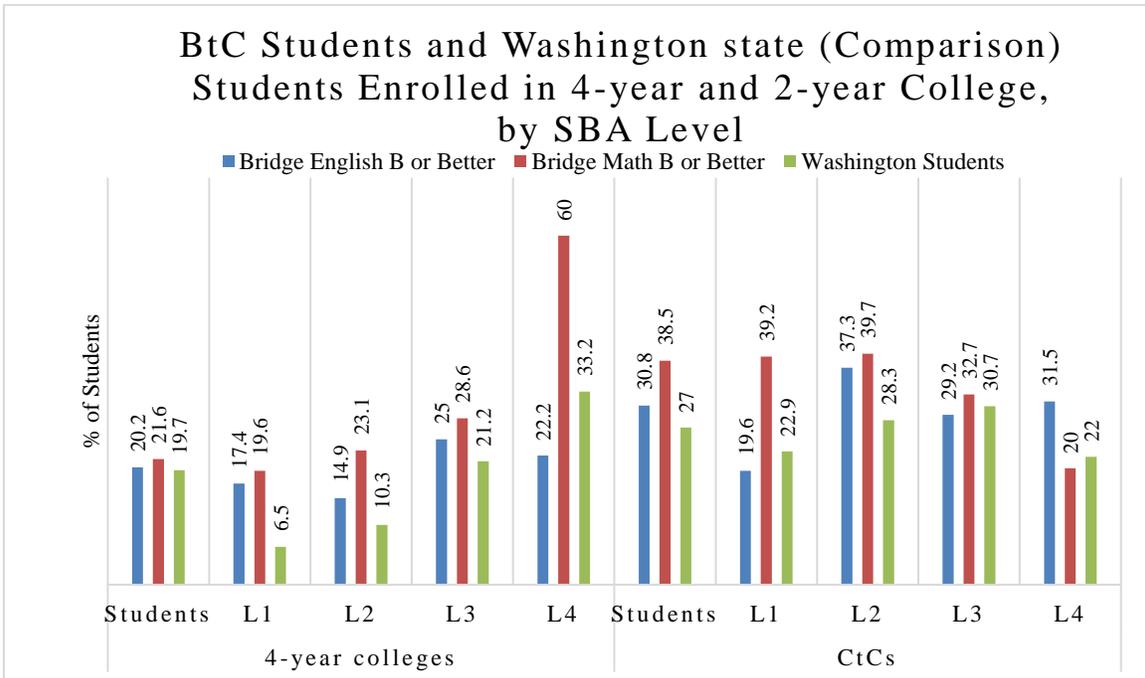


Figure 2.

RQ: For 2016 Washington State high school graduates: What percentage of those who received a 3 or 4 on the 11th grade SBA and attended a WA CTC were successful in directly enrolling into college-level Math/ELA w/out additional (remedial) placement measures?

Math

There were 6057 students in the comparison group of Washington State students who attended a CTC in the fall, immediately following graduation (2016). Of those students, 40% enrolled in a math course during fall quarter. When disaggregated by 11th grade SBA level, there were 647 level 3 students, and 218 level 4 students that enrolled directly into a CTC. Of the students who attended a CTC, 314 level 3 students and 91 level 4 students took a math course. Of those level 3 and level 4 students who took math in fall 2016, 62.1% and 85.6%, respectively, took college level math, while the rest enrolled in pre-college level math courses.

In addition to level 3 and level 4 math students, researchers explored course taking patterns for Washington students that scored at level 2 on their 11th grade math SBA (Figure 3). Of the 871 level 2 students that enrolled in a CTC in fall 2016, 366 (42%) took a math class in the fall. Of those students who took a math class in the fall, 31.2% of students enrolled a college level math course, while 68.8% enrolled in pre-college level math courses.

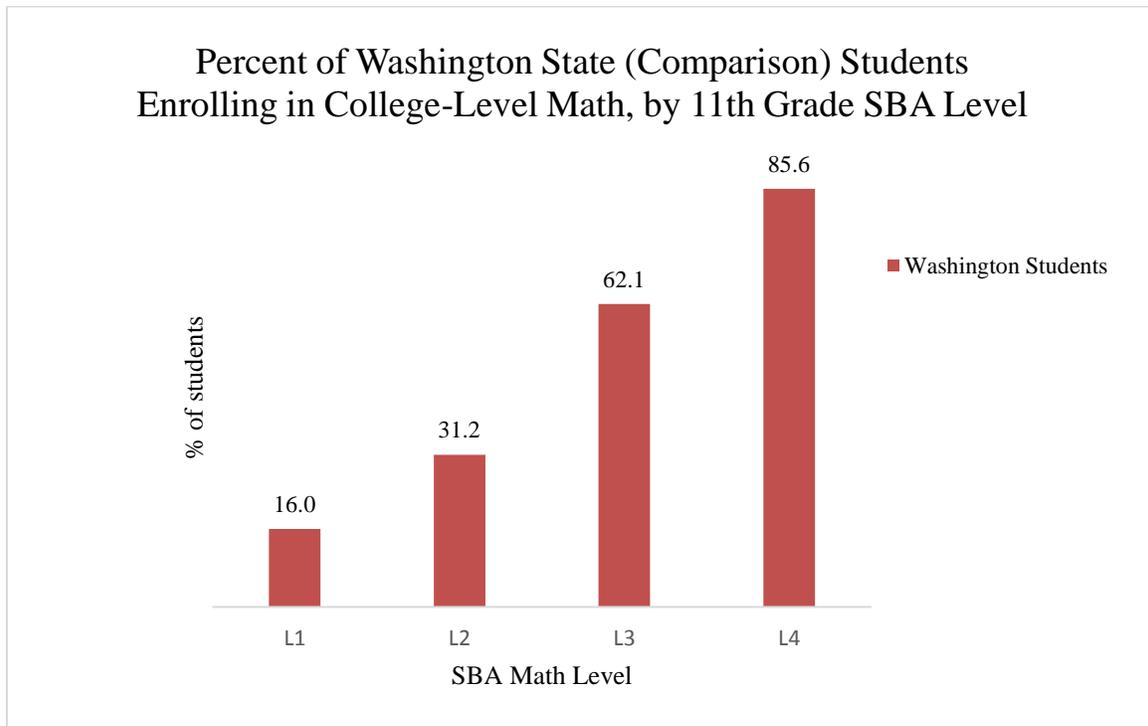
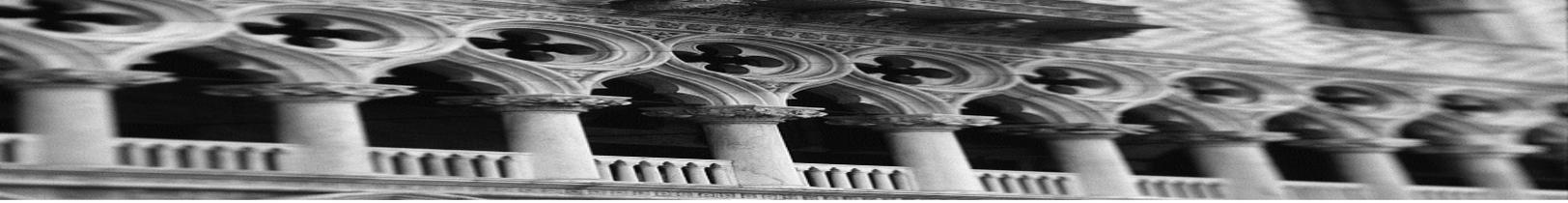


Figure 3. Percent of Washington State (Comparison Group) Students who Enroll Directly into College Level Math, by 11th Grade SBA Level



English

From the comparison group of 6057 students who attended a CTC in fall 2016, 36.6% enrolled in an English course during fall quarter. 540 level 3 students and 214 level 4 students took an English course. Of those students who took English, 82.3% of level 3 students and 94.4% of level 4 students enrolled directly into college level English. Additionally, there were 745 level 2 students who enrolled in a CTC, with 346 (46.5%) taking English their first quarter. Of the students enrolled in an English course, 46.5% took a college level English course during fall quarter (Figure 4).

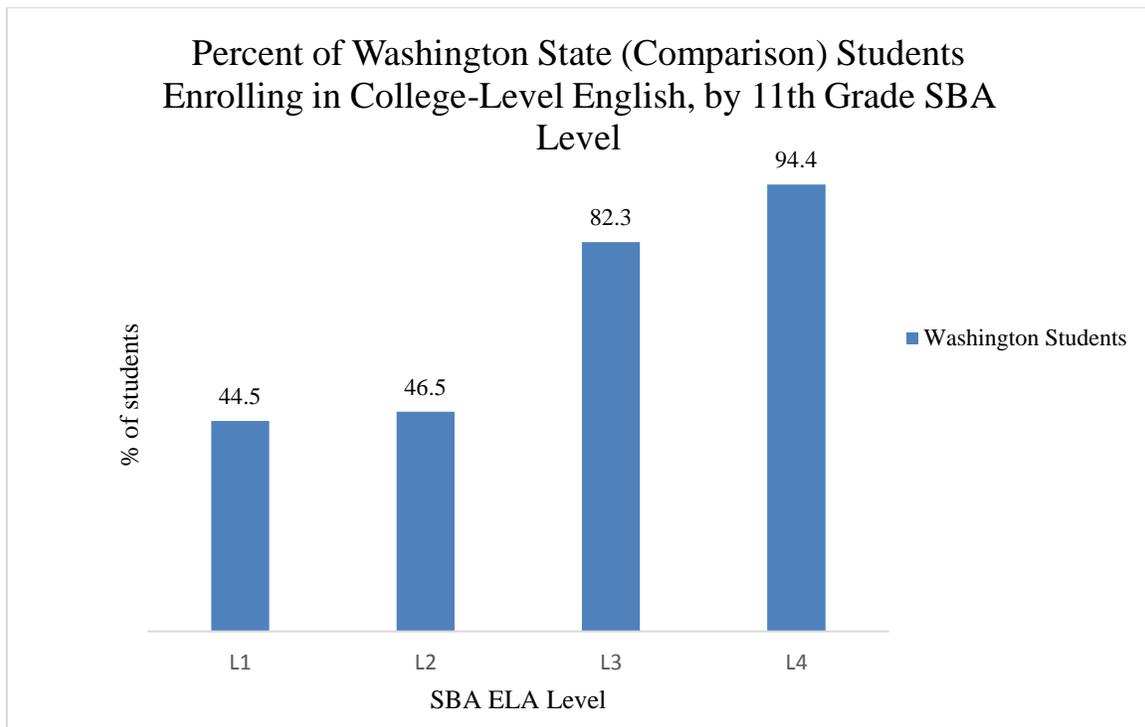


Figure 4. Percent of Washington State (Comparison Group) Students who Enroll Directly into College Level English, by 11th Grade SBA Level

RQ: For 2016 Bridge Course Completers (Cohort I): What percentage of those who received a B or better in the Bridge Course and attended a WA CTC were successful in directly enrolling into college-level Math/ELA w/out additional (remedial) placement measures?

Math

There were 426 graduates in the class of 2016 who took a BtC math course and received a grade of “B or better.” Of those students, 38.5% enrolled directly into a CTC fall 2016. Of the 168 students enrolled in a CTC, 51.2% took a math course in the fall. Of the students who took math in college, 45.3% enrolled in a college level math course (Figure 5).

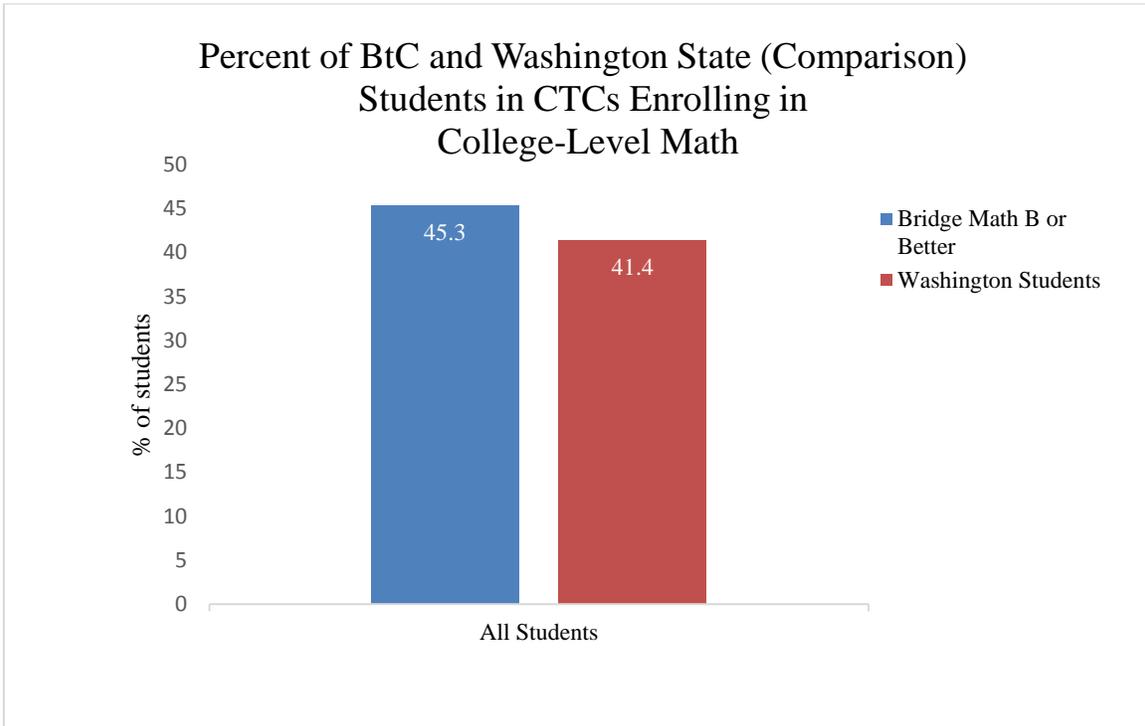


Figure 5. Percent of BtC and Washington State (Comparison) Students in CTCs Enrolling in College-Level Math

Researchers ran a binary logistic regression to determine if SBA level or receiving a B or better in a BtC course were predictors of direct placement into college level math. The results were statistically significant, $n = 3502$, $p = .014$. Students who received a B or better in BtC math were 1.512 times more likely to directly enroll into college level math than students in the comparison group not taking Bridge to College in their senior year of high school.

Results disaggregated by 11th grade SBA level for BtC math students, and comparison Washington State graduates, are shown in Figure 6.

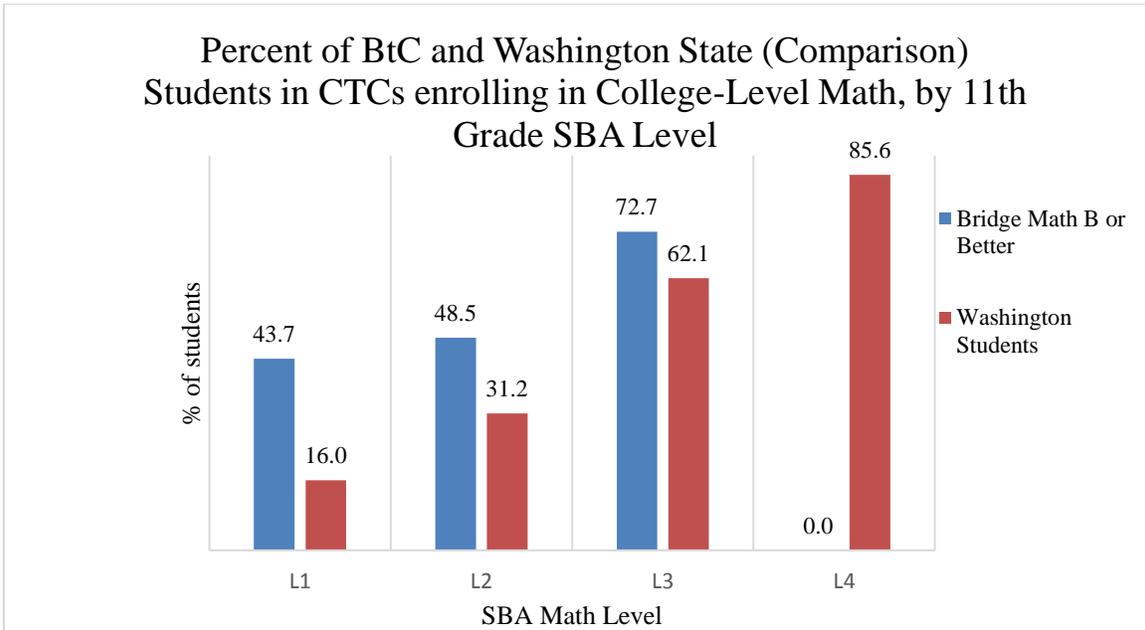


Figure 6. Percent of BtC and Washington State (Comparison) Students in CTCs enrolling in College-Level Math, by 11th Grade SBA Level English

There were 481 graduates in the class of 2016 who took a BtC English course and received a grade of “B or better.” Of those students, 30.8% enrolled directly into a CTC fall 2016. Of the 148 students enrolled in a CTC, 59.5% took an English course in the fall. Of those students who took English, 76% took a college level English course (Figure 7).

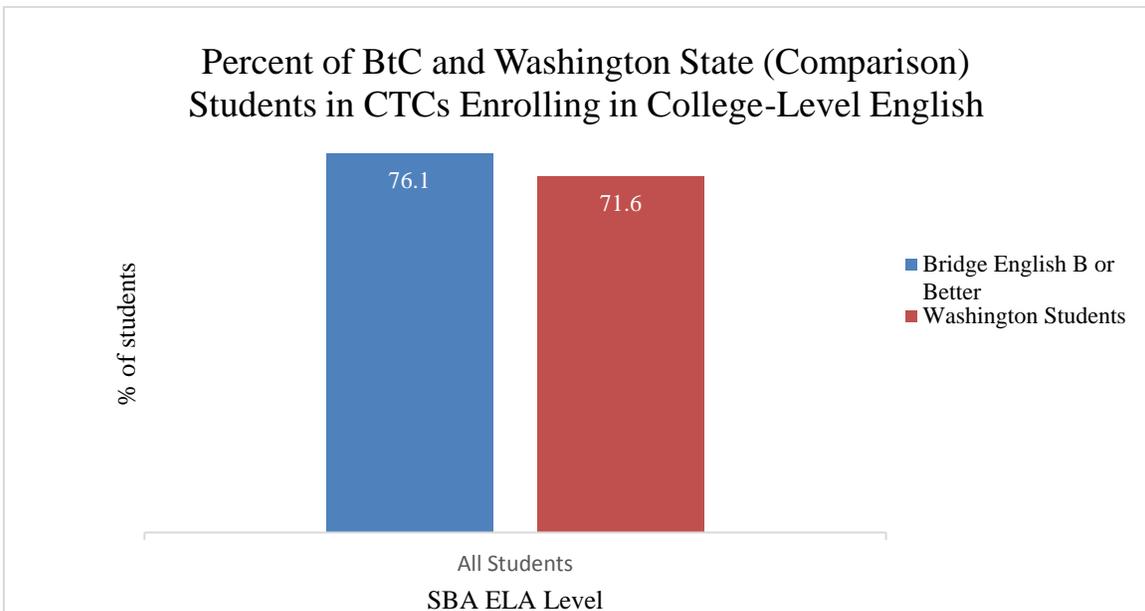


Figure 7. Percent of BtC and Washington State (Comparison) Students in CTCs Enrolling in College-Level English

A higher percentage of BtC students placed into college level English than students who did not take BtC. Again, researchers ran a binary logistic regression and found statistically significant results, $n=3760$, $p=.040$. Bridge to College students who earned a “B or better” in BtC English were 1.312 times more likely to place directly into college level English than students in the comparison group.

Results disaggregated by 11th grade SBA level for BtC English students, and comparison Washington State graduates, are shown in Figure 8.

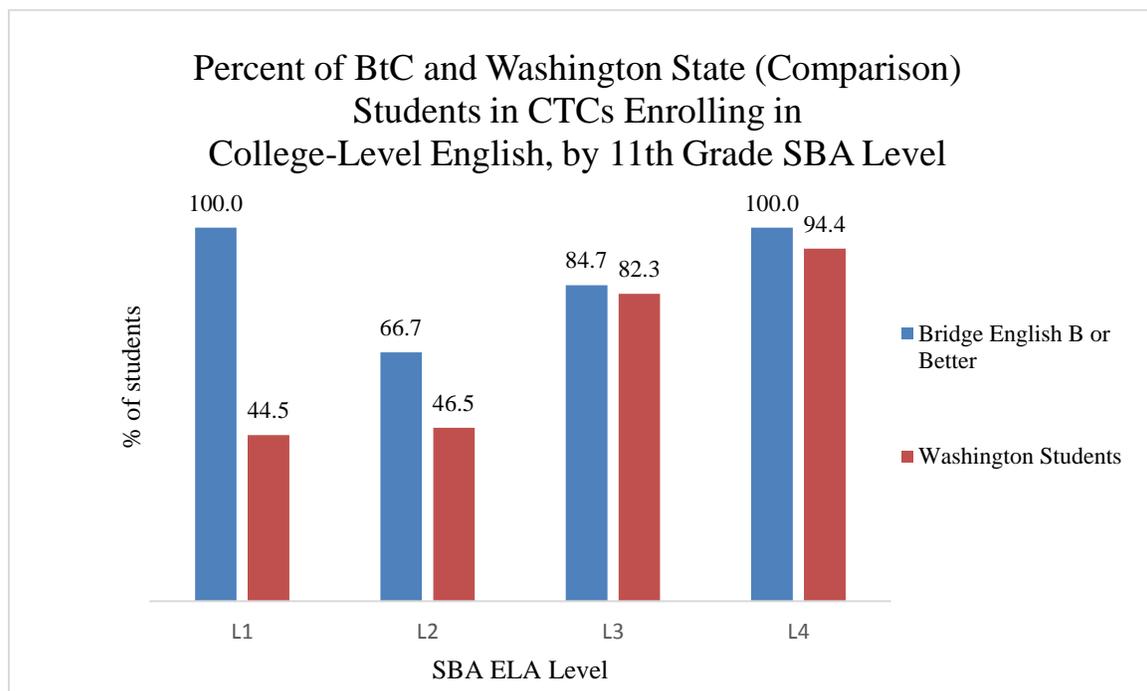


Figure 8. Percent of BtC and Washington State (Comparison) Students in CTCs Enrolling in College-Level English, by 11th Grade SBA Level

RQ: *For 2016 Washington State high school graduates: What were the first quarter grades for students who received a 3 or 4 on the 11th grade SBA and succeeded in directly enrolling into college-level Math/ELA?*

Math

Figure 9 shows the grade distribution for Washington State (comparison) students enrolled in a college level math course in the fall following their high school graduation. Grades are disaggregated by 11th grade SBA level. In many cases, student grades were not reported, or missing from the data provided by the ERDC. Of the students scoring a level 3 on their 11th grade SBA,



54.8% received a grade of A or B in their college level math course. About 11% of the level 3 students failed their math course. For level 4 students, 70.9% received a grade of A or B in their college level math course, and 12.5% earned a failing grade.

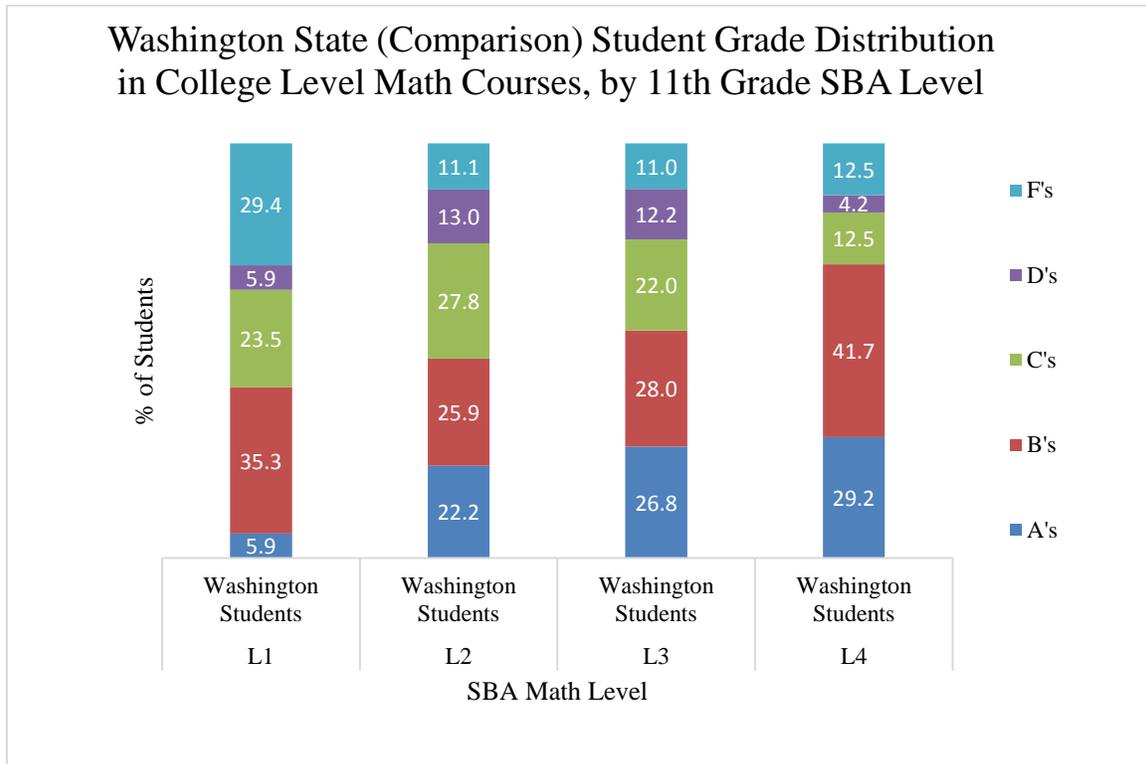


Figure 9. Washington State (Comparison) Student Grade Distribution in College Level Math Courses, by 11th Grade SBA Level

English

Figure 10 shows the grade distribution for Washington State (comparison) students enrolled in a college level English course in the fall following their high school graduation. Grades are disaggregated by 11th grade SBA level. Of the students scoring a level 3 on their 11th grade English SBA, 65.2% received a grade of A or B in their college level English course. About 12% of the level 3 students failed their college level English course. For level 4 students, 73.3% received a grade of A or B in their college level English course, and 7.8% earned a failing grade.

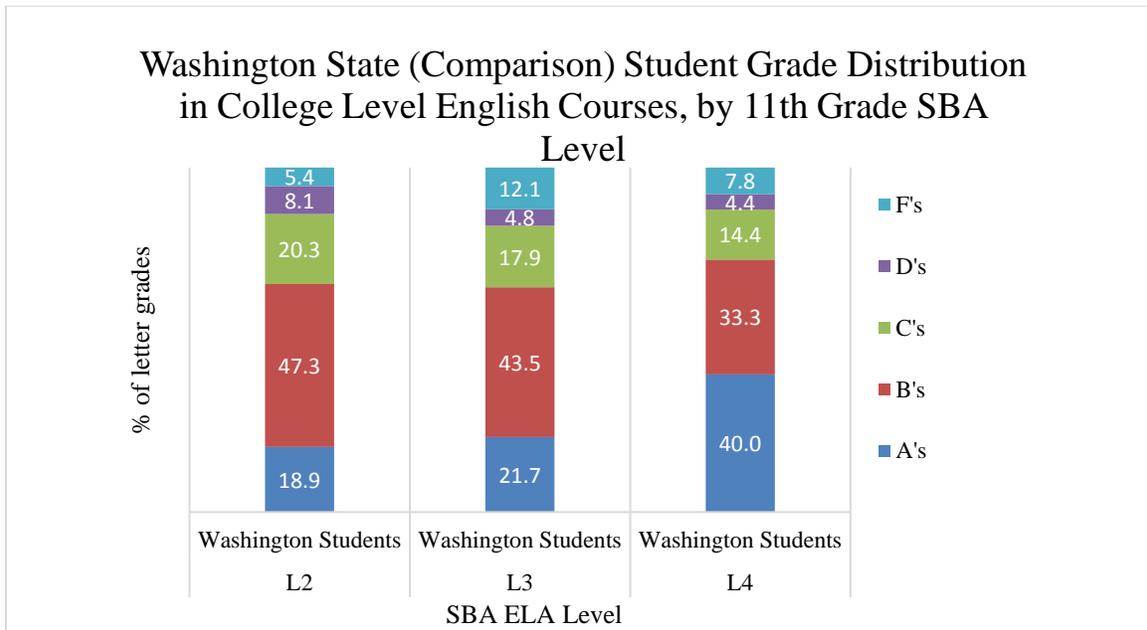


Figure 10. Washington State (Comparison) Student Grade Distribution in College Level English Courses, by 11th Grade SBA Level

RQ: For 2016 Bridge Course Completers (Cohort I): What were the first quarter grades for students who received a B or better in the Bridge Course and succeeded in directly enrolling into college-level Math/ELA?

Math

Figure 11 shows the grade distribution for BtC students who earned a B or better in their BtC math course and enrolled in a college level math course in the fall following their high school graduation. Grades are disaggregated by 11th grade SBA level. There were no grades reported for BtC students that scored a level 1 or level 4 on their 11th grade SBA. Of the students earning a B or better and scoring a level 2 on their 11th grade SBA, 40% received a B in their college level math course, while 60% earned a C. Students who scored a level 1 and earned a B or better had similar grades, with 50% earning a B, and the other half earning a C.

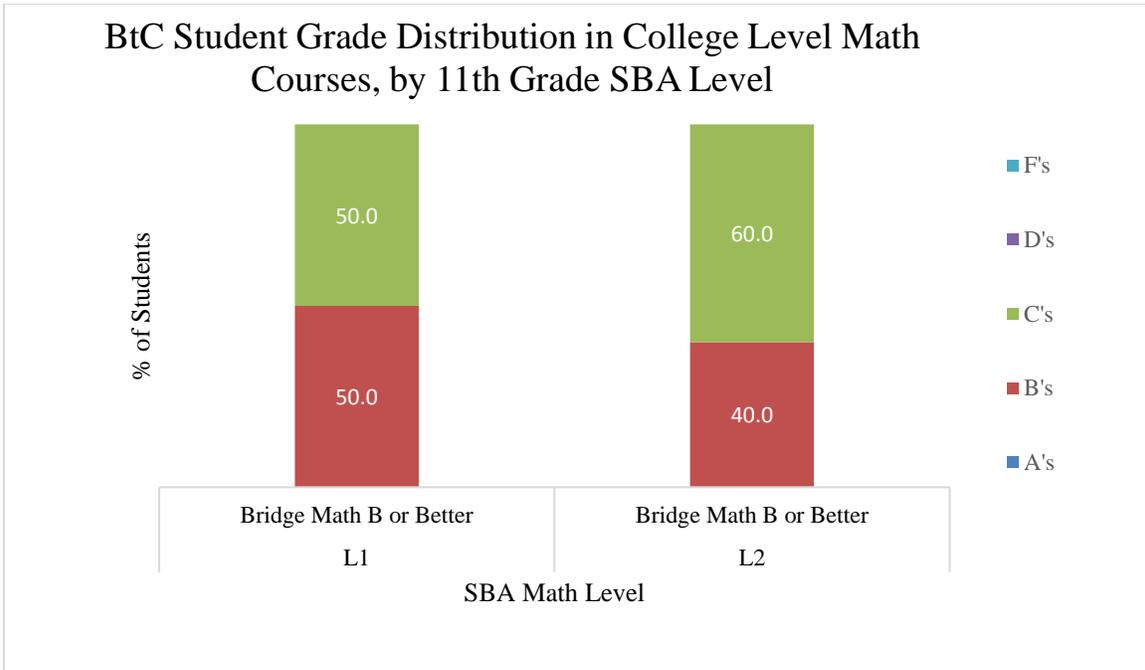


Figure 11. BtC Student Grade Distribution in College Level Math Courses, by 11th Grade SBA Level

English

Figure 12 shows the grade distribution for BtC students who earned a B or better in their BtC English course, and enrolled in a college level English course in the fall following their high school graduation. Grades are disaggregated by 11th grade English SBA level. There were no grades reported for BtC students that scored a level 1 on their 11th grade SBA. Of the students earning a B or better and scoring a level 2 on their 11th grade SBA, 80% received an A or B in their college level English course, while 10% earned an F. There were no failing grades for BtC English students who scored a level 3 or level 4 on their 11th Grade SBA, and 88.8% of these level 3 students earned a grade of C or above.

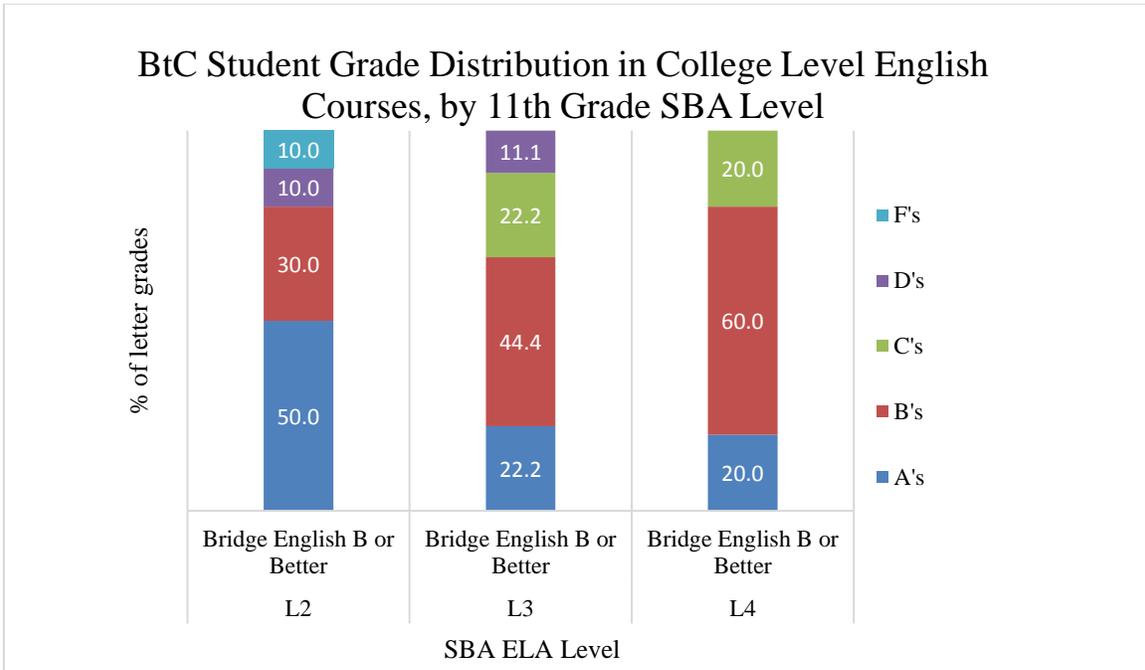


Figure 12. BtC Student Grade Distribution in College Level English Courses, by 11th Grade SBA Level

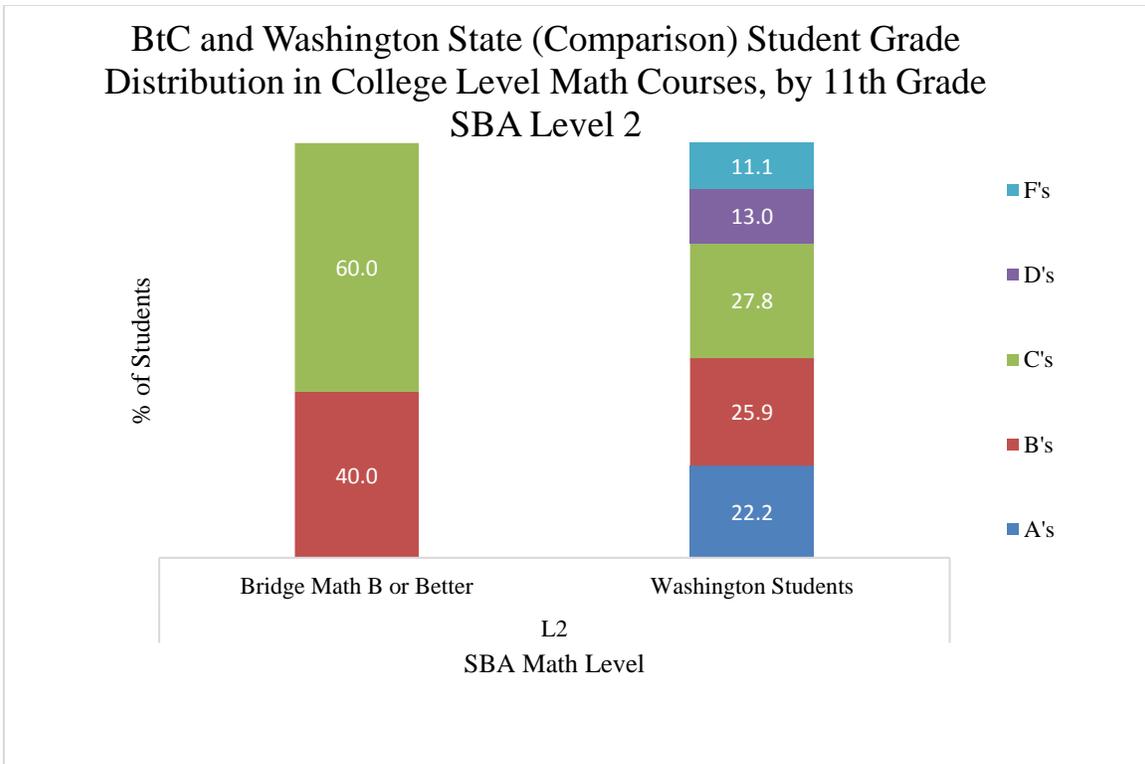


Figure 13. BtC and Washington State (Comparison) Student Grade Distribution in College Level Math Courses, by 11th Grade SBA Level 2



Cohort 2 (2017 High School Graduates)

RQ: For 2017 Bridge Course Completers: What were the supports/contextual factors for students who received a B or better in the Bridge Course and succeeded in directly enrolling into college-level Math/ELA?

RQ: For 2017 Bridge Course Completers: What were the barriers/contextual factors for students who received a B or higher in the Bridge Course and a 2 or higher on the SBA but DID NOT succeed in directly enrolling into college-level Math/ELA?

RQ: For 2017 Bridge Course Completers: What were the first quarter grades for students who received a B or better in the Bridge Course and succeeded in directly enrolling into college-level Math/ELA?

Student Surveys

In the Spring of 2017, BERG researchers mailed survey participation forms to all BtC math and English Language Arts teachers in the state of Washington. The forms provided information on the BtC follow up study, including the purpose and scope and asked students to share their contact information if they were willing to participate in a brief on-line survey after their first quarter in college. Researchers considered the age of requested participants, and asked students under 18 to have their parents agree to their participation. Students were offered a monetary incentive following their completion of the survey. Additionally, researchers asked students to indicate their willingness to participate in a follow-up phone call. Forms were collected by teachers, mailed to The BERG Group, and entered into a database. Approximately 1025 completed permission forms were returned. Of those, 18%, (182 students) completed the on-line perception survey in January 2018.

Survey Participant Demographics

Of the 182 students that responded to the on-line survey, 74% identified as female, 59% identified as White, and 21% as Latino/ Hispanic (Figure 1). Sixty-five percent of the survey respondents attended college in the fall, and of those, 89% attended college full time. The percentage of respondents who had taken BtC English and math was even, with 42% in math, and 42% in English; 16% of respondents reported they had taken both BtC math and BtC English in their senior year.

To analyze the survey results, researchers created several categories for respondents, including

- BtC Math students that received a “B or better” and attended college in the fall
 - *Of these students, those that took college math, and those that did not*
- BtC English students that received a “B or better” and attended college in the fall
 - *Of these students, those that took college English, and those that did not*
- BtC students that did not go to college in the fall following their senior year

BtC Math students that received a “B or better” and attended college in the fall

Of the survey respondents that received a “B or better” in BtC math *and* attended college the following fall, 70% identified as White, 25% as Hispanic, and 79% identified as female. Fifty percent of these students enrolled in math during their first quarter of college, and within this group, 48% reported that they did not enroll directly into college level math. Additionally, fifty percent of these students reported that they were required to take a college math placement test, despite having received a “B or better” in BtC math.

Survey participants responded positively to perception questions regarding their senior year BtC math course. Ninety-five percent agreed that they liked the course, and 73% reported that the course helped them to better understand math and develop math efficacy. These students also responded affirmatively when asked if the BtC course helped them to feel more prepared for college level math. When asked to rank order several program elements, participants scored the *speed and pacing* of the BtC math course as the “most useful” element, while the *on-line resources* were identified as the “least useful” elements.

Less than a “B” Math

None of the students who received less than a “B” in their senior year BtC math course reported enrolling directly into college level math. These students rated the *on-line resources* as the most useful components of the BtC course, along with the *style of teaching*.

BtC English students that received a “B or better” and attended college in the fall

Of the survey respondents that received a “B or better” in BtC English *and* attended college the following fall, 75% identified as White, 20% as Hispanic, and 87% identified as female. Sixty-four percent of these students enrolled in English during their first quarter of college, and within this group, 90% reported that they enrolled directly into college level English. Approximately half as many students (29%) compared to BtC math students reported that they were required to take a college placement test for English even after receiving a “B or better” in BtC English. Additionally, of the students that took English in their first quarter of college, 53% reported receiving an “A” in their college English course.

Of the “B or better” students that did not take English in their first quarter of college, all of them reported feeling prepared for college level English, and noted scheduling, need, and availability as reasons for not enrolling in English. Sixty-five percent of these students responded that they were planning to enroll in English in the future.



Responses to perception questions about BtC English were overwhelmingly positive, with only 1 survey participant reporting they did not like the course. The *style of teaching* and the *information presented* in the BtC English curriculum were identified as the “most useful” elements, while the *on-line resources* were reported to be the “least useful” elements.

Less than a “B” English

Of the students that received a grade lower than “B” in BtC English, 50% reported taking a college placement test for English, and 60% were placed into college level English. The majority of these students (67%) received a grade of “C” or below in their first quarter college English course.

Non-college student respondents

Finally, of the student respondents that received a “B or better” in BtC senior level courses, 64% went to college in the following fall. Twenty-nine percent of the students that did not go to college reported that they did not feel prepared for college level coursework, with over half sharing that they wanted to work, or identifying money as a barrier to attending college. Of these non-college survey participants, 85% said they planned to go to college within the next 5 years.

Phone Interviews

Following data collection and analysis of the on-line student survey, researchers contacted students to participate in follow-up phone interviews. Selection of students was purposeful, to obtain information from BtC English and math students who transitioned to college in the fall. Students were offered an additional incentive to participate. Researchers hoped to learn about students’ experiences placing into college level math or English courses, as well as potential barriers and supports to developing efficacy as a college ready math or English student.

Phone calls were conducted in February and March 2018, using a semi-structured interview protocol. Students were asked to self-report outcome data from their high school and college experiences, including course grades and 11th grade SBA scores. Students were selected from several disaggregated groups of survey respondents, including,

- BtC students receiving a “B or better”, attending college, and placing into college level math/ English.
- BtC students receiving a “B or better”, attending college, and placing into pre-college math/ English.
- BtC students receiving a “B or better”, and not attending college in the fall following their senior year.
- BtC students receiving a score lower than a “B” in BtC math/ English and attending college.

Researchers asked students to share their experience transitioning from high school to college, specifically regarding placement and readiness to be a college math and English student. Questions focused on the structural components of the BtC courses, including the class materials, pacing, and style of teaching. Additionally, researchers asked students to share their perceptions of how the BtC courses differed from their more traditional high school courses.

Overall, researchers found that students in all groups had positive perceptions of the BtC math and English courses. One student shared, “I thought it was great, units flowed together smoothly. It was one of the best class I ever took.” Another student noted, “The curriculum was great, the book was great. I learned how to put an essay together, and different strategies for creating an essay. I felt more ready for college; a lot of it was oriented toward college and helped me to organize my thoughts better. I thought that college would be easier because it prepared me. College seemed like it’d be really hard, and this made me feel like I could do it.” Students also highlighted several supportive components of the courses, including the teaching style and methods, curriculum content and structure, and the pacing. Several students spoke about their own efficacy as learners, sharing how the opportunity for a different type of course, particularly in math, helped them to develop a growth mindset and feel more confident in their ability as a learner.

College Placement

Researchers asked students to talk about their placement into college level math and English. The intention of the BtC courses was to mitigate barriers to placement into college level work for students scoring a Level 2 on their 11th grade state assessments. About one quarter of the students who participated in the phone interviews used their BtC courses to place into college level coursework. One shared, “I met with my advisor. She checked my transcript, and said, ‘you don’t have to take the placement test’. She gave me a list of classes I could take, and English 101 was full, so I chose creative writing, which will also count for credit.” Another student was asked which courses they thought they could get credit for, and after explaining the Bridge program to college advisors was able to take a college level English course.

The majority of the students interviewed did not have the opportunity to use their BtC credits for placement into college courses. Most shared that they were required to take a placement test despite taking BtC and getting a “B or better”, particularly for college math courses. One shared, “In order to be considered for a math class I had to take a placement test. They looked at my transcript, at the fact that I chose to take a 4th year of math and didn’t have to. They likely looked favorably upon it, but everyone had to take the placement test.” Another noted that “BtC classes did not come up at all” during placement discussions. Students in English reported a less regulated system of placement, with several noting they were able to ‘self-place’ into a class they felt they were prepared for. One math student shared, “I did do a placement test in the fall and I didn’t pass it, so I will be in college readiness math in my nursing program. BtC never came up, even when I signed up for the course in high school.”



Teaching style and methods

Students spoke to researchers about the teaching strategies that were most helpful during their BtC courses. One student talked about the level of independence in her BtC English course, noting, “the teacher (would) give you starter points for a paper, but that’s all; no ‘hand holding’”. She continued to talk about her college experience, discussing how in college, similar to her Bridge course in high school, students were often asked to work in small groups to annotate and analyze articles for content. This student shared that the opportunity to work with her peers in high school prepared her for this style of learning in her first semester college courses. Similarly, several BtC math students spoke about the small group learning opportunities offered in high school, suggesting that having peers to share the learning with provided them opportunities to be the expert, as well as ask questions in a non-threatening, more accessible way. One student shared that learning how to ask questions was a benefit of his BtC math course and made it easier for him to ask for support from peers and professors in college.

Another teaching strategy referenced during interviews was the organization and presentation of the BtC lessons. One math BtC student shared, “The way assignments were given and how they were structured emphasized personal responsibility over teacher responsibility.” Another student spoke of the rubrics and due dates given before each English assignment, which helped him to be “more organized” and “respect the deadlines,” while another noted that the most successful part of the BtC math course was, “how (the teacher) presented their expectations. Now in college I’m better about respecting deadlines.” A BtC English student also told researchers that the “straightforward expectations” had the most impact on her first quarter in college English, and just overall as a college student.

In addition to teaching strategies, students felt strongly about the relationships they build with their teachers in their BtC courses, particularly in BtC English. Students expressed appreciation of their teachers’ levels of investment and engagement and noted that the ability to ask questions in a non-judgmental environment made them more likely to work through problems and persist. One student shared, “the teacher was a great resource, and made me not afraid to ask questions.” Another noted that while he had never felt like a strong math student, his experience in BtC left him with a, “positive mindset about math and good relationship with instructors.”

Curriculum Structure and Contents

Students in BtC English spoke positively about the value of the content presented, including, “learning how to cite sources, how to format in APA, to focus on the finished product, how to read a book for the whole term, take out passages and explain what the author was trying to say, and when to use more sophisticated vocabulary to communicate through writing.” These higher order language skills helped students to transition to college level work. One student shared, “(in BtC) we did research projects/essays. Like college where you have to interpret content, based on articles that were read, we did longer papers. Instead of a high school 5-7-page essay, (we did) 10 + page research papers, and used my knowledge of finding research online.”

Another component of the curriculum students found helpful in the transition to college level coursework was the writing aspect of the BtC English course. Students shared that the prompts, and frequency of writing, helped them to be prepared for the rigor of writing in college. Students felt the topics were relevant and were able to be adapted to the interests of students in the class. Additionally, they appreciated the opportunity to engage with creative writing and scholarly writing prompts. One student told researchers, “Writing style was the most important thing to ready me for college.”

Students taking BtC math found value in the opportunity to learn in a conceptual, hands on way. Several students detailed specific lessons, including “learning quadratics with gummy bears”, “the marshmallow lab”, and a lesson where “we stood on a tarp as a group and tried to flip it”. Students appreciated the opportunity to show their thinking, and be graded not just on one right answer, but on the work and problem-solving steps to reach that answer. One student shared, “It taught me skills, how to think abstractly about math and problems, and focused on *how* to get the answer, not just the answer.” Another student also talked about the lessons that required group work, which he felt really helped him to learn from hearing other people’s thoughts and experiencing the content from multiple perspectives.

Pacing

Several students shared that the pacing of the courses supported their learning. For math, students felt that the slower pace, with repetition and review built in, helped them to learn the concepts more deeply. One student shared, “Because it was a lot of review, it made me more confident in math, and the pace was great for my understanding.” Another shared that “every piece fit into the next” and made transitions smooth and easy to manage. BtC English students spoke about the pacing in a slightly different way, suggesting that the pace of this course was rigorous, and helped them to be better prepared to handle more work in a shorter period. One student told researchers, “It was a lot of writing, a bigger work load, and helped me prepare better for (the) workload now... doing a lot of work within a week, so time management was stressed.”



Challenges

During interviews, researchers asked students to share the challenges they faced in transitioning from high school math or English to college level coursework. Students noted that although they liked the BtC courses, there were aspects that did not help them in their first quarter of college. Specifically, a few students shared that being given so much time in class to complete work was not comparable to college courses, where most of the work is done autonomously. They expressed that class-time dedicated to completing work felt like a waste, and they would have benefit from more collaborative work or instruction with their teacher. Another student noted that it was frustrating “when we would just read the book in class. We could have been doing papers the whole time... but we couldn’t take the books home, we didn’t have a lot of books and the other class used the same ones.” Other students also referenced the availability of resources as a challenging aspect of the course, particularly the lack of books or inconsistent technology. Finally, a few students shared that the book choices were sometimes a barrier, and asked researchers if we knew “who chose the books” and if they supplement texts that were more interesting, relevant, and current. These students felt that the book choices may not have prepared them for the level and depth of college level English materials.

Community and Technical College Placement Procedures

In addition to interviewing and surveying BtC students, researchers contacted Community and Technical Colleges (CTCs) throughout the state to determine how and when these institutions were using BtC courses as a placement option for students. The CTCs were chosen based on proximity to BtC schools, and information provided by the State Board of Community and Technical Colleges (SBCTC) (Table 1) The purposeful selection of CTCs was intentional, to increase the likelihood of having students who might use BtC grades as an alternative placement. From January through March 2018 researchers visited six CTC campuses, and spoke with contacts from five additional campuses in Washington State. Researchers engaged with academic advisors, credit evaluators, registrars, deans of instruction, and testing placement specialists. CTC faculty were willing to share their knowledge and experience and offered researchers insights into placement challenges and successes in the current CTC climate.

Table 1.

Colleges	
Site Visit	Phone Interview(s)
Centralia	Big Bend
Clark	Lower Columbia
Highline	Spokane CC
Olympic	Spokane Falls
Shoreline	Yakima
Whatcom	

During interviews, researchers learned that CTCs use several different methods to place students into college or pre-college level coursework. Most of the schools participating in this study have moved to a multiple measures system of placement, where students can use transcripts, SBA scores, SAT/ACT scores, AP scores, portfolios, and placement tests to determine the appropriate level of coursework. There was no single, consistent method of placing students into math or English, and one college acknowledged that “with the end of the Compass System for placement things have become very complicated.”

At approximately 80% of the schools contacted, registrars and placement specialists were aware of the SBA- Bridge placement alternative, although they reported not having much experience with students using their “B of better” to place into college level courses. A few schools were not aware of the BtC courses, or the placement agreement with the state. In these cases, CTC faculty shared that they use placement tests and transcript analysis for all placement decisions.

One school shared their alternative placement agreement flier, which provides a detailed list of options for students to place into college or pre-college level courses. BtC is listed as one of the options, in combination with a level 2 on the 11th grade math or English SBA, although it is only valid for “an entry college-level terminal math course not on the calculus pathway.” Additionally, this CTC charges students a \$15.00 fee to use alternative placement options for enrollment. Finally, this school noted that they were willing to work with students to find the best placement options, but that students themselves were not always aware of what was available to them, which made it more challenging.



SUMMARY AND RECOMMENDATIONS

Summary

The state of Washington has invested in people, policies, and programs to support college readiness efforts. From Common Core State Standards to new graduation requirements to College Bound Scholarships, the focus on helping students attend and persist in college and beyond is apparent. However, barriers remain for students. State testing in high school, placement testing in college, and placement into pre-college courses once enrolled increase the likelihood that students will not persist. BtC high school courses are designed to reduce the number of barriers students experience in their pursuit of college. They are intended to be one intervention among many to help students prepare for and succeed in college level math and English course work.

Researchers conducted quantitative and qualitative data analysis from fall 2017 through spring 2018 to better understand the perspectives and outcomes of BtC students enrolling in CTCs across the state. Overall, quantitative measures showed BtC students outperformed their comparison counterparts in college. Likewise, students expressed positive perceptions of the value and support offered through their high school BtC course(s). Many felt the courses helped them develop a growth mindset and become more efficacious students. Students noted that the teacher, and their instructional style and strategies, were important components of the BtC courses. Students also shared that they learned to take responsibility for their learning and were challenged to behave as if in a college classroom. This glimpse into postsecondary opportunity appears to have made an impact on several students, building confidence and potentially mitigating some of the anxiety inherent in transitioning to unfamiliar situations.

Despite these positive perceptions of the courses, students and college faculty were less clear on the placement options available after completion of the BtC courses with a grade of “B or better.” Several students were confused about how to use their BtC grades to help with college level course enrollment. College staff members shared that they used multiple measures to place students into college level coursework, and while BtC was one option, they had not seen many students using this option to date. It appears that while the BtC courses offer a platform to help prepare students for postsecondary success, the message is not always received by the stakeholders involved in the placement process.

Recommendations

Based on the quantitative and qualitative data collected from two cohorts of BtC students and college support staff across the state, we recommend the following:

- **Continue to develop and expand the Bridge to College courses.** In addition to the rigorous content already embedded in the BtC curriculum, the courses provide the opportunity to promote college readiness on a consistent, frequent basis. Specifically, we recommend using these courses as year-long awareness campaigns, with an increased emphasis on students being college aware, college prepared, and college eligible. Conversations about what college courses look like, how to manage a schedule and meet deadlines, and how to study outside of class would reinforce the belief that students can be successful and that their high school teachers believe in and support them. This increased level of competence will empower students to take risks and challenge themselves.
- **Grow opportunities for Regional PLCs.** To continue to build capacity and strengthen awareness of BtC courses, we recommend creating quarterly opportunities for teachers within a geographical region to meet and talk about their experiences teaching the BtC courses. Within these regional PLCs, we suggest identifying BtC mentor teachers to take leadership roles and provide support for novice teachers as they develop efficacy in delivering the content and philosophy of the BtC courses.
- **Continue to provide Implementation and Sustainability grants.** We recommend the continued investment in tracking implementation and sustainability practices of the BtoC courses. As this is a far-reaching initiative with the potential to impact students across the state, having the opportunity to observe classrooms, talk with students and teachers, and follow progress and outcomes *over time* is critical to understanding best practices and making adjustments to meet the needs of the diverse and changing communities being served.
- **Continue to update and clarify policy shifts.** Continue to develop communication strategies through multiple methods of communication, including newsletters, e-mails, and public service announcements in communities throughout the state.
- **Fund new math cohorts to track outcomes and measure the success of future iterations of the BtC courses.** As the BtC courses continue to be honed and adapted to meet student needs, we recommend adding new cohorts of students to track quantitative outcomes over time. This is particularly important as state policies for student assessments and graduation requirements change.



- **Align teaching practices at local CTCs with research based best practices.**
Throughout the state, school districts have made the commitment to prepare students to be “college-ready” for postsecondary opportunities. While this commitment is critical, it does not address the need for colleges to be “student ready.” During interviews, several students shared that the instructional style and practices of their BtC teachers impacted their feelings of efficacy and their interest in learning the content being taught. Students taking BtC English shared that the pacing of the course and communication with their teachers supported their learning.

We recommend exploring support to provide instructional coaching and professional development to support college instructors in aligning their teaching practices with the research based 21st Century teaching practices embedded in the BtC curriculum. This vertical articulation is a natural next step in helping colleges support the new students enrolling in college-level course through alternative-qualification means.