

UPDATE: STUDENT SUCCESS IN DEVELOPMENTAL ENGLISH COURSES

Prepared for Imperial Valley College

April 2016



In the following report, Hanover Research examines the success of students in developmental English courses at Imperial Valley College. This update considers a grade of C as the threshold for passing.

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EXECUTIVE SUMMARY AND KEY FINDINGS

INTRODUCTION

Imperial Valley College (IVC) requested that Hanover analyze the success of students in its developmental English courses. To accomplish this, Hanover compared students within and across both developmental and first-semester college English courses on performance, successful completion, and outcomes after the program.

This report is organized as follows:

- **Section I: Data and Methodology** discusses the data and the methodology Hanover used in the analysis.
- **Section II: Developmental English Course Evaluations** examines the effectiveness of several developmental English course approaches through an evaluation of students enrolled in particular developmental courses.
- **Section III: Student Success Following Developmental English Courses** examines the overall effectiveness of the developmental English courses through an evaluation of eventual success in the first-semester college English course.

KEY FINDINGS

- **Just over one in four students (28.1%) in developmental English courses moved out of the developmental level to the first-semester college composition course, and only 0.5 percent had graduated by 2015.**¹ Within the English 008/009 track, only 27.0 percent of students who completed English 008 on their first attempt and 56.4 percent of students who completed English 009 on their first try attempted English 110. Within the English 010 track, 41.8 percent of students who completed English 010 attempted English 110.
- **However, the majority of students who moved beyond the developmental level successfully completed their first-semester college composition course.** Specifically, 77.1 percent of English 008 and 73.0 percent of English 009 students who attempted English 110 successfully completed the course.
- **Students taking the basic grammar course (English 059) were not more successful within the developmental course, but they were more successful in the first-semester college composition course.** The percentage of students who successfully completed English 009 was significantly lower for those that took the basic grammar course (English 059) compared to those that did not. However, the percentage of students who attempted and successfully completed the first-semester college

¹ This does not necessarily mean that these students have dropped out. Because the course data extends back two to five years, it is possible that many students are still enrolled and working toward a degree or coursework to transfer.

- composition course (English 110) was significantly higher for those that took English 059 with English 009 than for those that only took English 009.
- **Success in developmental English courses differed based on the course approach. Students were more successful in lecture-based courses over online courses and in courses that did not have a common final.** Specifically:
 - A higher percentage of students successfully completed English 008 prior to introduction of the common final (compared to after introduction of the common final).
 - A higher percentage of students successfully completed English 009 when the lecture option was chosen rather than the online option.

SECTION I: DATA AND METHODOLOGY

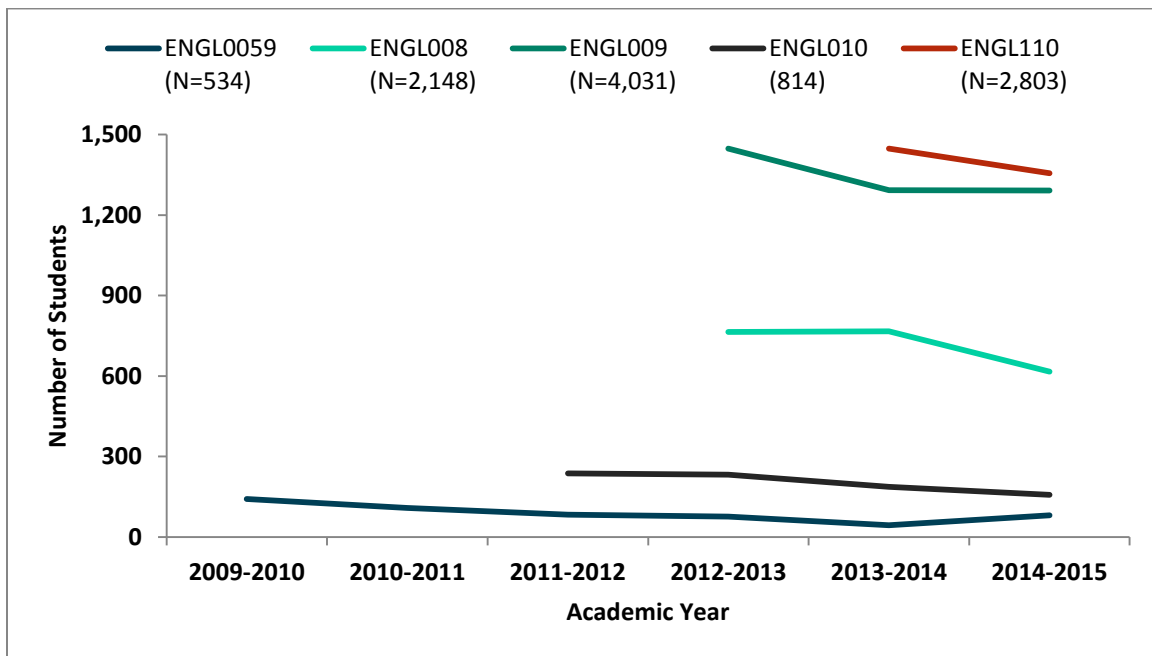
This first section summarizes the data and methodology that Hanover used for this analysis of student success in developmental English courses at IVC.

DATA OVERVIEW

To support the analysis, IVC provided Hanover with English course and graduation data for students in the 2009-2010 through 2014-2015 academic years. The English course data included information about the course (course number, CRN, faculty instructor), the term(s) enrolled, student performance (placement test score, course grade, whether the course was repeated), and demographic information for each student (gender, age). The graduation data included degree information (program, major, status, degree type, degree award date), academic information (enrollment year, credits attempted and earned, overall GPA), and demographic information (gender, age, ethnicity).

Hanover used 11 datasets (ENG059.csv, English 8.csv, English 9.csv, English 009 ONLINE VS LECTURE.csv, English 10.csv, and English 110.csv, awards 2010-11.csv, awards 2011-12.csv, awards 2012-13.csv, awards 2013-14.csv, awards 2014-15.csv) from IVC in the analysis. We collapsed the data within each dataset so that there was only one observation per student (preserving students' first and final results in each course) and then combined the datasets so that success could be compared across courses. Figure 1.1 provides an overview from this collapsed dataset of the number of students enrolled in each course (for the first time) across academic years.

Figure 1.1: Enrollment in IVC English Courses by Academic Year of First Attempt

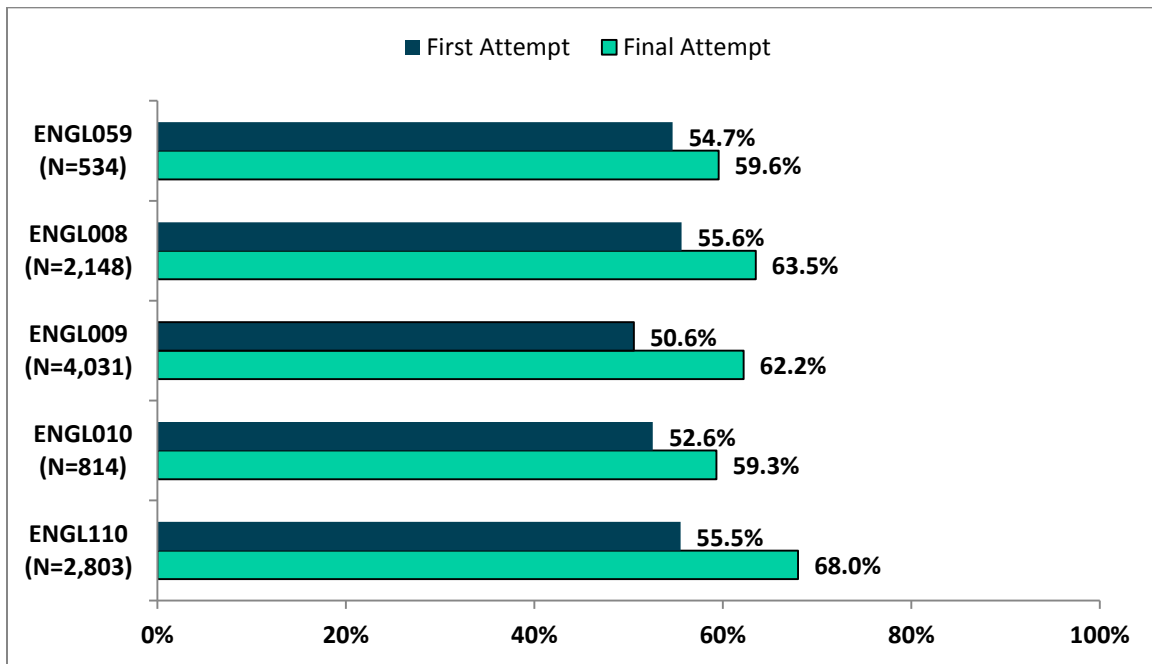


N=7,173 (Overall)

COURSE DEPENDENT VARIABLES

Student success was assessed through four variables: successful completion of a course (Section II and Section III), course grade (Section II and Section III), persistence in attempting additional courses (Section III only), and graduation (Section III only). Successful completion of a course is a categorical variable with two outcomes – passed (i.e., received a C or higher) and did not pass (i.e., received a grade of D or F or withdrew from the course); it was created using the course grade data from the original files (Figure 1.2). Course grade is a continuous variable; it was also created using the course data from the original files, by converting the alphabetic grades to numeric grades (0=F to 4=A; Figure 1.3).² Variables for successful completion and course grade were created for both the first and the last time a student attempted the course, resulting in four new variables per course.³ The within-course comparisons in Section II only examine successful completion and course grade for students’ first attempts because this best reflects how students respond to the different course approaches when they have no prior experience with the material covered in the course. The across-course comparisons in Section III examine successful completion and course grade for both first and last attempts, which reflects both initial and eventual success in the various developmental courses, as well as in the first-semester college composition course.

Figure 1.2: Percentage of Students Successfully Completing English Courses

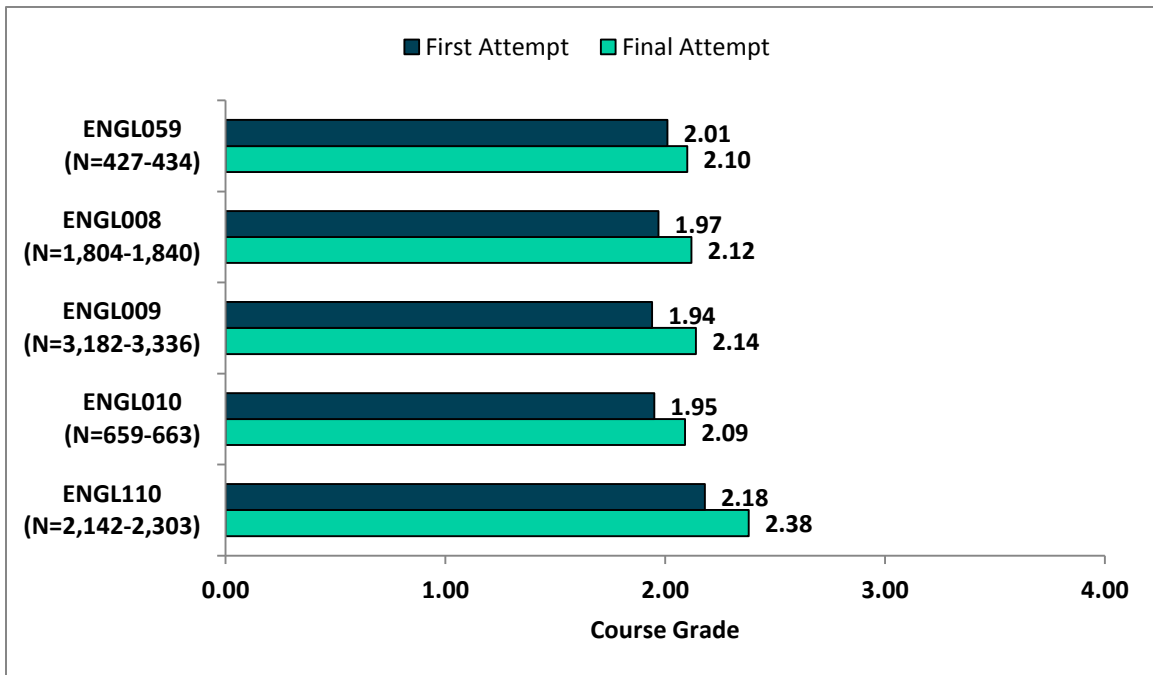


N=7,173 (overall)

² Because grades could not be calculated for students who took the course pass/fail (P/NP), and because this was an uncommon option for the English courses (only three students), these students were dropped from further analysis.

³ Across all variables (successful completion, course grade, semester) first and last attempt only differed for students who attempted the course more than once. Thus, the data are the same for both attempt variables if a student only attempted the course once.

Figure 1.3: Course Grades for Students in English Courses



Note: 0=F, 1=D, 2=C, 3=B, and 4=A

Persistence in attempting additional courses is a categorical variable with two outcomes – attempted and did not attempt. Students were considered to have attempted the course if they had enrolled in it, regardless of their eventual grade or whether they withdrew from the course. Graduation is also a categorical variable with two outcomes – graduated and did not graduate. Note that while many students (2,496) graduated in the past five academic years, this only represents one-quarter of the students examined (25.9 percent).

Further, of all the students who attempted developmental English courses, only 0.5 percent had graduated by the end of the 2014-2015 academic year. This does not necessarily indicate that 99.5 percent of the students in developmental courses dropped out, however. Course data only extends back three years for English 008 and English 009, and four years for English 010 (Figure 1.1), allowing for the possibility that many students are still enrolled at IVC and working toward their degree or coursework to transfer. As such, it was not possible to accurately analyze graduation at this time. To conduct such analyses, Hanover would need course data in future years or extending back farther than 2011-2012.

INDEPENDENT VARIABLES

Hanover used five independent variables for the analyses (Figure 1.4). The Common Final variable was created using semester data. Students who attempted the course for the first time prior to introduction of the Common Final in the 2014-2015 academic year (i.e., they attempted the course in the 2012-2013 or 2013-2014 academic year) were categorized as “Pre-Common Final,” and students who attempted the course after introduction of the Common Final (i.e., those who attempted the course in the 2014-2015 academic year) were categorized as “Post-Common Final.” The English 009 Online Variable was created using online versus lecture data. Students who attempted the course for the first time in lecture format were categorized as “Lecture,” and students who attempted the course for the first time in online format were categorized as “Online.” Finally, the ENGL009/010 variable was created using course numbers. Students who attempted English 009 were categorized as “ENGL009,” and students who attempted English 010 were categorized as “ENGL010.” Note that a small percentage of students attempted both courses; these students were excluded from analysis because their success could not be uniquely attributed to either English 009 or English 010.

Figure 1.4: Independent Variables Included in Analysis⁴

VARIABLE	SUMMARY	CATEGORIES
Within-Course Analyses		
Common Final	Students attempting ENGL008 prior to introduction of Common Final (2012-13, 2013-2014) versus students attempting ENGL008 after introduction of Common Final (2014-2015).	Pre-Common Final Post-Common Final
ENGL009 Online	Students attempting ENGL009 in lecture format versus in online format.	Lecture Online
ENGL009 w/ ENGL059	Students attempting ENGL009 alone versus students attempting ENGL059 as well as ENGL009.	Without ENGL059 With ENGL059
Across-Course Analyses		
ENGL008	Students attempting ENGL008.	N/A
ENGL009	Students attempting ENGL009.	N/A
ENGL009 vs ENGL010	Students attempting ENGL009 versus students attempting ENGL010. Note that students attempting both courses are excluded.	ENGL009 ENGL010
ENGL009 w/ ENGL059	Students attempting ENGL009 alone versus students attempting ENGL059 as well as ENGL009.	Without ENGL059 With ENGL059

⁴ Developmental English course abbreviations: ENGL059 (English 059), ENGL008 (English 008), ENGL009 (English 009), ENGL010 (English 010). First-semester college composition course abbreviation: ENGL110 (English 110).

METHODOLOGY

Hanover conducted a series of descriptive analyses comparing student success within two developmental English courses (ENGL008 and ENGL009), as well as student persistence and success across different developmental courses and pathways (ENGL008/ENGL009 and ENGL010). For the descriptive analyses of student success within a developmental course, we conducted independent t-tests to examine successful completion and course grades for first attempts at ENGL008 and ENGL009 according to different approaches taken for each course. Specifically, to assess the efficacy of the Common Final, we examined differences in successful completion and course grades between students who attempted ENGL008 prior to the introduction of the Common Final and after the introduction of the Common Final. To assess the efficacy of online education for developmental courses we examined differences in successful completion and course grades between students who attempted ENGL009 in lecture format and online format. Finally, to assess efficacy of the basic grammar course (ENGL059) we examined successful completion and course grades between students who attempted ENGL009 alone versus those who attempted ENGL009 with ENGL059.

For the analyses of students across developmental courses, we conducted descriptive analyses and independent t-tests to examine persistence in additional English courses and successful completion and course grades for first and final attempts at additional English courses. Specifically, to assess success rates of students in ENGL008 and ENGL009, we examined how many students attempted additional developmental and first semester English courses (for ENGL008 – ENGL009, ENGL010, ENGL110; for ENGL009 – ENGL010, ENGL110). We also examine how many students successfully completed those additional courses, as well as their grades in those courses. To assess continued efficacy of the basic grammar course (ENGL059), we examined the differences in attempts at ENGL110, successful completion of ENGL110, and course grades within ENGL110 between students who attempted ENGL009 alone versus those who attempted it with ENGL059. To assess differences in continued success for different developmental tracks, we examined the differences in attempts at ENGL110, successful completion of ENGL110, and course grades within ENGL110 between students who attempted ENGL009 and ENGL010.

SECTION II: DEVELOPMENTAL ENGLISH COURSE EVALUATIONS

MAIN TAKEAWAYS

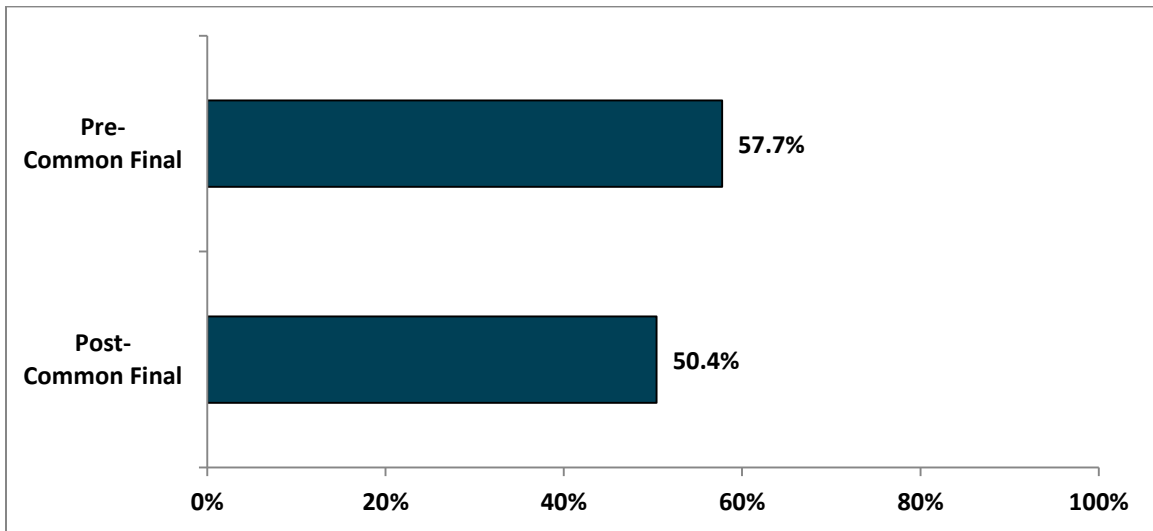
- **Students were more likely to successfully complete ENGL008 prior to introduction of the Common Final.** Specifically, a higher percentage of students successfully completed ENGL008 Pre-Common Final than Post-Common Final.
- **Students were more likely to successfully complete ENGL009 when it was taken as a lecture and not in combination with a basic grammar course.** A higher percentage of students successfully completed ENGL009 as a lecture course than as an online course, and a higher percentage of students successfully completed ENGL009 when it was not taken in combination with a basic grammar course (ENGL059).

STUDENT SUCCESS IN ENGL008 BEFORE AND AFTER INTRODUCTION OF A COMMON FINAL⁵

As shown in Figure 2.1, a comparison of ENGL008 students revealed a significant difference in successful completion of the course, with a higher percentage of students experiencing success on their first attempt before introduction of the Common Final (57.7 percent) compared to after introduction of the Common Final (50.4 percent). However, as shown in Figure 2.2, there were no significant differences in course grades between students who completed ENGL008 before and after introduction of the Common Final. These somewhat mixed findings may be at least partially explained by the inclusion of withdrawals in analyses of success but not in analyses of course grades. Further analysis suggests that a higher percentage of students withdrew from ENGL008 after introduction of the Common Final (19.0 percent) compared to before (14.8 percent).

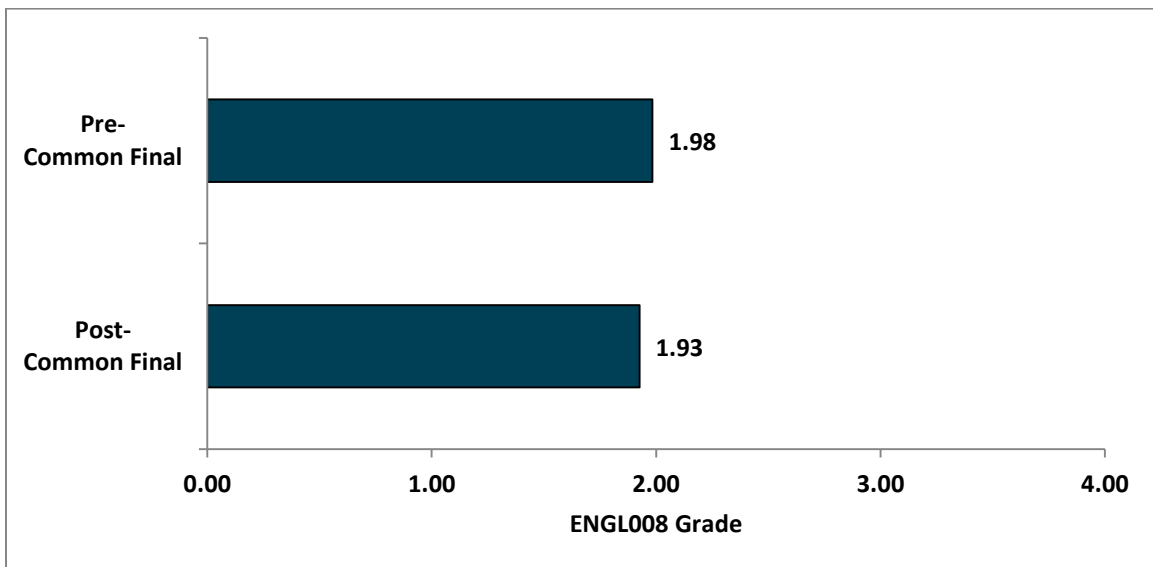
⁵ All comparisons reflect students' first attempts at ENGL008.

Figure 2.1: Percentage of Students Successfully Completing ENGL008 Before and After Introduction Common Final



N=1,531 (pre-introduction), N=617 (post-introduction); comparison significant at 1 percent significance level.

Figure 2.2: Grades of Students in ENGL008 Before and After Introduction of Common Final

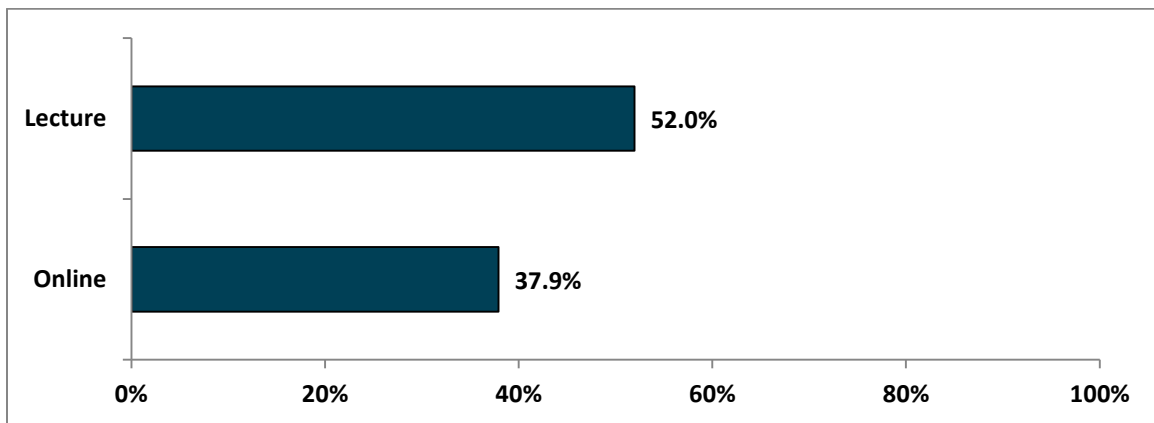


N=1,304 (pre-introduction), N=500 (post-introduction); comparison not significant.

STUDENT SUCCESS IN ENGL009 LECTURE AND ONLINE⁶

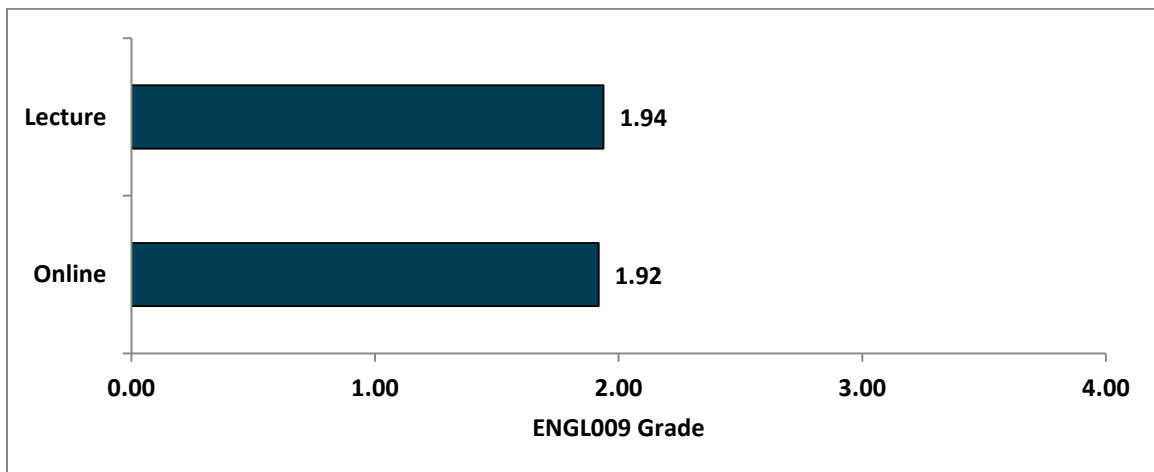
As shown in Figure 2.3, a comparison of ENGL009 students revealed a significant difference in successful completion of the course, with a higher percentage of students successful on their first attempt when they took the lecture course (52.0 percent) compared to when they took the course in an online format (37.9 percent). However, as shown in Figure 2.4, there were no significant differences in course grades between students who took the ENGL009 lecture course compared to the online course. Again, these somewhat mixed findings may be at least partially explained by the inclusion of withdrawals in analyses of success but not in analyses of course grades. Further analysis suggests that a higher percentage of students withdrew from the ENGL009 online course (40.2 percent) compared to the lecture course (18.9 percent).

Figure 2.3: Percentage of Students Successfully Completing ENGL009 Lecture versus Online Course



N=3,625 (Lecture), N=406 (Online); comparison significant at 1 percent significance level.

Figure 2.4: Grades of Students in ENGL009 Lecture versus Online Course



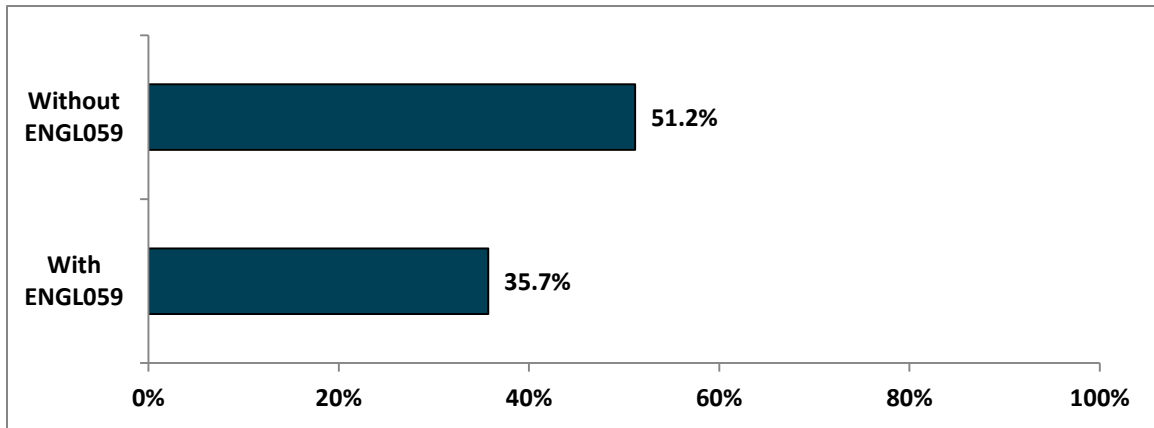
N=2,939 (Lecture), N=243 (Online); comparison not significant.

⁶ All comparisons reflect students' first attempts at ENGL009.

STUDENT SUCCESS IN ENGL009 WITH AND WITHOUT ENGL059⁷

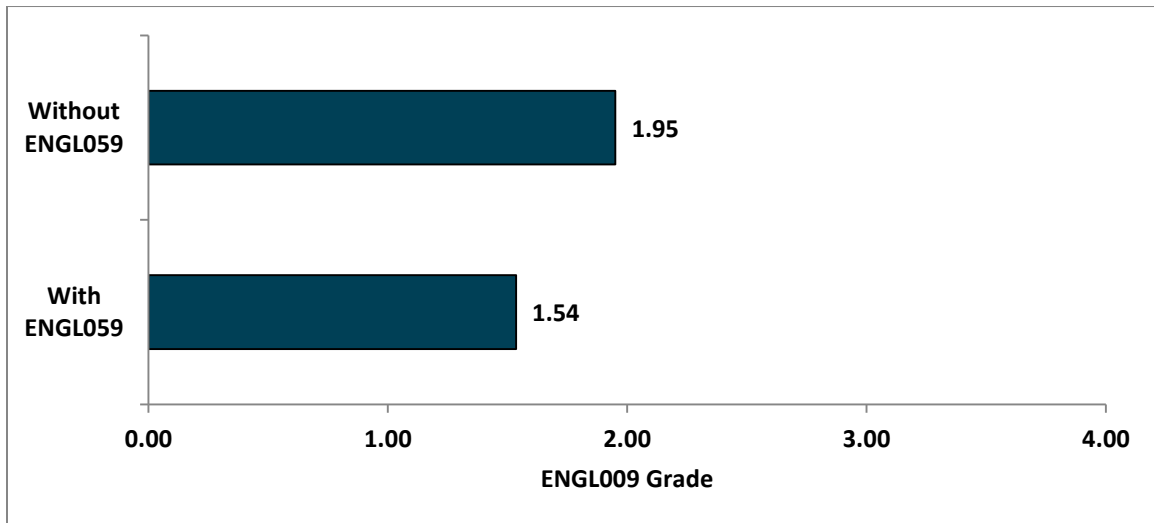
As shown in Figure 2.5, a comparison of ENGL009 students revealed a significant difference in successful completion of the course, with a higher percentage of students experiencing success on their first attempt when ENGL009 was taken alone (51.2 percent) compared to when it was taken in combination with ENGL059 (35.7 percent). Further, as shown in Figure 2.6, students who did not take ENGL059 received significantly higher grades in ENGL009 compared to students who took ENGL059.

Figure 2.5: Percentage of Students Successfully Completing ENGL009 with/without Taking ENGL059



N=3,877 (without ENGL059), N=154 (with ENGL059); comparison significant at 1 percent significance level.

Figure 2.6: Success of Students in ENGL009 with/without Taking ENGL059



N=3,070 (without ENGL059), N=112 (with ENGL059); comparison significant at 1 percent significance level.

⁷ All comparisons reflect students' first attempts at ENGL009.

SECTION III: STUDENT SUCCESS FOLLOWING DEVELOPMENTAL ENGLISH COURSES

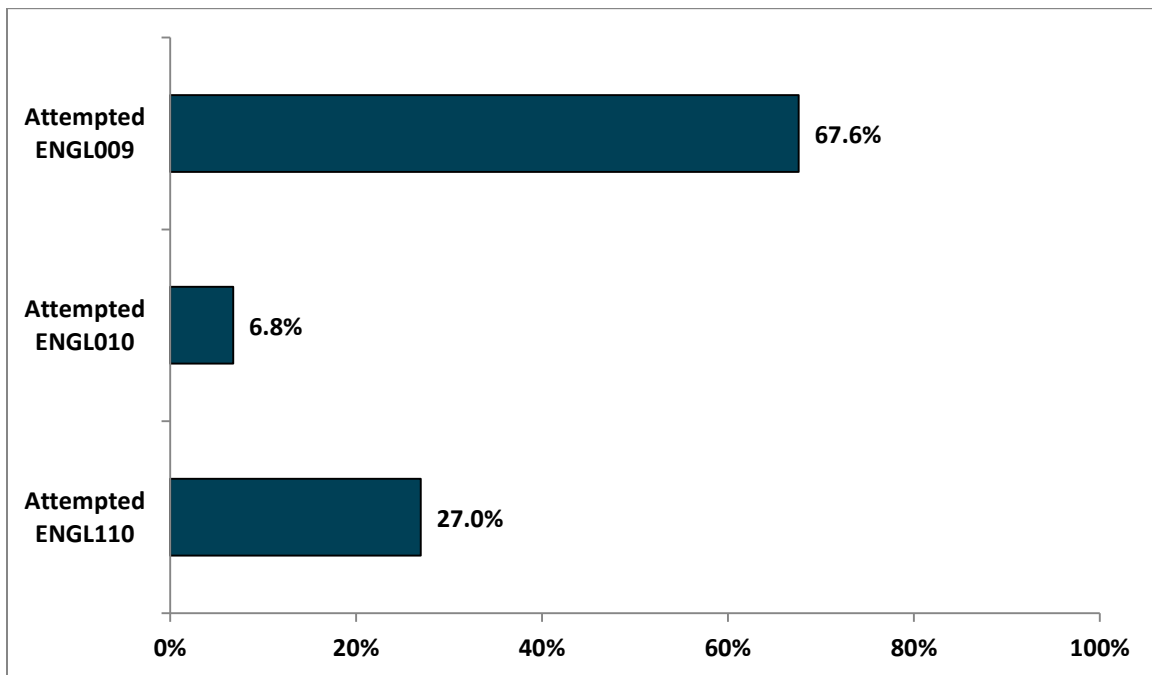
MAIN TAKEAWAYS

- **The majority of students in the ENGL008/ENGL009 developmental track did not persist beyond the developmental level.** Of the students who successfully completed ENGL008, 67.6 percent continued on to ENGL009, and 27.0 percent eventually moved beyond the developmental level to ENGL110. Further, of the students who successfully completed ENGL009, 56.4 percent moved beyond the developmental level to ENGL110.
- **Approximately three in four students who persisted beyond the developmental level successfully completed their first-semester college composition course.** Specifically, 77.1 percent of ENGL008 and 73.0 percent of ENGL009 students who attempted ENGL110 successfully completed the course.
- **Over half (55.8 percent) of the students who persisted within the developmental level and took ENGL009 after completing ENGL008 successfully completed ENGL009.** Students switching to ENGL010 after passing ENGL008 or ENGL009 were less successful, with less than a third successfully completing ENGL010.
- **Students were more likely to attempt and successfully complete ENGL110 following the combination of ENGL009 and ENGL059 developmental courses.** Specifically, a higher percentage of students continued on to attempt ENGL110 after having taken ENGL009 compared to ENGL010, while completion rates among those who attempted ENGL110 were similar across the two groups. Further, of the students who took ENGL009, a higher percentage continued on to attempt ENGL110 when they had also taken ENGL059, with pass rates similar across the two groups.

PERSISTENCE AND SUCCESS AFTER SUCCESSFULLY COMPLETING ENGL008

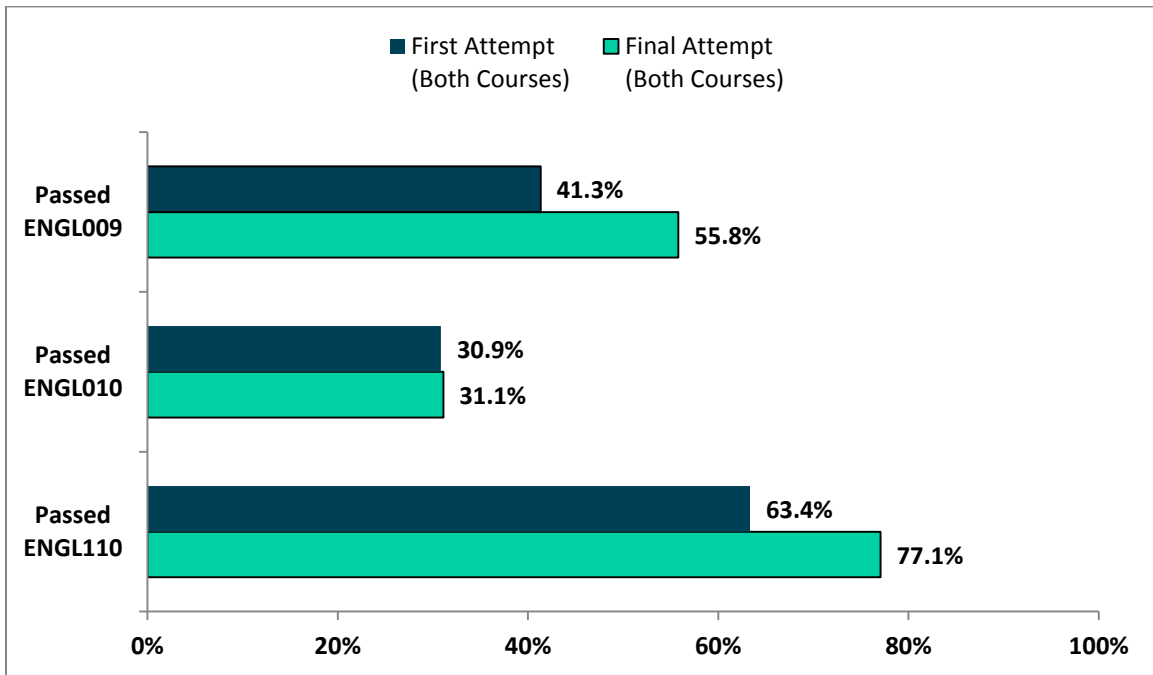
As shown in Figure 3.1, over half of the students who successfully completed ENGL008 persisted in another English course. Specifically, 67.6 percent continued on to ENGL009, 6.8 percent switched tracks and enrolled in ENGL010, and 27.0 percent moved beyond the developmental level to ENGL110. Further, over half of these students successfully completed their subsequent English courses eventually. As shown in Figure 3.2, 55.8 percent of the students who attempted ENGL009 were successful (41.3 percent on their first attempt), 56.0 percent that attempted ENGL010 were successful eventually (54.8 percent on their first attempt), and 77.1 percent that attempted ENGL110 were successful (63.4 percent on their first attempt). Although a majority of students who attempted ENGL009 and ENGL110 following ENGL008 successfully completed these courses, the average course grade was slightly below a “C” average for ENGL009 (1.72 and 1.97) and around a “C” average for ENGL110 (2.17 and 2.36; Figure 3.3).

Figure 3.1: Percentage of Successful ENGL008 Students Attempting Additional Courses



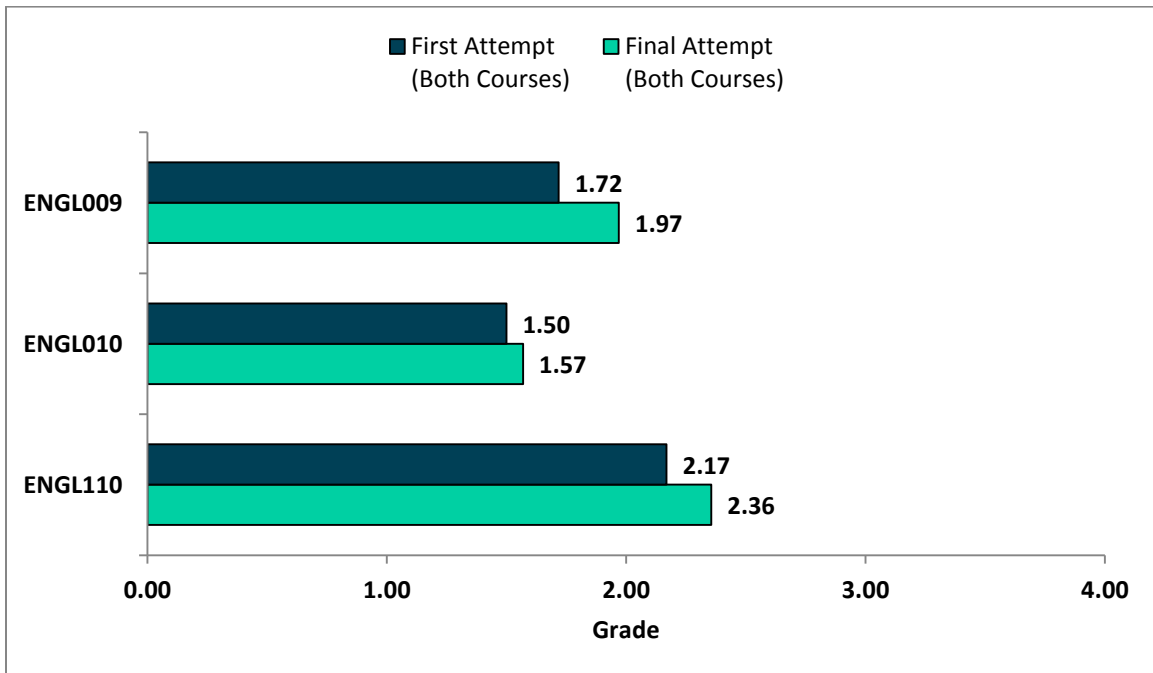
N=1,195

Figure 3.2: Percentage of Successful ENGL008 Students Successfully Completing Additional Courses



N=808-912 (ENGL009); N=81-90 (ENGL010); N=322-349 (ENGL110)

Figure 3.3: Successful ENGL008 Grade in Additional Courses

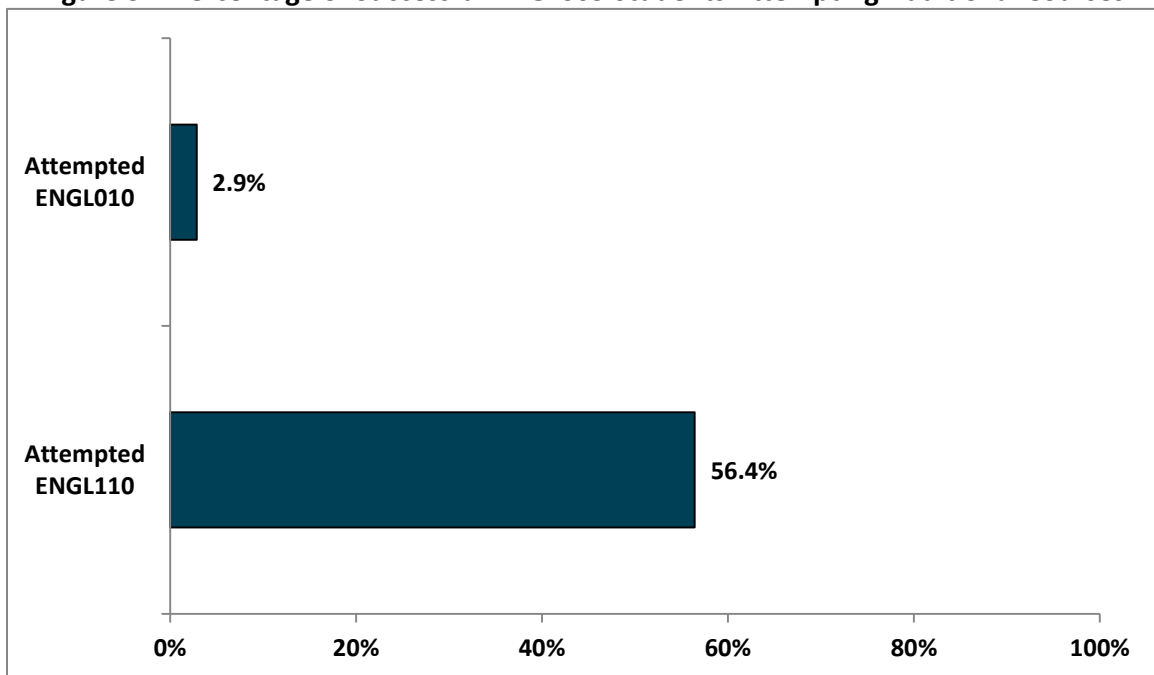


N=593-727 (ENGL009); N=56-58 (ENGL010); N=272-312 (ENGL110)

PERSISTENCE AND SUCCESS AFTER SUCCESSFULLY COMPLETING ENGL009

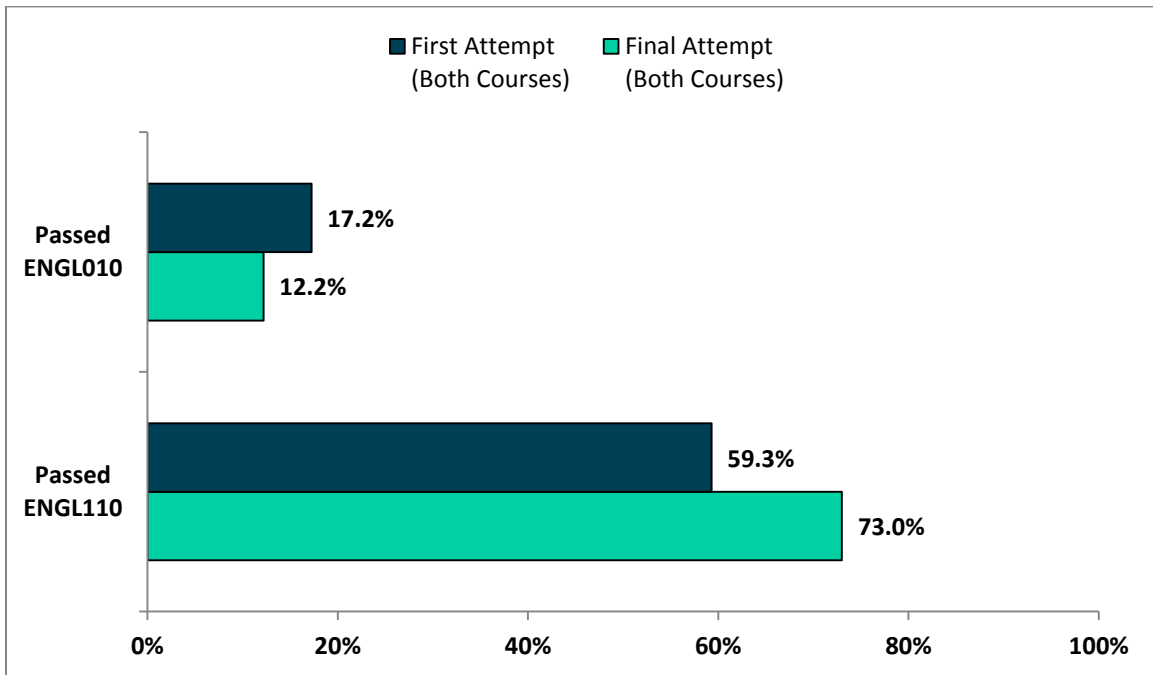
Just over half of the students who successfully completed ENGL009 continued on to another English course, as shown in Figure 3.4. Specifically, 2.9 percent switched developmental tracks and enrolled in ENGL010, and 56.4 percent moved beyond the developmental level to ENGL110. Further, over half of the students who attempted additional courses successfully completed their subsequent non-developmental English course. A majority (73.0 percent) of students who attempted ENGL110 were successful (59.3 percent on their first attempt). Although a majority of students were able to successfully complete ENGL110 following ENGL009, the average course grade was around a “C” average for ENGL110 (2.23 and 2.40, as shown in Figure 3.6).

Figure 3.4 Percentage of Successful ENGL009 Students Attempting Additional Courses



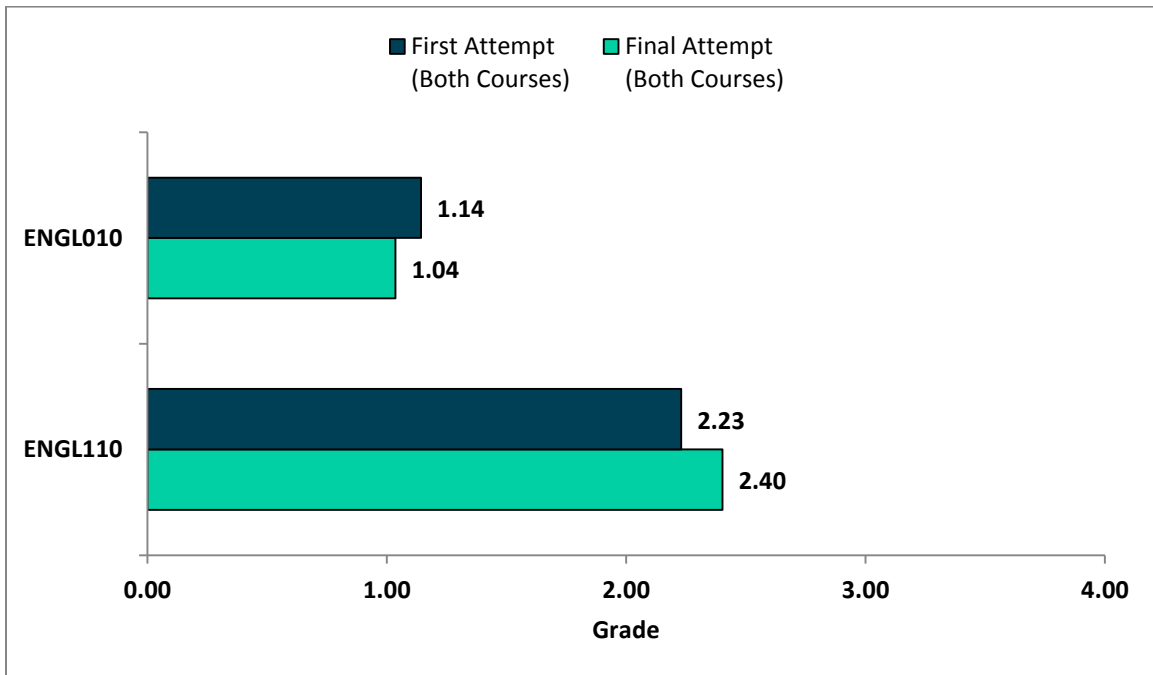
N=2,038

Figure 3.5: Percentage of Successful ENGL009 Students Successfully Completing Additional Courses



N=58-82 (ENGL010), N=1,150-1,463 (ENGL110)

Figure 3.6: Successful ENGL009 GPA in Additional Courses



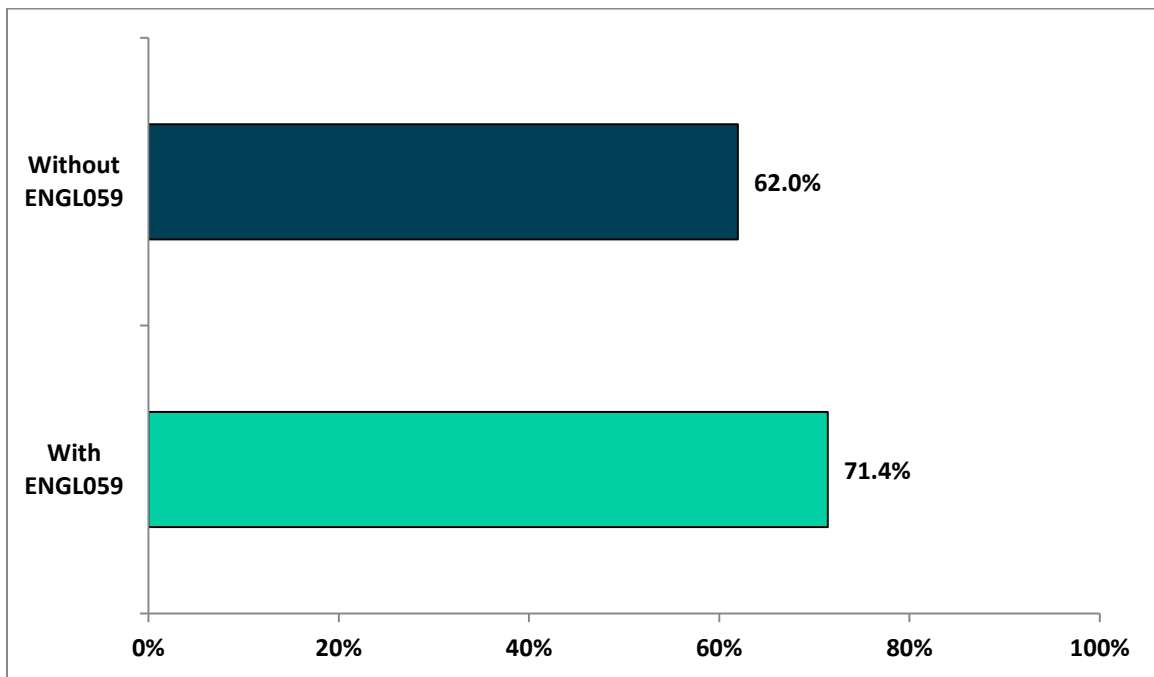
N=42-55 (ENGL010), N=897-1,241 (ENGL110)

COMPARISON OF ENGL009 WITH AND WITHOUT COMPANION ENGL059

A comparison of ENGL009 students revealed a significant difference in persistence beyond the developmental level, with a higher percentage of students continuing on to ENGL110 when ENGL059 was taken in addition to ENGL009 (71.4 percent) compared to when it was not (62.0 percent) (Figure 3.7). However, further analyses of students enrolled in ENGL110 revealed no significant differences between students who took both ENGL059 and ENGL009 compared to those that took only ENGL009 in either successful completion of the ENGL110 (Figure 3.8) or course grade (Figure 3.9).

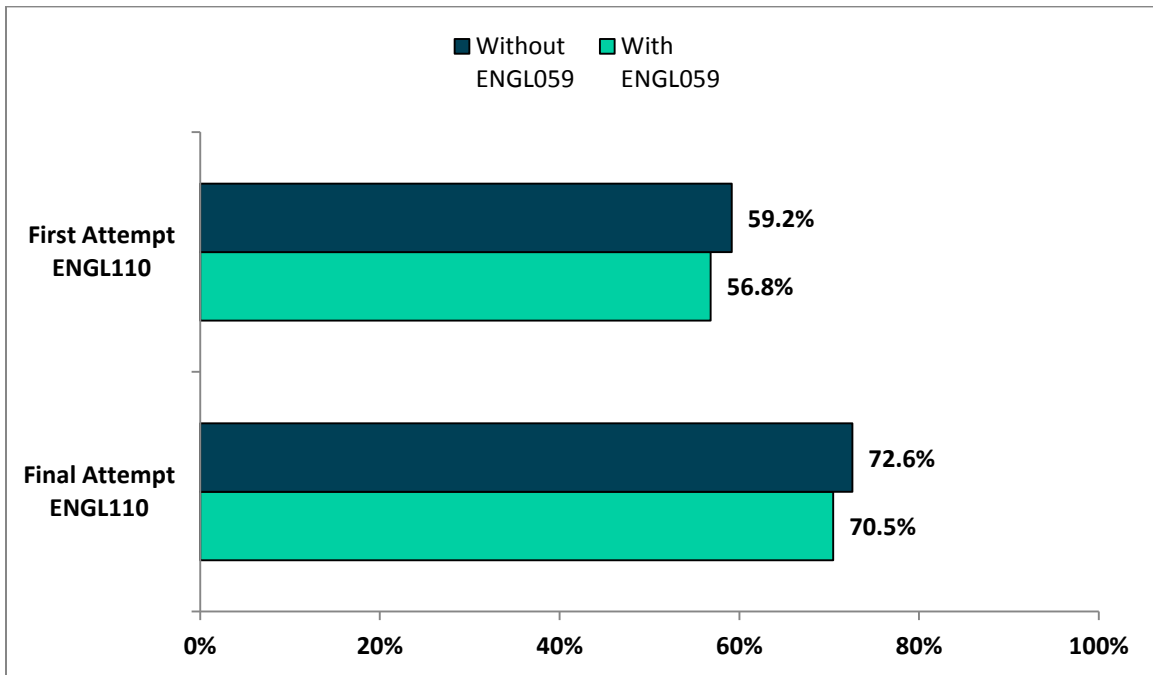
Hanover was unable to examine comparisons between ENGL009 students in eventual graduation due to the low number that had graduated by the end of the 2014-2015 academic year (N<10). However, a lack of graduates does not, in this instance, necessarily correspond to high dropout rates. Course data was only available for the past three years for ENGL009, allowing for the possibility that these students are still enrolled at IVC and working toward their degree.

Figure 3.7: Comparison of ENGL009 with/without ENGL059 Students Who Attempted ENGL110



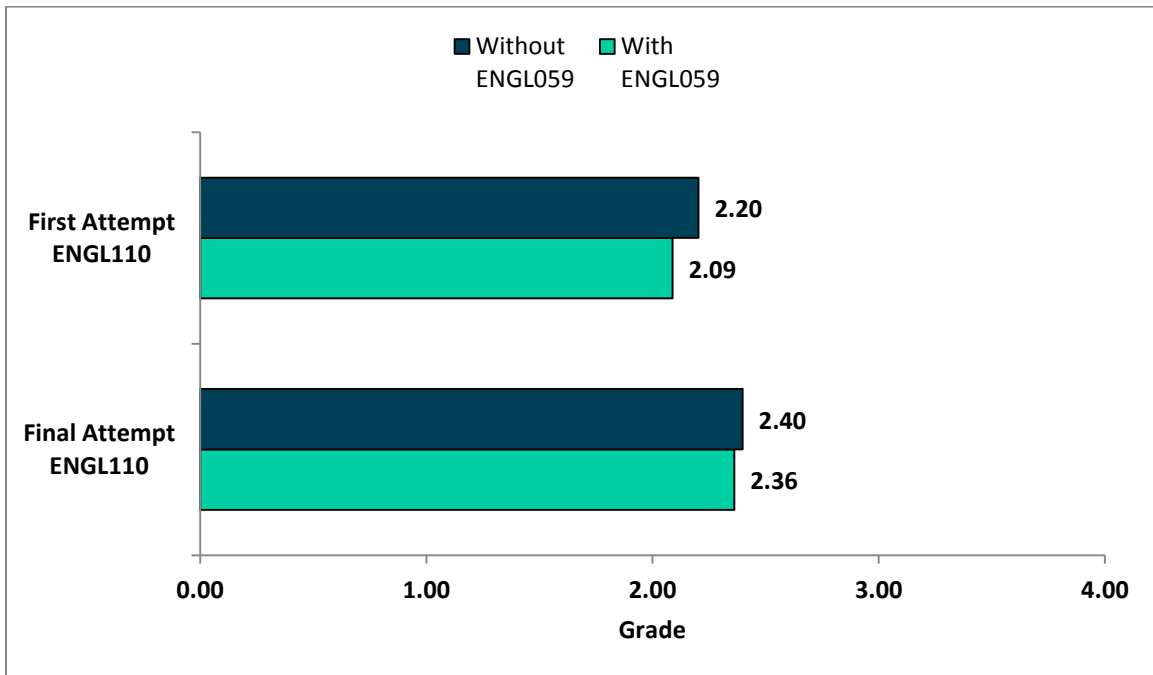
N=4,031, comparison significant at 5 percent significance level.

Figure 3.8: Comparison of ENGL009 with/without ENGL059 Students Who Successfully Completed ENGL110



N=1,518; comparisons not significant.

Figure 3.9: Comparison of ENGL009 with/without ENGL059 Students' ENGL110 Grade



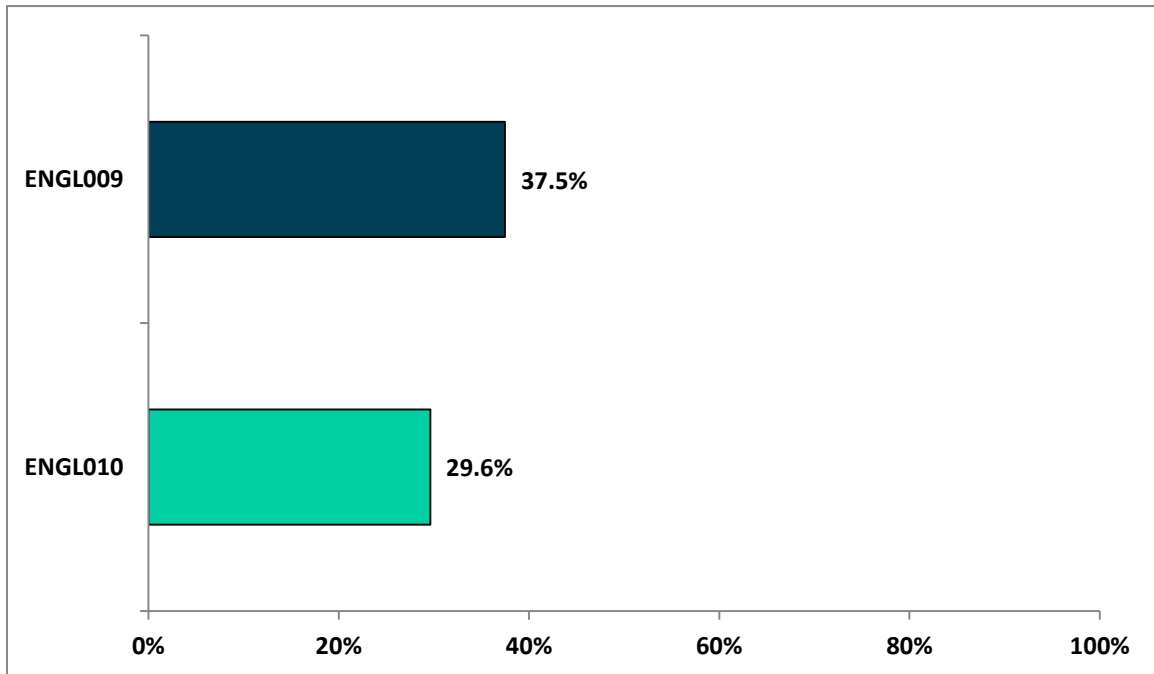
N=1,185-1,281; comparisons not significant.

COMPARISON OF ENGL009 AND ENGL010

As shown in Figure 3.10, a comparison of developmental courses revealed a significant difference in persistence beyond the developmental level, with a higher percentage of ENGL009 students continuing on to ENGL110 (37.5 percent) compared to ENGL010 students (29.6 percent). However, further analyses of students enrolled in ENGL110 revealed no significant differences between ENGL009 students compared to ENGL010 students in either successful completion of the ENGL110 (Figure 3.11) or course grades (Figure 3.12) among those who did enroll in ENGL110.

Hanover was unable to examine comparisons between ENGL009 and ENGL010 students in eventual graduation due to the low number that had graduated by the end of the 2014-2015 academic year (N<10). As mentioned earlier, a lack of graduates does not, in this instance, necessarily correspond to high dropout rates. Course data were only available for the past three years for ENGL009 and four years for ENGL010, allowing for the possibility that these students are still enrolled at IVC and working toward their degree.

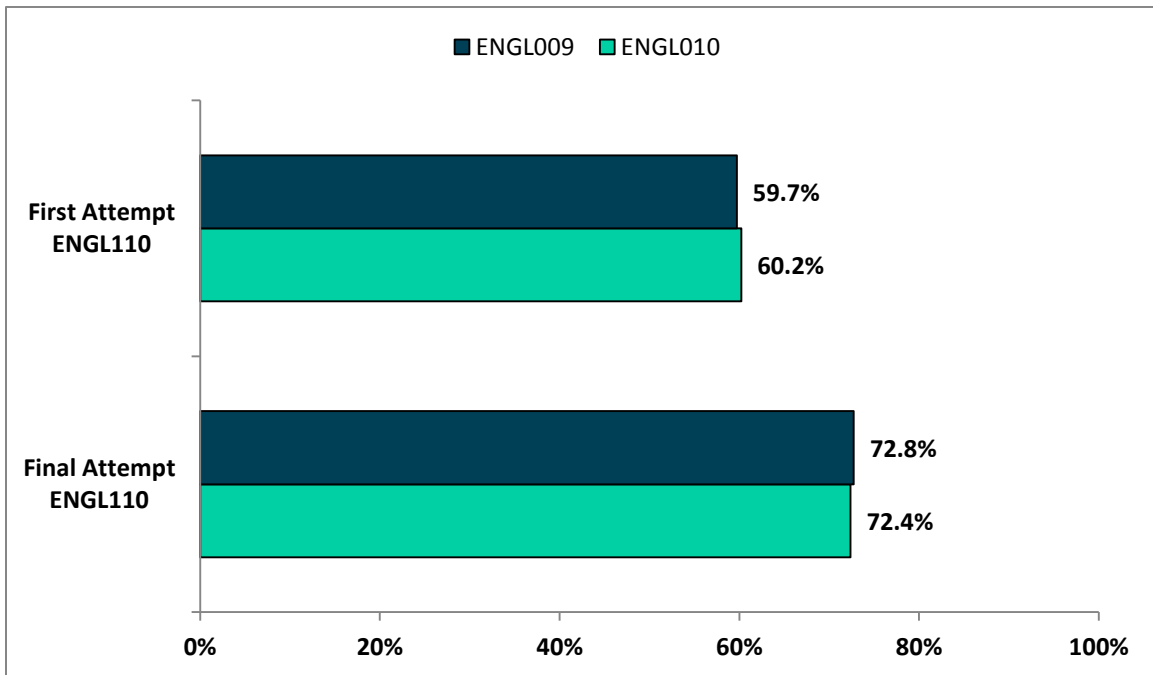
Figure 3.10: Comparison of ENGL009 and ENGL010: Students Who Attempted ENGL110⁸



N=4,439; comparison significant at 1 percent significance level.

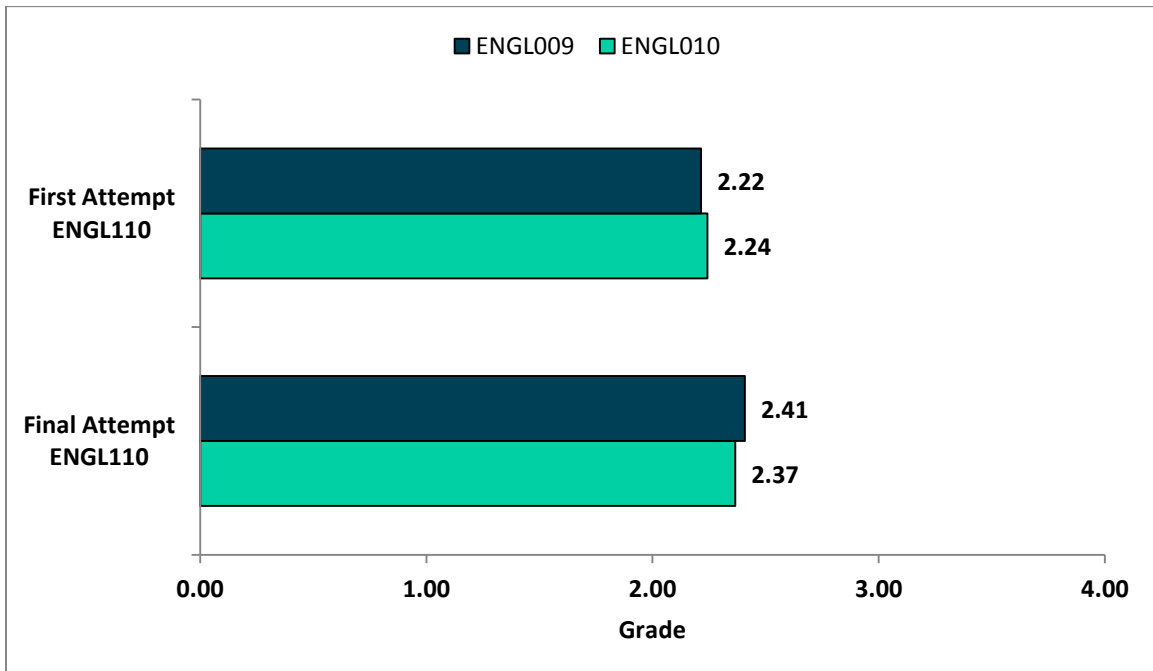
⁸ Note: the percentage of students attempting ENGL009 that is reported in Figure reflects students who only enrolled in ENGL009 (i.e., did not also enroll in ENGL010), and thus differs from that reported in Figure (which reflects all ENGL009 students, regardless of whether they also enrolled in ENGL010).

Figure 3.11: Comparison of ENGL009 AND ENGL010: Students Who Passed ENGL110



N=1,616; comparisons not significant.

Figure 3.12: Comparison of ENGL009 and ENGL010: Students' ENGL110 GPA



N=1,269-1,370; comparisons not significant.

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