

Evaluation of College Possible Postsecondary Outcomes, 2007-2012

Prepared by:

Caitlin Howley, Ph.D.
Kazuaki Uekawa, Ph.D.

August 2013

Prepared for:

College Possible
540 N Fairview Ave, Suite 304
Saint Paul, MN 55104



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Executive Summary

Highlights

College Possible students enroll in college at much higher rates than do students nationally.

College Possible students persist in college at high rates, with Fall to Spring persistence rates ranging from 93% to 86% and Spring to Fall persistence ranging from 89% to 79%.

44% of students from the 2007 College Possible high school cohort earned a Bachelor's degree within 5 years, compared to only 11% in a national study of low-income, first-generation college students.

Only 10% of students from the 2007 College Possible high school cohort pursuing an Associate's degree attained one within 3 years.

College Possible coaching exerts a significant and positive influence on college success. The more hours of coaching students receive, the more likely they are to enroll in, persist throughout, and complete college.

ACT scores, high school grade point averages (GPA), and the ratio of full- to part-time students at the colleges students attend are significantly associated with college success.

While certain student demographic characteristics (such as racial/ethnic minority status or first-generation college attendee status) can be negatively correlated with college success, College Possible coaching appears to help overcome those disparities.

Study Purpose

College Possible is a nonprofit organization providing college preparation, enrollment, persistence and completion assistance to low-income students in Minnesota, Nebraska, Oregon and Wisconsin. In February of 2013, College Possible contracted with ICF International (hereafter, ICF) to analyze key postsecondary outcomes and identify factors associated with student success in college.

Specifically, the purpose of this study is to analyze the college preparation, enrollment, persistence, and graduation rates of College Possible students and identify variables that are correlated with positive student outcomes. Findings from this evaluation will help College Possible staff and stakeholders to better understand program impact and to gain insight into the factors that enable or constrain student outcomes. In addition, study results can inform programmatic improvements and support communication with College Possible audiences.

To achieve the study goals, the following evaluation questions guided data analyses and interpretation:

- What are college outcomes for students in the College Possible program?
- Do student outcomes vary by the type of institution that College Possible students attend or by the coaching services they receive?
- What other factors appear to influence student success?

Study Methods

College Possible provided to ICF data collected and maintained by the organization for high school graduation cohorts 2007 through 2012. Data hailed from several sources, including Naviance (a college and career readiness student tracking platform used by College Possible), the College Possible student enrollment profile, and student postsecondary information from the National Student Clearinghouse.

In addition, with the assistance of College Possible staff, evaluators used National Center for Education Statistics institutional codes to obtain college data. These data included

information about the institutional characteristics of the postsecondary institutions in which College Possible students enrolled, such as status (public vs. private) and type (2-year vs. 4-year).

Analyses conducted by ICF include

- descriptive statistics (percentages, means, cross tabulations) for key outcomes, and
- multivariate logistic regression models to explore the individual and combined effect of various College Possible, college, and student factors on key outcomes.

Findings

What are college outcomes for students in the College Possible program?

- College Possible students enroll in college at much higher rates than do similar students nationally. The immediate college enrollment rate for high school graduates from low-income families is 52%, compared to 82% for students from high-income families.¹ College Possible students' immediate enrollment rates ranged from 82% to 88%.
- College Possible students tend to persist between Fall and Spring semesters at high rates (ranging from a high of 93% to low of 86%).
- The transition between the first Spring semester and the second Fall semester appears especially challenging for students, regardless of whether students are enrolled at 4-year or 2-year colleges. The lowest persistence rates for both groups appear at this transition point.
- Associate's degree completion rates are very low among College Possible cohorts. Ten percent (10%) of those pursuing such a degree in the 2007 cohort earned one within 3 years; 7% of students in the 2008 and 2009 cohorts did so.
- Bachelor's degree attainment rates are much higher, with 44% of students in the 2007 cohort earning their degree within 5 years. Total completion rates (that is, the percent of students earning either an Associate's degree within 3 years or a Bachelor's degree within 5) were 41% among the 2007 cohort.

Do student outcomes vary by the type of institution that College Possible students attend or by the coaching services they receive?

- The majority of College Possible students enrolled in 4-year rather than 2-year colleges, and in public rather than private institutions.

¹ Source: National Center for Education Statistics. (2012). Percentage of recent high school completers enrolled in 2-year and 4-year colleges, by income level: 1975 through 2011. Retrieved from http://nces.ed.gov/programs/digest/d12/tables/dt12_236.asp

- Semester-to-semester persistence rates for College Possible students were far higher for those attending 4-year institutions and for those enrolled in private colleges.
- College Possible students attending private institutions tend to persist between semesters at higher rates than students enrolled in public colleges. Among the 2007 cohort, for example, semester-to-semester persistence rates ranged from 100% to 85% for students enrolled in private schools, while rates for those attending public colleges ranged from 93% to 82%.
- Students attending private 4-year institutions were more likely to earn a Bachelor's degree than were those enrolled in public 4-year colleges.
- Students who received more hours of College Possible coaching during their junior and senior years of high schools were 1.65 times more likely to enroll in college than students who received fewer hours.
- Students who received more hours of College Possible coaching during their junior and senior years of high schools were 1.29 times more likely to persist between the first and second years of college and 1.45 times more likely to persist between the second and third years than their peers receiving fewer hours.
- Students who received more College Possible coaching during their third year of college were 1.58 times more likely to transition successfully from their third to their fourth years of college than were their counterparts who received less coaching.
- Students who received more hours of College Possible coaching over the course of their college career were 1.59 times more likely to attain a Bachelor's degree within 4 years than their peers who received fewer hours.
- Students who received more hours of College Possible coaching over the course of their college career were 3.85 times more likely to attain a Bachelor's degree within 5 years than their peers who received fewer hours.

What other factors appear to influence student success?

- Higher ACT scores are strongly and positively associated with enrollment, persistence through the third year of college, and completion of a Bachelor's degree within 4 years.
- High school grade point average (GPA) is the most consistent predictor of the likelihood that College Possible students will achieve positive postsecondary outcomes.
- Students attending schools with higher ratios of full-time to part-time students were approximately two times more likely to earn a Bachelor's degree within four or five years than their peers at schools with lower ratios of full-time students.

- While certain student demographic characteristics (such as racial/ethnic minority status or first-generation college attendee status) can be negatively associated with college success, College Possible coaching appears to help overcome such disparities.

Recommendations

- Findings from this study provide considerable support for program continuation.
- Program staff might consider strategies for maximizing the amount of coaching students receive, given the strong correlation between hours of College Possible coaching and positive postsecondary outcomes.
- College Possible staff should continue to stress the importance of academic achievement during high school. Both GPAs and ACT scores were correlated with positive college outcomes.
- College Possible staff may want to consider providing additional support to students at 2-year schools, public institutions, and colleges with low ratios of full- to part-time students.

I. Introduction

College Possible is a nonprofit organization providing coaching and mentoring services to low-income high school and college students in Minnesota, Nebraska, Oregon and Wisconsin. Such services are designed to help students prepare for and succeed in college. Since 2007, College Possible has assisted 3,812 students as they pursued college degrees, the majority of whom are racial/ethnic minorities (32% are Black, 32% of various Asian extractions, and 10% are Hispanic), do not speak English as a first language (42%), and are first-generation college attendees (72%).

In February of 2013, College Possible contracted with ICF International (hereafter, ICF) to analyze key student outcomes and identify factors associated with student success in college. Specifically, the purpose of this study is to analyze the college preparation, enrollment, persistence, and graduation rates of College Possible students and identify factors that are correlated with positive student outcomes. Findings from this evaluation will help College Possible staff and stakeholders better understand program impact, and gain insight into the variables that enable or constrain student postsecondary success. In addition, study results can inform programmatic improvements and be employed by College Possible staff to communicate program impacts to stakeholders through the Executive Summary or other documents.

The following sections of this report discuss the core evaluation questions guiding the study, the data and analytic methods employed, key findings, and conclusions and recommendations based on findings.

II. Methods

2.1 Evaluation Questions

To achieve study goals, the following evaluation questions guided data analysis and interpretation:

- What are college outcomes for students in the College Possible program?
- Do student outcomes vary by the type of institution that College Possible students attend or by the coaching services they receive?
- What other factors appear to influence student success?

The first evaluation question examines 1) whether College Possible students enrolled in postsecondary institutions and 2) how those students who enrolled in college performed (as measured by persistence and graduation). This evaluation question is important because the College Possible program theory of action suggests that social support and mentoring, information sharing, college-level academic skills development, and community services will impact the postsecondary performance of students favorably.

The second question asks whether student outcomes vary by college type or by the College Possible mentoring services participating students received. Colleges differ in a range of measurable ways that might influence student outcomes. These differences include sector (public vs. private), size of enrollment, and curriculum focus (e.g., liberal arts college vs. comprehensive university system vs. technical college). For the purposes of this study, the association between sector and 2- vs. 4-year programming and key student outcomes were investigated in particular.

The second evaluation question also explores the correlation between College Possible coaching and outcomes. Because coaching is the signature feature of College Possible, but because individual students may access coaching services in different ways—online or face-to-face, and in varying amounts of time—it is also important to explore how service type and dosage (that is, the amount of time students participate in coaching) are correlated with student outcomes.

The third evaluation question is intended to help College Possible consider other student or college factors or conditions that may influence students' success. Such variables might include high school grade point average (GPA), gender, race/ethnicity, and English as a Second Language (ESL) status. College-level characteristics might likewise influence College Possible students' outcomes. Such factors could include enrollment size and sector (public vs. private). Analysis of these factors can help College Possible staff balance program effort and resources to target students in need of additional support.

2.2 Methods to Address Evaluation Questions

2.2.1 Data Sources

Databases

College Possible provided data collected and maintained by the organization for high school graduation cohorts 2007 through 2012. Program staff compiled data from several sources, including Naviance (a college and career readiness student tracking platform used by College Possible), the College Possible student enrollment profile, and student postsecondary information from the National Student Clearinghouse (NSC). Such data included college success indicators, as well as a variety of student and program information.

In addition, with the assistance of College Possible staff, evaluators used National Center for Education Statistics (NCES) institutional codes to obtain high school and college data. These data included information about the institutional characteristics of the postsecondary institutions in which College Possible students enrolled, such as status (public vs. private) and type (2-year vs. 4-year).

Sample

The sample analyzed included students from six high school graduation cohorts who then received College Possible services, 2007 through 2012, when they attended college. Full analysis of outcomes was only possible for the 2007 and 2008 cohorts, for whom sufficient time had elapsed to enroll, persist, and complete college degrees.

As shown in Table 1, the number of students served by College Possible has increased with each successive cohort. Whereas 321 students comprised the 2007 high school graduation cohort served by the program, 760 were included in the 2011 cohort.

Across cohorts, approximately two-thirds of students served by College Possible were female, and roughly a third was Black (African-American or immigrant). Between 7% and 13% of College Possible students across cohorts were Hispanic, and approximately a third was Asian, primarily from the Hmong community of refugees from southeast Asia. It is notable that the percent of students identifying their racial or ethnic identity as “other” declined substantially among the 2009 and later cohorts. Between 29% (of the 2007 cohort) and 55% (of the 2009 cohort) indicated that they had received ESL services, and the majority of College Possible students in each cohort reported that they would be first-generation college graduates.

Table 1: College Possible Cohort Demographics

High School Graduation Cohort	N	% Female	% White	% Black	% Hispanic	% Asian	% Other	% Race missing	% ESL	% Non-ESL	% ESL Missing	% 1st gen.	% Not 1st gen.	% Gen. Info Missing
2007	321	62%	4%	30%	10%	30%	25%	1%	29%	48%	24%	55%	23%	22%
2008	566	63%	7%	23%	7%	22%	37%	4%	36%	56%	8%	83%	15%	2%
2009	619	57%	7%	35%	9%	38%	5%	6%	55%	35%	11%	74%	20%	7%
2010	719	64%	7%	36%	10%	35%	6%	5%	51%	33%	16%	75%	16%	8%
2011	760	64%	6%	34%	11%	32%	5%	12%	41%	35%	24%	71%	10%	18%
2012	827	62%	8%	32%	13%	33%	6%	7%	39%	43%	18%	72%	17%	12%

Measures

This section reviews the outcomes, predictors, and service variables (i.e., dosage and type of College Possible services students received) employed in this evaluation.

Outcome Variables: Key outcomes included college enrollment, persistence (semester-to-semester and year-to-year), and graduation (Bachelor’s degree completion with 4 and 5 years, and Associate’s degree completion with 2 and 3 years) rates. These outcomes are expressed in analyses as dichotomous values—that is, students were either enrolled in college or not, remained enrolled or not, and graduated or did not graduate.

Student-Level Predictors: To examine the extent to which student factors contributed to key outcomes, evaluators focused on the following variables.

- Gender
- Race/ethnicity/immigrant status
- ESL status
- High school GPA
- ACT score

College-level Predictors: Several college-level predictors were employed as well, downloaded from NCES. These included:

- Enrollment size
- Ratio of full-time to Part-time students
- Public versus private status
- 2-year versus 4-year status

Service Information: College Possible collects data on the type and amount or dosage of coaching that participating students received since 11th grade and during college. Such data include whether coaching services were campus-based (CB) (such as coaching provided on-site) or technology-based (TB) (such as via text messages and email, for instance), and the frequency of contact between coaches and students expressed in hours.

2.2.2 Data Analyses

Analysis of the data was conducted in several phases, as described in the following subsections.

Quality Assurance of Data

ICF has an established set of quality assurance procedures to apply against data before analysis and reporting. This involves the inspection of memory size, data structure, number of cases, identifier variables, duplicate records, and the relational structures of individual and group-level data. Evaluators began analyses by examining any out-of-range values and outliers, and requesting clarification from College Possible staff about any identified anomalies. Using simple correlational statistics, the team inspected basic correlation among variables to determine if the results met common sense expectation. No anomalies were identified, although evaluators did request clarification on the meaning of several codes, which College Possible staff elucidated.

After data were cleaned, the analysis team calculated descriptive statistics, such as frequencies, means, and standard deviations, to explore the basic structure of sample characteristics and outcome data.

Analytic Plan

To address the first evaluation question, evaluators calculated percentage values for students' college enrollment, persistence, and graduation rates. Results were then disaggregated by subgroups defined by gender, race/ethnicity/immigrant status, ESL status, and other student characteristics determined in concert with College Possible staff to be important.

The second evaluation question focuses on student outcomes by type of postsecondary institution and coaching services students received. College enrollment, persistence, and completion rates were compared by institution type (public vs. private, and 2-year vs. 4-year). Evaluators then compared the type of College Possible coaching (campus-based vs. technology-based coaching), as well as the average number of College Possible coaching hours received for those students enrolling, persisting, and completing college programs and those failing to do so.

To answer the third evaluation question, the evaluation team constructed logistic regression models to explore the individual and combined effect of various student, service, and college factors on key outcomes. Logistic regression models were employed because the outcome measures are dichotomous values (e.g., persisted vs. not persisted). Although these analyses are not causal, they do permit College Possible staff to consider how services and other predictors may jointly explain observed outcomes.

III. Findings

Key findings are presented in this section. Outcomes by cohort are first reported, followed by analyses of key outcomes for specific student subgroups. Finally, the individual and combined influence of student, coaching, high school, and college factors on the attainment of key outcomes is examined via logistic regression analyses.

3.1 Outcomes by Cohort

3.1.1 Enrollment

As shown in Table 2, the percent of College Possible students in each cohort enrolling in a postsecondary institution within the first academic year following high school graduation remained relatively stable over time.

The enrollment rates of College Possible students well exceed those of students nationally. The national rates for first semester enrollments between 2007 and 2010 ranged from 67% to 70%; College Possible students' immediate enrollment rates ranged from 82% to 89%. In addition, College Possible enrollment rates are considerably higher than rates for low-income students nationally, and somewhat higher than those for high-income high school graduates as well.

Table 2: College Possible and National Enrollment Rates

College Possible High School Graduation Cohort	Postsecondary Enrollment Rate: College Possible	Postsecondary Enrollment Rate: National	Postsecondary Enrollment Rate: National Low-income	Postsecondary Enrollment Rate: National High-income
2007	89%	69%	56%	81%
2008	87%	70%	53%	83%
2009	89%	68%	53%	83%
2010	88%	68%	52%	82%
2011	89%			
2012	82%			

Note: The number of students for cohorts 2007 to 2012 is, in order, 319, 556, 606, 700, 741, and 805. The number of cases varies across analysis, depending on the pattern of missing values found in the variables used. National data source: National Center for Education Statistics. (2012). *Percentage of Recent High School Completers Enrolled in 2-year and 4-year Colleges, By Income Level: 1975 through 2011*. Retrieved from http://nces.ed.gov/programs/digest/d12/tables/dt12_236.asp

On average across cohorts, 82% of College Possible students enrolled in 4-year institutions as opposed to 2-year institutions (see Table 3). Rates of enrollment in 4-year colleges were higher in 2007 and 2008, but they appear to have stabilized at approximately 80% among the most recent four cohorts.

Table 3: Total Enrollment in 2-year vs. 4-year Institutions

College Possible High School Graduation Cohort	N of Students Enrolled	% Students Enrolled in 4- year Institutions (vs. 2 year)
2007	286	91%
2008	487	85%
2009	544	78%
2010	633	80%
2011	664	79%
2012	679	81%

Note: The number of students enrolled corresponds to the number of enrolled students who are not missing 2-year and 4-year institution information.

On average across cohorts, 53% of College Possible students enrolling in college enrolled in public 4-year institutions as opposed to private 4-year institutions (see Table 4). The rate initially fluctuated around 50% for early cohorts, but reached 65% in the 2012 cohort.

Table 4: Total Enrollment in Public vs. Private 4-year Institutions

College Possible High School Graduation Cohort	N. of Students Enrolled	% Students Enrolled in Public 4-Year Institutions (vs. Private 4-Year)
2007	257	54%
2008	400	50%
2009	406	45%
2010	489	48%
2011	508	55%
2012	679	65%

Note: The number of students enrolled corresponds to the number of enrolled students who are not missing public and private 4-Year institution information.

3.1.2 Persistence

Across all five College Possible cohorts analyzed, Fall to Spring semester persistence rates ranged from 86% to 93%, as presented in Table 5. Spring to Fall persistence rates are somewhat lower, ranging from 79% to 89%.

Table 5: Semester-to-Semester Persistence Rates²

Reenrollment Period	2007 Cohort	2008 Cohort	2009 Cohort	2010 Cohort	2011 Cohort
Fall 2007 - Spring 2008	92%				
Spring 2008 - Fall 2008	83%				
Fall 2008 - Spring 2009	93%	93%			
Spring 2009 - Fall 2009	88%	85%			
Fall 2009 - Spring 2010	91%	92%	93%		
Spring 2010 - Fall 2010	84%	86%	88%		
Fall 2010 - Spring 2011	93%	89%	89%	93%	
Spring 2011 - Fall 2011	89%	87%	82%	86%	
Fall 2011 - Spring 2012	86%	93%	89%	89%	91%
Spring 2012 - Fall 2012		79%	83%	83%	84%

Note: Number of students: Cohort 2007 (from top to bottom rows), 279, 258, 228, 232, 216, 215, 195, 114, 107; Cohort 2008, 460, 452, 414, 404, 378, 356, 334, 221; Cohort 2009, 508, 496, 455, 426, 390, 367; Cohort 2010, 581, 569, 517, 471; Cohort 2011, 611, 584.

For cohort 2007, persistence rates were substantially higher among students attending 4-year institutions than for those attending 2-year institutions. A similar pattern is evident among all the cohorts (see Appendix A, Table A1 for additional data).

Table 6: Semester-to-Semester Persistence in 2-year vs. 4-year Institutions: Cohort 2007

Reenrollment Period	4-Year	2-Year
Fall 2007 - Spring 2008	92%	88%
Spring 2008 - Fall 2008	85%	63%
Fall 2008 - Spring 2009	96%	77%
Spring 2009 - Fall 2009	90%	76%
Fall 2009 - Spring 2010	95%	78%
Spring 2010 - Fall 2010	89%	65%
Fall 2010 - Spring 2011	97%	75%
Spring 2011 - Fall 2011	93%	85%
Fall 2011 - Spring 2012	93%	78%

Note: See data on numbers of students in Appendix A, Table A1.

Among the 2007 College Possible cohort, with the exception of the first to the second semester transition in 2007, persistence rates were higher for those attending private institutions than for those enrolled in public institutions, as presented in Table 7. The average difference among cohorts was 4%. A similar pattern was observed among the 2008 to 2012 cohorts (see Appendix A, table A1 for further information).

² A persistence rate was calculated for each of the transitions between a pair of adjacent semesters (e.g., Fall 2007-Spring 2008, or Spring 2008-Fall 2009). The sample for calculation included students who were enrolled in the first semester (of the pair of semesters) and who *needed* to continue to the next semester to pursue a credential.

Table 7: Semester-to-Semester Persistence in Public vs. Private Institutions: Cohort 2007

Reenrollment Period	Year-to-Year Transition	Public	Private
Fall 2007 - Spring 2008		93%	90%
Spring 2008 - Fall 2008	First year to second year	82%	85%
Fall 2008 - Spring 2009		92%	95%
Spring 2009 - Fall 2009	Second year to third year	86%	91%
Fall 2009 - Spring 2010		90%	94%
Spring 2010 - Fall 2010	Third year to fourth year	82%	88%
Fall 2010 - Spring 2011		89%	100%
Spring 2011 - Fall 2011	Fourth year to fifth year	92%	88%
Fall 2011 - Spring 2012		86%	95%

Note: See data on numbers of students in Appendix A, Table A1. Completion

As shown in Table 8, the percent of College Possible students earning an Associate’s degree within three years was relatively low. The Associate’s degree attainment rate ranged from 10% among the 2007 cohort to 7% among the 2008 and 2009 cohorts.

Table 8: 3-year Associate’s Degree Attainment Rates

College Possible High School Graduation Cohort	Total Number of AA Candidates	N of Students who Obtained AA	%
2007	96	10	10%
2008	200	13	7%
2009	243	16	7%

Note: For the purpose of concision, AA will be employed in tables to indicate Associate’s degree.

Bachelor’s degree attainment rates within 4 years after first enrollment was similar for cohorts 2007 and 2008 at 30% and 28%, respectively (see Table 9). Among the 2007 cohort, 44% of College Possible students completed Bachelor’s degrees within 5 years. By comparison, only 11% of low-income, first-generation college students in a national study earned a Bachelor’s degree within 6 years.³

Table 9: 4- and 5-year Bachelor’s Degree Attainment Rates

College Possible High School Graduation Cohort	Outcome	Total Number of BA Candidates	N of Students who Obtained BA	%
2007	BA within 4 years	265	79	30%
2008	BA within 4 years	424	119	28%
2007	BA within 5 years	265	117	44%

Note: For the purpose of concision, BA will be employed in tables to indicate Bachelor’s degree.

³ Source: The Pell Institute. (2011). *6-Year Degree Attainment Rates for Students Enrolled in a Post-Secondary Institution*. Retrieved from http://www.pellinstitute.org/downloads/fact_sheets-6-Year_DAR_for_Students_Post-Secondary_Institution_121411.pdf

As presented in Table 10, 41% of all College Possible students in the 2007 cohort who enrolled in college earned an Associate’s degree within 3 years or a Bachelor’s degree within 5 years. The percent of students in the 2007 cohort completing an Associate’s program within 3 years or a Bachelor’s within 4 was lower at 29%. Similarly, 25% of students in the 2008 cohort who enrolled in college earned an Associate’s degree within 3 years or a Bachelor’s degree within 4.

Table 10: Total Degree Completion Rates

College Possible High School Graduation Cohort	Outcome	Total Number of BA or AA Candidates	N of Students who Obtained BA or AA	%
2007	Complete AA within 3 years or BA within 4 years	306	89	29%
2007	Complete AA within 3 years or BA within 5 years	306	126	41%
2008	Complete AA within 3 years or BA within 4 years	528	131	25%

The following analysis of differences in graduation outcomes between public and private institutions does not include 2-year institutions as the private sector was composed almost entirely of 4-year colleges (see Table 11). Bachelor’s degree attainment (within 4 years) rates were higher among students from the 2007 and 2008 cohorts who enrolled in private institutions than among their counterparts who attended public institutions. The completion rates for students attending private and public 4-year institutions were, respectively, 39% and 23%. Among the 2008 cohort, 4-year Bachelor’s degree completion rates were 44% for students attending private colleges, whereas the completion rate was only 17% for students enrolled at public institutions. Likewise, students attending private institutions were more likely to earn an Associate’s degree within 3 years or a Bachelor’s degree within 5 than were their peers attending public colleges. As shown in Table 11, more than half (54%) of students from the 2007 cohort who attended private colleges attained an Associate’s degree within 3 years or a Bachelor’s degree within 5, compared to 37% of those attending public schools.

Table 11: Completion of Bachelor’s Degrees in Public vs. Private Institutions

Postsecondary Institution Type	Total Number of BA or AA Candidates	N of Students who Obtained BA or AA	%
Cohort 2007: BA within 4 years			
Private 4 year	111	43	39%
Public 4 year	154	36	23%
Cohort 2007: BA within 5 years			
Private 4 year	111	60	54%
Public 4 year	154	57	37%
Cohort 2008: BA within 4 years			
Private 4 year	174	76	44%
Public 4 year	250	43	17%

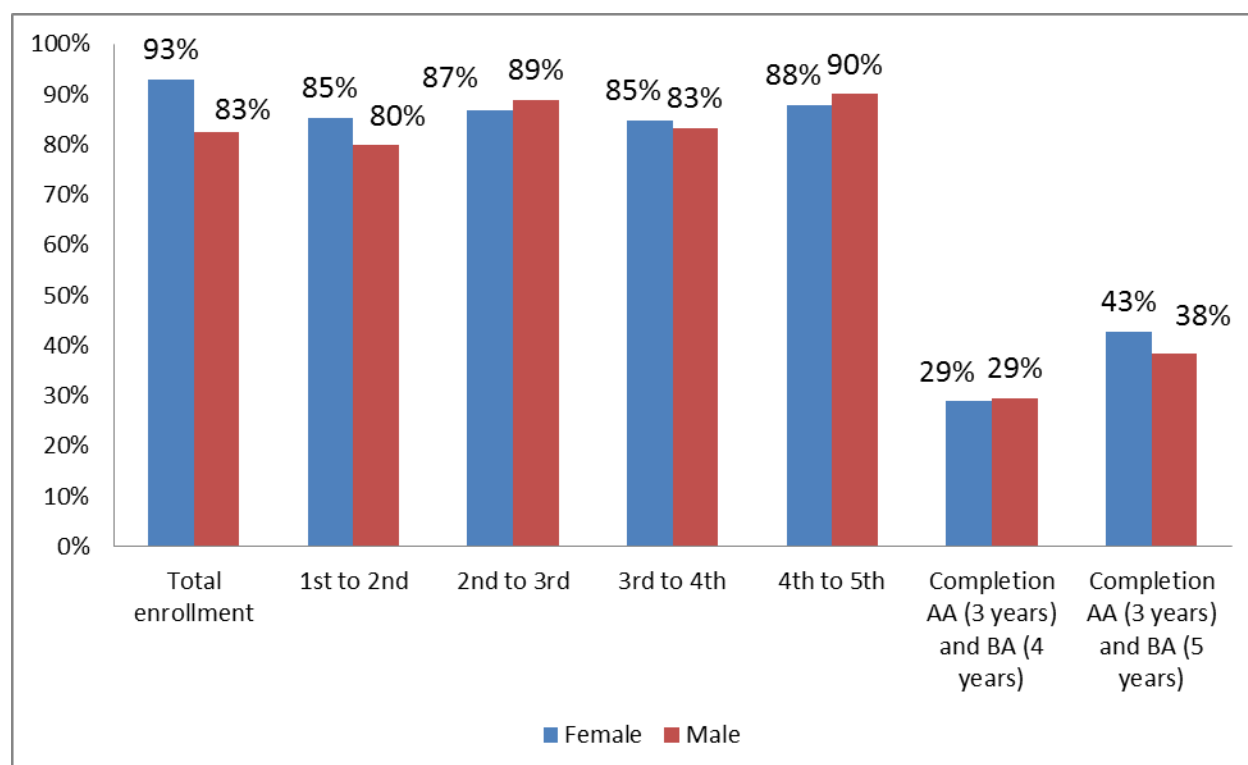
3.2 Outcomes by Student Subgroups

3.2.1 Outcomes by Gender

As shown in Chart 1, among the 2007 College Possible cohort, female students tended to demonstrate stronger outcomes than their male peers. Female students had higher enrollment rates, some higher year-to-year persistence rates (1st to 2nd, 2nd to 3rd), and higher completion rates (as measured by 3-year Associate's degree attainment or 5-Year Bachelor's degree attainment). Male students had slightly higher persistence rates for 2nd to 3rd year and 4th to 5th year transitions. Three-year Associate's and 4-year Bachelor's attainment rates were the same for male and female students.

In other cohorts, female students generally exhibited higher rates of enrollment, year-to-year persistence, and completion (please refer to Appendix A, Table A2).

Chart 1: Cohort 2007: Gender and Rates of College Enrollment, Persistence, and Completion



3.2.2 Outcomes by Race/Ethnicity

Analyses of postsecondary outcomes across racial/ethnic groups returned revealed no clear patterns. For example, among student subgroups in the 2007 cohort, year-to-year persistence rates fluctuate widely. The enrollment rate among Black immigrants, for another example, was 86% in 2007 and was lower than rates across most other racial/ethnic groups. However, the enrollment rate of Black immigrant students improved to 97% in 2010 and before declining to 76% in 2012.

Because eight racial/ethnic subgroups were examined, divided by cohort, the number of cases in each group analyzed became relatively small, and the resulting percentages were not stable. In addition, as no patterns of sufficient consistency to inform program recommendations were identified, results are presented in Appendix A, Table A3.

3.2.3 Outcomes by English as a Second Language (ESL) Status

College Possible students in the 2007 cohort who did not report their ESL status had substantially higher rates of enrollment, persistence, and completion rates than students who either affirmatively indicated that they did or did not receive ESL services (see Table 12). Non-ESL students generally persisted and completed at a higher rates than ESL students, although both ESL and non-ESL students enrolled in college at similar rates. Non-ESL students tended to persist from year to year at higher rates than ESL students; for instance, 73% of ESL students transitioned successfully from the first to second year of college, compared to 82% of non-ESL students. Nearly a third of non-ESL students earned an Associate’s degree within 3 years or a Bachelor’s within 5, whereas only 24% of ESL students did so.

However, the comparative advantage of students for whom ESL information is missing does not appear on other cohorts. In addition, differences in outcomes between students who affirmatively identified themselves as ESL or non-ESL were also far less pronounced in later cohorts. In fact, ESL students outperformed non-ESL students on several measures. For example, 27% of ESL students in the 2008 cohort completed an Associate’s degree within 3 years or a Bachelor’s degree within 4 years, compared to 24% of non-ESL students. Additional data are presented in Appendix A, Table A4.

Table 12: ESL Status and Rates of College Enrollment, Persistence, and Completion: Cohort 2007

ESL Status	Total enrollment	1st to 2nd	2nd to 3rd	3rd to 4th	4th to 5th	Completion AA (3 years) and BA (4 years)	Completion AA (3 years) and BA (5 years)
ESL info missing	97%	95%	97%	96%	90%	74%	79%
ESL student	87%	73%	79%	74%	88%	14%	24%
Non ESL student	86%	82%	86%	82%	89%	15%	31%

Note: See Appendix A, Table A4 for data on numbers of students.

3.2.4 Outcomes by ACT Score

Among students in the 2007 cohort, those with an ACT score of equal to or higher than 18 points had substantially higher rates of college enrollment and completion than students with lower scores (see Table 13).

**Table 13: ACT Scores and Rates of College Enrollment, Persistence, and Completion:
Cohort 2007**

Cohort	ACT Score Categories	Total Enrollment	1st to 2nd	2nd to 3rd	3rd to 4th	4th to 5th	Completion AA (3 years) or BA (4 years)	Completion AA (3 years) or BA (5 years)
2007	(a)1-13	70%	54%	78%	82%	80%	11%	11%
2007	(b)14	82%	83%	64%	88%	50%	19%	19%
2007	(c)15	91%	87%	88%	80%	100%	29%	44%
2007	(d)16	85%	79%	87%	75%	85%	23%	28%
2007	(e)17	85%	88%	88%	67%	100%	13%	31%
2007	(f)18	96%	83%	91%	90%	93%	34%	50%
2007	(g)19	96%	88%	100%	95%	78%	40%	60%
2007	(h)20-36	95%	86%	89%	89%	94%	38%	51%

Among students in the 2008 cohort, a similar pattern was apparent. Students with ACT scores of 18 or above tended to enroll, persist, and complete their programs of study at much higher rates than their peers earning lower ACT scores. See Table 14 for details.

**Table 14: ACT Scores and Rates of College Enrollment, Persistence, and Completion:
Cohort 2008**

ACT Score Categories	Total Enrollment	1st to 2nd	2nd to 3rd	3rd to 4th	4th to 5th	Completion AA (3 years) or BA (4 years)
(a)1-13	76%	77%	64%	91%	67%	4%
(b)14	82%	93%	74%	74%	62%	8%
(c)15	81%	81%	71%	88%	85%	9%
(d)16	84%	84%	87%	87%	89%	17%
(e)17	84%	82%	82%	85%	76%	14%
(f)18	90%	88%	93%	83%	81%	28%
(g)19	94%	87%	90%	89%	81%	37%
(h)20-36	95%	84%	96%	91%	77%	42%

3.2.5 Outcomes by GPA

As shown in Table 15, students in the 2007 cohort who earned GPAs higher than 3.0 had substantially higher college enrollment, persistence, and completion rates. For instance, whereas only 10% of students who earned a high school GPA of less than 2.0 completed an Associate's degree within 3 years or a Bachelor's within 5, 44% of students attaining a 3.0 to 3.5 GPA did so and 60% of students earning a 3.5 and higher did so.

Table 15: GPA and Rates of College Enrollment, Persistence, and Completion: Cohort 2007

GPA	Total Enrollment	1st to 2nd	2nd to 3 rd	3rd to 4th	4th to 5th	Completion AA (3 years) or BA (4 years)	Completion AA (3 years) or BA (5 years)
(a)Below 2.0	50%	40%	83%	60%	67%	0%	10%
(b)2.0-2.5	76%	62%	83%	58%	100%	16%	32%
(c)2.5-3.0	88%	82%	85%	82%	91%	15%	27%
(d)3.0-3.5	94%	87%	86%	84%	93%	34%	44%
(e)3.5 & above	96%	91%	91%	92%	84%	43%	60%

Similarly, students in the 2008 cohort who earned GPAs 3.0 and above had markedly higher enrollment, persistence, and completion rates (see Table 16). For example, none of the students in the 2008 cohort earning a GPA of 2.0 or lower completed an Associate’s degree within 3 years or a Bachelor’s within 4, while 26% of those earning a 3.0 to 3.5 GPA and 45% of those earning a 3.5 and above did so.

Table 16: GPA and Rates of College Enrollment, Persistence, and Completion: Cohort 2008

GPA	Total Enrollment	1st to 2nd	2nd to 3rd	3rd to 4th	4th to 5th	Completion AA (3 years) or BA (4 years)
(a)Below 2.0	89%	71%	80%	75%	100%	0%
(b)2.0-2.5	82%	75%	64%	71%	56%	10%
(c)2.5-3.0	83%	85%	82%	85%	76%	17%
(d)3.0-3.5	89%	88%	88%	88%	85%	26%
(e)3.5 & above	95%	88%	99%	94%	80%	45%

3.3 Outcomes by College Possible Coaching Amount and Type

3.3.1 Total Enrollment Rate by Junior and Senior Year Coaching Time: Cohorts 2008 to 2012

Table 17 compares the average coaching time students from each cohort received during high school for those who enrolled in college and those who did not. Students who successfully enrolled in college received substantially larger average amounts of coaching time in high school than those who did not enroll. For the 2009 through 2012 cohorts, both senior year and junior year coaching data were available; mean differences between the two groups ranged from 13.3 hours to 21.3 hours. Only senior year coaching information was available for students in the 2008 cohort. Among students in this cohort, the mean difference in coaching hours between those who enrolled and those who did not enroll in college was 8.3 hours.

Table 17: Comparison of Average College Possible Coaching Hours Received by Students Enrolling and Not Enrolling in College: Cohort 2008-2012

Average Coaching Time (in Hours): High School Junior And Senior Year Combined*			
College Possible High School Graduation Cohort	Students Who Did Not Enroll in College	Students Who Enrolled in College	Difference in Average Coaching Time
2008	19.2 (n=66)	27.5 (n=478)	8.3
2009	41.5 (n=51)	54.7 (n=413)	13.3
2010	49.9 (n=70)	66.4 (n=541)	16.4
2011	54.7 (n=83)	75.9 (n=649)	21.3
2012	67.2 (n=141)	81.7 (n=655)	14.6

Note: Coaching time data were only available from the high school senior year for students in the 2008 cohort. Data from both the junior and senior years was available for all other cohorts.

3.3.2 Completion Rates by Senior Year Coaching Time: Cohort 2008

As shown in Table 18, students in the 2008 cohort who completed postsecondary degrees received somewhat more hours of coaching during high school than their peers who did not complete postsecondary degrees. For instance, students who completed an Associate’s degree within 3 years or a Bachelor’s within 4 received an average of 3.8 hours more high school coaching than students who did not earn degrees within that time period.

Table 18: Completion Rates by High School Senior Year College Possible Coaching Time: Cohort 2008

Average Coaching Time (in hours) from High School Senior Year			
Outcome	Students Who Did Not Complete Postsecondary Programs	Students Who Completed Postsecondary Programs	Difference in Average Coaching Time
Completion (AA within 3 years and BA within 4 years)	26.1 (n=388)	29.9 (n=129)	3.8
BA within 4 years	27.7 (n=301)	30.8 (n=118)	3.1

Note: Coaching time data were only available from the high school senior year for students in the 2008 cohort.

3.3.3 Year-to-Year Persistence Rates by Coaching Program Type (Campus-Based vs. Technology-Based)

In general, students who received at least one semester of Campus-based (CB) program in the given school year exhibited a higher persistence rate to the next school year. Table 19 presents

the year-to-year transition points for cohorts for which coaching data were available. For example, students from the 2008 cohort who were exposed to the CB program had very high persistence rate (98%) between the second and third years of college. This was 14 percentage points higher than those who participated in the TB program. With two exceptions, students participating in the CB program tended to persist at higher rates than their peers in the TB program.

Table 19: Year-to-Year College Persistence Rates by College Possible Coaching Program Type

Cohort	Semester-to-Semester	Transition	TB Program	CB Program at least 1 semester	Difference in %
2007	Spring 2010- Fall 2010	3rd to 4th year	84% (n=177)	84% (n=38)	0%
2007	Spring 2011 - Fall 2011	4th to 5th year	86% (n=96)	100% (n=18)	14%
2008	Spring 2010 - Fall 2010	2nd to 3rd year	84% (n=342)	98% (n=62)	14%
2008	Spring 2011 – Fall 2011	3rd to 4th year	86% (n=304)	94% (n=52)	8%
2008	Spring 2012 - Fall 2012	4th to 5th year	80% (n=191)	73% (n=30)	-6%
2009	Spring 2010 - Fall 2010	1st to 2nd year	87% (n=383)	93% (n=113)	6%
2009	Spring 2011 - Fall 2011	2nd to 3rd year	81% (n=330)	86% (n=96)	6%
2009	Spring 2012 - Fall 2012	3rd to 4th year	81% (n=281)	88% (n=86)	7%
2010	Spring 2011 - Fall 2011	1st to 2nd year	85% (n=422)	90% (n=147)	5%
2010	Spring 2012 - Fall 2012	2nd to 3rd year	81% (n=347)	89% (n=124)	8%
2011	Spring 2012 - Fall 2012	1st to 2nd year	82% (n=434)	89% (n=150)	8%

3.3.4 Year-to-Year Persistence Rates by Average Coaching Time

Overall, College Possible students who persisted from one college year to the next tended to have received more coaching during the preceding year than did their counterparts who did not persist.

Table 20 presents year-to-year transitions among cohorts for which coaching data were available. For example, students from the 2008 cohort who successfully persisted from the second to the third year in college received an average of 6.5 hours of coaching during the preceding school year; those who did not persist from the second to the third year received an average of 3.2 hours less of coaching at 3.3 hours. Across all transition points reported, students who persisted tended to have received an average of one additional coaching hour compared to their counterparts who did not persist year-to-year. The only exception to this pattern is for the fourth to fifth year transition among the 2008 cohort; students in this group

who did not persist received very slightly more coaching time than their counterparts who did persist.

Table 20: Year-to-Year College Persistence Rates by Average College Possible Coaching Time

Cohort	Semester-to-Semester	Transition	Average Coaching Time (in Hours)		Difference in Average Coaching Time
			Students Who Did Not Persist	Students Who Persisted	
2007	Spring 2010 - Fall 2010	3rd to 4th year	6.2 (n=34)	6.4 (n=181)	0.2
2007	Spring 2011 - Fall 2011	4th to 5th year	4.3 (n=13)	8.0 (n=101)	3.7
2008	Spring 2010 - Fall 2010	2nd to 3rd year	3.3 (n=55)	6.5 (n=349)	3.2
2008	Spring 2011 - Fall 2011	3rd to 4th year	6.0 (n=46)	8.3 (n=310)	2.2
2008	Spring 2012 - Fall 2012	4th to 5th year	3.8 (n=47)	3.7 (n=174)	-0.2
2009	Spring 2010 - Fall 2010	1st to 2nd year	5.9 (n=58)	8.9 (n=438)	2.9
2009	Spring 2011 - Fall 2011	2nd to 3rd year	7.9 (n=77)	9.1 (n=349)	1.2
2009	Spring 2012 - Fall 2012	3rd to 4th year	2.9 (n=63)	4.5 (n=304)	1.6
2010	Spring 2011 - Fall 2011	1st to 2nd year	9.1 (n=80)	9.5 (n=489)	0.4
2010	Spring 2012 - Fall 2012	2nd to 3rd year	4.0 (n=81)	5.2 (n=390)	1.2
2011	Spring 2012 - Fall 2012	1st to 2nd year	4.0 (n=96)	4.9 (n=488)	0.9

Note: Coaching hour information used for this analysis was based on the sum of Fall and Spring Semesters.

3.3.5 Degree Completion Rates by Coaching Program Type

Students who were exposed to the CB program were more likely to complete their degrees than were students in the TB program. Table 21 summarizes several graduation outcomes for cohorts 2007 and 2008. Most notably, whereas 63% of students who participated in the CB program for at least one semester earned an Associate's degree within 3 years or a Bachelor's within 5, only 37% of those in the TB program did so.

Table 21: Postsecondary Degree Completion Rates by College Possible Coaching Program Type

Cohort	Outcome	TB program	CB program at least 1 semester	Difference in %
2007	BA in 4 years	27% (n=221)	43% (n=44)	16%
2007	BA in 5 years	39% (n=214)	65% (n=51)	25%
2007	AA in 3 years or BA in 4 years	27% (n=260)	43% (n=46)	17%
2007	AA in 3 years or BA in 5 years	37% (n=252)	63% (n=54)	26%
2008	BA in 4 years	27% (n=345)	33% (n=79)	6%
2008	AA in 3 years or BA in 4 years	23% (n=444)	32% (n=84)	9%

3.3.6 Degree Completion Rates by Coaching Time

Students who completed their Bachelor’s or Associate’s degree program tended on average to have received more College Possible coaching than students who did not earn their degrees (see Table 22). For example, students in the 2007 cohort who earned a Bachelor’s degree within 4 years had received an average of 3.8 hours of College Possible coaching, whereas their peers who did not earn a Bachelor’s within the same timeframe received an average of 2.7 hours.

Table 22: Degree Completion Rates by College Possible Coaching Time

Cohort	Outcome	Average Coaching Time (in Hours)		Difference in Average Coaching Time
		Students Who Did Not Complete Postsecondary Programs	Students Who Completed Postsecondary Programs	
2007	BA in 4 years	2.7 (n=186)	3.8 (n=79)	1.1
2007	BA in 5 years	1.8 (n=148)	3.8 (n=117)	2.0
2007	AA in 3 years or BA in 4 years	2.5 (n=217)	3.5 (n=89)	1.1
2007	AA in 3 years or BA in 5 years	1.7 (n=180)	3.6 (n=126)	1.9
2008	BA in 4 years	2.5 (n=305)	3.3 (n=119)	0.9
2008	AA in 3 years or BA in 4 years	2.2 (n=397)	3.1 (n=131)	0.9

3.4 Multivariate Regression Results

The analyses reported thus far suggest that College Possible students achieving college success received more coaching than students experiencing less success. In this section of the report, the association between College Possible coaching and positive postsecondary outcomes will be further evaluated via multivariate regression models.

A key question these analyses will address is whether the correlation between amount of College Possible coaching and positive outcomes remain—even when other predictors of student success are controlled for statistically. It is possible that the statistical correlation is influenced by self-selection; for instance, it may be that female students elect to access significantly more College Possible coaching than their male peers, in which case the apparent association between coaching and college success would not appear in a multivariate regression analysis but instead a significant correlation between gender and college success would be found. On the other hand, should a correlation between coaching and postsecondary success persist even when other factors (such as gender, ESL status, or racial/ethnic minority status) are taken into account statistically, this would serve as additional evidence that College Possible coaching plays a meaningful role in facilitating positive college outcomes.

It is important to stress that because the research design employed herein is not experimental, the resultant analysis will not establish a causal link between coaching and outcomes. If the relationship between amount of coaching and college success withstands the statistical controls employed in the following multivariate analyses, however, it will be established that 1) coaching is correlated with positive postsecondary outcomes and 2) it is unlikely that such an association is due to self-selection. In addition, any such positive findings will add support for a possible causal link that could be tested by a more rigorous research design, such as a randomized control trial.

Key independent variables included the amount of high school- and college-level coaching students received and the type of college coaching program in which students participated (CB vs. TB). To explore the influence of various factors identified as important by previous research, the final model included ACT scores and GPAs, and cohort years. Other variables were included only when they achieved statistical significance at the $p=.10$ level in exploratory analysis. Such predictors were gender, race/ethnicity variables, ESL status, first-generation college attendee status, college enrollment size, ratio of full-time and part-time students at the college attended, public/private/2-year/4-year college differences, and college enrollment size.

3.4.1 Total Enrollment

Coaching: As shown in Table 23, the amount of high school College Possible coaching received was statistically significant in the multivariate model. Students receiving more coaching time were 1.65 times more likely to enroll in college than their peers who received less coaching time. The proportion of students at each high school who participated in the College Possible summer bridge program did not play a significant role in the likelihood that students would enroll in college.

Student Predictors: ACT, GPA, and cohort year played a statistically significant role in college enrollment. Students with higher ACT scores and GPAs were, respectively, 1.53 and 1.37 times more likely to enroll in college when compared to a student with a mean ACT and GPA score. In terms of odds of college enrollment, students from the 2012 were 0.33 times less likely to enroll in college than students from the 2009 cohort. The reason for this difference is unclear for the available data.

Table 23: Total Enrollment: Results from Multivariate Logistic Regression

Variables	Logit Coefficient	Standard Error	Sig.	Odds Ratio
Intercept	-2.35	0.44	***	.
Sum of junior and senior year coaching time	0.02	0.00	***	1.65
ACT score	0.12	0.02	***	1.53
GPA	0.55	0.12	***	1.37
Cohort 2010	-0.20	0.21		0.82
Cohort 2011	-0.33	0.20		0.72
Cohort 2012	-1.10	0.20	***	0.33
Number of observations used	2504			
R-square	.14			

Note: Cohort 2009 students were the reference category in the model. Asterisks indicate the level of statistical significance: * < 5%, ** < 1%, *** 0.1%. Odds ratios for continuous variables are standardized such that it compares the odds of a subject whose value is one standard deviation above the mean against a subject whose value is the mean. Cohort 2009 to 2012 data allowed the use of high school junior and senior year coaching hours as a predictor. See Appendix A, Table A7 for descriptive statistics.

3.4.2 First-to-Second Year Persistence

Coaching: The amount of College Possible high school coaching a student received played a significant role in the likelihood that she or he would persist from the first to second year of college (see Table 24). Students who received more coaching time were 1.29 times more likely to transition successfully from their first to their second year of college than students who received the average coaching time. On the other hand, neither the amount nor the type of College Possible coaching students received during their first year of college was statistically significantly associated with first-to-second year persistence.

Student Predictors: ACT score, GPA, and race and race/ethnicity appear to influence first-to-second year persistence. Students with higher ACT scores or GPAs were, respectively, 1.36 and 1.44 times more likely to transition successful from the first to the second year of college than were their peers with lower ACT scores and GPAs. In addition, Hmong students and those who identified themselves as “other” persisted between the first and second years at significantly lower odds ratios than their White peers (odds ratios of 0.35 and 0.24).

Institutional Predictor: Attendance at a public postsecondary institution exerted a significantly negative influence on first-to-second year persistence, with students at public institutions

persisting to a lesser degree than those at private colleges. The odds of successful persistence were 1.59 times higher for students attending 4-year private colleges than for students at 4-year public colleges.

Table 24: First-to-Second Year Persistence: Results from Multivariate Logistic Regression

Variables	Logit Coefficient	Standard Error	Sig.	Odds Ratio
Intercept	-1.56	0.88		.
Sum of junior and senior year coaching time	0.01	0.00	**	1.29
Coaching hours in 1 st year	0.03	0.02		1.20
Coaching type: Campus based at least one semester	-0.04	0.24		0.96
ACT score	0.08	0.03	**	1.36
GPA	0.66	0.16	***	1.44
Black	-0.86	0.50		0.42
Black immigrant	-0.03	0.57		0.97
Hispanic	-0.81	0.54		0.44
Asian	-0.59	0.55		0.55
Hmong	-1.06	0.50	*	0.35
Other	-1.42	0.55	**	0.24
Race info missing	-0.73	0.56		0.48
Cohort 2010	-0.29	0.22		0.75
Cohort 2011	-0.40	0.22		0.67
Private 2-year college	-0.65	0.52		0.52
Private 4-year college	0.47	0.21	*	1.59
Public 2-year college	0.29	0.21		1.33
Number of observations used	1392			1.29
R-square	0.13			

Note: Cohort 2009 students, white students, and public 4 year college students were the reference category in the model. Asterisks indicate the level of statistical significance: * < 5%, ** < 1%, *** 0.1%. Odds ratios for continuous variables are standardized such that it compares the odds of a subject whose value is one standard deviation above the mean against a subject whose value is the mean. Cohort 2009 to 2011 data allowed the use of high school junior and senior year coaching hours as a predictor. Only one semester of enrollment data were available for students in the 2012 cohort. See Appendix A, Table A8 for descriptive statistics.

3.4.3 Second-to-Third Year Persistence

Coaching: As with first-to-second year college persistence, the amount of coaching students received during high school continued to be significantly correlated with persistence between the second and third years of college. Students who participated in more hours of College Possible coaching during their junior and senior years of high school were 1.45 times more likely to be successful at the transition between the first and second year of college than their peers participating in fewer hours. However, when other factors were controlled for, the amount and the type of College Possible coaching students received during their second year in

college were not statistically significantly associated with successful transition from the second to third year. See Table 25 for additional information.

Student Predictors: Both ACT scores and GPAs were correlated with second-to-third year persistence. In terms of odds of success, students with higher ACT scores or GPAs were, respectively, 1.31 and 1.37 more likely to transition from their second to their third year of college than their counterparts with lower ACT scores or GPAs.

Institutional Predictor: No college-level institutional predictor was found to be significantly associated with second-to-third year persistence. Sector differences, number of enrolled students, and ratio of full-time to part-time students did not achieve a statistical significance level of .10 in an exploratory model.

Table 25: Second-to-Third Year Persistence: Results from Multivariate Logistic Regression

Variables	Logit Coefficient	Standard Errors	Sig.	Odds Ratio
Intercept	-2.66	0.73	***	.
Sum of junior and senior year coaching time	0.01	0.00	**	1.45
Coaching hours in 2 nd year	0.05	0.03		1.26
Coaching type in 2 nd year: Campus based at least 1 semester	0.08	0.30		1.08
ACT	0.07	0.03	*	1.31
GPA	0.57	0.21	**	1.37
Cohort 2010	0.15	0.24		1.17
Number of observations used	711	.		.
R-square	0.11			

Note: Cohort 2009 students were the reference category in the model. Asterisks indicate the level of statistical significance: * < 5%, ** < 1%, *** 0.1%. Odds ratios for continuous variables are standardized such that it compares the odds of a subject whose value is one standard deviation above the mean against a subject whose value is the mean. 2009 and 2010 data allowed the use of high school junior and senior year coaching hours as a predictor. They also allowed the modeling of second-to-third year persistence. See Appendix A, Table A9 for descriptive statistics.

3.4.4 Third-to-Fourth Year Persistence

Coaching: As seen in Table 26, whereas the amount of College Possible coaching received during college was not significantly correlated with persistence between the first and second, and second and third, college years, it began to play a positive and significant role in transitions between the third and fourth years of college. Students who received more hours of College Possible coaching during their third year of college persisted at a rate 1.58 times higher than those who received less coaching time.

Student Predictor: High school GPA continued to exert a positive and statistically significant influence on persistence. Students with a higher GPA were 1.56 times more likely to persist between their third and fourth years of college than were their peers with lower GPAs.

Institutional Predictors: Institutional sector alone did not play a statistically significant role in the likelihood that a student would persist between the third and fourth years of college. However, a significant difference was found between 4-year public colleges and 2-year colleges, both public and private. Specifically, students attending 2-year private or 2-year public institutions who had not yet earned an Associate’s degree were, respectively, 0.17 and 0.29 times less likely to persist between their third and fourth years of college.

Table 26: Third-to-Fourth Year Persistence: Results from Multivariate Logistic Regression

Variables	Logit Coefficient	Standard Error	Sig.	Odds Ratio
Intercept	-2.26	1.16	*	.
Senior year coaching time	0.02	0.01		1.30
Coaching hours in 3rd year	0.10	0.04	*	1.58
Coaching type in 3 rd year: Campus based at least 1 semester	0.49	0.44		1.63
ACT	0.01	0.05		1.04
GPA	0.86	0.26	***	1.56
Cohort 2009	0.12	0.30		1.12
Private 2-year college	-1.75	0.77	*	0.17
Private 4-year college	-0.42	0.41		0.66
Public 2-year college	-1.25	0.38	**	0.29
Ratio of full-time students	1.41	0.94		1.31
Number of observations used	628	.		.
R-square	0.25			

Note: Cohort 2008 students were the reference category in the model. Asterisks indicate the level of statistical significance: * < 5%, ** < 1%, *** 0.1%. Odds ratios for continuous variables are standardized such that it compares the odds of a subject whose value is one standard deviation above the mean against a subject whose value is the mean. Cohort 2008 and 2009 data allowed the use of senior year coaching hours as a predictor. They also allowed the modeling of third-to-fourth year persistence. See Appendix A, Table A10 for descriptive statistics.

3.4.5 Bachelor’s Completion within 4 Years: Cohort 2007 and 2008

Analyses of Bachelor’s degree completion were conducted for only the 2007 and 2008 cohorts because insufficient time has elapsed to allow analyses of this outcome for later cohorts.

Coaching: As presented in Table 27, the average amount of coaching hours students received each semester over the course of their postsecondary careers appears to have played a positive and significant role in Bachelor’s degree completion. Students who received more hours of coaching per semester were 1.59 times more likely to complete their Bachelor’s degrees within 4 years than were their peers who received fewer average hours of coaching. On the other hand, the type of College Possible coaching (CB or TB) received did not have a significant effect on the probability that students would earn a Bachelor’s degree when other factors were controlled for.

Student Predictors: ACT score, high school GPA, and first-generation college attendee status were all positively and significantly correlated with Bachelor’s degree completion with 4 years. Students with higher ACTs score or GPAs were, respectively, 1.25 and 1.70 times more likely to earn a Bachelor’s degree within 4 years than were their counterparts with lower ACT scores or GPAs. Interestingly, students who did not answer a College Possible enrollment survey question about whether they would be a first-generation college attendee completed their Bachelor’s degrees within 4 years at significantly higher rates (odds ratio of 10.77) than those who affirmatively indicated that they were not first-generation college students. The meaning of this finding is unclear. It is possible, for instance, that students who did not affirm their first-generation status were not, in fact, first-generation students—and any advantages associated with earlier family college attendance may have influenced the probability that students would complete their Bachelor’s programs.

Institutional Predictors: The odds of success for students enrolled at institutions with high full-time to part-time student ratios were 2.11 times higher than those for students at the institutions with lower full-time student ratios. Thus, it appears that attendance at a postsecondary institution with high proportions of full-time students plays a significant and positive role in degree completion.

**Table 27: Bachelor’s Degree Completion within 4 Years:
Results from Multivariate Logistic Regression**

Variables	Logit Coefficient	Standard Error	Sig.	Odds Ratio
Intercept	-10.31	1.19	***	.
Semester average coaching hours (1st year to 4th year)	0.21	0.06	***	1.59
Coaching type: Campus based at least 1 semester (1st year to 4th year)	-0.37	0.36		0.69
ACT	0.06	0.03	*	1.25
GPA	1.09	0.25	***	1.70
Female	0.41	0.23		1.51
First-generation college	-0.24	0.28		0.79
First gen college info missing	2.38	0.44	***	10.77
Cohort 2008	0.76	0.26	**	2.13
Public institutions	-0.30	0.23		0.74
Ratio of full-time students	4.39	0.87	***	2.11
Number of observations used	673	.		.
R-square	0.40			

Notes: Cohort 2007 students were the reference category in the model. Asterisks indicate the level of statistical significance: * < 5%, ** < 1%, *** 0.1%. Odds ratios for continuous variables are standardized such that it compares the odds of a subject whose value is one standard deviation above the mean against a subject whose value is the mean. Only Cohorts 2007 and 2009 allowed the modeling of 4-year Bachelor’s degree attainment. See Appendix, Table A11 for descriptive statistics.

3.4.6 Bachelor's Degree Completion within 5 Years: Cohort 2007

Analyses of Bachelor's degree completion within 5 years were conducted only for students in the 2007 cohort because insufficient time has elapsed to allow analyses of this outcome for later cohorts. In addition, high school coaching data were not collected for this cohort.

Coaching: As shown in Table 28, the average amount of coaching hours students received each semester over the course of their postsecondary careers was positively associated with Bachelor's degree completion within 5 years. Students who received more hours of College Possible coaching on average each semester were 3.85 times more likely to earn a Bachelor's degree within 5 years than were their peers receiving fewer hours on average. However, the type of College Possible coaching students received (CB vs. TB) did not exert a statistically significant influence on 5-year Bachelor's degree completion.

Student Predictors: High school GPA and missing first-generation college attendee status information were positively and significantly correlated Bachelor's degree completion within 5 years. Students with higher high school GPAs were 1.57 times more likely to earn their Bachelor's degrees within 5 years than were students with lower GPAs. Interestingly, students who did not answer an enrollment survey question about whether they would be a first-generation college attendee completed their Bachelor's degrees within 5 years at significantly higher rates (with an odds ratio value of 3.85) than those who affirmed that they were not first-generation college students.

Institutional predictors: Attendance at a postsecondary institution with high proportions of full-time students appears to play a significant and positive role in Bachelor's degree completion within 5 years. Students enrolled at colleges with higher ratios of full-time to part-time students were 1.86 times more likely to earn a Bachelor's degree within 5 years than were their peers attending schools with lower ratios.

Results from this analysis are particularly notable, given that the R-square value indicates that the variables employed account for 52% of the variance in the outcome. In other words, more than half of the variability in the likelihood that students will earn a Bachelor's degree within 5 years is explained by the independent variables used in the regression model presented in Table 28. An R-square value of this size is generally considered high in the social sciences.

**Table 28: Bachelor's Degree Completion within 5 Years:
Results from Multivariate Logistic Regression**

Variables	Logit Coefficient	Standard Error	Sig.	Odds Ratio
Intercept	-7.35	1.62	***	.
Semester average coaching hours (1st year to 5th year)	0.62	0.12	***	3.85
Coaching type: Campus based at least 1 semester (1st year to 5th year)	-0.90	0.61		0.40
ACT	-0.01	0.05		0.98
GPA	0.99	0.41	*	1.57
First-generation college	-0.71	0.42		0.49
First-gen. college info missing	1.35	0.53	*	3.85
Ratio of full-time students	3.58	1.17	**	1.86
Number of observations used	251	.		.
R-square	0.52			

Note: Asterisks indicate the level of statistical significance: * < 5%, ** < 1%, *** 0.1%. Odds ratios for continuous variables are standardized such that it compares the odds of a subject whose value is one standard deviation above the mean against a subject whose value is the mean. Only cohort 2007 allowed the modeling 5-year Bachelor's degree attainment.

IV. Conclusions and Recommendations

4.1 Conclusions

4.1.1 Enrollment

- College Possible students enroll in college at much higher rates than do similar students nationally. College Possible students' immediate enrollment rates ranged from 82% to 89%, compared to rates of 52% to 56% for low-income students across the nation. Moreover, enrollment rates for College Possible students exceeded those for high-income students nationally, which ranged from 81% to 83%.
- The majority of College Possible students enrolled in 4-year rather than 2-year institutions. The percent of students enrolling in 4-year colleges ranged from 91% of students in the 2007 cohort to 78% of students in the 2009 cohort.
- Across cohorts, College Possible students were more likely to enroll in public rather than private institutions. The percent of students enrolling in public colleges ranged from approximately two-thirds of students in the 2011 cohort to 58% of students in the 2007 and 2010 cohorts.
- Multivariate modeling facilitates analysis of whether various factors collectively and individually exert statistically significant influences on key outcomes. Such analyses indicate that, when the effect of all included variables are taken into account, three factors play a significant and positive role in postsecondary enrollment, as follows.
 - Students who received more hours of College Possible coaching during their junior and senior years of high schools were 1.65 times more likely to enroll in college than students who received fewer hours.
 - Students with higher ACT scores were 1.53 times more likely to enroll in college than their peers with lower scores.
 - Students with higher GPAs were 1.37 times more likely to enroll in college than their counterparts with lower GPAs.

4.1.2 Persistence

- College Possible students tended to persist between Fall and Spring semesters at high rates (ranging from a high of 93% to low of 86%). However, persistence rates were lower between Spring and Fall semesters, ranging from 89% to 79%.
- Semester-to-semester persistence rates for College Possible students were far higher for those attending 4-year institutions and for those enrolled in private colleges. For instance, students in the 2007 cohort attending 4-year colleges persisted between semesters at rates ranging between 97% and 85%, whereas their peers attending 2-year colleges persisted at rates ranging from 88% to 63%.

- The transition between the first Spring semester and the second Fall semester appears especially challenging for students, regardless of whether students are enrolled at 4-year or 2-year colleges. The lowest persistence rates for both groups appear at this transition point.
- College Possible students attending private institutions tend to persist between semesters at higher rates than students enrolled in public colleges. Among the 2007 cohort, for example, persistence rates ranged from 100% to 85% for students enrolled in private schools, while rates for those attending public colleges ranged from 93% to 82%. In addition, students at public institutions were slightly less likely to persist between the first Spring and the second Fall semesters than their peers at private colleges.
- Multivariate analyses confirm that, even when the influence of other factors is considered, students with higher high school GPAs and ACT scores are significantly more likely to persist between the first and second years of their postsecondary careers.
- However, ACT scores do not predict the likelihood that students will persist in college between their third and fourth years.
- A few postsecondary institutional characteristics also influence persistence when analyzed in the context of other student and College Possible factors.
 - The odds of successful persistence from the first to the second year of college were 1.59 times higher for students attending 4-year private college than for those attending 4-year public institutions.
 - Students attending a private 2-year institution who had not yet earned an Associate's degree were .17 times less likely to persist between a third and fourth year than were their peers attending 4-year colleges. Similarly, students attending a public 2-year institution who had not yet earned an Associate's degree were .29 times less likely to persist between a third and fourth year than were their peers attending 4-year colleges.

4.1.3 Completion

- Associate's degree completion rates were very low among College Possible cohorts. Ten percent (10%) of those pursuing such a degree in the 2007 cohort earned one within 3 years; 7% of students in the 2008 and 2009 cohorts did so.
- Bachelor's degree attainment rates were higher, with 44% of students in the 2007 cohort earning their degree within 5 years. In contrast, only 11% of low-income, first-generation college students in a national study earned a Bachelor's degree within 6 years. Total completion rates (that is, the percent of students earning either an Associate's degree within 3 years or a Bachelor's degree within 5) were 41% among the 2007 cohort.

- Students attending private 4-year institutions were more likely to earn a Bachelor's degree than were those enrolled in public 4-year colleges. For instance, whereas 54% of students in the 2007 cohort who attended private postsecondary institutions completed their Bachelor's degree within 5 years, 37% of those attending public institutions did so.
- A similar pattern is apparent in total completion rates. Among the 2007 cohort, for example, 52% of students attending a private institution earned an Associate's degree within 3 years or a Bachelor's within 5, whereas only 34% of those attending public institutions did so.
- Multivariate analyses indicate that several factors exert a significant and positive influence on completion of a Bachelor's degree within 4 years of enrollment, as follows.
 - Students who received more hours of College Possible coaching over the course of their college career were 1.59 times more likely to attain a Bachelor's degree within 4 years than their peers who received fewer hours.
 - Students attending schools with higher ratios of full-time to part-time students were 2.11 times more likely to earn a Bachelor's degree within four years than their peers at schools with lower ratios of full-time students.
 - Students with higher ACT scores were 1.25 times more likely to earn a Bachelor's degree within 4 years, and students with higher high school GPAs were 1.70 times more likely to do so.
 - Students who did not answer a College Possible enrollment survey question about whether they would be a first-generation college attendee were 10.77 times more likely to complete a Bachelor's degree than those positively affirming such a status. The meaning of this finding is unclear.
- ACT scores do not play a significant role in the likelihood that students will earn a Bachelor's degree within 5 years. However, the other factors influencing 4-year Bachelor's degree completion also influence 5-year completion.
 - Students who received more hours of College Possible coaching over the course of their college career were 3.85 times more likely to attain a Bachelor's degree within 5 years than their peers who received fewer hours.
 - Students attending schools with higher ratios of full-time to part-time students were 1.86 times more likely to earn a Bachelor's degree within 5 years than their peers at schools with lower ratios of full-time students.
 - Students with higher high school GPAs were 1.57 times more likely to complete a Bachelor's degree within 5 years than their counterparts with lower GPAs.
 - Students who did not answer a College Possible enrollment survey question about whether they would be a first-generation college attendee were 3.85 times more likely to complete a Bachelor's degree than those positively affirming such a status.

4.1.4 Student Subgroup Outcomes

- Across all cohorts, female College Possible students tended to have better outcomes than their male peers. Women were more likely to enroll in, persist in, and complete postsecondary programs of study.
- Results of race and ethnicity analysis were inconsistent across outcomes and cohort. The relatively small number of students, when data were broken down by race and ethnicity subgroup, may explain the mixed findings.
- In the multivariate model for first to second year persistence, Hmong students and those students selecting the “other” racial/ethnic category were significantly less likely to persist than were White students. The reason for this is unclear.
- College Possible students in the 2007 cohort who did not report their ESL status had substantially higher rates of enrollment, persistence, and completion rates than students who affirmatively indicated that they did or did not receive ESL services— suggesting that those not reporting ESL status were likely not ESL students. The college enrollment rates of ESL and non-ESL students were similar; however, non-ESL students tended to persist in and complete their programs of study at higher rates than ESL students.
- In multivariate analyses, with the exception of that for first to second year persistence, student demographic factors did not have a significant impact on outcomes when College Possible, postsecondary institutional, and student achievement variables were taken into account.

4.1.5 The Effect of College Possible Coaching

- Across all cohorts analyzed, students who enrolled in college tended to have received much more college preparation coaching from College Possible than students who did not enroll. Students who persisted from year to year in college tended to have participated in slightly more College Possible coaching (an average of one additional hour) than their peers who did not persist. Similarly, students who completed their programs of study received slightly more College Possible coaching than those who did not complete college.
- CB services appear to assist College Possible students to persist in and complete their postsecondary programs better than TB services. Higher percentages of students persisting successfully across postsecondary years had received CB services than TB services, and higher percentages of those earning postsecondary degrees participated in CB services.
- Even when the effect of other variables is taken into account, College Possible coaching continues to play a significant and positive role in student postsecondary outcomes.

- Students who received more total hours of College Possible coaching during their junior and senior years of high school were 1.65 times more likely to enroll in college, 1.29 times more likely to persist between their first and second postsecondary years, and 1.45 times more likely to persist between their second and third years than their peers who received fewer hours of coaching.
- Students who received more hours of College Possible coaching during their third year in college were 1.58 times more likely to persist from their third to the fourth year of college.
- Students who received more College Possible hours of coaching on average over their four years of enrollment were 1.59 times more likely to earn a Bachelor's degree within 4 years than their peers who received fewer hours on average.
- Students who received more College Possible hours of coaching on average over their five years of enrollment were 3.85 times more likely to earn a Bachelor's degree within 5 years than their peers who received fewer hours on average.

4.2 Recommendations

Overall, the multivariate findings clearly indicate that both secondary and postsecondary College Possible coaching improves student outcomes. Moreover, College Possible coaching may help limit the negative correlation between various student demographic characteristics such as racial/ethnic minority status, ESL status, and first-generation college attendee status and postsecondary success. Given that College Possible's goal is to dramatically improve college access and success for the low-income and otherwise disadvantaged students its staff serves, these findings provide considerable support for **program continuation**.

Specifically, the findings suggest that high school coaching (defined in terms of dosage/time) plays an important role in early college outcomes such as enrollment and persistence through the first three years of college. Given this, it appears that the high school coaching component supports early success. However, College Possible coaching during students' postsecondary tenures appears to have a significant impact on later college success, including transition to the senior year and Bachelor's degree completion. Thus, College Possible may want to **consider the importance of continuing to provide students a comprehensive program of services at both the secondary and postsecondary levels** to strengthen the likelihood that students have the support needed to achieve an array of outcomes.

Given that the amount of coaching received by students is significantly and positively correlated with positive postsecondary outcomes, College Possible staff should also **explore strategies for maximizing how much coaching students receive** (without sacrificing the quality of such support). Such approaches might include assigning two coaches to each student, to ensure additional opportunities for interaction; conducting regular follow-ups with students failing to access services; or establishing a peer-to-peer support component to the College Possible program, such that students can access assistance from individuals in addition to coaches.

Campus-based (CB) coaching that supports face-to-face interaction was related to higher success rates, at least in simple descriptive analyses. The results were attenuated in complex regression models, possibly because the number of students exposed to the direct service was

lower across cohorts and lack of variance might have made this variable less predictive. Nonetheless, because the larger percent of students who experienced college success had accessed the CB program, College Possible staff might **consider expanding face-to-face service to more campuses** as feasible.

College Possible staff should **continue to stress the importance of academic achievement during high school**. Both GPA and ACT scores were correlated with positive college outcomes, while in the regression model high school GPA seemed to predict the outcomes even more robustly than ACT scores. It is possible that multitudes of related factors, such as students' study skills, aspirations, and academic engagement enhanced the postsecondary success of students with strong high school GPAs. Broadly summarized, ACT scores of 18 or higher and GPAs of 3.0 and higher are strongly correlated with college success.

Several student characteristics were found to have some impact on outcomes, although they no longer exerted significant influences on outcomes when other variables were controlled. For instance, although female students achieve better outcomes than males, once other factors are considered, the differential is not significant. However, it is possible that another factor mediates the relationship between gender and outcomes. Exploratory analysis indicates that male College Possible students received slightly less coaching time in college than female students; for example, the semester average time for 2008 male students was 2.4 hours, while females received 2.9 hours. Thus, disparities in coaching time among male and female students may help account for disparate outcomes. Given this, program staff should **consider ensuring that males receive at least as much support as their female counterparts**.

It is notable that Hmong students were significantly less likely to persist from the first to second years of college. College Possible staff should consider examining the reasons for such a finding. For example, staff might learn that linguistic difficulties or cultural barriers make early college persistence particularly challenging for such students. Students who selected the "other" racial/ethnic category were also significantly less likely to persist into their second year of college. College Possible staff might also **examine the difficulties such students faced during their early college experiences**. Findings from analyses could then be used by program staff to develop services and supports targeting identified challenges specific to those student populations.

The findings also suggest that some college characteristics are correlated with student outcomes. For instance, students attending 4-year colleges had far more positive outcomes than those enrolled in 2-year institutions. College Possible staff may want to **consider providing additional support to students at 2-year schools**.

Furthermore, because students attending private institutions experienced better outcomes than their peers at public colleges, College Possible staff might **analyze what factors at private entities facilitate college success and what factors at public schools constrain such success**. Given the findings from such further analyses, program staff might **consider encouraging students to apply to more private than public institutions**. In addition, staff should **analyze whether particular private schools appear to facilitate better student outcomes** (and whether particular public schools seem to constrain positive outcomes). Similarly, College Possible staff

may also want to **guide students toward colleges with high proportions of full-time students**, as this factor too appears to support later college persistence and completion.

Another recommendation is that program staff might **develop differentiated coaching** approaches to accommodate the needs of students at different sorts of campuses. For instance, College Possible could offer more hours of coaching to students at 2-year institutions or public colleges, and expand CB services to more schools.

In sum, this study suggests that College Possible coaching is associated with postsecondary success, as measured by enrollment, persistence, and graduation rates. Program staff and stakeholders should celebrate their achievements, while also identifying strategies that maximize the effects of those factors that appear to enhance college outcomes.

V. Appendix A

Table A1: Semester-to-Semester Persistence in 2-Year vs. 4-Year and Public vs. Private Institutions

Transition	4-Year Institutions		2-Year Institutions		Public Institutions		Private Institutions	
	N of students	% persisted	N of students	% persisted	N of students	% persisted	N of students	% persisted
Cohort 2007								
Fall 2007-Spring 2008	254	92%	24	88%	158	93%	120	90%
Spring 2008-Fall 2008	223	85%	27	63%	148	82%	104	85%
Fall 2008-Spring 2009	197	96%	30	77%	131	92%	94	95%
Spring 2009-Fall 2009	192	90%	34	76%	130	86%	91	91%
Fall 2009-Spring 2010	174	95%	36	78%	123	90%	89	94%
Spring 2010-Fall 2010	173	89%	40	65%	123	82%	84	88%
Fall 2010-Spring 2011	162	97%	28	75%	113	89%	77	100%
Spring 2011-Fall 2011	82	93%	27	85%	75	92%	33	88%
Fall 2011-Spring 2012	68	93%	32	78%	80	86%	21	95%
Spring 2012-Fall 2012	42	60%	28	75%	57	68%	12	50%
Cohort 2008								
Fall 2008-Spring 2009	375	95%	70	83%	252	93%	195	93%
Spring 2009-Fall 2009	338	87%	81	73%	254	83%	169	86%
Fall 2009-Spring 2010	297	94%	105	88%	254	90%	152	96%
Spring 2010-Fall 2010	278	92%	110	73%	249	84%	139	93%
Fall 2010-Spring 2011	272	93%	96	79%	232	86%	138	96%
Spring 2011-Fall 2011	258	93%	90	71%	212	86%	133	92%
Fall 2011-Spring 2012	251	96%	67	84%	203	91%	122	98%
Spring 2012-Fall 2012	135	81%	75	76%	160	83%	48	69%
Cohort 2009								
Fall 2009-Spring 2010	389	94%	109	87%	271	92%	229	94%
Spring 2010-Fall 2010	346	90%	125	80%	274	86%	203	90%
Fall 2010-Spring 2011	311	93%	128	80%	265	85%	179	96%
Spring 2011-Fall 2011	286	87%	127	72%	240	77%	171	90%
Fall 2011-Spring 2012	258	96%	110	73%	212	84%	158	96%
Spring 2012-Fall 2012	254	92%	98	63%	193	76%	156	94%
Cohort 2010								
Fall 2010-Spring 2011	452	94%	110	90%	324	91%	243	95%
Spring 2011-Fall 2011	412	87%	132	81%	324	82%	225	92%
Fall 2011-Spring 2012	364	93%	136	76%	290	85%	212	93%
Spring 2012-Fall 2012	331	88%	123	67%	262	76%	192	92%
Cohort 2011								
Fall 2011-Spring 2012	465	91%	124	89%	381	90%	217	91%
Spring 2012-Fall 2012	401	86%	154	78%	374	80%	185	90%

Table A2: Gender and Rates of College Enrollment, Persistence, and Completion by Cohort

Cohort	Gender/ n	Total enrollment	Year-to-Year Transition					Completion AA (3 years) and BA (4 years)	Completion AA (3 years) and BA (5 years)
			1st to 2nd	2nd to 3rd	3rd to 4th	4th to 5th	5th to 6th		
2007	Female	93%	85%	87%	85%	88%	67%	29%	43%
	n	199	164	151	137	74	43	194	194
2007	Male	83%	80%	89%	83%	90%	62%	29%	38%
	n	120	94	81	78	40	29	112	112
2008	Female	89%	85%	87%	87%	81%		29%	
	n	347	289	257	227	135			
2008	Male	85%	84%	85%	87%	76%		18%	
	n	209	163	147	129	86		197	
2009	Female	90%	90%	83%	84%				
	n	343	285	244	218				
2009	Male	87%	86%	81%	81%				
	n	263	211	182	149				
2010	Female	89%	87%	85%					
	n	450	373	315					
2010	Male	87%	83%	78%					
	n	250	196	156					
2011	Female	91%	84%						
	n	478	388						
2011	Male	86%	83%						
	n	263	196						
2012	Female	83%							
	n	50							
2012	Male	81%							
	n	304							

Table A3: Race/Ethnicity and Rates of College Enrollment, Persistence, and Completion by Cohort

Total Enrollment Rate									
Cohort	%/n	White	Black	Black Immigrant	Hispanic	Asian	Hmong	Other	Missing
2007	%	93%	88%	86%	84%	100%	83%	96%	100%
	n of cases	14	65	29	32	14	80	81	4
2008	%	85%	88%	84%	78%	96%	86%	88%	100%
	n of cases	41	94	31	40	24	96	210	20
2009	%	93%	88%	90%	85%	92%	88%	90%	82%
	n of cases	40	147	67	55	83	149	31	34
2010	%	96%	86%	97%	88%	90%	87%	93%	81%
	n of cases	47	194	59	72	107	143	41	37
2011	%	96%	91%	93%	83%	92%	86%	89%	84%
	n of cases	45	171	85	81	65	168	36	90
2012	%	81%	85%	76%	80%	85%	80%	88%	75%
	n of cases	64	218	41	106	156	115	50	55
First-to-Second Year Persistence									
Cohort	%/n	White	Black	Black Immigrant	Hispanic	Asian	Hmong	Other	Missing
2007	%	83%	73%	88%	81%	86%	78%	93%	75%
	n of cases	12	49	24	21	14	59	75	4
2008	%	88%	88%	85%	72%	77%	79%	89%	83%
	n of cases	32	76	26	29	22	77	172	18
2009	%	97%	86%	96%	78%	90%	88%	92%	84%
	n of cases	34	120	55	46	69	122	25	25
2010	%	93%	83%	91%	88%	89%	85%	74%	89%
	n of cases	41	152	56	57	88	112	35	28
2011	%	97%	77%	82%	88%	93%	84%	65%	86%
	n of cases	38	132	73	60	55	131	31	64

Table A3: Continued

Second-to-Third Year Persistence									
Cohort	%/n	White	Black	Black Immigrant	Hispanic	Asian	Hmong	Other	Missing
2007	%	91%	81%	74%	91%	92%	82%	96%	100%
	n of cases	11	37	23	22	12	50	73	4
2008	%	97%	81%	81%	85%	89%	90%	86%	88%
	n of cases	30	69	26	20	19	60	164	16
2009	%	84%	78%	82%	83%	85%	82%	74%	95%
	n of cases	32	99	51	35	59	106	23	21
2010	%	82%	82%	89%	85%	87%	80%	77%	77%
	n of cases	38	123	44	47	77	90	26	26
Third-to-Fourth Year Persistence									
Cohort	%/n	White	Black	Black Immigrant	Hispanic	Asian	Hmong	Other	Missing
2007	%	100%	69%	86%	94%	100%	73%	91%	100%
	n of cases	11	35	21	18	12	48	66	4
2008	%	93%	87%	85%	67%	89%	89%	87%	91%
	n of cases	30	53	20	18	19	56	149	11
2009	%	79%	81%	79%	81%	94%	84%	83%	72%
	n of cases	28	83	42	27	51	100	18	18
Total Completion (AA within 3 years, BA within 4 years)									
Cohort	%/n	White	Black	Black Immigrant	Hispanic	Asian	Hmong	Other	Missing
2007	%	15%	16%	21%	21%	57%	16%	56%	25%
	n of cases	13	64	28	29	14	75	79	4
2008	%	36%	21%	13%	19%	24%	27%	26%	25%
	n of cases	39	89	30	36	25	92	197	20
Total Completion (AA within 3 years, BA within 5 years)									
Cohort	%/n	White	Black	Black Immigrant	Hispanic	Asian	Hmong	Other	Missing
2007	%	31%	28%	36%	38%	64%	27%	67%	25%
	n of cases	13	64	28	29	14	75	79	4

Table A4: ESL Status and Rates of College Enrollment, Persistence, and Completion

Cohort	ESL Status		Total enrollment	1st to 2nd	2nd to 3rd	3rd to 4th	4th to 5th	Completion AA (3 years) and BA (4 years)	Completion AA (3 years) and BA (5 years)
2007	ESL info missing	%	97%	95%	97%	96%	90%	74%	79%
		n	76	73	71	67	10	76	76
	ESL student	%	87%	73%	79%	74%	88%	14%	24%
		n	90	71	56	53	33	87	87
	Not ESL	%	86%	82%	86%	82%	89%	15%	31%
		n	153	114	105	95	71	143	143
2008	ESL info missing	%	91%	83%	84%	77%	91%	19%	
		n	43	35	32	26	22	43	
	ESL student	%	86%	82%	88%	90%	76%	27%	
		n	201	164	141	125	67	191	
	Not ESL	%	88%	87%	86%	87%	78%	24%	
		n	312	253	231	205	132	294	
2009	ESL info missing	%	87%	94%	88%	71%			
		n	62	49	43	41			
	ESL student	%	89%	89%	81%	85%			
		n	331	276	236	199			
	Not ESL	%	88%	85%	82%	83%			
		n	213	171	147	127			

Table A4: Continued

Cohort	ESL Status		Total enrollment	1st to 2nd	2nd to 3rd
2010	ESL info missing	%	85%	83%	80%
		n	110	86	71
	ESL student	%	88%	87%	85%
		n	362	295	248
	Not ESL	%	90%	85%	80%
		n	228	188	152
2011	ESL info missing	%	86%	83%	
		n	181	128	
	ESL student	%	88%	85%	
		n	302	246	
	Not ESL	%	91%	82%	
		n	258	210	
2012	ESL info missing	%	81%		
		n	143		
	ESL student	%	81%		
		n	320		
	Not ESL	%	84%		
		n	342		

Table A5: ACT Scores and Rates of College Enrollment, Persistence, and Completion

Cohort	ACT score	%/n	Total enrollment	1st to 2nd	2nd to 3rd	3rd to 4th	4th to 5th	Completion AA (3 years) or BA (4 years)	Completion AA (3 years) or BA (5 years)
2007	(a)1-13	%	70%	54%	78%	82%	80%	11%	11%
2007	(a)1-13	n	20	13	9	11	10	19	19
2007	(b)14	%	82%	83%	64%	88%	50%	19%	19%
2007	(b)14	n	17	12	14	8	8	16	16
2007	(c)15	%	91%	87%	88%	80%	100%	29%	44%
2007	(c)15	n	35	31	24	25	14	34	34
2007	(d)16	%	85%	79%	87%	75%	85%	23%	28%
2007	(d)16	n	47	33	30	24	13	43	43
2007	(e)17	%	85%	88%	88%	67%	100%	13%	31%
2007	(e)17	n	33	26	26	24	13	32	32
2007	(f)18	%	96%	83%	91%	90%	93%	34%	50%
2007	(f)18	n	45	40	34	30	15	44	44
2007	(g)19	%	96%	88%	100%	95%	78%	40%	60%
2007	(g)19	n	26	24	20	21	9	25	25
2007	(h)20-36	%	95%	86%	89%	89%	94%	38%	51%
2007	(h)20-36	n	92	78	73	71	31	90	90
2008	(a)1-13	%	76%	77%	64%	91%	67%	4%	
2008	(a)1-13	n	25	13	14	11	12	25	
2008	(b)14	%	82%	93%	74%	74%	62%	8%	
2008	(b)14	n	55	40	38	27	21	49	
2008	(c)15	%	81%	81%	71%	88%	85%	9%	
2008	(c)15	n	62	48	41	33	27	57	
2008	(d)16	%	84%	84%	87%	87%	89%	17%	
2008	(d)16	n	74	57	53	45	36	69	
2008	(e)17	%	84%	82%	82%	85%	76%	14%	
2008	(e)17	n	64	51	44	33	21	58	
2008	(f)18	%	90%	88%	93%	83%	81%	28%	
2008	(f)18	n	68	59	54	48	31	67	
2008	(g)19	%	94%	87%	90%	89%	81%	37%	
2008	(g)19	n	51	45	41	37	16	51	
2008	(h)20-36	%	95%	84%	96%	91%	77%	42%	
2008	(h)20-36	n	155	139	119	122	57	151	

Table A5: Continued

Cohort	ACT score	%/n	Total enrollment	1st to 2nd	2nd to 3rd	3rd to 4th
2009	(a)1-13	%	80%	88%	73%	50%
2009	(a)1-13	n	25	17	15	12
2009	(b)14	%	76%	88%	66%	77%
2009	(b)14	n	58	40	35	26
2009	(c)15	%	82%	85%	65%	67%
2009	(c)15	n	73	48	46	33
2009	(d)16	%	88%	78%	83%	76%
2009	(d)16	n	59	49	36	38
2009	(e)17	%	96%	91%	77%	81%
2009	(e)17	n	74	65	53	43
2009	(f)18	%	86%	92%	92%	100%
2009	(f)18	n	74	61	49	44
2009	(g)19	%	95%	88%	82%	85%
2009	(g)19	n	64	59	50	39
2009	(h)20-36	%	92%	90%	90%	87%
2009	(h)20-36	n	178	156	141	131
2010	(a)1-13	%	72%	84%	68%	
2010	(a)1-13	n	39	25	19	
2010	(b)14	%	80%	84%	77%	
2010	(b)14	n	51	38	31	
2010	(c)15	%	89%	82%	83%	
2010	(c)15	n	82	67	46	
2010	(d)16	%	84%	72%	79%	
2010	(d)16	n	79	61	47	
2010	(e)17	%	90%	86%	80%	
2010	(e)17	n	88	72	60	
2010	(f)18	%	91%	87%	82%	
2010	(f)18	n	82	69	57	
2010	(g)19	%	90%	85%	87%	
2010	(g)19	n	73	59	46	
2010	(h)20-36	%	93%	94%	88%	
2010	(h)20-36	n	201	174	162	

Table A5: Continued

Cohort	ACT score	%/n	Total enrollment	1st to 2nd
2011	(a)1-13	%	75%	74%
2011	(a)1-13	n	59	39
2011	(b)14	%	76%	81%
2011	(b)14	n	50	32
2011	(c)15	%	84%	73%
2011	(c)15	n	74	56
2011	(d)16	%	89%	83%
2011	(d)16	n	82	64
2011	(e)17	%	89%	75%
2011	(e)17	n	92	73
2011	(f)18	%	96%	95%
2011	(f)18	n	68	55
2011	(g)19	%	94%	88%
2011	(g)19	n	77	66
2011	(h)20-36	%	93%	90%
2011	(h)20-36	n	219	180
2012	(a)1-13	%	51%	
2012	(a)1-13	n	51	
2012	(b)14	%	68%	
2012	(b)14	n	66	
2012	(c)15	%	83%	
2012	(c)15	n	69	
2012	(d)16	%	83%	
2012	(d)16	n	95	
2012	(e)17	%	84%	
2012	(e)17	n	89	
2012	(f)18	%	90%	
2012	(f)18	n	77	
2012	(g)19	%	87%	
2012	(g)19	n	69	
2012	(h)20-36	%	87%	
2012	(h)20-36	n	282	

Table A6: GPA and Rates of College Enrollment, Persistence, and Completion

Cohort	GPA	%/n	Total enrollment	1st to 2nd	2nd to 3rd	3rd to 4th	4th to 5th	Completion AA (3 years) or BA (4 years)	Completion AA (3 years) or BA (5 years)
2007	(a)Below 2.0	%	50%	40%	83%	60%	67%	0%	10%
2007	(a)Below 2.0	n	12	5	6	5	3	10	10
2007	(b)2.0-2.5	%	76%	62%	83%	58%	100%	16%	32%
2007	(b)2.0-2.5	n	29	21	12	12	12	25	25
2007	(c)2.5-3.0	%	88%	82%	85%	82%	91%	15%	27%
2007	(c)2.5-3.0	n	83	65	54	51	32	79	79
2007	(d)3.0-3.5	%	94%	87%	86%	84%	93%	34%	44%
2007	(d)3.0-3.5	n	101	85	81	69	29	99	99
2007	(e)3.5 & abo	%	96%	91%	91%	92%	84%	43%	60%
2007	(e)3.5 & abo	n	77	70	67	65	32	77	77
2008	(a)Below 2.0	%	89%	71%	80%	75%	100%	0%	
2008	(a)Below 2.0	n	9	7	5	4	3	8	
2008	(b)2.0-2.5	%	82%	75%	64%	71%	56%	10%	
2008	(b)2.0-2.5	n	84	61	45	35	27	78	
2008	(c)2.5-3.0	%	83%	85%	82%	85%	76%	17%	
2008	(c)2.5-3.0	n	153	113	106	87	55	141	
2008	(d)3.0-3.5	%	89%	88%	88%	88%	85%	26%	
2008	(d)3.0-3.5	n	194	164	149	131	89	187	
2008	(e)3.5 & abo	%	95%	88%	99%	94%	80%	45%	
2008	(e)3.5 & abo	n	115	106	99	98	46	113	

Table A6: Continued

Cohort	GPA	%/n	Total enrollment	1st to 2nd	2nd to 3rd	3rd to 4th
2009	(a)Below 2.0	%	68%	94%	72%	78%
2009	(a)Below 2.0	n	34	18	18	9
2009	(b)2.0-2.5	%	85%	76%	70%	69%
2009	(b)2.0-2.5	n	94	74	56	45
2009	(c)2.5-3.0	%	86%	84%	77%	71%
2009	(c)2.5-3.0	n	182	139	115	97
2009	(d)3.0-3.5	%	91%	91%	85%	89%
2009	(d)3.0-3.5	n	172	146	126	112
2009	(e)3.5 & abo	%	99%	98%	92%	94%
2009	(e)3.5 & abo	n	117	113	107	98
2010	(a)Below 2.0	%	79%	70%	62%	
2010	(a)Below 2.0	n	39	27	13	
2010	(b)2.0-2.5	%	82%	74%	73%	
2010	(b)2.0-2.5	n	137	98	73	
2010	(c)2.5-3.0	%	88%	83%	77%	
2010	(c)2.5-3.0	n	178	142	119	
2010	(d)3.0-3.5	%	89%	92%	88%	
2010	(d)3.0-3.5	n	204	168	146	
2010	(e)3.5 & abo	%	99%	95%	94%	
2010	(e)3.5 & abo	n	114	110	100	

Table A6: Continued

Cohort	GPA	%/n	Total enrollment	1st to 2nd
2011	(a)Below 2.0	%	70%	65%
2011	(a)Below 2.0	n	33	17
2011	(b)2.0-2.5	%	86%	79%
2011	(b)2.0-2.5	n	131	96
2011	(c)2.5-3.0	%	89%	79%
2011	(c)2.5-3.0	n	185	145
2011	(d)3.0-3.5	%	89%	84%
2011	(d)3.0-3.5	n	205	165
2011	(e)3.5 & abo	%	95%	92%
2011	(e)3.5 & abo	n	169	150
2012	(a)Below 2.0	%	52%	
2012	(a)Below 2.0	n	27	
2012	(b)2.0-2.5	%	79%	
2012	(b)2.0-2.5	n	146	
2012	(c)2.5-3.0	%	77%	
2012	(c)2.5-3.0	n	205	
2012	(d)3.0-3.5	%	86%	
2012	(d)3.0-3.5	n	236	
2012	(e)3.5 & abo	%	92%	
2012	(e)3.5 & abo	n	160	

**Table A7: Descriptive Statistics for Total Enrollment:
Results from Multivariate Logistic Regression (n=2504)**

Variables	Mean	SD	Min.	Max.
Total enrollment (outcome)	0.87	0.34	0.00	1.00
Sum of junior and senior year coaching time	69.66	28.18	0.00	148.50
ACT score	18.26	3.68	9.00	34.00
GPA	2.96	0.57	1.21	4.20
Cohort 2009	0.18	0.39	0.00	1.00
Cohort 2010	0.24	0.42	0.00	1.00
Cohort 2011	0.28	0.45	0.00	1.00
Cohort 2012	0.30	0.46	0.00	1.00

Note: Cohort 2009 to 2012 allowed the use of high school junior and senior year coaching hours as a predictor.

**Table A8: Descriptive Statistics for First-to-Second Year Persistence:
Results from Multivariate Logistic Regression (n=1392)**

Variables	Mean	SD	Min.	Max.
First-to-second year persistence (outcome)	0.86	0.35	0.00	1.00
Sum of junior and senior year coaching time	68.47	28.13	1.00	148.50
Coaching hours in 1st year	7.50	5.94	0.00	41.50
Coaching type in 1st year: Campus-based at least 1 semester	0.26	0.44	0.00	1.00
ACT score	18.46	3.63	10.00	32.00
GPA	3.00	0.56	1.21	4.03
White	0.07	0.26	0.00	1.00
Black	0.23	0.42	0.00	1.00
Black immigrant	0.12	0.32	0.00	1.00
Hispanic	0.09	0.29	0.00	1.00
Asian	0.13	0.33	0.00	1.00
Hmong	0.23	0.42	0.00	1.00
Other	0.06	0.23	0.00	1.00
Race info missing	0.08	0.27	0.00	1.00
Cohort 2009	0.27	0.44	0.00	1.00
Cohort 2010	0.34	0.47	0.00	1.00
Cohort 2011	0.39	0.49	0.00	1.00
Private 2-year college	0.01	0.12	0.00	1.00
Private 4-year college	0.38	0.49	0.00	1.00
Public 2-year college	0.24	0.43	0.00	1.00
Public 4-year college	0.37	0.48	0.00	1.00

Note: Cohort 2009 to 2011 allowed the use of high school junior and senior year coaching hours as a predictor. Cohort 2012 only had one semester of enrollment data.

**Table A9: Descriptive Statistics for Second-to-Third Year Persistence:
Results from Multivariate Logistic Regression (n=711)**

Variables	Mean	SD	Min.	Max.
Second-to-third year persistence (outcome)	0.84	0.37	0.00	1.00
Sum of junior and senior year coaching time	63.87	26.22	2.50	133.50
Coaching hours in 2 nd year	6.79	4.59	0.00	27.00
Coaching type in 2 nd Year: Campus-based at least 1 semester	0.26	0.44	0.00	1.00
ACT score	18.79	3.67	12.00	32.00
GPA	3.03	0.55	1.44	4.02
Cohort 2009	0.55	0.50	0.00	1.00
Cohort 2010	0.45	0.50	0.00	1.00

Note: Cohort 2009 and 2010 allowed the use of high school junior and senior year coaching hours as a predictor. They also allowed the modeling of second-to-third year persistence.

**Table A10: Descriptive Statistics for Third to Fourth Year Persistence:
Results from Multivariate Logistic Regression (n=628)**

Variables	Mean	SD	Min.	Max.
Third-to-fourth year persistence (outcome)	0.86	0.35	0.00	1.00
Senior year coaching time	24.18	15.64	0.00	63.00
Coaching hours in 3 rd year	6.38	4.55	0.00	33.49
Coaching type in 3 rd year: Campus-based at least 1 semester	0.19	0.39	0.00	1.00
ACT score	18.71	3.54	12.00	32.00
GPA	3.13	0.52	1.46	4.00
Cohort 2008	0.55	0.50	0.00	1.00
Cohort 2009	0.45	0.50	0.00	1.00
Private 2-year college	0.01	0.12	0.00	1.00
Private 4-year college	0.41	0.49	0.00	1.00
Public 2-year college	0.25	0.43	0.00	1.00
Public 4-year college	0.33	0.47	0.00	1.00
Ratio of full-time students	0.71	0.19	0.32	1.00

Note: Cohort 2008 and 2009 allowed the use of senior year coaching hours as a predictor. They also allowed the modeling of third-to-fourth year persistence.

**Table A11: Descriptive Statistics for Bachelor's Completion within 4 Years:
Results from Multivariate Logistic Regression (n=673)**

Variables	Mean	SD	Min.	Max.
Obtaining BA within 4 years (outcome)	0.28	0.45	0.00	1.00
Semester average coaching hours (1 st year to 4 th year)	2.81	2.18	0.00	14.00
Coaching type: Campus-based at least 1 semester (1 st year to 4 th year)	0.18	0.39	0.00	1.00
ACT score	18.55	3.43	12.00	32.00
GPA	3.14	0.49	1.54	4.00
Female	0.64	0.48	0.00	1.00
First-generation college attendee	0.71	0.45	0.00	1.00
First-gen. college info missing	0.10	0.30	0.00	1.00
Cohort 2007	0.37	0.48	0.00	1.00
Cohort 2008	0.63	0.48	0.00	1.00
Public institutions	0.59	0.49	0.00	1.00
Ratio of full-time students	0.73	0.17	0.23	1.00

Note: Only Cohort 2007 and 2009 allowed the modeling of within 4 year Bachelor's degree completion.

**Table A12: Descriptive Statistics for Bachelor's Completion within 5 Years:
Results from Multivariate Logistic Regression (n=251)**

Variables	Mean	SD	Min.	Max.
Obtaining BA within 5 years (outcome)	0.44	0.50	0.00	1.00
Average coaching hours (1 st year to 5 th year)	2.65	2.16	0.00	10.58
Coaching type: Campus-based at least 1 semester (1 st year to 5 th year)	0.19	0.39	0.00	1.00
ACT score	18.55	3.47	12.00	32.00
GPA	3.17	0.45	1.79	4.00
First-generation college attendee	0.51	0.50	0.00	1.00
First-gen. college info missing	0.24	0.43	0.00	1.00
Ratio of full-time students	0.71	0.17	0.35	1.00

Note: Only Cohort 2007 allowed the modeling of within-5 year Bachelor's degree completion.

VI. Appendix B

Description of Variables

Student Outcomes

Total Enrollment: Students were considered *enrolled* when they were accepted at a postsecondary institution and were enrolled within the first academic year following high school graduation. Students were classified *not enrolled* if they withdrew during the semester. Furthermore, students were considered enrolled even when they were enrolled in the first semester but were not enrolled in the second semester of that year. To calculate the rate of total enrollment, the denominator was defined as the number of students who were accepted at a postsecondary institution. Students were not included in the denominator if a) their enrollment status was not confirmed, b) they already obtained an Associate's degree or a Bachelor's degree and were not enrolled, c) they had an allowable exclusion status, or d) they had a leave of absence status. The numerator was the number of students who were enrolled as defined above. This enrollment was operationalized as the number of students who enrolled in college within the first academic year following high school graduation divided by the number of students accepted at a postsecondary institution.

Semester-to-Semester and Year-to-Year Persistence: If a student was enrolled during one semester and was also enrolled in the next semester, he or she was considered to have persisted from one semester to the next. This excludes (the albeit unusual) cases in which a student graduated in the first semester. The persistence between a spring semester and a fall semester is also considered to be year-to-year persistence. To derive the persistence rate, the denominator included the number of students enrolled in one semester who did not graduate during that semester. The numerator was the number of students who successfully enrolled in the next semester.

Completion of Associate's Degree and Bachelor's Degree: When students completed an Associate's or a Bachelor's degree, they were classified as either Associate's- or Bachelor's-completers. For the Associate's degree completion analyses, the "within 3 year Associate's completion" variable was derived for cohorts 2007, 2008, and 2009. For the Bachelor's degree completion analyses, the "within 4 year Bachelor's completion" variable was derived for cohort 2007 and 2008 and "within 5 year completion of Bachelor's degree" was derived for cohort 2007. The length of year was defined as the duration between the semester a student first enrolled and the semester he/she completed a degree. To calculate the completion rate, the denominators were the number of Associate's degree or Bachelor's degree candidates. Because some students transferred between 2-year and 4-year colleges or pursued both degrees, the candidate variables were not mutually exclusive. If students were enrolled at least one semester in a 2-year college or in a 4-year college, they were defined, respectively, as Associate's or Bachelor's candidates. The numerator was the number of students who completed the degree.

Total Completion (Associate's and Bachelor's Degree Completion Combined): As a summary measure, a variable combining Associate's and Bachelor's degrees was derived. To calculate the rate of total completion, the denominator was the number of students who were either Associate's degree or Bachelor's degree candidates (as defined in the section above). The numerator was the number of students who completed an Associate's degree, a Bachelor's degree, or both. For the 2007 cohort, two versions of the variable were prepared: a) completion of an Associate's degree within 3 years or of a Bachelor's degree within 4 years and b) completion of an Associate's degree within 3 years or of a

Bachelor's degree within 5 years. For the 2008 cohort, the variable, "completion of an Associate's degree within 3 years or a Bachelor's degree within 4 years" was prepared.

Coaching-Related Variables

High School Junior Year and Senior Year Coaching Hours: Coaching hour data from the junior and senior years of high school were available for students from cohorts 2009 through 2012. Among the 2008 cohort, coaching hour data were only available for students' high school senior years, and no high school coaching data were available for students in the 2007 cohort. Measurement of coaching received was expressed in hours. For analysis, some extremely large values were set to the value of 4 standard deviations away from the mean. For analysis of cohorts with both years of high school data, the sum of junior and senior year hours received was used.

Campus-based and Technology-based: Students received two types of College Possible coaching while in college: campus-based (CB) and technology-based (TN) programs. A CB program is based on face-to-face direct interaction. A TB program is an online program wherein coaches and students communicate digitally. There is an additional hybrid program wherein coaches were located on campus but communication occurred online. For analysis, this type was classified as a TB program. The availability of CB was limited for cohorts studied in this report. Students who were exposed to CB at least for one semester were classified as CB-exposed students.

College Year Coaching Variables: While coaching at the college level was available for all students in this study, collection of data on coaching hours began only in the Fall of 2009. Cohorts 2009, 2010, 2011, and 2012 had coaching hour information for all semesters in which students were enrolled. Only partial data were available for students in the 2007 and 2008 cohort. Data were available for each semester. Extremely large values were set to the value at 4 standard deviations away from the mean. For the analysis of year-to-year persistence, the sum of coaching hours received during the Fall and Spring semesters of the preceding school year was used as a predictor. For example, for the analysis of first-to-second year persistence, the sum of first year Fall and Spring semester hours was used. For graduation outcomes, coaching hours averaged across all semesters up to the graduation year were employed as a predictor. For example, to analyze 4-year Bachelor's degree completion rates, all data available up to the spring semester of the fourth year per student were used in the calculation. Students who stopped enrolling earlier than the graduation semester/year were assigned values based on the available data up to the last semester in which he/she was enrolled. Because hours were averaged across semesters, the resulting variable is not correlated with the number of semesters in which students were enrolled and thus does not bias the results of regression analyses.