MEMORANDUM September 1, 2020

TO: David Johnston
Executive Director, College Readiness

FROM: Allison Matney, Ed.D.
Officer, Research and Accountability

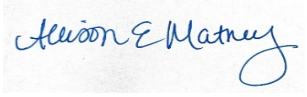
SUBJECT: **A RETROSPECTIVE COHORT STUDY EXAMINING THE ASSOCIATION BETWEEN COLLEGE READINESS INDICATORS AND ADVISING AMONG HIGH SCHOOL SENIORS, 2019–2020: IMPLICATIONS FOR LAUNCH SENIOR**

This program evaluation explored postsecondary trends of Houston Independent School District (HISD) high school seniors over the past three years, including students who participated in direct advising sessions through Launch Senior. Three cohorts of students attended HISD schools in ninth through twelfth grades, culminating in either 2017–2018 (Cohort I) or 2018–2019 (Cohort II) graduation, and, ultimately, college enrollment. Cohort III students were seniors in 2019–2020. The majority of cohort students participated in Launch Senior advising sessions.

Key findings include:

- Launch Senior study populations, with college advising contacts, were comprised of 6,651 Cohort I, 7,615 Cohort II, and 7,218 Cohort III students.
- The more college advising students received, the more likely they enrolled in a 4-year compared to a 2-year college, and in college compared to no college after high school.
- The odds of Launch Senior students enrolling in a 4-year compared to a 2-year college after high school were less likely for males, students receiving special education services, and economically-disadvantaged students relative to their counterparts. Being gifted/talented greatly increased the odds of Launch Senior students achieving these outcomes.
- There was a strong positive association between the number of advising sessions and GPA for Cohort III seniors.
- Logistic regression modeling revealed major factors influencing Cohort III seniors' reported interest in college, including expecting friends to go to college and that someone in their lives expected them to go to college.
- Implications for Launch Senior include increasing the number of advising sessions offered to students, encouraging rigorous academic preparation; and building strong partnerships to enhance college access opportunities for seniors.

Further distribution of this report is at your discretion. Should you have any further questions, please contact me at 713-556-6700.



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Attachment

cc: Grenita Lathan, Ph.D. Silvia Trinh Rick Cruz Yolanda Rodriguez

HOUSTON INDEPENDENT SCHOOL DISTRICT

RESEARCH

Educational Program Report

A RETROSPECTIVE COHORT STUDY EXAMINING THE ASSOCIATION BETWEEN COLLEGE READINESS INDICATORS AND ADVISING AMONG HIGH SCHOOL SENIORS, 2019-2020: IMPLICATIONS FOR LAUNCH SENIOR

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EVALUATION REPORT
BUREAU OF PROGRAM EVALUATION

A Retrospective Cohort Study Examining the Association between College Readiness Indicators and Advising Among High School Seniors, 2019–2020: Implications for Launch Senior

Prepared by Venita R. Holmes, Dr.P.H.

Abstract

This study explored postsecondary trends of Houston Independent School District (HISD) high school seniors over the past three years, including students who participated in direct advising sessions through Launch Senior. Three cohorts of students attended HISD schools in ninth through twelfth grades, culminating in either 2017–2018 (Cohort I) or 2018–2019 (Cohort II) graduation, and, ultimately, college enrollment. Cohort III students were seniors in 2019–2020. The majority of cohort students participated in Launch Senior advising sessions. The study revealed that the more college advising students received, the more likely they enrolled in a 4-year college compared to a 2-year college, and the more likely they enrolled in a college vs. no college. The odds of Launch Senior students enrolling in a 4-year compared to a 2-year college after high school were less likely for males, students receiving special education services, and economically-disadvantaged students relative to their counterparts. In contrast, being gifted/talented greatly increased the odds of Launch Senior students achieving these outcomes. Cohort I and II students with multiple years of dual credit and advanced placement (AP) courses had higher rates of college enrollment, with improved outcomes for students during their senior year. A higher percentage of students who enrolled in 4-year compared to 2-year colleges attained GPAs, SAT, and ACT scores that fell within college readiness benchmarks. A higher percentage of Cohort III students were college ready based on GPA and SAT performance relative to other cohorts, suggesting higher college enrollment rates for this cohort, considering no environmental changes. There was a strong positive association between the number of advising sessions and GPA for Cohort III students. Logistic regression modeling revealed major factors influencing Cohort III seniors' reported interest in college, including expecting friends to go to college and that someone in their lives expected them to go to college. Implications for Launch Senior include increasing the number of advising sessions offered to students, encouraging rigorous academic preparation; and building strong partnerships to enhance college access opportunities for seniors.

Introduction

Improving college enrollment rates of PK-12 students has become an increasingly important objective for education leaders throughout the United States. Locally, the Texas Higher Education Coordinating Board (THECB, 2017) recognized that many students leave high school without the skills and knowledge to be successful in postsecondary education. While the National Center for Education Statistics (NCES, 2020) reported increased college enrollment rates for high school graduates over the years, political and social pressures have led to an intensive focus on ensuring that *all* students matriculate to college and acquire the social capital and resources needed to support college-going rates (Noble & Sawyer, 2002; Conley, 2008; Yavuz, Parzuch, & Generali, 2019). Advising high school seniors on how to access college has been found to be beneficial (Wang et al., 2013); however, the evidence is stronger when advising is combined with academic programs (Tierney et al., 2009) (**Figure 1**).

Figure 1: Sharpstown Dream Summit

Background

The Houston Independent School District's (HISD) College and Career Readiness Department, consistent with urban school districts across the nation, helps high school seniors develop the cognitive and educational planning skills to access admission to an appropriate postsecondary institution, while securing the financial aid to achieve their pursuits of higher education. Launch Senior was implemented during the 2015–2016 academic year. The program was, specifically, designed to provide a high-quality comprehensive advising program to all seniors and their families. The program focuses on empowering seniors to pursue and attain a college degree to transform lives, schools, and communities. Launch Senior program components and strategies are depicted in **Figure 2**. They include:

- *Application*: Advise students to develop a college-going mindset, find the best fit and assist students through the college admission process;
- *Matriculation*: Support students in identifying the best fit college and assist them in taking steps to enroll;
- *Persistence*: Equip students with tools, resources, and skills needed to persist in college toward graduation;
- *FAFSA*: Empower students to increase federal grants and loan offers; and
- *Financial Aid*: Help students obtain grants, scholarships, and other forms of aid to increase affordability.
- (**Figures 3**–**5** are depictions of Launch Senior students and activities).

Approximately 50% of HISD seniors receive direct advising sessions through Launch Senior, some seniors receive multiple advising sessions. There is an additional indirect impact of the program on students' college-going rates, considering that the program is available across all HISD campuses. To that end, this program evaluation sought to examine which factors impacted college-going rates of HISD seniors immediately after high school. In addition, outcomes related to Cohort III, who also benefited from Launch Senior, may help program administrators better prepare students for college in the future. The research questions addressed in the evaluation are as follows.

Research Questions:

1. How did college enrollment rates among Cohort I and Cohort II students vary based on demographic characteristics? Which characteristics predicted the likelihood that cohort students enrolled in 2-year or 4-year colleges after high school?
2. What was the impact of Launch Senior advising on college enrollment rates of Cohort I and Cohort II students?
3. What were the college enrollment rates of Cohort I and Cohort II students who participated in dual credit and advanced placement college preparatory courses?
4. What proportions of Cohort I and Cohort II students were college ready based on GPA, SAT, and ACT performance? What were cohort students' college enrollment rates?
5. What attendance and disciplinary action trends were associated with college enrollment for Cohort I and Cohort II students?
6. How did Cohort III seniors perform on academic outcomes predictive of college readiness (GPA, dual credit, AP, SAT, FAFSA, attendance, and discipline)?
7. What were the perceptions of Cohort III seniors regarding their interest in attending college?

Figure 2: Launch Senior components and strategies, 2019–2020

8. What were Cohort III's perceptions of their academic mindsets, college-related experiences, social engagement, school safety, and school-level support to enhance college enrollment?

Review of the Literature

The research has emphasized the need to increase college enrollment rates among high school seniors (Hill, 2008; Hughes & Petscher, 2016). There are many factors that have shown evidence toward accomplishing this objective. Specifically, student advising has been found to be a mechanism to build relationships between students and adults in schools. Positive relationships support more engagement and achievement (Wang et al., 2013). Moreover, advisors offer students information related to appropriate postsecondary options, such as college and financial aid (Bryan, Moore-Thomas, Day-Vines, & Holcomb-McCoy, 2011; American Institute for Research, 2019).

Research that documents the benefits of advising students on college access in isolation from exploring their involvement in academic programs is limited (Tierney et al., 2009). The research does show that students who took an Advanced Placement (AP) exam were nearly twice as likely to enroll in a four-year college and graduate in four years or less compared to students who did not take an AP exam (Chajewski, Mattern, & Shaw, 2011; Shaw, Marini, & Mattern, 2013). The College Board (2019) found that 43% of high school graduates who took the SAT met the SAT College Readiness Benchmarks, and the majority of these students were considered prepared to pursue education at a four-year institution, with a high probability of success in first-year courses

Figure 3: Worthing High School career fair

Figure 4: Madison Roadshow - college advisors help students complete financial aid forms

(College Board, 2019). A report released by ACT noted that taking core courses in high school dramatically increased students' likelihood of graduation and college readiness (Allen & Radunzel, 2017; ACT, 2019).

Research has also shown that high school grades are stronger and more consistent predictors of college persistence and graduation than ACT, SAT, class rank, and family background (Allensworth & Clark, 2020; Geiser & Santelices, 2007). Other studies have noted inconsistencies in using GPAs as a measure that may be affected by school quality and school poverty (Zwick, 2013). Nevertheless, Allensworth and Clark (2020) found that graduating from college ranged from 20% for students with high school GPAs under 1.5 to about 80% for students with GPAs of 3.75 or higher, after controlling for students' backgrounds and college characteristics. Combining students' high school GPAs and placement test scores may be more predictive of postsecondary attainment. Variables, such as number of honors and college-level courses completed, may provide additional improvements toward predicting college enrollment rates among high school students (Belfield & Crosta, 2012).

Karp et al. (2007) reported that students who were dually enrolled in college courses during high school were more likely to earn high-school degrees, enroll in college, enroll in a four-year college, enroll full time, and persist in college than students without college experience. The study also found that students who received college credits during high school had higher college GPAs and earned more college credits within three years of high school graduation. An intervention study conducted by Berger et al. (2014) found positive effects on students' college degree attainment, college access and enrollment, credit accumulation, completing high school, and general academic achievement in high school, with a medium to large extent of evidence.

Figure 5: Washington High School college acceptance letters board

Table 1: Number and percent of students in the initial study populations and analytic samples by cohort

	At 9th Grade	4 Years Later at Graduation	% Graduates in Analytic Sample	Launch Senior students with College Advising Contacts (Analytic Sample)
Cohort (Graduation Year)	N	n	%	N (n)
Cohort I (2017–2018)	9,876	8,688	88.0	6,651 (5,057)
Cohort II (2018–2019)	9,805	8,715	88.9	7,615 (5,208)
Cohort III (2019–2020*)	9,720	9,360	96.3	7,218 (5,861)

*Cohort III is based on students enrolled in 9th grade and who successively advanced to 12th grade 4-years later; final graduation status was unavailable for this report.

School attendance has also been shown to be a significant predictor of academic progress, high-school graduation, and entry into college (Balfanz, Herzog, & Mac Iver, 2007). The University of Chicago Consortium on School Research reported that attendance contributes more than any other factor to course failure and low grades. Students who have the best chance of enrolling and persisting in college (being college-ready) have average attendance rates of 98% (Allensworth & Easton, 2007; University of Chicago Consortium on School Research, 2020).

College-going culture may be the single most consistent predictor of whether students initiate college enrollment (Roderick, Nagaoka, Coca, & Moeller, 2008). Social factors, such as motivation, perseverance, persistence, good study habits, and time management skills have been shown to be important indicators of successful entry into college for high-school students (Farrington et al., 2012). In addition, students' beliefs, attitudes, and character may influence their engagement and participation in school (Snipes & Tran, 2016; Dweck, Walton, & Cohen, 2011; Farrington et al., 2012). The research suggests that students with positive academic mindsets (the psychological and social beliefs one has about oneself in relation to academic work) tend to work harder, engage in more productive academic behaviors, and persevere to overcome obstacles to be successful in school. Thus, linking the development of academic mindsets to college preparedness seems consistent with the research and may provide indirect predictive evidence regarding which students may be more likely to enroll in college after high school.

Methods

This retrospective cohort study explored college enrollment of Launch Senior graduates and their perceived interest in college attendance at 12th grade. Associations between college enrollment outcomes, controlling for background characteristics along with academic and social factors, were also examined in the study.

Study Population

The study population included three cohorts of Launch Senior students, which were based on successive 9th to 12th-grade enrollment, culminating in either 2017–2018 (Cohort I) or 2018–2019 (Cohort II) graduation outcomes, and, ultimately, college enrollment. Cohort III students were seniors in 2019–2020. **Table 1** provides the number and percentage of students in each cohort at 9th grade and four years later at graduation (analytic sample). **Table 2a** and **Table 2b** in **Appendix A** (p. 19) present background char-

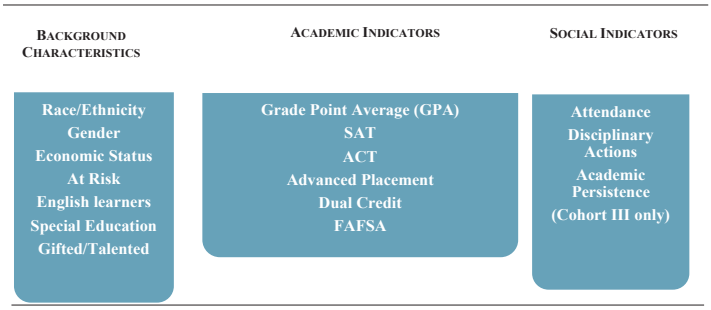


Figure 6: Key study variables predicting college enrollment (Note: College advising contacts was an additional variable used in the study.)

acteristics of the initial study populations and the analytic samples. Table 1 also shows the number of Launch Senior students with advising contacts in each cohort and the number who were included in a secondary analytic sample. All cohort students were exposed to Launch Senior, and the majority of students received direct advising. The use of multiple cohorts allowed for data triangulation and validation of study findings to determine whether outcomes examined in the study were consistently observed over time. The Public Education Information Management System (PEIMS) was used to identify students in each cohort. Students in Cohort I and Cohort II were defined by when they entered 9th grade and whether they graduated four years later. Due to the lack of graduation data for Cohort III at the time of this report, the group was defined by when students entered 9th grade and their progressive 12th grade status in the cohort year (2019–2020).

Data Collection and Analyses

Data related to the number of advising sessions for Launch Senior students were gathered from administrators in the College and Career Readiness Department. A depiction of other study variables can be found in **Figure 6**. Background characteristics encompassed students' race/ethnicity, gender, economic status, and whether students were classified as at risk, English learners (ELs), special education, and gifted/talented (G/T) in PEIMS. These background characteristics were captured at ninth grade for the cohorts in general. For analyses related to Launch Senior advising, these variables were captured at senior year. The academic variables used in this study were students' GPA during the cohort year, and their latest SAT and ACT performance. Enrollment in advanced placement and dual credit courses were also used to measure academic outcomes. Social indicators consisted of attendance and disciplinary actions (in-school and out-of-school suspensions).

GPA was extracted from the Chancery data system. SAT and ACT results were extracted from College Board and ACT, Inc. data files. College enrollment data were gathered from National Student Clearinghouse® (NSC) student-level data files.

Students considered college ready on the SAT attained concurrent Evidence-Based Reading and Writing (EBRW) scores between 480–800 and math scores between 530–800 (College Board, 2019). The ACT college readiness benchmarks are the minimum scores required for students to have a reasonable chance for success in first-year credit-bearing college courses at a typical college (Allen & Radunzel, 2017). Students had to score at least 19 on the ACT English test and at least 19 on the math test, with a composite score of at least 23 to be considered college ready. The college readiness benchmark for GPAs were scores greater than or equal to 3.8, which is used at a competitive state university in Texas. The research has identified attendance rates of at least 98% as an important indicator of college readiness (Allensworth & Easton, 2007, University of Chicago Consortium on School Research, 2020).

Descriptive statistics were calculated on study variables, including means and standard deviations. Logistic regression and multi-logistic regression were conducted to model college readiness and to determine the likelihood that students would enroll in college. Odds ratios (OR) measured associations between categorical variables. Independent t-test compared specific academic outcomes across cohorts. The level of statistical significance in the study was $p < .05$.

A survey was administered to Cohort III seniors to examine academic persistence, including academic mindsets, school safety, student engagement, and behaviors that may influence college readiness and college enrollment rates. Some of the students surveyed received advising through Launch Senior. Items used in the survey were extracted from the ED School Climate Survey (U.S. Department of Education, n.d.), the National Education Longitudinal Study Student Questionnaire (National Center for Education Statistics, n.d.), and the works of Dweck, Walton, and Cohen (2011). Fisher's exact tests compared the frequency of responses based on two-group classifications, including students' perceived interest in attending college and students' perceived interest in not attending college. The level of statistical significance was $p < .05$.

Study Limitations

There were several limitations to the study. Specifically, all students in the cohorts did not receive direct advising through Launch Senior. Another limitation is that the study only examined data for cohorts of students who were successively promoted and graduated in four years in HISD. However, this design helped to offset social or academic factors that may have affected students' successful progression through high school. Further, the use of multiple cohorts provided a means to cross validate findings and mitigate this limitation. Second, some students in the study may have benefited from the Texas top 10% law, which grants graduates in the top decile of their senior class automatic admission to many Texas public universities (Texas House Bill 588). This law, theoretically, may have weakened the differences between groups studied with varying family backgrounds (Niu & Tienda, 2013). Several research studies have shown that the Texas law may have no significant impact on entry of minority students in flagship Texas colleges, considering that qualified minority students may be less likely to apply to these colleges compared to non-minority students (Black, Cortes, & Lincove, 2015; Cortes, 2010; Cullen, Long, & Reback, 2011). Further, the data reflected several test administrations for some students on the SAT and ACT; however, the latest test was used for each student. Taking the tests multiple times may have increased the scores of students who took advantage of this opportunity. There were also limitations associated with using GPAs, considering that GPAs may be inflated, subjective, and influenced by the level of courses taken by students, with students taking higher level courses, such as AP or IB courses, attaining higher GPAs (Hurwitz & Lee, 2018; Houston Independent School District, n.d.). The research has shown that FAFSA completion rates may be influenced by financial need (Page, Low-

ry, & Nurshatayeva, 2017). However, the multiple variables used in this study to measure college enrollment rates, including students' economic status provided additional information to support findings. Finally, research has shown that students' aspirations, expectations, and motivations may influence their pursuit of postsecondary education. The study did not capture data for all cohorts to measure these associations. However, statistical adjustments took into account students' economic status and pre-college academic preparation to help discriminate between observed differences in college enrollment after high school among specific subgroups of the population. Motivational factors that may have influenced students' college enrollment were captured by surveying Cohort III students.

Results

How did college enrollment rates among Cohort I and Cohort II students vary based on demographic characteristics? Which characteristics predicted the likelihood that cohort students enrolled in 2-year or 4-year colleges after high school?

Demographic characteristics and college enrollment rates of Cohort I students after high school are shown in **Table 3a, 3b, 3c,** and **3d** (**Appendix B**, p. 20**)**. For Cohort I, higher percentages of Asian students attended a 4-year college (74.0%) compared to White (62.0%), Black (41.3%), Hispanic (26.8%), and students of other race/ethnicities. In addition, Black and Hispanic students were more likely to not go to college (42.0% vs. 46.4%) than enroll in a 2-year college (16.7% vs. 26.7%) or a 4-year college (41.3% vs. 26.8%) (Table 3a). Relative to gender, a higher percentage of females enrolled in a 4-year college compared to males (38.9% vs. 32.1%) and enrolled in a 2-year college compared to males (23.2% vs. 22.3%) (Table 3b). At the same time, a higher percentage of males did not enroll in college compared to females (45.5% vs. 37.8%).

G/T students had higher rates of enrollment in a 4-year college (70.6%) compared to a 2-year college (12.9%) and no college (16.4%) (Table 3b). In contrast, Cohort I students with disabilities were far more likely to not enroll in college after high school (69.7%) than enroll in a 2-year (23.7%) or a 4-year college (6.6%) (Table 3d). A similar trend was found among at-risk students (Table 3c) and limited English proficient (LEP) students (Table 3d).

Logistic regression analysis was conducted to predict the probability that a student enrolled in a 2-year or a 4-year college based on key demographic characteristics (**Table 3e**). The predictor variables were participant's gender along with special education, G/T, LEP, and at-risk status. A test of the full model versus a model with intercept only was statistically significant, $\chi 2(6, N = 5{,}057) = 989$, $p < .000$. The model was able to correctly classify 71.8% of students who enrolled in a 4-year college and 66.9% of students who enrolled in a 2-year college, for an overall success rate of 68.8%.

Table 3e shows the logistic regression coefficient, Wald test, and odds ratio for each of the predictors. Employing a .05 criterion of statistical significance, special education, G/T, LEP, being at risk and economically disadvantaged had significant partial effects on enrollment in a 4-year compared to a 2-year college after high school. The odds of enrolling in a 4-year college compared to a 2-year college decreased by 11.3% for males compared to females, decreased by 66.6% for special education students compared to non-special education students, and by 21.1% for economically-disadvantaged students compared to non-economically disadvantaged students, when holding all other variables constant. Further, being G/T increased enrollment in a 4-year college compared to a 2-year college by 180.4%. Findings on other characteristics are also reflected in Table 3e.

Table 3e: Logistic regression predicting 4-year vs. 2-year college enrollment after high school for Cohort I students

							95% C.I.for EXP(B)	
	B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Spec. Ed.	-1.096	.195	31.752	1	.000	.334	.228	.489
At Risk	-1.237	.070	309.907	1	.000	.290	.253	.333
G/T	1.031	.087	140.438	1	.000	2.804	2.365	3.326
LEP	-.673	.148	20.742	1	.000	.510	.382	.682
Eco. Disadv.	-.237	.068	12.357	1	.000	.789	.691	.900
Gender	-.120	.064	3.492	1	.062	.887	.782	1.006
Constant	1.221	.079	238.635	1	.000	3.391		

Demographic characteristics and trends related to enrollment in college after high school for Cohort II are shown in **Tables 4a**, **4b**, **4c**, and **4d** (**Appendix C**, p. 21**)**. For Cohort II, higher percentages of Asian students attended a 4-year college (75.4%) compared to White (59.7%), Black (39.6%), Hispanic (26.9%), and students of other race/ethnicities (Table 4a). In addition, Black and Hispanic students were more likely to not go to college (43.5% vs. 45.0%) than enroll in a 2-year college (16.9% vs. 28.1%) or a 4-year college (39.6% vs. 26.9%). Relative to gender, a higher percentage of females enrolled in a 4-year college compared to males (39.2% vs. 30.9%) and a higher percentage of females enrolled in a 2-year college compared to males (24.2% vs. 23.4%) (Table 4b). At the same time, a higher percentage of males did not enroll in college compared to females (45.7% vs. 36.6%).

G/T students had higher rates of enrollment in a 4-year college (68.4%) relative to a 2-year college (13.5%), and no college (18.1%) (Table 4b). In contrast, students with disabilities were far more likely to not enroll in college after high school (67.0%) than enroll in a 2-year (24.4%) or a 4-year college (8.6%) (Table 4d). A similar trend was found among at-risk students (Table 4c) and LEP students (Table 4d). Logistic regression analysis was employed to predict the probability that Cohort II students enrolled in a 2-year or a 4-year college based on demographic characteristics. The predictor variables were participant's gender along with special education, G/T, LEP, and at-risk status. A test of the full model versus a model with intercept only was statistically significant, $\chi 2(6, N = 5{,}124) = 1015$, $p < .000$. The model was able to correctly classify 81.3% of students who enrolled in a 4-year college and 52.3% of students who enrolled in a 2-year college, for an overall success rate of 70%.

Table 4e shows the logistic regression coefficient, Wald test, and odds ratio for each of the predictors. Employing a .05 criterion of statistical significance, gender, special education, G/T, LEP, being at risk and economically disadvantaged had significant partial effects on enrollment in a 4-year compared to a 2-year college after high school. The odds of enrolling in a 4-year college compared to a 2-year college decreased by 18.1% for males compared to females, decreased by 48.1% for special education students com-

Table 4e: Logistic regression predicting 4-year vs. 2-year college enrollment after high school for Cohort II students

							95% C.I.for EXP(B)	
	B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Spec. Ed.	-.655	.178	13.490	1	.000	.519	.366	.737
At Risk	-.961	.068	200.695	1	.000	.382	.335	.437
G/T	1.272	.079	259.906	1	.000	3.569	3.058	4.166
LEP	-.615	.129	22.601	1	.000	.540	.419	.696
Eco. Disadv.	-.415	.072	32.982	1	.000	.660	.573	.761
Gender	-.200	.064	9.788	1	.002	.819	.722	.928
Constant	.849	.076	125.873	1	.000	2.338		

pared to non-special education students, and by 34.0% for economically-disadvantaged students compared to non-economically disadvantaged students, when holding all other variables constant. Further, being G/T increased enrollment in a 4-year college compared to a 2-year college by 256.9%. Findings on other characteristics are also reflected in Table 4e.

What was the impact of Launch Senior advising on college enrollment rates of Cohort I and Cohort II students?

Logistic regression was conducted to determine the impact of college advising on college enrollment of Cohort I and Cohort II students. Among the students who received college advising, there were 5,057 Cohort I students and 5,208 Cohort II students in the analytic samples.

Table 5a shows Cohort I results, including the logistic regression coefficient, Wald test, and odds ratio for each of the predictors. Employing a .05 criterion of statistical significance, advising, gender, special education, G/T, and being at risk had significant partial effects on enrollment in a 4-year compared to a 2-year college after high school. Table 5a reveals that the more college advising students received, the more likely that they enrolled in a 4-year college compared to a 2-year college. The finding was statistically significant ($p < .05$). Moreover, the odds of enrolling in a 4-year college compared to a 2-year college increased by 10.8% for females compared to males, decreased by 59.0% for special education students compared to non-special education students, and decreased by 15.1% for economically-disadvantaged students compared to non-economically disadvantaged students, when holding all other variables constant. Further, being G/T increased enrollment in a 4-year college compared to a 2-year college by 136.4%. Findings on other characteristics are also reflected in Table 5a for Launch Senior Cohort I students who were directly involved in advising sessions.

Table 5a: Logistic regression predicting 4-year vs. 2-year college enrollment after high school for Cohort I students with Launch Senior advising

							95% C.I.for EXP(B)	
	B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Advising	.101	.016	40.131	1	.000	1.106	1.072	1.141
Spec. Ed.	-.892	.243	13.440	1	.000	.410	.254	.660
At Risk	-1.026	.088	137.052	1	.000	.358	.302	.425
G/T	.861	.115	55.570	1	.000	2.364	1.886	2.965
LEP	-1.227	.235	27.361	1	.000	.293	.185	.464
Eco. Disadv.	-.164	.088	3.437	1	.064	.849	.714	1.009
Gender	-.115	.080	2.043	1	.153	.892	.762	1.043
Constant	.795	.111	50.946	1	.000	2.214		

Table 5b: Logistic regression predicting college enrollment vs. no college enrollment after high school for Cohort I students with Launch Senior advising

							95% C.I.for EXP(B)	
	B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Advising	.096	.014	50.648	1	.000	1.101	1.072	1.131
Spec. Ed.	-.605	.133	20.586	1	.000	.546	.420	.709
At Risk	-1.016	.077	175.258	1	.000	.362	.312	.421
G/T	.813	.106	58.526	1	.000	2.254	1.831	2.776
LEP	-.356	.124	8.187	1	.004	.701	.549	.894
Eco. Disadv.	-.330	.071	21.339	1	.000	.719	.625	.827
Gender	-.209	.061	11.594	1	.001	.811	.719	.915
Constant	1.221	.098	155.922	1	.000	3.391		

Table 5b shows the logistic regression coefficient, Wald test, and odds ratio predicting college enrollment vs. no college enrollment for Cohort I students who were directly involved in Launch Senior advising sessions. Employing a .05 criterion of statistical significance, all independent variables had significant partial effects. Table 5b reveals that the more college advising students received, the more likely students enrolled in college compared to no college. The finding was statistically significant ($p < .05$). Moreover, the odds of enrolling in college compared to no college increased by 18.9% for females compared to males, decreased by 45.4% for special education students compared to non-special education students, and decreased by 28.1% for economically-disadvantaged students compared to non-economically disadvantaged students, when holding all other variables constant. Further, being G/T increased enrollment in college compared to no college by 125.4%.

Table 6a shows the logistic regression coefficient, Wald test, and odds ratio for each of the predictors for Cohort II Launch

Table 6a: Logistic regression predicting 4-year vs. 2-year college enrollment after high school for Cohort II students with Launch Senior advising

							95% C.I.for EXP(B)	
	B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Advising	.019	.020	.865	1	.352	1.019	.980	1.059
Spec. Ed.	-.565	.227	6.197	1	.013	1.760	1.128	2.747
At Risk	-.858	.087	97.865	1	.000	2.358	1.990	2.795
G/T	1.098	.107	105.956	1	.000	.334	.271	.411
LEP	-.545	.151	12.972	1	.000	.580	.431	.780
Eco. Disadv.	-.122	.106	1.324	1	.250	.885	.719	1.090
Gender	-.198	.081	5.992	1	.014	.820	.700	.961
Constant	.112	.265	.179	1	.672	1.119		

Table 6b: Logistic regression predicting college enrollment after high school vs. no college enrollment for Cohort II students with Launch Senior advising

							95% C.I.for EXP(B)	
	B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Advising	.032	.015	4.454	1	.035	1.033	1.002	1.064
Spec. Ed.	-.557	.123	20.479	1	.000	1.746	1.372	2.223
At Risk	-.993	.064	237.171	1	.000	2.700	2.380	3.064
G/T	.554	.089	38.804	1	.000	.575	.483	.684
LEP	-.352	.090	15.411	1	.000	.703	.590	.838
Eco. Disadv.	-.330	.087	14.432	1	.000	.719	.606	.852
Gender	-.245	.060	16.757	1	.000	.783	.697	.880
Constant	.075	.168	.201	1	.654	1.078		

Senior students who received college advising. Employing a .05 criterion of statistical significance, gender, special education, G/T, LEP, and being at risk had significant partial effects on enrollment in a 4-year compared to a 2-year college after high school. Table 6a reveals that the odds of enrolling in a 4-year college compared to a 2-year college increased by 18.0% for females compared to males, decreased by 76.0% for special education students compared to non-special education students, and by 11.5% for economically-disadvantaged students compared to non-economically disadvantaged students, when holding all other variables constant. Further, being G/T increased enrollment in a 4-year college compared to a 2-year college by 66.6%. For Cohort II, the College Readiness department added significant professional development for its staff focused on workforce training programs at the community college as well as workforce training exposure events and summer bridge programming experiences.

Table 6b shows the logistic regression coefficient, Wald test, and odds ratio predicting college enrollment vs. no college enrollment for Launch Senior Cohort II students who were directly involved in advising sessions. Employing a .05 criterion of statistical significance, all independent variables had significant partial effects. Table 6b reveals that the more college advising students received, the more likely that they enrolled in college compared to no college. The finding was statistically significant ($p < .05$). Moreover, the odds of enrolling in college compared to no college increased by 21.7% for females compared to males, decreased by 174.6% for special education students compared to non-special education students, and by 28.1% for economically-disadvantaged students compared to non-economically disadvantaged students, when holding all other variables constant. Further, being G/T increased enrollment in college compared to no college by 42.5%.

What were the college enrollment rates of Cohort I and Cohort II students who participated in dual credit and advanced placement college preparatory courses?

Dual Credit Enrollment

Research has shown that dual enrollment may lead to increased college participation rates after high school (Bailey, Hughes, & Karp, 2002; Karp, 2012). This study examined the impact of dual enrollment for Cohort I and Cohort II students to determine the proportion of students who successively enrolled in a 2-year college, a 4-year college, or did not enroll in college after high school.

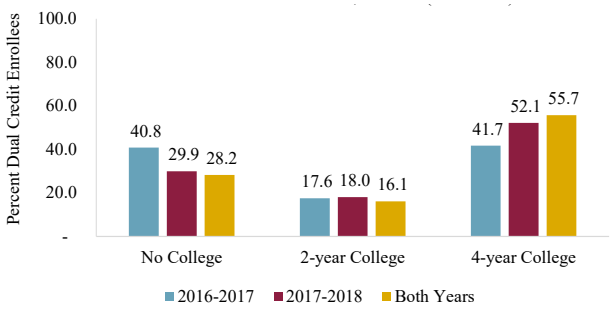


Figure 7a: Cohort I academic year(s) enrolled in dual credit courses by college enrollment status

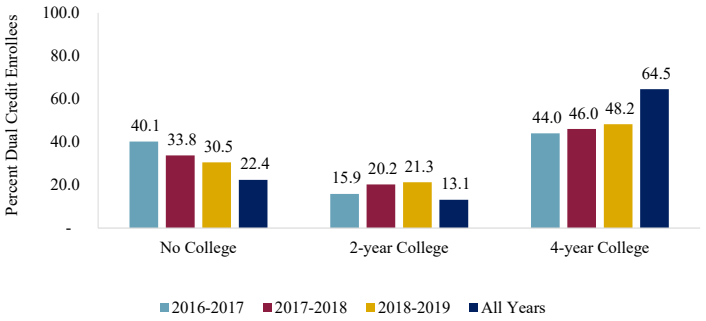


Figure 7b: Cohort II academic year(s) enrolled in dual credit courses by college enrollment status

There were 8,688 students in the Cohort I analytic sample. A total of 1,956 students participated in dual credit courses during the 2016–2017 academic year, 1,522 students in 2017–2018, and 1,013 students during both years. **Figure 7a** shows the percentages of Cohort I students who enrolled in dual credit courses during the two academic years, independently, and during both years. It is evident that students with two years of dual credit courses were more likely to enroll in a 4-year college than students with only one year of dual credit courses (55.7% [both years] vs. 41.7% [2016–2017] and 52.1% [2017–2018]). Moreover, dual credit enrollees in the high school graduation year (2017–2018) had higher rates of enrollment in a 4-year college compared to a 2-year college and no college (52.1% vs. 18.0 and 29.9%, respectively).

Figure 7b presents dual credit enrollment results for Cohort II. There were 8,715 students in the Cohort II analytic sample. A total of 1,059 students participated in dual credit courses during the 2016–2017 academic year, 1,712 students in 2017–2018, 1,714 students in 2018–2019, and 586 students all three years. The percentages of students who enrolled in dual credit courses for three academic years and attended a 4-year college were higher than the percentages of students who enrolled in dual credit courses for only one year (64.5% [three years] vs. 44.0% [2018–2019], 46.0% [2017–2018], 48.2% [2016–2017]). Further, students enrolled in dual credit courses during the graduation year (2018–2019) had higher rates of enrollment in a 4-year college compared to a 2-year college or no college (48.2% vs. 21.3% and 30.5%, respectively).

Advanced Placement (AP) Enrollment

Findings related to Cohort I students who enrolled in AP courses are depicted in **Figure 8a** (p. 8). Among the 8,688 students

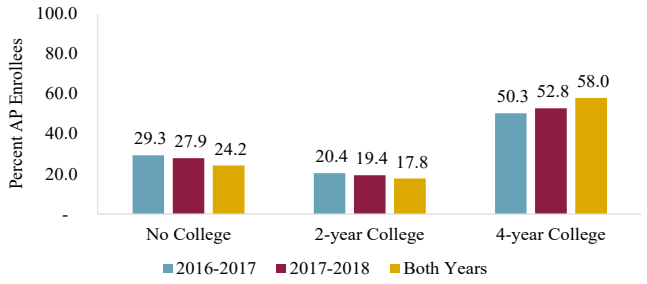


Figure 8a: Cohort I academic year(s) enrolled in AP courses by college enrollment status

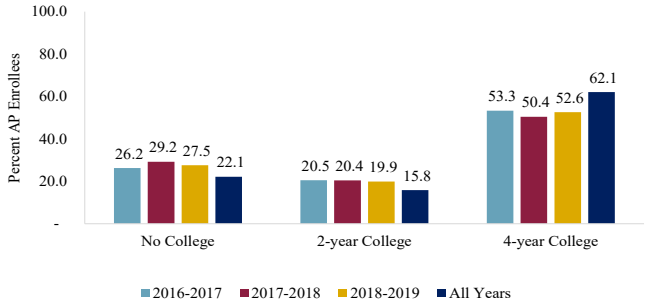


Figure 8b: Cohort II academic year(s) enrolled in AP courses by college enrollment status

in the analytic sample, there were 4,445 students enrolled in AP courses in 2016–2017, 4,072 students in 2017–2018, and 3,233 students in both years. It is evident that students with two years of AP courses were more likely to enroll in a 4-year college than students with only one year of AP courses ([58.0% - both years] vs. 50.3% [2016–2017] and 52.8% [2017–2018]). Moreover, students enrolled in AP courses during the graduation year (2018–2019) had higher rates of enrollment in a 4-year college compared to a 2-year college or no college (52.8% vs. 19.4% and 27.9%, respectively).

Advanced placement results for Cohort II students can be found in **Figure 8b**. Among the 8,715 students in the analytic sample, 3,935 students enrolled in AP courses in 2016–2017, 4,107 students in 2017–2018, 3,784 students in 2018–2019, and 2,114 students all three years. Students with three years of AP courses were more likely to enroll in a 4-year college than students with only one year of AP courses ([62.1% - three years] vs. 53.3% [2016–2017], 50.4% [2017–2018], and 52.6% [2018–2019]). Moreover, students enrolled in AP courses during the graduation year (2018–2019) had higher rates of enrollment in a 4-year college compared to a 2-year college or no college (52.6% vs. 19.9% and 27.5%, respectively).

What proportions of Cohort I and Cohort II students were college ready based on GPA, SAT, and ACT performance? What were cohort students' college enrollment rates?

GPA, SAT, and ACT outcomes for Cohort I and Cohort II students were examined, considering the research that identified associations between these measures and college readiness (Allensworth, & Clark, 2020). College readiness benchmarks were established by the THECB and test administrators, including College Board and ACT.

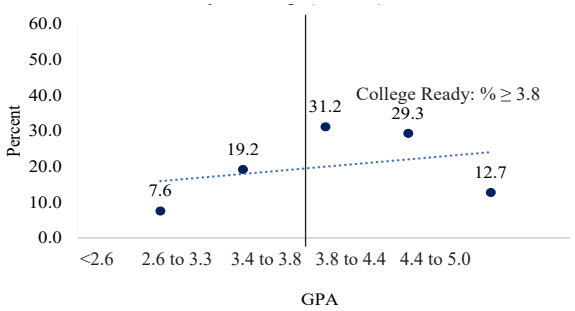


Figure 9a: Cohort I 4-year college enrollment after high school by GPA

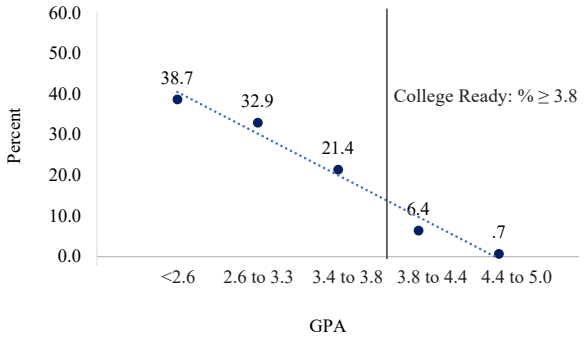


Figure 9b: Cohort I 2-year college enrollment after high school by GPA

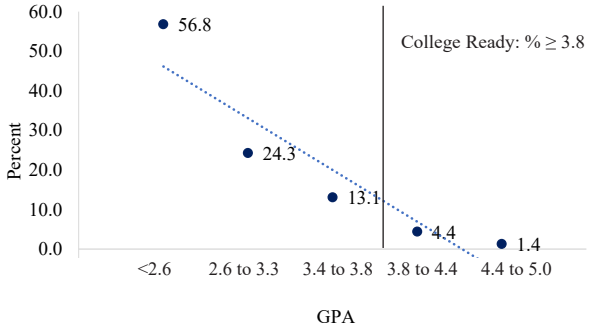


Figure 9c: Cohort I no college enrollment after high school by GPA

GPA College Readiness

The college readiness benchmark for GPAs were scores greater than or equal to 3.8. **Figure 9a** reveals that 42.0% of Cohort I students who enrolled in a 4-year college had a GPA that met the college readiness benchmark. Comparatively, 7.1% of Cohort I students who enrolled in a 2-year college attained a GPA that met the college readiness benchmark (**Figure 9b**). Finally, 5.8% of Cohort I students who did not enroll in college after high school had a GPA that met the college readiness benchmark (**Figure 9c**).

Figure 10a (p. 9) presents results of Cohort II students who enrolled in a 4-year college after high school. It is evident that 44.8% of students who enrolled in a 4-year college met the college readiness benchmark. Comparatively, 8.1% of students who enrolled in a 2-year college after high school attained a GPA that met the college readiness benchmark (**Figure 10b**). Finally, 6.2% of Cohort II students who did not enroll in college achieved a GPA that met the college readiness benchmark (**Figure 10c**, p. 9).

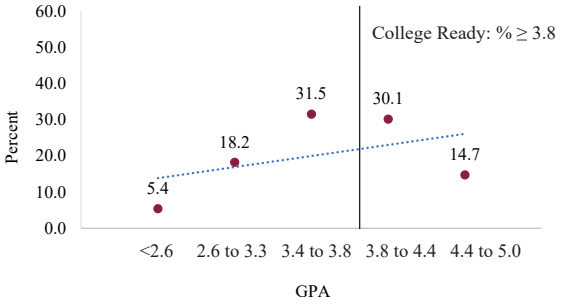


Figure 10a: Cohort II 4-year college enrollment after high school by GPA

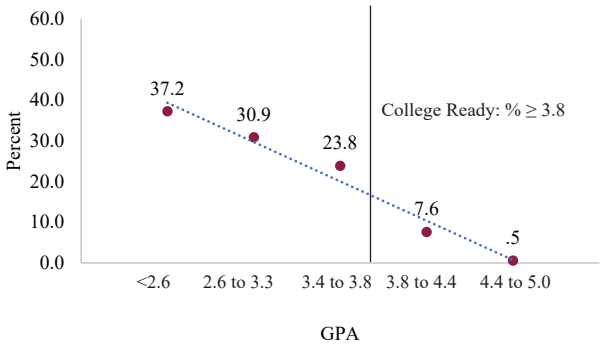


Figure 10b: Cohort II 2-year college enrollment after high school by GPA

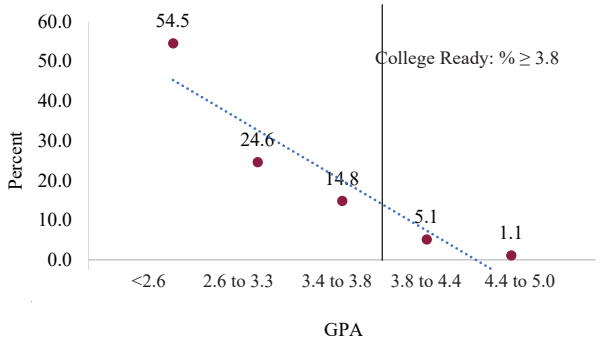


Figure 10c: Cohort II no college enrollment after high school by GPA

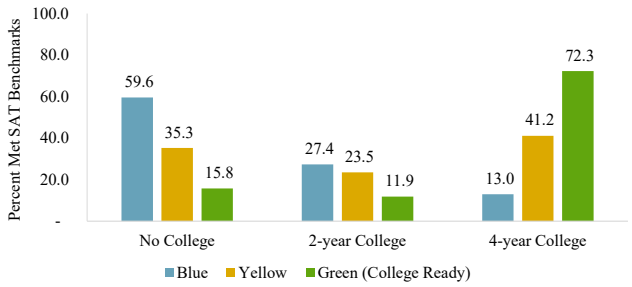


Figure 11: Cohort I SAT college readiness benchmark results by college enrollment status (only students who met criteria in EBRW and math were included in the analyses; coding system developed by College Board is below)

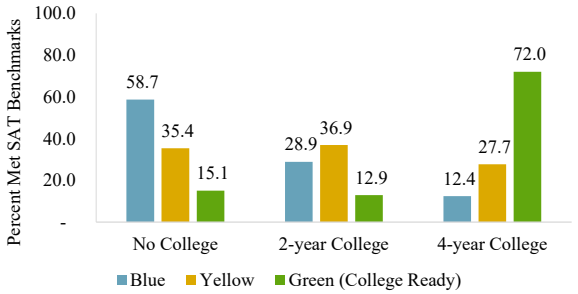


Figure 12: Cohort II SAT college readiness benchmark results by college enrollment status (only students who met criteria in EBRW and math were included in the analyses; color coding system developed by College Board is below)

SAT College Readiness Benchmark Criteria (color coding system developed by College Board)		
Students must meet both EBRW and Math benchmarks to be college ready.	**EBRW Benchmarks** Blue 200-450 Gold 460-470 Green 480-800	**Math Benchmarks** Blue 200-500 Gold 510-520 Green 530-800

SAT College Readiness

Figure 11 provides SAT college readiness outcomes for Cohort I students. Students considered college ready attained concurrent Evidence-Based Reading and Writing (EBRW) scores between 480–800 and math scores between 530–800. Students' latest test results were used in the analyses. A total of 7,990 students were administered the test. Only students who met college readiness criteria were included in the analyses (n = 5,319). There were 2,060 students who enrolled in a 4-year college, 1,101 students who enrolled in a 2-year college, and 2,158 students who did not enroll in college. Figure 11 shows that 72.3% of Cohort I students who attended a 4-year college attained scores that fell within the college ready range compared to 11.9% of students who attended a 2-year college, and 15.8% of students who did not attend college.

Figure 12 provides SAT college readiness outcomes for Cohort II students. A total of 7,989 students were administered the test. Only students who met criteria in EBRW and math (N = 5,404) were included in the analyses. There were 2,023 students who enrolled in a 4-year college, 1,206 students who enrolled in a 2-year college, and 2,175 students who did not enroll in college. Figure 12 shows that 72.0% of Cohort II students who attended a 4-year college attained scores that fell within the college ready range compared to 12.9% of students who attended a 2-year college, and 15.1% of students who did not attend college.

ACT College Readiness

Students had to score at least 19 on the ACT English test and at least 19 on the math test, with a composite score of at least 23 to meet the ACT college readiness benchmark. **Figure 13** (p. 10) shows ACT college ready results by college enrollment status for Cohort I and Cohort II students. There were 1,543 students included in the Cohort I sample and 1,482 students in the Cohort II sample with both English and math ACT data used to compute college readiness. The majority of students in Cohort I and Cohort II were college ready and enrolled in a 4-year college (53.3% and 55.8%, respectively). Interestingly, a higher percentage of students in Cohort I compared to Cohort II who were college ready did not enroll in college after high school (29.1% vs. 23.1%, respectively).

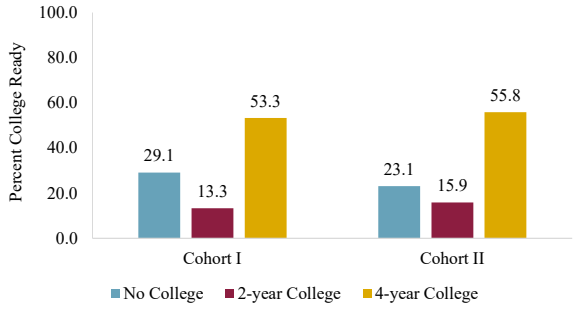


Figure 13: Cohort I and Cohort II ACT by college enrollment status

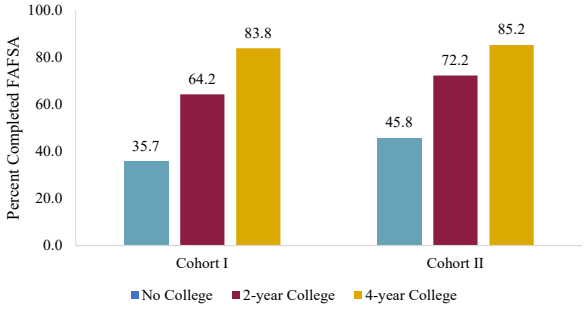


Figure 14: Cohort I and Cohort II FAFSA completion by college enrollment status

FAFSA Completion

Figure 14 depicts the percentage of students who completed the FAFSA. There were 5,149 students among 8,683 students in Cohort I and 5,779 students among 8,774 students in Cohort II who completed the FAFSA in the dataset. FAFSA completion data may be influenced by financial need. More than 80% of Cohort I and Cohort II students who enrolled in a 4-year college completed the FAFSA (83.8% and 85.2%, respectively). The percentages of Cohort I and Cohort II students who completed the FAFSA and did not attend college after high school were 35.7% and 45.8%, respectively.

What attendance and disciplinary action trends were associated with college enrollment for Cohort I and Cohort II students?

The average daily attendance used in the analyses was captured based on students' cohort year (2017–2018 for Cohort I and 2018–2019 for Cohort II). The associations between attendance and college enrollment are depicted for Cohort I and Cohort II in **Figure 15**. Students in both cohorts who attended a 4-year college had higher attendance rates than students who attended a 2-year college or no college. Independent t-tests were conducted to determine whether there was a statistically significant difference between the mean attendance rates of students in Cohort I and II based on whether students attended no college, a 2-year college, or a 4-year college. The results can be found in **Appendix D** (p. 22). There was a statistically significant difference in the mean attendance rate of Cohort I and Cohort II students who attended a 4-year college ($t = 2.8065$, $df = 6148$, $p = .001$), in favor of Cohort II.

The number of students with at least one disciplinary action during the cohort year were used to determine whether there was an association between discipline and college enrollment of Cohort I and Cohort II students. The results can be found in **Figure 16**. There were 3,127 out of 8,688 students in Cohort I with at least one disciplinary action and 3,014 out of 8,715 students in Cohort II with at least one disciplinary action in the graduation year. The analyses revealed that students who attended a 4-year college had lower rates of disciplinary actions in Cohort I and Cohort II (19.8% and 18.1%, respectively). In contrast, there was a substantially higher prevalence of students with disciplinary actions who did not attend college after high school in respective groups (56.8% vs. 58.1%).

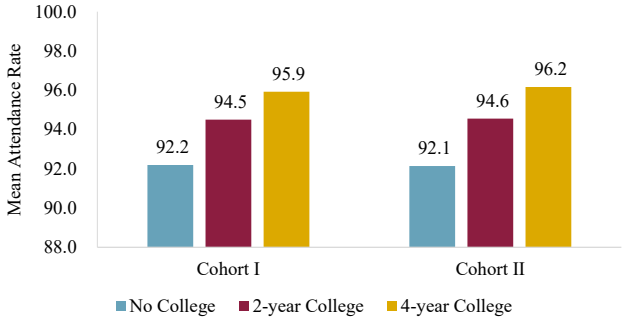


Figure 15: Cohort I and Cohort II mean average daily attendance in graduation year by college enrollment status

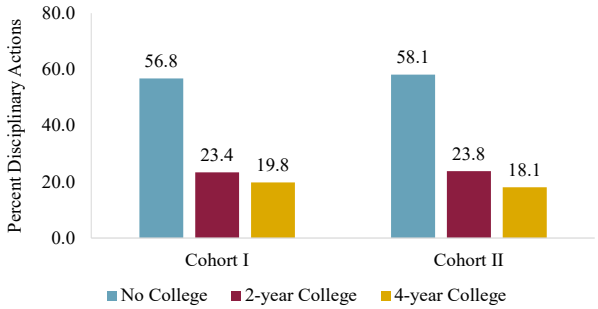


Figure 16: Cohort I and Cohort II percent of students with at least one disciplinary action in graduation year by college enrollment status

How did Cohort III seniors perform on outcomes predictive of college readiness (GPA, dual credit, AP, SAT, FAFSA, attendance, and discipline)?

Academic and social outcomes for Cohort III students were examined based on college readiness benchmarks used in this study. Students in the cohort successively progressed from 9th to 12th grade by 2019–2020. In some cases, Cohort III results were compared with outcomes observed for Cohort II and Cohort III students. Attendance and disciplinary actions were explored as social indicators. Correlation analyses was conducted with students in the cohort who benefited directly from advising sessions. The analyses determined whether there was an association between number of advising sessions and GPA.

Cohort III: Correlation between Launch Senior advising sessions and GPA

Pearson's correlation indicated that there was a significant positive association between advising sessions and GPA, ($r(5861) = .072$, $p = .000$). Thus, the more advising sessions students participated in, the higher the GPA of Cohort III students.

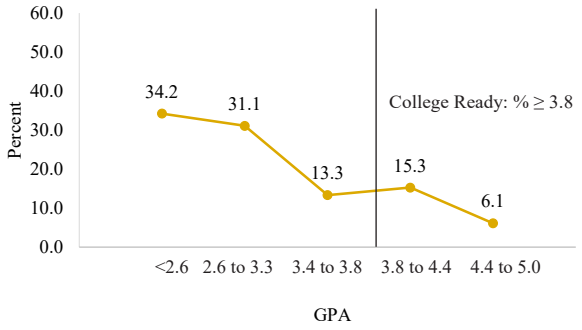


Figure 17: Cohort III percent college ready based on GPA

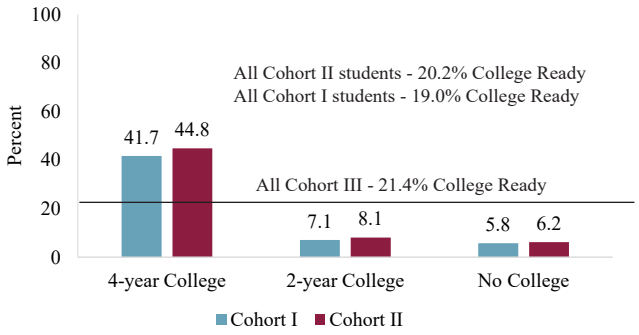


Figure 18: Percentages of Cohort III college ready students by GPAs compared to Cohort I and Cohort II college ready students

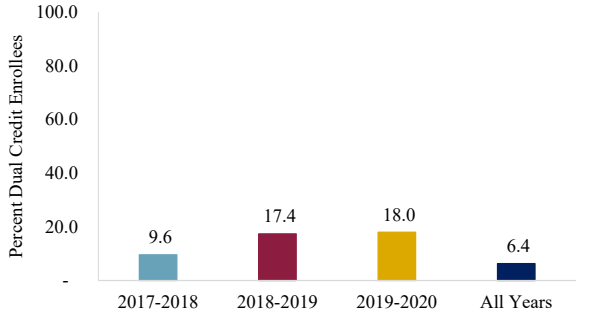


Figure 19: Cohort III percent dual credit enrollees by academic year

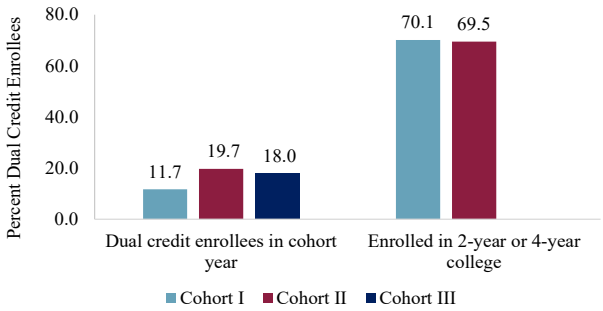


Figure 20: Cohort III percent dual credit enrollees based on cohort year vs. percent of Cohort I and II dual credit enrollees who attended a 2-year or 4-year college after high school

Cohort III: GPA College Readiness

The percentages of Cohort III students with GPAs that fell within specific ranges are depicted in **Figure 17**. There were 9,360 Cohort III students included in the sample. Figure 17 shows that 21.4% of Cohort III students achieved a GPA that was considered college ready (at least 3.8). **Figure 18** reveals that, among all students in Cohorts I, II, and III, a higher percentage of Cohort III students attained college ready GPAs compared to the other cohorts. Additional information is provided in Figure 18, including that percentages of Cohort I (n = 8,688) and Cohort II (n = 8,715) students with college ready GPAs who enrolled in a 4-year, 2-year, or no college after high school.

Cohort III: Dual Credit Enrollment

Dual enrollment for Cohort III students may provide additional evidence regarding students' ability to transition more seamlessly from high school to college. There were 898 students who participated in dual credit courses during the 2017–2018 academic year, 1,627 students in 2018–2019, 1,685 students in 2019–2020, and 595 students for the three years (**Figure 19**). Figure 19 reveals that the highest percentage of students in the cohort participated in dual credit courses during the 2019–2020 academic year (18.0%). Only 6.4% of the cohort enrolled in dual credit courses for the three years.

Figure 20 compares dual credit enrollment of Cohort III students with Cohort I and Cohort II students who successively matriculated to a 2-year or 4-year college after high school. The data provides a measure of the likelihood that Cohort III students will achieve a similar outcome after high school. The findings reveal that 18.0% of Cohort III students took dual credit courses during the cohort year compared to 11.7% of Cohort I and 19.7% of Cohort II students. If the trend follows, about 69% of Cohort III students will enroll in college after high school relative to previous cohorts.

Cohort III: AP College Readiness Results

Enrollment in AP courses for Cohort III can be found in **Figure 21**. There were 2,000 students who enrolled in AP courses during the 2016–2017 academic year, 4,121 students in 2017–2018, 4,333 students in 2018–2019, 3,852 students in 2019–2020, and 871 students during the four years. The highest percentage of Cohort III students enrolled in AP courses during the 2018–2019 academic year (46.3%), followed by the 2017–2018 academic year (44.0%). Only 9.3% of Cohort III students enrolled in AP courses for the four years.

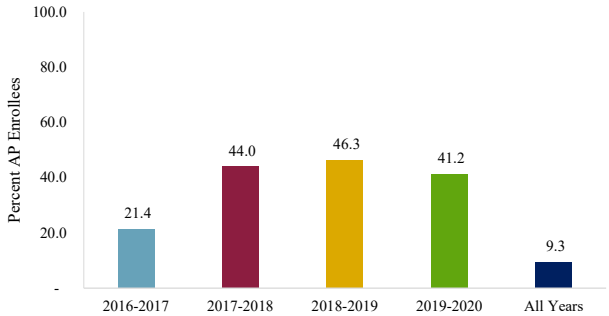


Figure 21: Cohort III percent AP enrollees by academic year

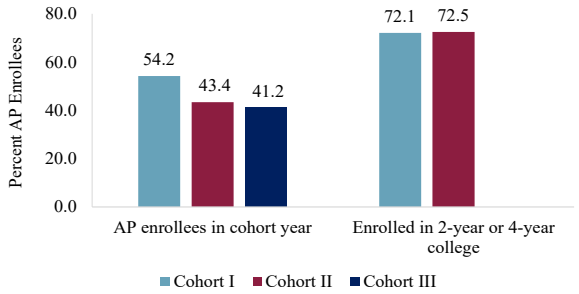
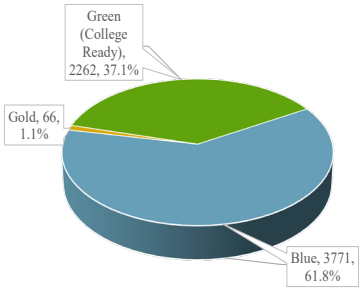


Figure 22: Cohort III percent AP enrollees based on cohort year vs. percent of Cohort I and II AP enrollees who attended a 2-year or 4-year college after high school



SAT College Readiness Benchmark Criteria		
Students must meet both EBRW and Math bench-marks to be college ready.	**EBRW Bench-marks** Blue 200-450 Gold 460-470 Green 480-800	**Math Bench marks** Blue 200-500 Gold 510-520 Green 530-800

Figure 23: Cohort III SAT college readiness benchmark results by college enrollment status (only students who met concurrent EBRW and math criteria were included; coding system developed by College Board)

Figure 22 compares AP enrollment of Cohort III students with Cohort I and Cohort II students who successively matriculated to a 2-year or 4-year college. The data provide insight regarding the likelihood that Cohort III students will enroll in college after high school, considering AP participation. The findings reveal that 41.2% of Cohort III students took AP courses during the cohort year. Comparatively, 54.2% of Cohort I and 43.4% of Cohort II students participated in AP courses and attended college after high school. If the trend follows, about 72.0% of Cohort III students will attend college after high school relative to previous cohorts.

Cohort III: SAT College Readiness

SAT results for Cohort III students are presented in **Figure 23**. There were 8,905 students who had test results. Students' latest test results were used in the analyses. Figure 23 shows that 37.1% of Cohort III students attained concurrent EBRW and math scores that met the SAT college ready benchmark. These students attained EBRW scores between 480–800 and math scores between 530–800. The highest percentage of Cohort III students attained EBRW scores that fell within 200–450 and math scores that fell between 200–500.

Figure 24 compares the percent of students in each cohort that scored college ready on their latest SAT, without taking into account students who actually enrolled in college. Cohort III had the highest percentage of college ready students, followed by Cohort I and Cohort II (37.1% vs. 26.2% and 25.8%, respectively).

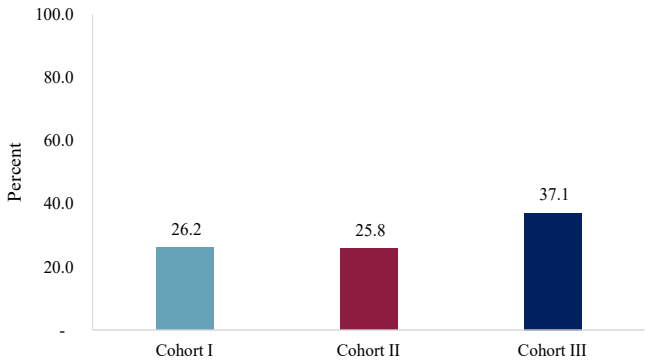


Figure 24: Percent of students who scored college ready on the SAT by cohort

Cohort III FAFSA Completion

Figure 25 depicts FAFSA results for Cohort III students. There were 5,538 students who completed the FAFSA in the group (59.2%). Cohort III's results were compared with Cohort I and Cohort II students who enrolled in college after high school. A total of 3,856 out of 8,683 Cohort I students completed the FAFSA and enrolled in college after high school and 4,123 out of 8,774 Cohort II students completed the FAFSA and enrolled in college after high school. It is evident that college enrollment based on FAFSA completion was progressively higher for Cohort II students compared to Cohort I students (46.9% vs. 44.4%). This trend suggests that a lower percentage of Cohort III students who completed the FAFSA will enroll in a 2-year or 4-year college.

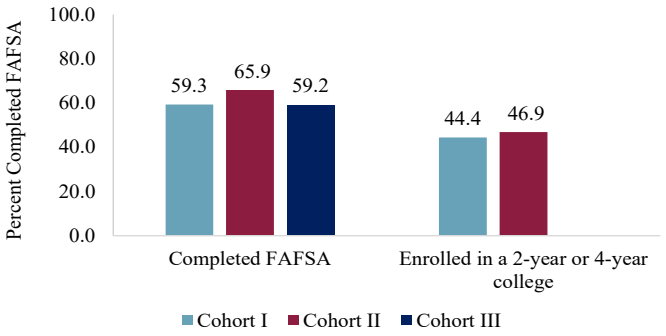


Figure 25: Percent of Cohort III students who completed FAFSA vs. percent of Cohort I and II students who enrolled in a 2-year or 4-year college after high school and completed FAFSA

Cohort III Attendance and Disciplinary Actions

Figure 26 shows the mean attendance outcomes for Cohort III students over three academic years. Only students with attendance data were included in the analyses. Attendance for the 2019–2020

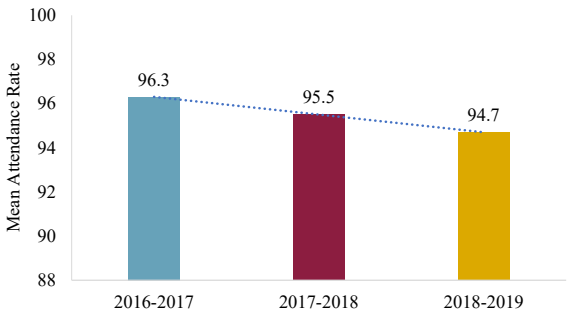


Figure 26: Cohort III mean attendance rates over past three academic years

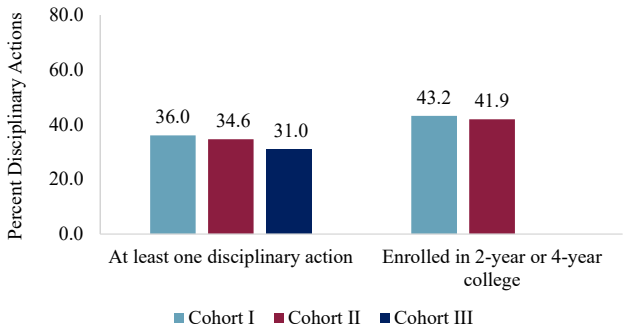


Figure 27: Percent of Cohort III students with disciplinary actions vs. percent of Cohort I and II students with disciplinary actions and enrolled in a 2-year or 4-year college after high school

academic year was unavailable at the time of this report. In addition, the coronavirus pandemic may have affected how attendance was calculated, considering that the district closed in March 2020. Figure 26 shows a decrease in the mean attendance rate of Cohort III students from 2016–2017 to 2018–2019.

Cohort III students with at least one disciplinary action is represented in **Figure 27**. It is evident that 31.0% of the students had at least one disciplinary action. The results of Cohort I and II students with at least one disciplinary action and who enrolled in a 2-year or 4-year college were compared with Cohort III students. The disciplinary actions trend of Cohort I and Cohort II indicate a possible decrease in the percentage of Cohort III students with a disciplinary action who will attend college after high school.

What were the perceptions of Cohort III seniors regarding their interest in attending college?

Logistic regression was conducted to predict students' interest in attending college. The independent variables used in the model were intention to complete the FAFSA, someone in their lives expect them to go to college, gender, and brothers and sisters attended college. Neutral responses were recoded as missing. The results are depicted in **Table 7**. In the model, the major factors influencing whether a senior reported interest in attending college were intention to complete the FAFSA and that someone in their lives expected them to go to college. Gender and having a brother or sister attend college did not contribute significantly to the model. The odds of reporting intentions to complete the FAFSA was 13.5 times more likely for seniors who reported interest in attending college and 4.8 times more likely for seniors who reported having someone in their lives expect them to attend college. The overall model fit was statistically significant, $\chi 2$ (df, 4, n = 2330) 58.65, p = 0.000, indicating that the model was able to distinguish between respondents who were and were not interested in attending college.

Multi-logistic regression was also conducted to predict how well students' interest in attending college predicted their likelihood of applying to a specific type of college (community college, a less selective state university, a more selective state university, a less selective private college or university, or a more selective private college or university), controlling for gender. The findings are reflected in **Table 8** (p. 14). Five of the six factors made a significant contribution to the model. The odds of expressing interest in attending college was 87.5 times more likely when seniors reported their interest in applying to a more selective state university. The other significant contributors to the model were community college (O.R. = 10.97, p = .000), a less selective state university (O.R. = 13.89, p = .001), and a more selective private college or university (O.R. = 14.76, p = .013). Applying to a less selective private college or university did not significantly contribute to the model (O.R. = 4.85, p = 063).

Table 9 (p. 14) presents survey results related to seniors' perceptions about attending college now or in the future and gender. The response options were "yes" and "no". "I don't know" responses were omitted from the analyses. There was a non-significant relation indicated in the data (p = .066, 2-tailed test). The proportion of females who responded "yes" was 96.2% compared to 94.8% of the males.

Prevalence data depicting the relationship between seniors' response to whether someone in their lives expect them to go to college and whether they are interested in attending college now or in the future are shown in **Table 10** (p. 14). The results were found to be significant (p = .000, 2-tailed test). The proportion of seniors who responded "yes" and were "very interested" in attending college now or in the future was 98.6%. Comparatively, the proportion of seniors who responded "no" that someone in their life expect them to go to college and were "very interested" in attending college was 89.6%.

The prevalence of survey respondents who indicated that they intended to complete the FAFSA and someone expect them to attend college are shown in **Table 11** (p. 14). The results were found to be significant (p = .000, 2-tailed test). The proportion of seniors who responded "yes" that someone expect them to attend college and "yes" that they intended to complete the FAFSA was 91.7%.

Table 7: Logistic regression model on interest in Cohort III students attending college now or in the future

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
Constant	1.286	.546	5.544	1	.019	3.618		
Completing FAFSA (yes = 1, no = 0)	2.604	.379	47.324	1	.000	13.520	6.438	28.392
Brothers and sisters attend college or are college graduates (1 or more = 1, None = 0)	-.238	.398	.357	1	.550	.788	.361	1.721
Someone in your life expect you to go to college (parent, guardian, teacher, guidance, counselor, friend, anyone else) (yes = 1, no = 0)	1.579	.520	9.222	1	.002	4.848	1.750	13.431
Gender (male = 1, female = 0)	-.605	.379	2.550	1	.110	.546	.260	1.148
Cox & Snell R Square	.025							
Nagelkerke R Square	.189							

Table 8: Multi-logistic regression model on interest in Cohort III students attending college now or in the future

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
Intercept	-14.420	2.137	45.554	1	.000			
Gender (male = 1, female = 0)	1.165	.442	6.939	1	.008	3.206	1.347	7.629
Community College (very likely = 1, not likely =.00)	2.395	.479	25.052	1	.000	10.973	4.295	28.035
Less Selective State College or University (very likely = 1, not likely =.00)	2.632	.796	10.920	1	.001	13.895	2.918	66.173
More Selective State College or University (very likely = 1, not likely =.00)	4.472	1.058	17.857	1	.000	87.498	10.997	696.167
Less Selective Private College or University (very likely = 1, not likely =.00)	1.578	.850	3.450	1	.063	4.845	.917	25.612
More Selective Private College or University (very likely = 1, not likely =.00)	2.692	1.085	6.153	1	.013	14.756	1.759	123.773

Table 9: Prevalence (%) of Cohort III students who indicated someone in their life expect them to go to college by gender

	Gender	
	Females	Males
	N (%)	N (%)
Does someone in your life expect you to go to college (parent, guardian, teacher, guidance, counselor, friend, anyone else)?		
Yes	2,007 (96.2%)	1189 (94.8%)
No	80 (3.8%)	65 (5.2%)
p = .066, 2-tailed; p = .040, 1-tailed		

Table 10: Prevalence (%) of Cohort III students who indicated someone in their life expect them to go to college by interest in attending college either now or in the future

	How interested are you in attending a college either now or in the future?	
	Very interested	Not interested
	N (%)	N (%)
Does someone in your life expect you to go to college (parent, guardian, teacher, guidance, counselor, friend, anyone else)?		
Yes	2,788 (98.6%)	40 (1.4%)
No	86 (89.6%)	10 (10.4%)
p = .000 (2-tailed and 1-tailed tests)		

Table 11: Prevalence (%) of Cohort III students who indicated someone in their life expect them to go to college (parent, guardian, teacher, guidance, counselor, friend, anyone else) by intention to complete the FAFSA

	Intention to complete FAFSA	
	Yes	No
	N (%)	N (%)
Does someone in your life expect you to go to college (parent, guardian, teacher, guidance, counselor, friend, anyone else)?		
Yes	2,837 (91.7%)	258 (8.3%)
No	113 (80.1%)	28 (19.9%)
p = .000 (2-tailed and 1-tailed tests)		

Comparatively, the proportion of seniors who responded "no" that someone expect them to attend college and "yes" that they intended to complete the FAFSA was 80.1%.

The prevalence of survey respondents who reported interest in attending college by whether or not their parents attended college is found in **Table 12**. The response options were "very interested"and "not interested" in relation to "some college or college graduate". "I don't know" responses and data errors were omitted in the analyses. The results were found to be significant relative to interest in attending college and mother having some college or college graduate (p = .043, 2-tailed test).

The prevalence of survey respondents who reported interest in attending college by how many of their friends they guess will go to college is depicted in **Table 13** (p. 15). The response options were "very interested" and "not interested" in relation to "all of them/most of them" and "a few/none of them". The results were found to be significant (p = .000, 2-tailed test). The proportion of females who responded "very interested" in attending college either now or in the future and they guess all or most of their friends will go to college was 71.9%. Comparatively, 65.1% were "not interested" in attending college now or in the future and they guess a few or none of their friends will go to college.

Table 12: Prevalence (%) of Cohort III students reporting interest in attending college by mother, father, and guardian's college attendance

	How interested are you in attending a college either now or in the future?	
Highest level of education	Very interested	Not interested
Mother	**n (%)**	**n (%)**
Some college or college graduate	1,102 (40.9%)	11 (25.6%)
Did not attend college	1,595 (59.1%)	32 (74.4%)
p = .043, 2-tailed; p = .029, 1-tailed		
Father		
Some college or college graduate	804 (33.4%)	8 (19.5%)
Did not attend college	1,602 (66.6%)	33 (80.5%)
p = .066, 2-tailed; p = .040, 1-tailed		
Guardian		
Some college or college graduate	625 (40.9%)	10 (30.3%)
Did not attend college	904 (51.1%)	23 (69.7%)
p = .283, 2-tailed; p = .148, 1-tailed		

Table 13: Prevalence (%) interest in Cohort III students attending college either now or in the future and friends you guess will go to college		
	How interested are you in attending a college either now or in the future?	
	Very interested	Not interested
	N (%)	N (%)
How many of your friends you guess will go to college		
All of them/Most of them	2,115 (71.9%)	22 (34.9%)
A few/None of them	828 (28.1%)	41 (65.1%)
p = .000 (2-tailed and 1-tailed tests)		

What were Cohort III's perceptions of their academic mindsets, college-related experiences, social engagement, school safety, and school-level support to enhance college enrollment?

A survey was conducted that measured Cohort III's academic persistence, including engagement in academic and social activities that typically occur outside of the school environment. In addition, students' academic mindsets, behaviors, school safety, teacher support, and school engagement were measured. The items used in the survey captured experiences found to be related to success in life after high school (Farrington et al., 2012; Snipes, Fancsali, & Stoker, 2012; Yeager, Walton, & Cohen, 2013). The background characteristics of survey respondents are provided in **Table 14** (**Appendix E**, p. 23). Additional survey outcomes are presented in **Tables 15** and **16** as well as **Tables 17a**, **b**, and **c** (Appendix E, pps. 24–25).

Survey responses of Cohort III related to academic mindsets and behaviors were summarized in **Figure 28**. "Strongly agree' and "agree" responses were aggregated as "agreement". It can be seen that 97.0% of respondents expressed "agreement" that they *can get better at a subject if they put in more effort* and 93.8% of respondents expressed "agreement" that they *know how to improve their academic grades*. Further, 95.5% of respondents were in "agreement" that they *can truly go to college*; while, only 52.5% were in "agreement" that they truly believe that they *can pay for college*. At the same time, 72.1% of respondents expressed "agreement" that their *high-school has prepared them to succeed in college-level work*.

Figure 29 depicts time Cohort III students spent engaged in academic and social activities that typically occur outside of the school environment during the week. The majority of respondents spent "less than 1 hour or none" *talking with counselors* (80.3%), *reading for pleasure* (74.3%), and *doing religious activities* (75.4%) during the week. In contrast, 36.0% of respondents spent "more than 5 hours" *talking with parents* and 32.3% spent "more than 5 hours" *socializing with friends* during the week. In relations to *studying or doing homework*, Cohort III seniors were more likely to spend "1–5 hours" (48.7%) rather than more or less time engaged in this activity during the week.

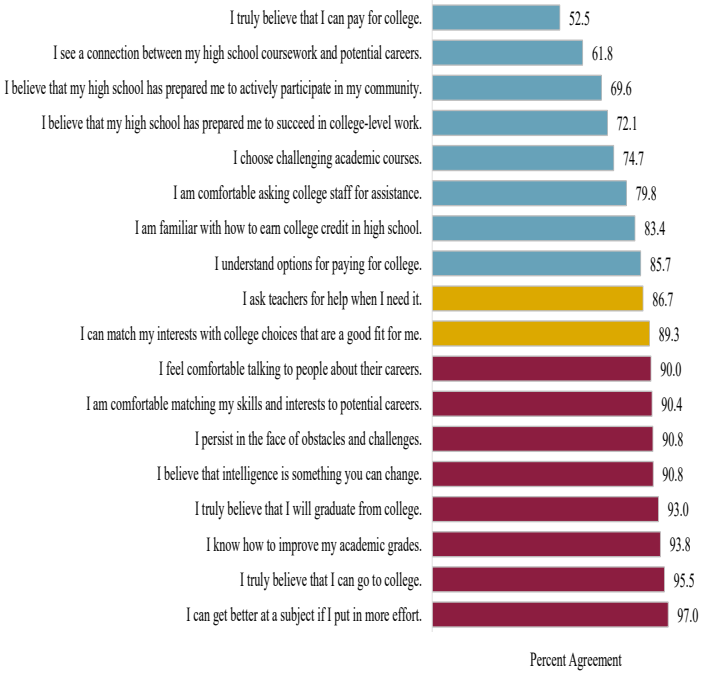


Figure 28: Cohort III survey respondents' perceptions of academic mindsets and behaviors related to school success, spring 2020

Figure 30 (p. 16) shows the percent of students who responded "yes" to items related to attending college-related activities. Less than half of Cohort III respondents indicated that they *attended a college information workshop or "college night"* (48.8%). An even lower percentage of Cohort III respondents expressed that they *attended a university or college campus* (23.7%).

Figure 31 (p. 16) reveals that an overwhelming majority of Cohort III respondents were in "agreement" that they *feel safe going to and from school* (86.2%) and that they *feel safe at this school* (80.9%). In contrast, only 26.9% of respondents "agreed" that *students at this school are often bullied*.

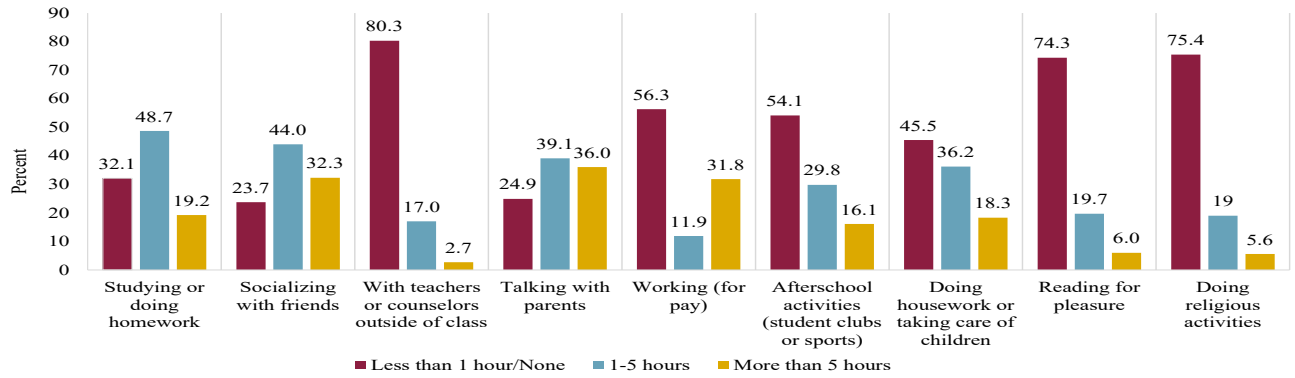


Figure 29: Cohort III's perceptions of time spent engaged in activities that typically occur outside of school during the week, spring 2020

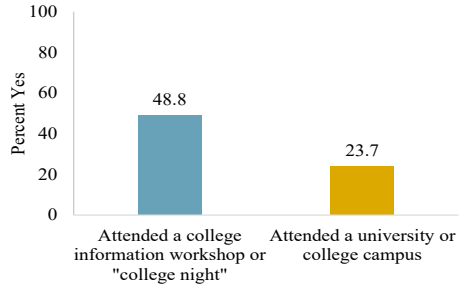


Figure 30: Cohort III's perceptions of attending college-related activities, spring 2020

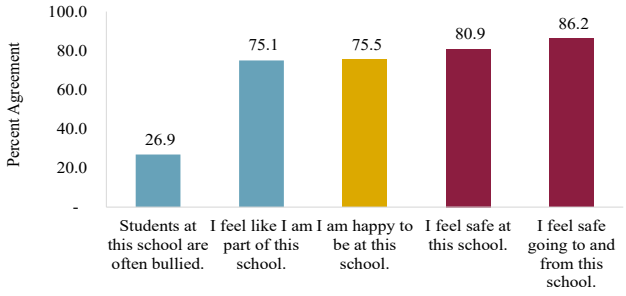


Figure 31: Cohort III's perceptions of school safety, spring 2020

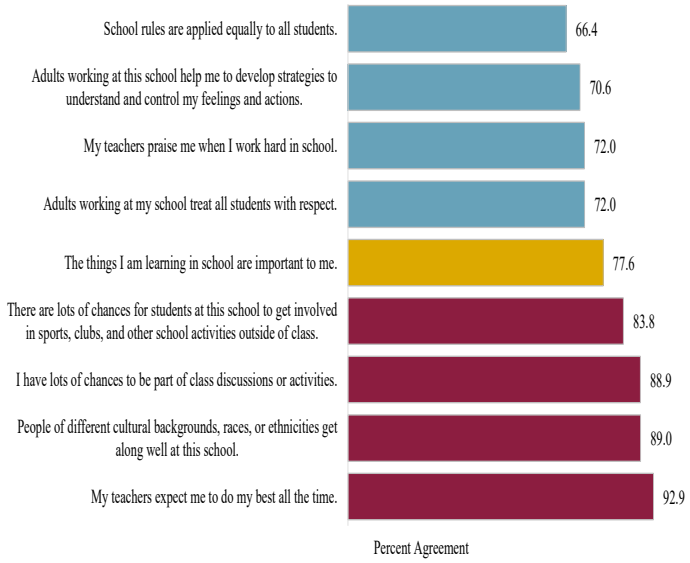


Figure 32: Cohort III's perceptions of school engagement, spring 2020

An overwhelming majority of Cohort III respondents expressed "agreement" to student engagement-related items that *my teachers expect me to do my best all the time* (92.9%) and *there are lots of opportunities for me to be a part of class discussions or activities (*80.9%) (**Figure 32**, p. 16). In addition, 89.0% of respondents were in "agreement" that *people of different cultural backgrounds, races, or ethnicities get along well at this school*; while, 66.4% of respondents were in "agreement" that *school rules are applied equally to all students*.

Figure 33 reveals that 90.1% of Cohort III respondents were in "agreement" that *teachers make it clear when they misbehaved in class*. Moreover, 77.4% of respondents expressed "agreement" that *I can talk to a teacher or other adult at this school about something that is bothering me*.

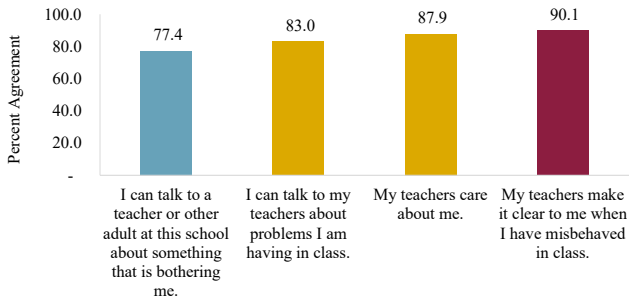


Figure 33: Cohort III survey respondents' perceptions of teacher and school staff support, spring 2020

Discussion

This study assessed the impact of college enrollment and college advising among seniors and graduates who directly and indirectly received advising services through Launch Senior. Three cohorts of students were established based on successive ninth to twelfth-grade enrollment in HISD, culminating in either 2017–2018 (Cohort I) or 2018–2019 (Cohort II) graduation outcomes, and college enrollment. Cohort III (2019–2020) students were in twelfth grade at the time of this report. NSC data were not available to document Cohort III's college enrollment status.

There were several limitations to the study, which included the use of cohorts with only students who were successively promoted and graduated in four years. In addition, the study did not control for school quality, which may have contributed toward outcomes. However, the retrospective cohort nature of the study seemed appropriate for helping to mitigate social and academic factors. The cohort design also allowed for observation of temporal events that occurred from high school entry to graduation.

Consistent with previous research, the findings were more favorable for low-risk students who typically do not struggle in school and for students who were exposed to more advanced coursework over the years compared to their high-risk peers. This was apparent, regardless of whether or not students had direct exposure to Launch Senior advising. Nevertheless, the study found a strong positive correlation between advising received through Launch Senior and GPAs. More specifically, the more advising sessions students received, the higher the GPA for Cohort III students. Students with multiple years of college preparatory courses had much higher rates of enrollment in 4-year compared to 2-year colleges and no college, with improved outcomes for students who enrolled in these courses while participating in Launch Senior. A higher percentage of students who enrolled in 4-year colleges attained GPAs, SAT, and ACT scores that were considered college ready. Cohort I and II students who attended a 4-year college had significantly higher mean attendance rates during their senior year compared to students who attended a 2-year college; while a substantially higher prevalence of disciplinary actions was found among students who did not attend college compared to students who attended college during the same time period. There were

higher proportions of Cohort III students relative to other cohort students who were categorized as college ready based on GPA and SAT performance, suggesting higher college enrollment rates for this cohort in the future, considering no environmental changes.

Study findings have broad implications for Launch Senior, considering that the program was designed to empower students to pursue and attain a college degree. Specifically, the more advising sessions students participated in, the higher rates of enrolling in a 4-year college compared to a 2-year college. Moreover, the benefits of college preparatory courses led to better postsecondary outcomes for cohort students in this study. In order to increase college enrollment for future Launch Senior participants, it is critical that program administrators continue to advise students on how to access college and encourage them to take rigorous college preparatory courses, even during their senior year. Further, providing consistent support for Launch Senior students to take and pass college prep exams may boost the benefit of college advising (Warne, Anderson, & Odasso, 2015). While the research has identified mixed findings regarding the contribution of GPAs, SAT, and ACT scores (Geiser, & Santelices, 2006; Noble, & Sawyer, 2002), this study found higher college enrollment rates among students who met college ready benchmarks. Launch Senior advisors should consider broadening their conversations with seniors to address these areas.

Improving students' academic mindsets about school and about themselves as learners is an important consideration for Launch Senior. Monitoring student engagement and school safety may help to ensure that the environment is conducive to learning and help offset academic and social difficulties that students may encounter in school that may inhibit college-going rates. Launch Senior staff should consider coordinating more closely with teachers and school staff to set high expectations and motivate students to improve self-efficacy in order to level inequities often experienced in high schools attended by minority students (Fletcher & Tienda, 2010). This practice may help to close the gap in college enrollment trends for seniors.

Students surveyed in this study considered the perceptions of others, including family and friends as key factors toward boosting their interest in college. Launch Senior should continue to work closely with students and parents on completing the college application process and applying for financial aid, for example. This may help to build knowledge and skills needed to access appropriate colleges. Finally, building stronger partnerships with colleges may serve as a key link to students' successful college entry.

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Appendix A

Table 2a: Demographic characteristics of student study population by cohorts at ninth grade						
	Cohort I 2014–2015 (N = 14,210)		Cohort II 2016–2017 (N = 14,164)		Cohort III 2018–2019 (N = 14,280)	
Race/Ethnicity	**N**	**%**	**N**	**%**	**N**	**%**
American Indian	32	0.2	62	0.4	42	0.3
Asian	497	3.5	526	3.7	544	3.8
Black	3,624	25.5	3,543	25.0	3,308	23.2
Hispanic	8,573	60.3	8,504	60.0	8,777	61.5
White	1,354	9.5	1,405	9.9	1,467	10.3
Two or More Races	115	0.8	113	0.8	133	0.9
Pacific Islander	15	0.1	11	0.1	9	0.1
Gender						
Male	7,222	50.8	7,177	50.7	7,285	51.0
Female	6,988	49.2	6,987	49.3	6,995	49.0
Eco Disadv.	10,245	72.1	10,512	74.2	10,477	73.4
At Risk	9,203	64.8	9,128	64.4	9,535	66.8
Special Ed	1,222	8.6	1,228	8.7	1,249	8.7
G/T	1,891	13.3	2,263	16.0	2.291	16.0
LEP	2,030	14.3	3,051	21.4	3,358	23.5
Source: Chancery and PEIMS databases						

Table 2b: Demographic characteristics of analytic student cohort samples who graduated high school in four years						
	Cohort I 2017–2018 (N = 8,688)		Cohort II 2018–2019 (n = 8,715)		Cohort III 2019–2020 (9,360)	
Race/Ethnicity	**N**	**%**	**N**	**%**	**N**	**%**
American Indian	15	0.2	13	0.1	21	.2
Asian	389	4.5	407	4.7	415	4.4
Black	2,032	23.4	1,975	22.7	2,035	21.7
Hispanic	5,401	62.2	5,481	62.9	5,982	63.9
White	747	8.6	734	8.4	820	8.8
Two or More Races	69	0.8	79	0.9	84	.9
Pacific Islander	8	0.1	4	0.0	3	.0
Gender						
Male	4,203	48.4	4,238	48.6	4,630	49.5
Female	4,458	51.3	4,455	51.1	4,730	50.5
Eco Disadv.	8,393	96.9	6,435	73.8	6,275	67.1
At Risk	8,661	66.9	4,289	49.2	5,761	61.5
Special Ed	558	6.4	570	6.5	736	7.9
G/T	1,700	19.6	2,020	23.2	2,041	21.8
LEP	808	9.3	995	11.4	1,955	20.9
Unknown	27	.3	22	0.3	0	-
Source: Chancery and PEIMS databases						

Appendix B

Table 3a: Cohort I demographic characteristics and trends related to college enrollment after high school										
5 students less than 2 years		Asian	Black	Hispanic	Indian	Pacific Islander	Two or More Races	White	Missing Data	Total
No College	n	48	853	2,507	5	2	21	163	20	3,619
	%	12.3%	42.0%	46.4%	33.3%	25.0%	30.4%	21.8%	74.1%	41.7%
2-year College	n	53	339	1,442	3	3	9	121	4	1,974
	%	13.6%	16.7%	26.7%	20.0%	37.5%	13.0%	16.2%	14.8%	22.7%
4-year College	n	288	840	1,447	7	3	39	463	3	3,090
	%	74.0%	41.3%	26.8%	46.7%	37.5%	56.5%	62.0%	11.1%	35.6%
Total	N	389	2,032	5,401	15	8	69	747	27	8,688
	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 3b: Cohort I demographic characteristics and trends related to college enrollment after high school								
		Female	Male	Total		Non-G/T	G/T	Total
No College	n	1,686	1,913	3,599		3,320	279	3,599
	%	37.8%	45.5%	41.6%		47.7%	16.4%	41.6%
2-year College	n	1,033	937	1,970		1,750	220	1,970
	%	23.2%	22.3%	22.7%		25.1%	12.9%	22.7%
4-year College	n	1,736	1,351	3,087		1,886	1,201	3,087
	%	38.9%	32.1%	35.6%		27.1%	70.6%	35.6%
Total	N	4,458	4,203	8,661		6,961	1,700	8,661
	%	100.0%	100.0%	100.0%		100.0%	100.0%	100.0%

Table 3c: Cohort I demographic characteristics and trends related to college enrollment after high school								
		Non-Eco. Disadv.	Eco Dis. Adv.	Total		Non-At Risk	At Risk	Total
No College	n	944	2,675	3,619		529	3,070	3,599
	%	32.1%	46.6%	41.7%		18.6%	52.8%	41.6%
2-year College	n	622	1,352	1,974		445	1,525	1,970
	%	21.1%	23.5%	22.7%		15.6%	26.2%	22.7%
4-year College	n	1,378	1,712	3,090		1,872	1,215	3,087
	%	46.8%	29.8%	35.6%		65.8%	20.9%	35.6%
Total	N	2,945	5,743	8,688		2,847	5,814	8,661
	%	100.0%	100.0%	100.0%		100.0%	100.0%	100.0%

Table 3d: Cohort I demographic characteristics and trends related to college enrollment after high school								
5 students less than 2 years		Non-Special Ed	Special Ed.	Total		Non-LEP	LEP	Total
No College	n	3,210	389	3,599		3,072	547	3,619
	%	39.6%	69.7%	41.6%		39.0%	67.7%	41.7%
2-year College	n	1,838	132	1,970		1,791	183	1,974
	%	22.7%	23.7%	22.7%		22.7%	22.6%	22.7%
4-year College	n	3,050	37	3,087		3,013	77	3,090
	%	37.6%	6.6%	35.6%		38.2%	9.5%	35.6%
Total	N	8,103	558	8,661		7,880	808	8,688
	%	100.0%	100.0%	100.0%		100.0%	100.0%	100.0%

Appendix C

Table 4a: Cohort II demographic characteristics and trends related to college enrollment after high school										
		Asian	Black	Hispanic	Indian	Pacific Islander	Two or More Races	White	Missing Data	Total
No College	n	48	859	2,466	7	2	15	172	12	3581
	%	11.8%	43.5%	45.0%	53.8%	50.0%	19.0%	23.4%	54.5%	41.1%
2-year College	n	52	334	1,539	4	1	15	124	5	2,074
	%	12.8%	16.9%	28.1%	30.8%	25.0%	19.0%	16.9%	22.7%	23.8%
4-year College	n	307	782	1,476	2	1	49	438	5	3060
	%	75.4%	39.6%	26.9%	15.4%	25.0%	62.0%	59.7%	22.7%	35.1%
Total	N	407	1,975	5,481	13	4	79	734	22	8,715
	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 4b: Cohort II demographic characteristics and trends related to college enrollment after high school								
		Female	Male	Total		Non-G/T	G/T	Total
No College	n	1,632	1,937	3,569		3,203	366	3,569
	%	36.6%	45.7%	41.1%		48.0%	18.1%	41.1%
2-year College	n	1,078	991	2,069		1,796	273	2,069
	%	24.2%	23.4%	23.8%		26.9%	13.5%	23.8%
4-year College	n	1,745	1,310	3,055		1,674	1,381	3,055
	%	39.2%	30.9%	35.1%		25.1%	68.4%	35.1%
Total	N	4,455	4,238	8,693		6,673	2,020	8,693
	%	100.0%	100.0%	100.0%		100.0%	100.0%	100.0%

Table 4c: Cohort II demographic characteristics and trends related to college enrollment after high schoo1								
		Non-Eco. Disadv.	Eco Dis. Adv.	Total		Non-At Risk	At Risk	Total
No College	n	600	2,981	3,581		1,080	2,489	3,569
	%	26.3%	46.3%	41.1%		24.5%	58.0%	41.1%
2-year College	n	452	1622	2074		944	1,125	2,069
	%	19.8%	25.2%	23.8%		21.4%	26.2%	23.8%
4-year College	n	1,228	1,832	3,060		2,380	675	3055
	%	53.9%	28.5%	35.1%		54.0%	15.7%	35.1%
Total	N	2,280	6,435	8,715		4,404	4,289	8,693
	%	100.0%	100.0%	100.0%		100.0%	100.0%	100.0%

Table 4d: Cohort II demographic characteristics and trends related to college enrollment after high school								
		Non-Special Ed	Special Ed.	Total		Non-LEP	LEP	Total
No College	n	3,187	382	3,569		2,960	621	3,581
	%	39.2%	67.0%	41.1%		38.3%	62.4%	41.1%
2-year College	n	1,930	139	2,069		1,809	265	2,074
	%	23.8%	24.4%	23.8%		23.4%	26.6%	23.8%
4-year College	n	3,006	49	3,055		2,951	109	3,060
	%	37.0%	8.6%	35.1%		38.2%	11.0%	35.1%
Total	N	8,123	570	8,693		7,720	995	8,715
	%	100.0%	100.0%	100.0%		100.0%	100.0%	100.0%

Appendix D

Cohort I and Cohort III attendance analyses by graduation year											
	n	**No College**	**S.D.**		**n**	**2-year College**	**S.D.**		**n**	**4-year College**	**S.D.**
Cohort I	3,619	92.2	7.96		1,974	94.5	5.52		3,090	95.9	4.28
Cohort II	3,581	92.1	7.99		2,074	94.6	6.11		3,060	96.2	4.10
t	0.5320				0.5455				2.8065		
df	7198				4046				6148		
Sig.	0.5947				0.5854				0.005*		
* two-tailed t-test, statistically significant at p < .001											

Appendix E

Table 14: Background Characteristics of Survey Respondents		
Total Sample Size = 3,521	**Survey Respondents**	
Language Spoken at Home (check all that apply)	**N**	**%**
English	3,243	92.1
Spanish	2,022	57.4
Arabic	34	1.0
Hindu	22	0.6
Nepali	9	0.3
Urdu	19	0.5
Vietnamese	46	1.3
Chinese	41	1.2
Other	199	5.7
Gender		
Female	2,162	61.4
Male	1,332	37.8
Transgender	12	.3
No Response	15	0.5
Number of Younger Siblings		
None	1,043	31.9
1	1,039	29.6
2 to 3	300	29.5
4 or more	1,125	8.5
No Response	15	0.4
Number of Older Siblings		
None	1,248	35.4
1	1,057	30.0
2 to 3	929	26.4
4 or more	258	7.3
No Response	30	0.9
Number of People in Household		
0	19	.5
3 or fewer	924	26.2
4 to 6	2,228	63.3
7 or more	350	9.9

Appendix E (cont'd)

Table 15: Engagement in academic and social behaviors outside of the school environment						
	None	**Less than 1 Hour**	**1-5 Hours**	**6-10 Hours**	**More than 10 Hours**	
The amount of time spent during a typical week engaging in the following activities	n (%)	n (%)	n (%)	n (%)	n (%)	Total
Studying or doing homework	211 (6.1)	910 (26.1)	**1,697 (48.7)**	459 (13.2)	210 (6.0)	3487
Socializing with friends	165 (4.8)	659 (19.0)	**1,527 (44.0)**	724 (20.9)	396 (11.4)	3471
With teachers or counselors outside of class	1,296 (37.4)	**1,457 (42.0)**	619 (17.9)	71 (2.0)	23 (.7)	3466
Talking with parents	133 (3.8)	725 (20.9)	**1,356 (39.1)**	697 (20.1)	560 (15.9)	3471
Working (for pay)	**1,829 (52.8)**	118 (3.4)	413 (11.9)	517 (14.9)	586 (16.9)	3463
Afterschool activities (student clubs or sports)	**1,454 (41.8)**	428 (12.3)	1,038 (29.8)	334 (9.6)	225 (6.5)	3479
Doing housework or taking care of children	524 (15.1)	1,057 (30.4)	**1,259 (36.2)**	395 (11.4)	240 (6.9)	3475
Reading for pleasure	**1,333 (38.3)**	1,251 (36.0)	686 (19.7)	138 (4.0)	70 (2.0)	3478
Doing religious activities	**1,825 (52.5)**	793 (22.8)	660 (19.0)	124 (3.6)	71 (2.0)	3473
Items adapted from the ED School Climate Survey (U.S. Department of Education, n.d.) and the National Education Longitudinal Study Student Questionnaire (National Center for Education Statistics, n.d.)						

Table 16: Academic behaviors (adapted from Dweck, Walton, & Cohen, 2011)					
	Strongly Agree	**Agree**	**Disagree**	**Strongly Disagree**	
Academic Behaviors	n (%)	n (%)	n (%)	n (%)	Total
I choose challenging academic courses.	834 (23.8)	**1,779 (50.9)**	756 (21.6)	129 (3.7)	3498
I know how to improve my academic grades.	1,295 (37.0)	**1,988 (56.8)**	156 (4.5)	60 (1.7)	3499
I ask teachers for help when I need it.	1,002 (28.6)	**2,039 (58.1)**	391 (11.1)	75 (2.1)	3507
I persist in the face of obstacles and challenges.	938 (26.8)	**2,241 (64.0)**	293 (8.4)	30 (0.9)	3502
I can match my interests with college choices that are a good fit for me.	986 (28.1)	**2,143 (61.2)**	330 (9.4)	45 (1.3)	3504
I understand options for paying for college.	872 (24.9)	**2,131 (60.8)**	415 (11.8)	85 (2.4)	3503
I am comfortable asking college staff for assistance.	775 (22.1)	**2,018 (57.7)**	623 (17.8)	83 (2.4)	3499
I am comfortable matching my skills and interests to potential careers.	1,107 (31.7)	**2,054 (58.7)**	292 (8.4)	44 (1.3)	3497
I believe that intelligence is something you can change.	1,197 (34.2)	**1,980 (56.6)**	269 (7.7)	51 (1.5)	3497
I truly believe that I can go to college.	**1,996 (57.1)**	1,344 (38.4)	125 (3.6)	33 (0.9)	3498
I truly believe that I can pay for college.	398 (11.4)	**1,433 (41.1)**	1,235 (35.4)	423 (12.1)	3489
I truly believe that I will graduate from college.	**1,691 (48.3)**	1,564 (44.7)	195 (5.6)	49 (1.4)	3499
I feel comfortable talking to people about their careers.	1,231 (35.2)	**1,916 (54.8)**	305 (8.7)	46 (1.3)	3498
I see a connection between my high school coursework and potential careers.	504 (14.4)	**1,659 (47.4)**	992 (28.4)	343 (9.8)	3498
I believe that my high school has prepared me to succeed in college-level work.	621 (17.8)	**1,894 (54.3)**	708 (20.3)	266 (7.6)	3489
I believe that my high school has prepared me to actively participate in my community.	618 (17.7)	**1,814 (51.9)**	816 (23.3)	248 (7.1)	3496
I am familiar with how to earn college credit in high school.	1,042 (29.8)	**1,873 (53.6)**	483 (13.8)	99 (2.83)	3497
I can get better at a subject if I put in more effort.	**1,864 (53.3)**	1,530 (43.7)	78 (2.2)	26 (0.74)	3498
Items adapted from Dweck, Walton, & Cohen, 2011					

Appendix E (cont'd)

Table 17a: School climate - Student Engagement

	Strongly Agree	Agree	Disagree	Strongly Disagree	
Student Engagement	n (%)	n (%)	n (%)	n (%)	Total
Adults working at my school treat all students with respect.	606 (17.4)	1,898 (54.6)	733 (21.1)	241 (6.9)	3478
People of different cultural backgrounds, races, or ethnicities get along well at this school.	1,033 (29.8)	2,053 (59.2)	301 (8.7)	80 (2.3)	3467
Adults working at this school help me to develop strategies to understand and control my feelings and actions.	565 (16.3)	1,882 (54.3)	797 (23.0)	223 (6.4)	3467
School rules are applied equally to all students.	704 (20.3)	1,599 (46.1)	823 (23.7)	344 (9.9)	3470
My teachers praise me when I work hard in school.	593 (17.1)	1,898 (54.8)	807 (23.3)	164 (4.7)	3462
The things I am learning in school are important to me.	740 (21.3)	1,952 (56.3)	596 (17.2)	179 (5.2)	3467
My teachers expect me to do my best all the time.	1,290 (37.3)	1,925 (55.6)	200 (5.8)	45 (1.3)	3460
There are lots of chances for students at this school to get involved in sports, clubs, and other school activities outside of class.	1,234 (35.7)	1,665 (48.1)	430 (12.4)	131 (3.8)	3460
I have lots of chances to be part of class discussions or activities.	1,068 (30.9)	2,009 (58.1)	316 (9.1)	67 (1.9)	3460

Items adapted from the ED School Climate Survey (U.S. Department of Education, n.d.) and the National Education Longitudinal Study Student Questionnaire (National Center for Education Statistics, n.d.)

Table 17b: School climate - Safety

	Strongly Agree	Agree	Disagree	Strongly Disagree	
School Safety	n (%)	n (%)	n (%)	n (%)	Total
Students at this school are often bullied.	213 (6.1)	723 (20.8)	1,939 (55.7)	605 (17.4)	3480
I feel safe at this school.	618 (17.8)	2,191 (63.1)	524 (15.1)	140 (4.0)	3473
I feel safe going to and from this school.	736 (21.2)	2,255 (65.0)	373 (10.7)	106 (3.1)	3470
I am happy to be at this school.	679 (19.5)	1,948 (56.0)	575 (16.5)	279 (8.0)	3481
I feel like I am part of this school.	727 (20.9)	1,880 (54.1)	617 (17.8)	249 (7.2)	3473

Items adapted from the ED School Climate Survey (U.S. Department of Education, n.d.) and the National Education Longitudinal Study Student Questionnaire (National Center for Education Statistics, n.d.)

Table 17c: School Climate - School Enviroment

	Strongly Agree	Agree	Disagree	Strongly Disagree	
School Environment	n (%)	n (%)	n (%)	n (%)	Total
My teachers care about me.	905 (26.0)	2,151 (61.8)	325 (9.3)	97 (2.8)	3478
I can talk to my teachers about problems I am having in class.	897 (25.8)	1,987 (57.2)	452 (13.0)	139 (4.0)	3475
I can talk to a teacher or other adult at this school about something that is bothering me.	885 (25.5)	1,803 (51.9)	606 (17.4)	181 (5.2)	3475
My teachers make it clear to me when I have misbehaved in class.	918 (26.5)	2,207 (63.6)	265 (7.6)	80 (2.3)	3470

Items adapted from the ED School Climate Survey (U.S. Department of Education, n.d.) and the National Education Longitudinal Study Student Questionnaire (National Center for Education Statistics, n.d.)