

SparkPoint Supports Student Success

An evaluation of student success for SparkPoint students at the San Mateo Community College District, 2018-2022



Prepared by Public Profit | July 2023

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TABLE OF CONTENTS

- Acknowledgements* 1**
- Executive Summary* 3**
- About SparkPoint* 6**
 - About UWBA 6
 - About SparkPoint 6
 - About SparkPoint in Community Colleges..... 6
- About the Evaluation*..... 8**
 - Background 8
 - Methodology Overview 9
 - Students Served by SparkPoint12
- Evaluation Results*16**
 - Evaluation Question #1: All SparkPoint Students16
 - Evaluation Question #2: SparkPoint Financial Coaching Clients.....19
 - Summary and Discussion22
- Recommendations*.....24**
- Appendix A. Detailed Methodology*26**
- Appendix B. Data Tables*.....29**
 - SMCCD Students Served by SparkPoint.....29
 - SMCCD Student Success, Including Persistence32
 - Descriptive and Inferential Statistics for Evaluation Question #1: All SparkPoint Students33
 - Descriptive and Inference Statistics for Evaluation Question #2: SparkPoint Financial Coaching Clients46
- Appendix C. Meaning-Making Agenda*58**

EXECUTIVE SUMMARY

Background

Over the last decade, many Bay Area community colleges asked United Way Bay Area (UWBA) to bring SparkPoint to their campuses because students weren't getting the holistic support they needed to stay in school and succeed.¹ SparkPoint offers comprehensive, integrated services that consider students' strengths, resources, and compounding needs. SparkPoint Centers work with students to meet their basic needs, increase their income, build their credit, increase their savings, and reduce their debt.

Previous studies suggest that SparkPoint may contribute to improving student success, including persistence, in community colleges.² This evaluation builds on the foundation of those studies and conducts a more rigorous quantitative analysis that accounts for other factors known to influence persistence and includes comparisons with students who do not participate in SparkPoint. This study includes all San Mateo Community College District (SMCCD) students who were on a degree or certificate track during the 2018-19, 2019-20, 2020-2021, and/or 2021-22 school years. Notably, the last two years of this study were during the COVID-19 pandemic which greatly impacted students and disrupted SparkPoint services.

Student success

includes persistence (retention from fall semester to spring semester) as well as student advancement (graduating and/or transferring out).

Results

The study reveals substantial evidence that SparkPoint contributes to community college student success (i.e., persist, graduate, or transfer).

- **Students who participated in SparkPoint (SparkPoint students) were more likely to succeed than students who did not participate in SparkPoint.** The positive association between SparkPoint and student success was even greater for students who participated in at least two or more SparkPoint financial coaching touchpoints compared to students who did not participate in SparkPoint financial coaching.

¹ The Hope Center for College, Community, and Justice. (2021). [#RealCollege 2021: Basic Needs Insecurity During the Ongoing Pandemic](#). Philadelphia, PA.

² Cheng, N., Shannon, L., & Yasuhara Li, E. (April 2020). [The SparkPoint Difference: Student Persistence Improvement at Community Colleges](#). United Way Bay Area.

² Public Profit. (2019). "Financial Empowerment for Student Success: An Evaluation of SparkPoint Centers at Bay Area Community Colleges". Public Profit. (2018). "SparkPoint 2017-18 Evaluation Findings Report".

- Persistence is one of the components of student success. **Notably, the differences in persistence rates between SparkPoint students and non-SparkPoint students were even greater than those observed for student success rates.** The same was true when comparing students with two or more SparkPoint financial coaching touchpoints to students who did not participate in SparkPoint financial coaching.
- **After controlling for demographic characteristics** (i.e., ethnicity, gender, and age) **and other factors known to contribute to student success** (i.e., campus enrollment, GPA, whether the student was an international student, and whether the student was on financial aid) **students who participated in SparkPoint during 2018-19 and 2019-20 were more likely to succeed, including persistence, than similar students who did not participate in SparkPoint.** In 2020-21 and 2021-22, our model did not show that SparkPoint was a statistically significant contributor for the observed differences in student success, including persistence, once we accounted for other factors.
- **SparkPoint staff, UWBA staff, and SparkPoint student ambassadors shared several reasons why SparkPoint’s contribution was clear in 2018-19 and 2019-20, but harder to detect after the global pandemic impacted SparkPoint programming and the community colleges.** SparkPoint offers a range of vital resources (including food pantries, financial coaching, access to public benefits, and housing resources) that make it easier for students to stay in school and fully engage in college programs. However, the pandemic drastically impacted SparkPoint’s ability to connect with students and implement services. The shift from having a physical presence on campus to being all virtual made it more challenging to recruit new students and stay in contact with existing clients. Additionally, many students’ lives were shaken up by the pandemic and its associated uncertainty.

Recommendations

PROGRAMMATIC RECOMMENDATIONS

- **Increase SparkPoint visibility on campuses and virtually.** Rebuild the relationships and presence SparkPoint had on campuses prior to the pandemic.
- **Continue to provide coaching services as part of the SparkPoint model.** The positive association between SparkPoint and student success was even greater for SparkPoint clients who participated in at least two financial coaching touchpoints. These finding highlights how robust basic needs centers that go beyond minimum requirements and services (which are often band-aid solutions to reoccurring problems) can further advance student persistence and overall success.

- **Provide SparkPoint services to more community college students.** As a contributor to persistence and student success, SparkPoint can play a key role in supporting California community colleges' goal of increasing degree and certificate attainment and transfers to four-year institutions.³

EVALUATION RECOMMENDATIONS

- **Continue studying SparkPoint's contributions to student success and persistence.** UWBA can learn from doing a similar analysis at other SparkPoint campuses, and by adding in a qualitative component with deeper perspectives from staff and students. On the quantitative side, UWBA could investigate how different dosages and types of services affect student success and persistence rates.
- **Reinvigorate SparkPoint's data ecosystem** so it is easier to track services, conduct follow-ups, and collect data on student engagement and progress. This recommendation is two-fold: on one side, some of the program's data infrastructure could be updated for easier use; and on the other side, some data capacity building for SparkPoint staff could support more complete and accurate data entry.
- **Celebrate SparkPoint's benefits beyond student success and persistence,** including financial health and well-being. These are tremendous benefits in and of themselves. Furthermore, connecting SparkPoint's effect on student financial health to overall student well-being could be fruitful area of exploration for the program.

³ <https://www.cccco.edu/About-Us/Vision-for-Success>

ABOUT SPARKPOINT

About UWBA

Since 1922, United Way Bay Area (UWBA) has worked to address the root causes of poverty in the San Francisco Bay Area. UWBA programs mobilize the Bay Area to dismantle the root causes of poverty and build equitable pathways to prosperity. Through initiatives and policy change, UWBA provides immediate and long-term support for employment, housing, financial stability, and meeting basic needs.

About SparkPoint

UWBA launched **SparkPoint** in 2009 to help families and individuals improve their financial health. At SparkPoint Centers across the Bay Area, individuals can access a wide variety of services to help them achieve financial prosperity. SparkPoint clients work one-on-one with a financial coach who helps them identify goals, develop a step-by-step action plan, and keep clients on track. SparkPoint services focus on four key features of financial prosperity: increasing income, reducing debt, managing credit, and building assets. While all SparkPoint Centers share the common goal of supporting individuals and families on their paths toward financial prosperity, they use varying strategies to achieve this goal, drawing on local resources and priorities. UWBA serves as a backbone organization for SparkPoint Centers and provides support through funding, trainings, facilitating communities of support, technical assistance, and a centralized database for tracking impact and reporting. UWBA regularly convenes SparkPoint Centers to gather input, share best practices, and reflect and strategize on lessons learned.

About SparkPoint in Community Colleges

UWBA partners with a diverse array of mission-driven organizations to implement SparkPoint programming in their respective communities through SparkPoint Centers. These Centers are hosted at community-based locations, K-12 community schools, and community colleges. Each Center is run by a different lead agency and often provides services at multiple locations in a community.

Community colleges play an important role in promoting economic mobility and lifting individuals and families out of poverty through higher education. However, many community college students face challenging financial situations, including food and housing insecurity, that put them at risk of dropping out of college.⁴ Community colleges are therefore natural partners for an initiative like SparkPoint that helps students address financial concerns, making it more likely that they will persist in college and complete their degrees or certificates in a timely manner.

⁴ The Hope Center for College, Community, and Justice. (2021). [#RealCollege 2021: Basic Needs Insecurity During the Ongoing Pandemic](#). Philadelphia, PA.

Currently, SparkPoint offers services at twelve community college locations across the Bay Area. Three of the twelve SparkPoint Centers at San Francisco Bay Area community colleges are included in this study: Skyline College, College of San Mateo, and Cañada College. These campuses are marked with orange dots in the following map of Bay Area SparkPoint Centers (Figure 1).

Figure 1. Map of SparkPoint Centers in San Francisco Bay Area.



Source: Created by Public Profit, May 2023. Note: The larger orange dots indicate the campuses that are included in Public Profit’s study on persistence of community college students.

ABOUT THE EVALUATION

Background

Many postsecondary institutions are facing challenges with low enrollment, student persistence, and completion rates. These challenges, which have been further exacerbated by the COVID-19 pandemic, disproportionately impact low-income students, students of color, and first-generation students. One strategy California community colleges are using to support students is the establishment of Basic Needs Centers per California Assembly Bill 132 and programs like SparkPoint that offer wraparound services to mitigate basic needs insecurity among students.

Over the last decade, many Bay Area community colleges asked UWBA to bring SparkPoint to their campuses because students weren't getting the holistic support they needed to stay in school and succeed.⁵ SparkPoint offers comprehensive, integrated services that consider students' strengths, resources, and compounding needs to offer them what they need, when they need it. SparkPoint Centers work with students to meet their basic needs, increase their income, build their credit, increase their savings, and reduce their debt. Dedicated coaches meet individually with students to help them set goals, make plans, and track progress for short and long-term success.

Previous studies suggest that SparkPoint may contribute to improving student success in community college. UWBA's 2020 report "The SparkPoint Difference" found that community college students who participated in SparkPoint persisted at higher rates than the overall college average persistence rates.⁶ Additionally, past qualitative SparkPoint studies found persistence to be cited by staff and students as a key outcome of SparkPoint participation.⁷ There are few studies in the literature examining the link between other financial coaching programs and student outcomes.

This evaluation, by Public Profit, builds on the foundation of previous SparkPoint studies and expands on prior quantitative analyses. We collected student-level data for students served by SparkPoint as well as students who did not participate in SparkPoint, which allowed us to conduct a more rigorous quantitative and comparative analysis that accounts for other factors known to influence persistence. This deeper analysis allowed us to get closer to isolating SparkPoint's unique contribution to supporting student success.

⁵ The Hope Center for College, Community, and Justice. (2021). [#RealCollege 2021: Basic Needs Insecurity During the Ongoing Pandemic](#). Philadelphia, PA.

⁶ Cheng, N., Shannon, L., & Yasuhara Li, E. (April 2020). [The SparkPoint Difference: Student Persistence Improvement at Community Colleges](#). United Way Bay Area.

⁷ Public Profit. (2019). "Financial Empowerment for Student Success: An Evaluation of SparkPoint Centers at Bay Area Community Colleges". Public Profit. (2018). "SparkPoint 2017-18 Evaluation Findings Report".

Methodology Overview

This goal of this study is to examine the impact of SparkPoint services on student success.

STUDY GROUPS

This study includes all San Mateo Community College District (SMCCD) students who were on a degree or certificate track between the 2018-19 through 2021-22 school years. SparkPoint students were divided into two groups for this study.

- 1) **All SparkPoint students** are students who participated in any SparkPoint service (including basic needs services and financial coaching.) Once a student accessed any SparkPoint services, then the student became considered a SparkPoint student for that term and all subsequent terms.
- 2) **SparkPoint coaching clients** are students who specifically participated in SparkPoint financial coaching services.

EVALUATION QUESTIONS

The following evaluation questions guided data collection and reporting:

For All SparkPoint Students:

- Do students who participate in SparkPoint have higher semester-to-semester success rates than similar students who do not participate in SparkPoint?

For SparkPoint Coaching Clients:

- Do students who participate in sufficient SparkPoint financial coaching services have higher semester-to-semester success rates than similar students who do not participate in financial coaching?⁸

⁸ In this study, “sufficient” SparkPoint financial coaching services is defined as participating in two or more coaching sessions (or touchpoints) during the fall semester or in prior years. A financial coaching session could also include an assessment. Once a student received two financial coaching sessions then they are considered to have sufficient dosage of that service type for that term and all subsequent terms. The evaluation team, in partnership with UWBA and SparkPoint leadership, determined the sufficient threshold of two touchpoint based on reasonable and desirable program implementation, and because the sample size would be too small if limited to those who received three or more touchpoints.

KEY OUTCOMES

Our definition of student success includes persistence (i.e., retention from fall semester to spring semester) as well as student advancement (i.e., graduating and/or transferring out).⁹ We also examine the outcome of persistence on its own since this is a specific goal of the SparkPoint program. Thus, the key outcomes examined and discussed in this report are:

Student success rate is the percent of students who attended in the fall semester and did one of the following forms of advancement:

- 1) returned in the spring semester,
- 2) completed a degree or a certificate, or
- 3) transferred out to another institution.

Student success rate analysis excludes students not on a degree or certificate track.

Persistence rate is the percent of students who attended in the fall semester and returned in the following spring semester. Persistence rate analysis excluded students who completed a degree or certificate in the Fall, students who transferred out in Fall, and students not on a degree/certificate track.

DATA SOURCES AND ANALYSIS

This study utilizes student data from SMCCD's Office of Planning, Research, Innovation, and Effectiveness (PRIE) and United Way Bay Area's SparkPoint program data pulled from Exponent Case Management (ECM) database. Each record in the dataset was a unique student-semester combination; a student showed up in the dataset for each semester they were enrolled.

Public Profit conducted descriptive analysis on student demographics and academic data. To determine whether SparkPoint significantly contributed towards student success, Public Profit conducted multivariate logistic regression modeling. Regression models included the following variables as controls: campus location, race and ethnicity, gender, age, international status, financial aid recipient status, and cumulative GPA. To ensure the logistic regression models and their results were still reportable, Public Profit also ran general additive models (GAMs) to check that contribution variables on their own were still resulting in similar trends of influence (i.e., positive or negative) and significance. Additionally, McFadden's pseudo-R-squared was calculated for each model which gives a sense of model fit. For all models, this measurement suggested moderate fit.

⁹ There are many dimensions to persistence and student success. A 2018 survey of 64 community colleges leaders conducted by EdSurge ("Measuring Up: How Community Colleges Define, Measure and Support Student Success") found that there was no single definition of student success that was consistently used across the respondents' institutions. While many of the institutions defined student success in terms of persistence and educational attainment, others included measures of academic achievement and student advancement.

Given that the study period overlapped with the COVID-19 pandemic when implementation of community college courses and SparkPoint services were greatly disrupted, Public Profit decided to look at each school year on its own instead of including school year as a variable in the models. This decision also mitigated potential issues with failing an assumption of logistic regression models that observations (student records) are independent of each other, since a student could be enrolled in multiple school years (see the assumptions outlined next).

After our preliminary analysis, we convened a group of UWBA staff, SparkPoint staff, and SparkPoint student ambassadors to collaboratively review and interpret the findings to date. This meaning making session helped contextualize the quantitative findings to add explanatory power and identify areas for further exploration. See the appendix for the Meaning Making session agenda.

EVALUATION LIMITATIONS

All studies have limitations. In this case, Public Profit and UWBA were only able to secure student-level enrollment data from SMCCCD despite trying to also gather this data from San Jose Evergreen Community College District (SJECCD). This limited the scope of the study to only three community colleges, and so therefore the study is not fully representative of the twelve community colleges that have SparkPoint Centers in the San Francisco Bay Area.

The original analysis plan considered looking at the specific contribution of basic needs services to persistence and student success, but we were only able to get basic needs service data for SparkPoint students. And so, the sample sizes were small when limiting the scope to SparkPoint students only. Additionally, SparkPoint basic needs service usage was not always tracked systematically in order to not pose a barrier of access to students who may be deterred by the collection of personal information. Thus, we could not reliably ascertain whether a student did or did not receive SparkPoint basic needs services, making it impossible to conduct a comparative analysis.

Other limitations of the study are due to the available data. For example, literature on persistence suggests that social emotional state (e.g., self-efficacy) and student-faculty relationships may be important contributors to persistence. Additionally, SparkPoint staff witnessed housing, transportation, mental health, and caregiving responsibilities influencing persistence. However, data on those contributors was not available and therefore not included in the logistic regression models.

For more detailed methodology, see Appendix A.

Students Served by SparkPoint

During the 2018-19 through the 2021-22 school years, SparkPoint served 1,049 unique San Mateo Community College District (SMCCD) students who were on a degree or certificate track. Nearly 4 in 10 of these students (38%) attended Skyline college and 2 in 10 students (20%) attended more than one SMCCD campus (Table A and Figure 2 on the next page).

Table A. Count of students served by SparkPoint in each school year.

| School Year | District-Wide | Cañada | CSM | Skyline | Multiple Campuses |
|--------------|---------------|------------|------------|------------|-------------------|
| 2018-19 | 138 | 33 | 42 | 48 | 15 |
| 2019-20 | 657 | 94 | 172 | 271 | 120 |
| 2020-21 | 528 | 63 | 102 | 196 | 167 |
| 2021-22 | 473 | 58 | 126 | 130 | 159 |
| TOTAL | 1,049 | 142 | 296 | 401 | 210 |

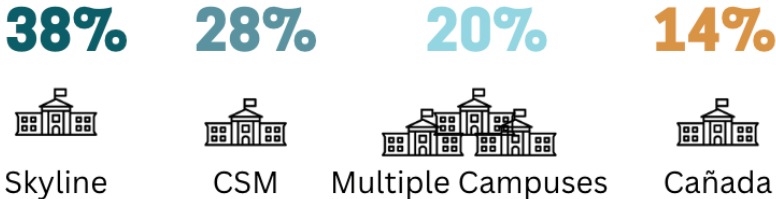
Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes SparkPoint-participating students eligible for student success study for each school year.

Of the SparkPoint students eligible for the study, 63% of the them identified as female and 40% as Hispanic (Figure 2 on the next page). Their average age was 26, while 15% of them were international students and 72% received financial aid. The demographics of the SparkPoint students included in the study are similar to that of SMCCD.¹⁰

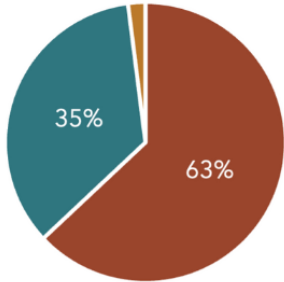
¹⁰ Chi-square tests were conducted to see if the demographic and academic factors were statistically significantly associated with SparkPoint affiliation (i.e., were the study groups similar or different based on their participation in the program). All test results showed that demographic and academic factors were not associated with SparkPoint affiliation, telling us that the study groups were similar, which meant that it was sound to move forward with testing the intervention of SparkPoint itself.

Figure 2. Profile of SMCCCD Students Served by SparkPoint

1,049 SMCCCD Students Served by SparkPoint 2018-2022

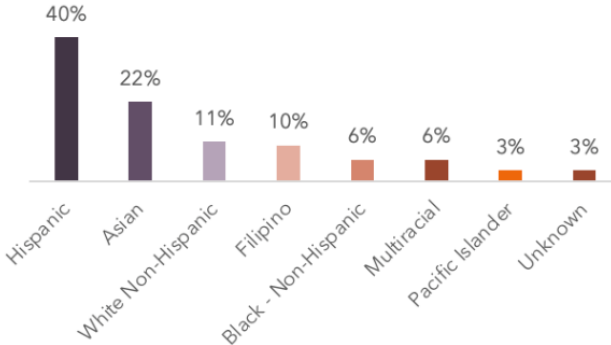


GENDER



■ Female ■ Male ■ Unknown

RACE/ETHNICITY

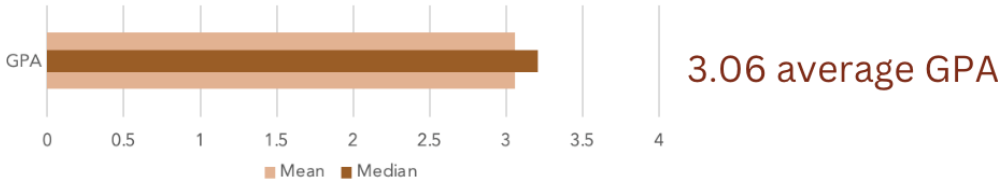


15%
International Students



72%
Receive Financial Aid

Students ranged from age 15-70, with an **average age of 25.6** and a **median age of 22**.



Source: SMCCCD PRIE Enrollment Data, August 30, 2022. Unique set of SparkPoint-participating students eligible for student success study across all four school years.

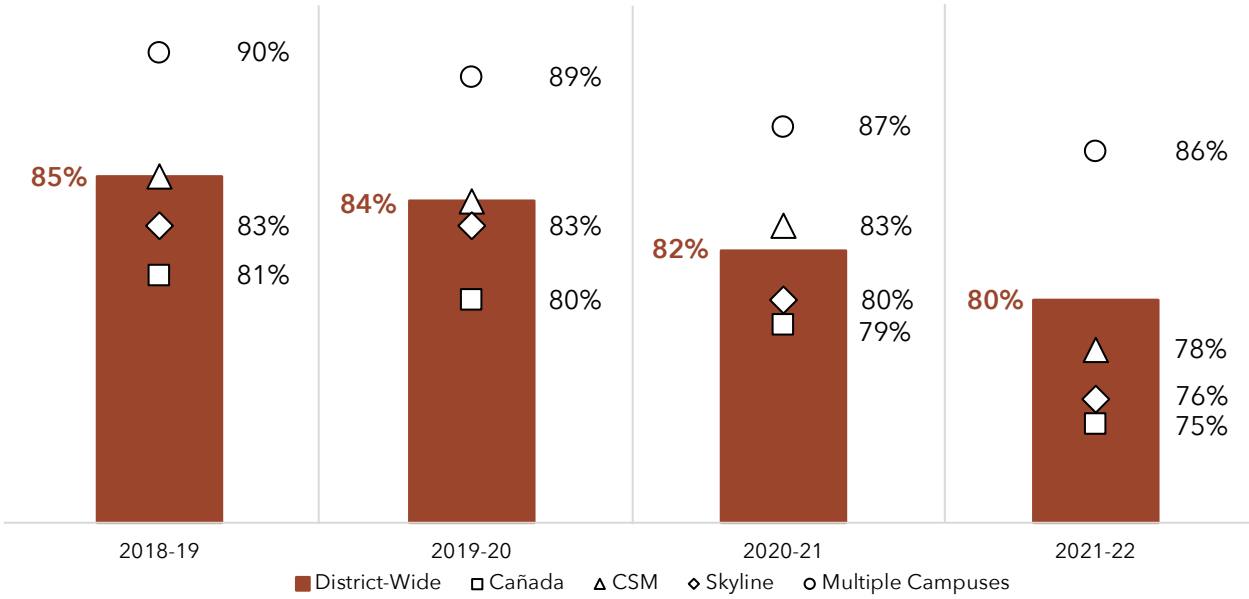
SMCCD District-Wide Trends

DISTRICT-WIDE STUDENT SUCCESS RATES

From the 2018-19 school year through the 2021-22 school year, student success rates dropped across all SMCCD campuses (Figure 3). The district-wide student success rate gradually decreased from 85% to 80% across the four school years, with all three individual campus student success rates ending in the high-70s for the 2021-22 school year. Students enrolled at multiple campuses in the SMCCD had higher success rates across the four school years than those only enrolled at one campus, staying in the high-80s.

Student success includes persistence (retention from fall semester to spring semester) as well as student advancement (graduating and/or transferring out).

Figure 3. District-wide student success rates trended downward across the four school years.

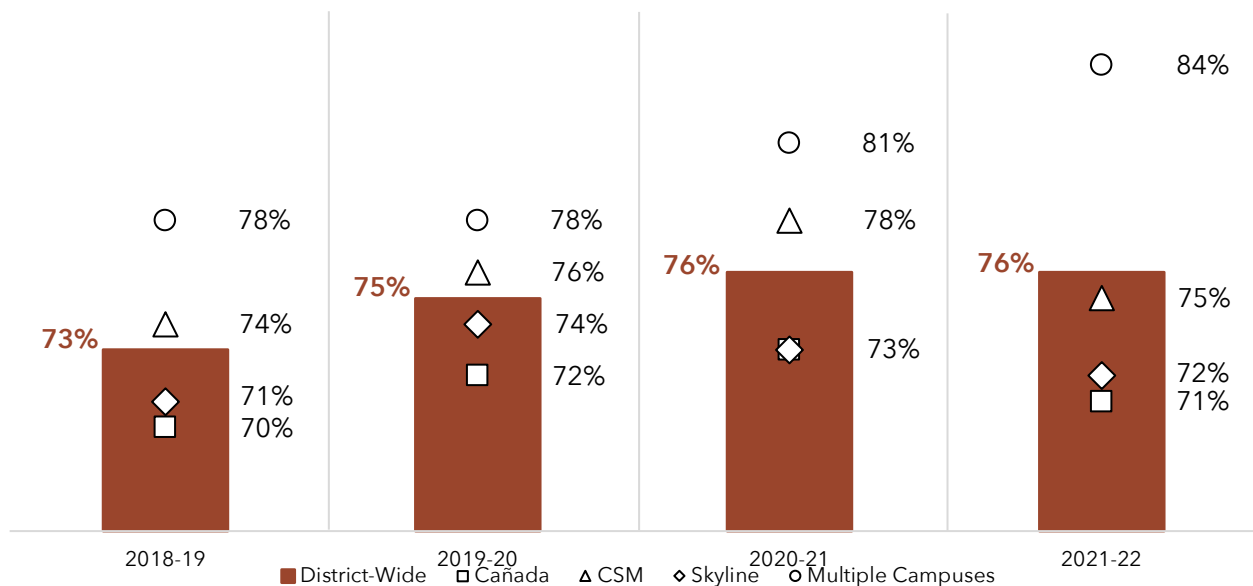


Source: SMCCD PRIE Enrollment Data, August 30, 2022. Only includes students eligible for student success study; 2018-19 N=11,780; 2019-20 N=11,628; 2020-21 N=10,928; 2021-22 N=10,215.

DISTRICT-WIDE PERSISTENCE RATES

Persistence, a component of student success, varied between SMCCCD campuses from the 2018-19 school year through the 2021-22 school year (Figure 4). The district-wide persistence rate stayed in the mid-70s across the four school years, with Cañada College’s and Skyline College’s persistence rates staying in the low-70s and students enrolled at multiple campuses having persistence rates in the high-70s and low-80s. Each of the individual campuses experienced a drop in persistence from the 2020-21 school year to the 2021-22 school year, likely because of the pandemic’s effects on the labor and housing market.¹¹

Figure 4. District-wide persistence rates stayed in the mid-70s across the four school years, though they generally increased.



Source: SMCCCD PRIE Enrollment Data, August 30, 2022. Only includes students eligible for persistence study; 2018-19 N=6,614; 2019-20 N=7,417; 2020-21 N=8,112; 2021-22 N=8,809.

¹¹ Perez, C., J. Jackson, M. Mejia, O. Rodriguez, H. Johnson, D. Payares-Montoya P. 2022. *The Effects of COVID-19 on Transfer-Intending Students in California’s Community Colleges*. Public Policy Institute of California.

EVALUATION RESULTS

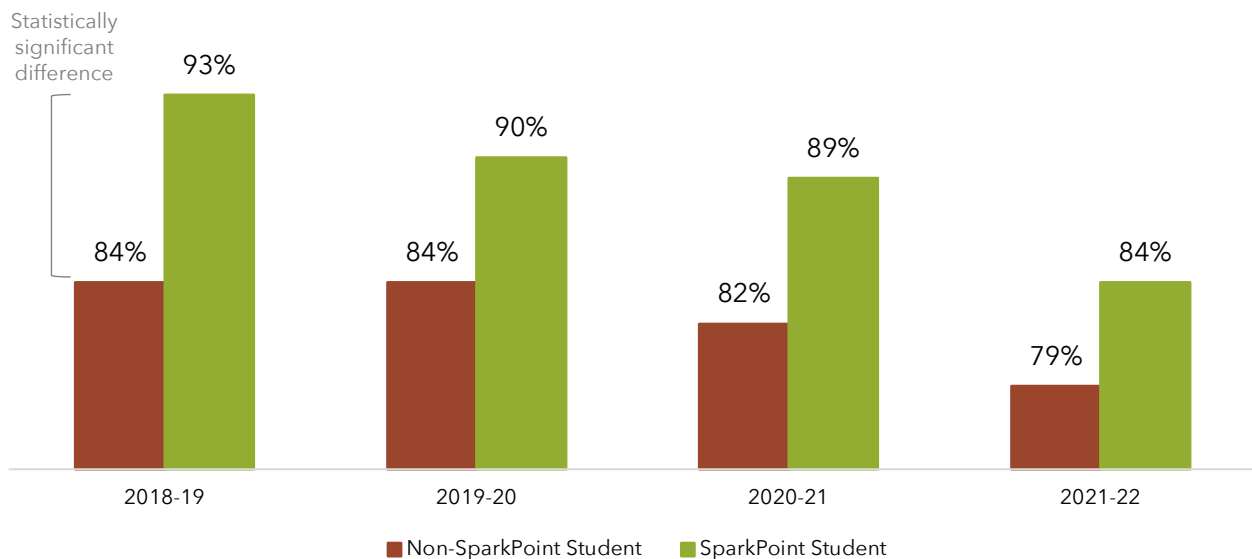
Evaluation Question #1: All SparkPoint Students

Do students who participate in SparkPoint have higher semester-to-semester success rates (i.e., persist, graduate, or transfer) than similar students who do not participate in SparkPoint?

Overall, SparkPoint had a positive impact on student success compared to students who did not participate in SparkPoint. The positive effects of SparkPoint were stronger in the earlier years of the study period compared to later years. In the 2018-19 school year, SparkPoint participation was a statistically significant contributor to overall student success as well as persistence on its own. SparkPoint participation was also a statistically significant contributor to persistence alone in the 2019-20 school year. However, in the 2020-21 and 2021-22 school years, SparkPoint participation was not a statistically significant contributor to student success, nor persistence.

For community college students, SparkPoint participation positively impacted their ability to succeed (i.e., persist, graduate, or transfer). District-wide, SparkPoint students had higher rates of success than those not participating with the program in all four school years reviewed in this study (Figure 5). The greatest difference was in the 2018-19 school year where the success rate for SparkPoint students was 9 percentage points more than that of non-SparkPoint students.

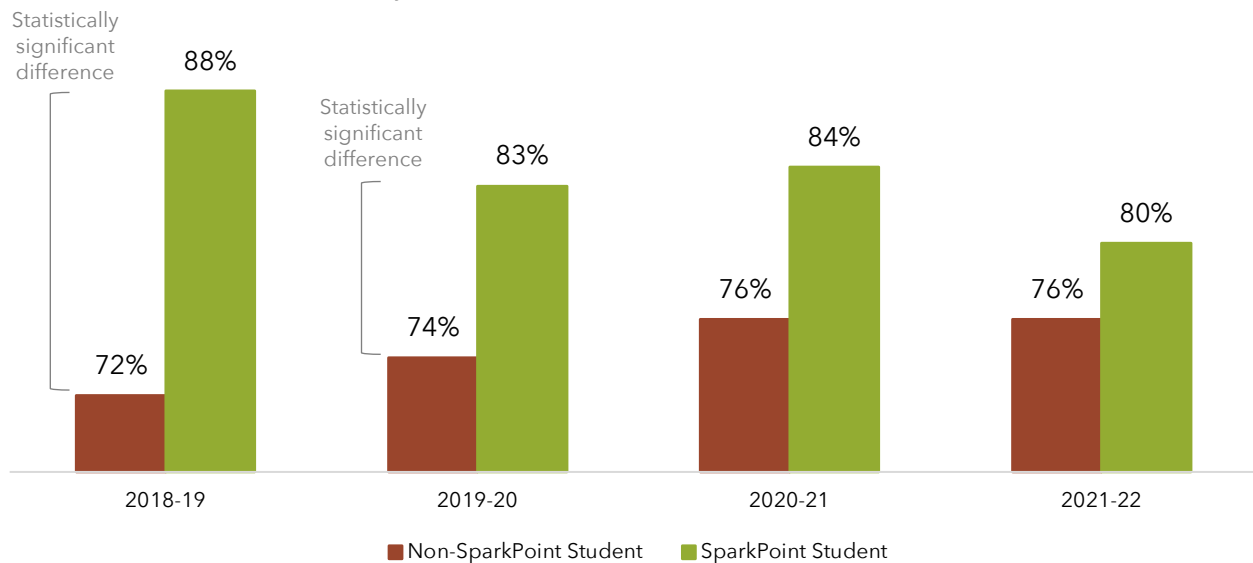
Figure 5. SparkPoint students had higher student success rates in each school year, compared to students not participating in SparkPoint.



Source: SMCCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study; 2018-19 N=11,780; 2019-20 N=11,628; 2020-21 N=10,928; 2021-22 N=10,215. Note: Confidence level is set at 90%, so a difference is statistically significant when the p-value of the intervention’s coefficient in the logistic regression model is less than 0.100 (see Table 20 in Appendix B for summary results of the models).

Persistence is one of the components of student success. **The differences in persistence rates between SparkPoint students and non-SparkPoint students were even greater than those observed for student success overall.** District-wide, SparkPoint students persisted at a higher rate than those unaffiliated with the program and its services in all four school years reviewed (Figure 6). In the 2018-19 school year this difference was a notably large difference of 16 percentage points.

Figure 6. The difference in persistence rate between SparkPoint students and non-SparkPoint students decreased over the four school years.



Source: SMCCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study; 2018-19 N=6,614; 2019-20 N=7,417; 2020-21 N=8,112; 2021-22 N=8,809. Note: Confidence level is set at 90%, so a difference is statistically significant when the p-value of the intervention’s coefficient in the logistic regression model is less than 0.100 (see Table 29 in Appendix B for summary results of the models).

The degree to which SparkPoint was a statistically significant contributor to student success and persistence varied by academic year. We used logistic regressions to determine whether SparkPoint itself is a main contributor to the observed differences in success and persistence rates while accounting for other demographic and academic contributors.¹²

In the 2018-19 school year, SparkPoint was a significant contributor to student success, and to persistence on its own. The model suggests that SparkPoint students were about 86% more likely to succeed (i.e., persist, graduate, or transfer) than students not participating in SparkPoint.¹³ When

¹² In Appendix B, see Tables 20-25 for the logistic regression model results on student success and SparkPoint participation and Tables 29-34 for those on persistence and SparkPoint participation.

¹³ Table 22: SparkPoint participation estimate=0.620 and p-value=0.076.

looking at persistence on its own, SparkPoint students were 127% more likely to persist than students not participating in SparkPoint.¹⁴

In the 2019-20 school year, SparkPoint was a significant contributor to persistence on its own, but not to student success. The model suggests that SparkPoint students were about 30% more likely to persist than non-SparkPoint students.¹⁵

In the other two school years, SparkPoint was not a statistically significant contributor for the observed differences in student success and persistence.¹⁶ In the 2020-21 school year, SparkPoint contributed to persistence, however its effect was not significant with 90% confidence.¹⁷

In all four school years, a student's younger age, being a financial aid recipient, and having a high cumulative GPA were statistically significant contributors to student success and persistence on its own.¹² These results align with results found in published works and with theoretical understandings of contributors to student success.¹⁸ For example, students with higher cumulative GPAs are more likely to persist, as are students who receive financial aid.¹⁹ Interestingly, as a student gets older their likelihood to persist decreases.²⁰ Being an international student was a statistically significant contributor to student success in all but the 2019-20 school year and persistence on its own for all four years. Regulations require that students from foreign countries stay enrolled in school to maintain their student visa, which might explain why this variable is shown to be a contributor to success and persistence.

¹⁴ Table 31: SparkPoint participation estimate=0.817 and p-value=0.023.

¹⁵ Table 32: SparkPoint participation estimate=0.264 and p-value=0.071.

¹⁶ Tables 24-25 for student success and Tables 33-34 for persistence.

¹⁷ Table 33: SparkPoint participation estimate =0.252 and p-value=0.103.

¹⁸ Voorhees, R. A. (1986). *Toward Building Models of Community College Persistence: A Log-Linear Analysis*. American Institute for Research, Annual Forum Paper.

¹⁹ Nakajima, M. A., Dembo, M. H., Mossler, R. (2012). *Student Persistence in Community Colleges*. Community College Journal of Research and Practice, 36: 591–613.

²⁰ National Student Clearinghouse Research Center. (July 2021). *Persistence and Retention: Fall 2019 Beginning Cohort*.

Evaluation Question #2: SparkPoint Financial Coaching Clients

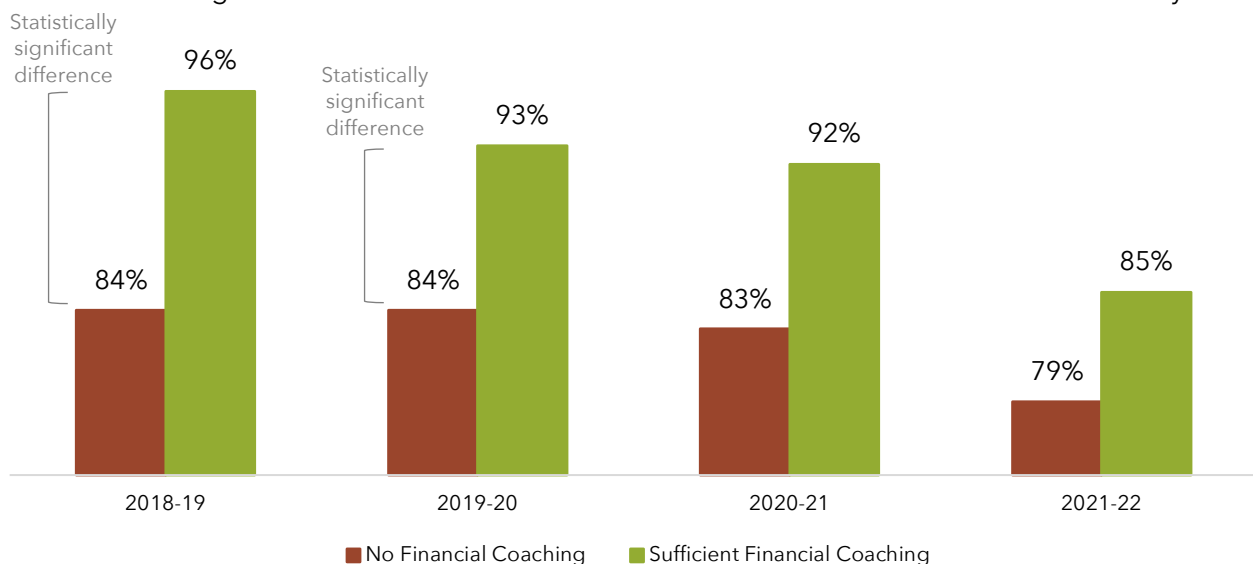
Do students who participate in sufficient SparkPoint financial coaching services have higher semester-to-semester student success rates (i.e., persist, graduate, or transfer) than similar students who do not participate in financial coaching?

Overall, students who participated in two or more financial coaching touchpoints had better student success rates than students who did not participate in financial coaching. The positive effects of SparkPoint were stronger in the earlier years of the study period compared to later years. In the 2018-19 and 2019-20 school years, sufficient SparkPoint financial coaching was a statistically significant contributor to student success (persistence, graduation, and transfer), and to persistence on its own. However, sufficient SparkPoint financial coaching was not a statistically significant contributor in the 2020-21 or 2021-22 school years for student success or persistence.

For community college students, receiving two or more financial coaching touchpoints from SparkPoint positively impacted their ability to succeed (i.e., persist, graduate, or transfer).

District-wide students who received sufficient financial coaching services from SparkPoint had higher rates of success than those who did not (i.e., SparkPoint students who did not participate in financial coaching and non-SparkPoint students) in all four school years reviewed in this study (Figure 7). In the 2018-19 school year this difference was 12 percentage points and continued to be close to 10 percentage points in the following two school years. These observed differences are greater in magnitude than the observed differences in student success based on SparkPoint participation alone discussed in the previous section (Figure 5).

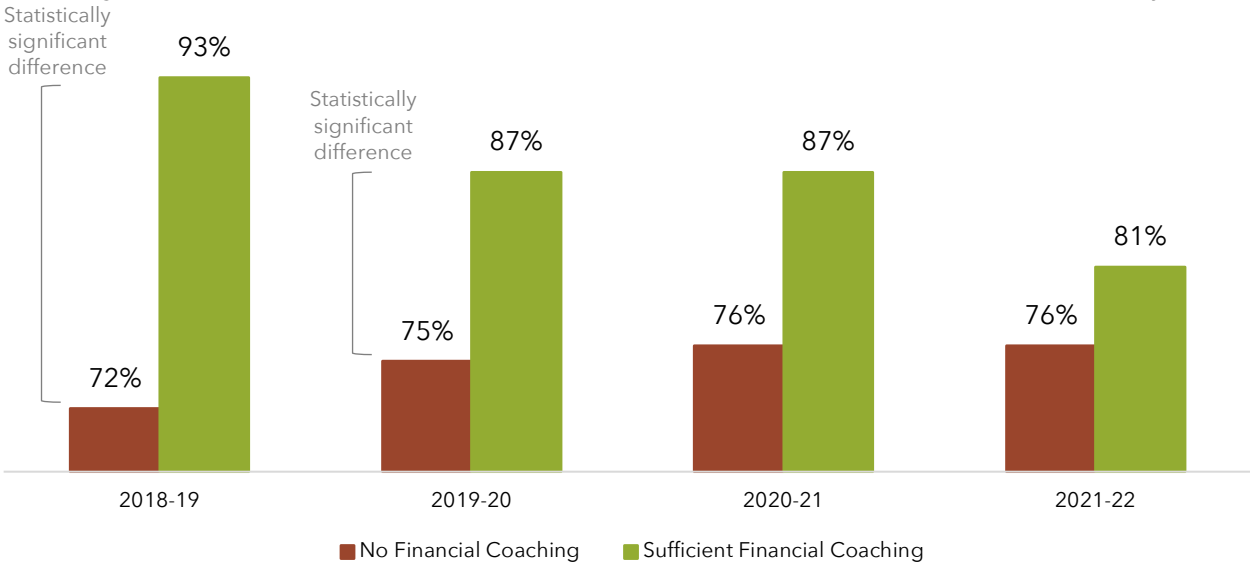
Figure 7. The largest difference in student success rate between students who received sufficient financial coaching services and those who did not receive such services was in the 18-19 school year.



Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study and additionally excludes students who received insufficient financial coaching from SparkPoint; 2018-19 N=11,748; 2019-20 N=11,518; 2020-21 N=10,858; 2021-22 N=10,162. Note: Confidence level is set at 90%, so a difference is statistically significant when the p-value of the intervention’s coefficient in the logistic regression model is less than 0.100 (see Table 38 in Appendix B for summary results of the models).

When examining persistence rate as its own outcome, the differences between students who received sufficient SparkPoint financial coaching services and those who did not were even greater than those observed for student success overall. District-wide, students who received financial coaching services from SparkPoint persisted at a higher rate than those who did not (i.e., SparkPoint students who did not participate in financial coaching and non-SparkPoint students) in all four school years reviewed in this study (Figure 8). In the 2018-19 school year this difference was 21 percentage points and continued to be more than 10 percentage points in the following two school years. Similarly, these observed differences are greater than the observed differences in persistence based on SparkPoint participation alone discussed in the previous section (Figure 6).

Figure 8. The difference in persistence rate between students who received sufficient financial coaching services and those who did not receive such services decreased over the four school years.



Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study and additionally excludes students who received insufficient financial coaching from SparkPoint; 2018-19 N=6,595; 2019-20 N=7,355; 2020-21 N=8,073; 2021-22 N=8,768. Note: Confidence level is set at 90%, so a difference is statistically significant when the p-value of the intervention’s coefficient in the logistic regression model is less than 0.100 (see Table 47 in Appendix B for summary results of the models).

The degree to which sufficient financial coaching services was a statistically significant contributor to student success and persistence varied by academic year. We used a logistic regression to determine whether the SparkPoint financial coaching itself is a main contributor to the observed differences in success and persistence rates while accounting for other demographic and academic contributors (such as age, international status, financial aid, and cumulative GPA.)²¹

In the 2018-19 and 2019-20 school years, sufficient SparkPoint financial coaching was a significant contributor to student success, and persistence on its own. The 2018-19 model suggests that students who received sufficient financial coaching services from SparkPoint were about 273% more likely to succeed (i.e., persist, graduate, or transfer) than those who did not receive such services.²² In 2019-20, that likelihood to succeed was about 67% more.²³ When looking at persistence on its own, students who received two or more financial coaching touchpoints from SparkPoint were about 328% more likely to persist in 2018-19 and 68% more likely to persist in 2019-20.²⁴

In the 2020-21 and 2021-22 school years, SparkPoint financial coaching was not a statistically significant contributor for the observed differences in student success and persistence.²⁵ SparkPoint financial coaching in the 2020-21 school year contributed to student success, however its affect was not significant with 90% confidence.²⁶

In all four school years, a student's age, being a financial aid recipient, and having a high cumulative GPA were statistically significant contributors to student success and persistence on its own.²¹ Being an international student was a statistically significant contributor to student success in all but the 2019-20 school year and persistence on its own for all four years. Regulations require that students from foreign countries stay enrolled in school to maintain their student visa, which might explain why this variable is shown to be a contributor to success and persistence.

²¹ In Appendix B, see Tables 38-43 for the logistic regression model results on student success and SparkPoint financial coaching and Tables 47-52 for those on persistence and SparkPoint financial coaching.

²² Table 40: SparkPoint financial coaching estimate=1.315 and p-value=0.077.

²³ Table 41: SparkPoint financial coaching estimate=0.514 and p-value=0.044.

²⁴ Table 49: SparkPoint financial coaching (2018-19) estimate=1.454 and p-value=0.055. Table 50: SparkPoint financial coaching (2019-20) estimate=0.521 and p-value=0.049.

²⁵ Tables 42-43 for student success and Tables 51-52 for persistence.

²⁶ Table 42: SparkPoint financial coaching estimate=0.402 and p-value=0.105.

Summary and Discussion

The study reveals substantial evidence that SparkPoint contributes to community college student success. District-wide, SparkPoint students experienced higher rates of student success, and persistence on its own, than non-SparkPoint students in all four school years reviewed in this study. The association between SparkPoint and student success, and persistence on its own, was even greater for SparkPoint clients who participated in at least two or more financial coaching touchpoints, the heart of the SparkPoint model.

During 2018-19 and 2019-20, students who participated in SparkPoint were more likely to succeed (i.e., persist, graduate, or transfer) and persist than similar students who did not participate in SparkPoint, even after controlling for demographic characteristics (i.e., ethnicity, gender, and age) and other factors known to contribute to persistence (i.e., campus enrollment, GPA, whether the student is an international student, and whether the student is on financial aid).

2018-19

- Students who participated in any SparkPoint service were **127%** more likely to **persist** and **86%** more likely to **persist, graduate, or transfer** than similar students who did not participate with SparkPoint.
- Students who received two or more financial coaching touchpoints from SparkPoint were **328%** more likely to **persist** and **273%** more likely to **persist, graduate, or transfer** than similar students who did not receive such services.

2019-20

- Students who participated in any SparkPoint service were **30%** more likely to **persist** than similar students who did not participate in SparkPoint.
- Students who received two or more financial coaching touchpoints from SparkPoint were about **68%** more likely to **persist** and **67%** more likely to **persist, graduate, or transfer** than similar students who did not receive such services.

During the challenging pandemic years of 2020-21 to 2021-2022, our model did not show that SparkPoint was a statistically significant contributor for the observed differences in student success, or persistence on its own, once we accounted for other contributors like age, international status, financial aid, and cumulative GPA. However, SparkPoint provided crucial basic needs services during this time that increased the well-being of many students.

SparkPoint staff, UWBA staff and SparkPoint student ambassadors shared several reasons why SparkPoint's contribution was clear in 2018-19 and 2019-20, but harder to detect post-pandemic. The pandemic drastically impacted SparkPoint's ability to connect with students and implement services for several reasons. First, the shift from having a physical presence on campus to being all virtual made it more challenging to recruit new students and stay in contact with existing clients.

Staff highlighted how SparkPoint's outreach events and referrals did not work as well in the virtual world. Additionally, there was less word of mouth about SparkPoint when students were isolated at home. Some SparkPoint students struggled with Zoom and some did not have private spaces to talk at home. SparkPoint staff and clients were accustomed to meeting in-person on campus which was key to developing rapport and the trusting relationship that makes SparkPoint so successful. Second, many students' lives were shaken up by the pandemic and its associated uncertainty. Coaches shared that many students were in crisis-mode and needed to focus on short-term needs rather than long-term financial coaching and education goals. Finally, SparkPoint staff shared that the pandemic combined with a hostile political environment towards immigrants made it difficult to support students who were scared to access services.

Our findings demonstrate that SparkPoint, when fully operational, is a key contributor to student success and persistence. SparkPoint offers a range of vital resources (including food pantries, financial coaching, access to public benefits, and housing resources) that make it easier for students to stay in school and fully engage in college programs. SparkPoint's offerings provide immediate relief, and help students develop and achieve long-term goals. SparkPoint staff build trusting, warm relationships with students. Staff are an important source of encouragement, support, and institutional knowledge for students. Staff and students noted this is why SparkPoint, when fully operational, contributes to persistence and student success.

RECOMMENDATIONS

This section presents recommendations for UWBA to consider, based on the findings of this evaluation.

PROGRAMMATIC RECOMMENDATIONS

- **Increase SparkPoint visibility on campuses and virtually.** Rebuild the relationships and presence SparkPoint had on campuses prior to the pandemic. SparkPoint is most effective when students are aware of its full offerings and meet regularly with staff. While campuses are open again, many aspects of college remain in the virtual world. Explore new ways to virtually develop relationships with students since our society has permanently shifted into this new normal.
- **Continue to provide coaching services as part of the SparkPoint model.** The positive association between SparkPoint and student success was even greater for SparkPoint clients who participated in at least two or more financial coaching touchpoints. SparkPoint's ongoing, one-on-one financial coaching may be key to its success. These finding highlights how robust basic needs centers that go beyond minimum requirements and services (which are often band-aid solutions to reoccurring problems) can further advance student persistence and overall success.
- **Provide SparkPoint services to more community college students.** As a contributor to persistence and student success, SparkPoint can play a key role in supporting California community colleges' goal of increasing degree and certificate attainment and transfers to four-year institutions.²⁷ Build upon SparkPoint's existing work to reach more community college students at campuses with existing SparkPoint Centers and beyond.

EVALUATION RECOMMENDATIONS

- **Continue studying SparkPoint's contributions to student success and persistence.** This study focused on quantitative data from three campuses. UWBA can learn from doing a similar analysis at its other campuses and adding in a qualitative component with deeper perspectives from staff and students. On the quantitative side, SparkPoint could investigate how different financial coaching dosages affect student success and persistence rates. However, the sample size decreases as dosages increases so the data might be limited. Additionally, there was interest from SparkPoint staff about how different types of SparkPoint services affect student success and persistence. This could be another fruitful area for further investigation.

²⁷ <https://www.cccco.edu/About-Us/Vision-for-Success>

- **Reinvigorate SparkPoint’s data ecosystem** so it is easier to track services, conduct follow-ups, and collect data on student engagement and progress. This recommendation is two-fold: on one side, some of the program’s data infrastructure could be updated for easier use; and on the other side, some data capacity building for SparkPoint staff could support more complete and accurate data entry.
 - Data Infrastructure: some students had multiple IDs in SparkPoint’s ECM database which made it challenging to link and aggregate all services received at the student-level. This suggests that quick and accurate counts of students receiving SparkPoint services and the dosages of such services might be challenging to get out of the database.
 - Data Capacity Building: an investigation of the challenges and successes that SparkPoint staff have in entering data on their students would help inform data capacity building efforts. Such efforts will help train staff on best practices for data entry, build understanding and buy-in to what is collected and why, and develop an organizational culture around data and how it can help the program learn and improve.
- **Celebrate SparkPoint’s benefits beyond student success and persistence.** In addition to contributing to student success and persistence, SparkPoint’s services benefit students’ financial health and well-being. These are tremendous benefits in and of themselves. Furthermore, connecting SparkPoint’s effect on student financial health to overall student well-being could be fruitful area of exploration for the program.

APPENDIX A. DETAILED METHODOLOGY

DATA SOURCES

Two datasets were used for this study, both of which were de-identified before they were shared with Public Profit and stored on secured networks and account.

1. SMCCD's Office of Planning, Research, Innovation, and Effectiveness (PRIE) provided enrollment data at the student-level for fall 2018 through spring 2022 for all students, regardless of their participation with SparkPoint. This dataset included important demographic variables like race/ethnicity, age, gender, international student status, and financial aid status. Each record in the dataset was a unique student-term combination, such that a student was repeated for each term they were enrolled during the aforementioned time period.
2. UWBA provided SparkPoint service data from its Enterprise Content Management (ECM) database for all SparkPoint participants and clients at the San Mateo Community College District, all time. This data was a combination of datasets that included variables like types of services received, dates of services, and SparkPoint Center, all connected by a set of SparkPoint IDs.

PRIE matched SparkPoint ID to the enrollment data based on student ID. If there was no student ID for a particular record in the service data, then PRIE fuzzy-matched the SparkPoint ID to the enrollment data based on first and last name and date of birth.

Personally identifiable information like names, dates of birth, and student IDs were removed from the matched enrollment data and service data before being stored and shared with Public Profit. All data was stored on secure networks and accounts, including UWBA's Microsoft cloud and Public Profit's Box cloud.

ANALYSIS APPROACH

Analysis Methods

Public Profit conducted descriptive analysis on the cleaned dataset. This analysis confirmed the study had sufficient sample sizes for more robust analysis (see "Modeling - Logistic regressions" below), and gave an overall picture of student enrollment, persistence, and success.

Public Profit instituted accuracy checks at multiple points in the analysis process. First, code was generated in an iterative process to ensure that definitions were being accurately applied to the variable creation process and that dataset structure manipulation resulted in datasets that would be more robust, yet still feasible to implement modeling. Second, a staff member outside the project

team checked the code for consistency and accuracy. Finally, data checks were completed by another staff member outside the project team to again ensure accuracy of all analysis results.

Modeling - Logistic regressions

The goal of the study was to determine whether SparkPoint’s contribution to persistence and student success was significant when accounting for other contributors like demographics and GPA. Since those outcome variables are binary (i.e., zero or one) (e.g., did or did not persist) and there were many potential contributors to account for, logistic regressions were used.

Given that the time period of the study overlapped with the COVID-19 pandemic when implementation of community college courses and SparkPoint services necessarily changed, Public Profit decided to look at each school year on its own instead of including school year as a variable in the models. This decision also mitigated potential issues with failing an assumption of logistic regression models that observations (student records) are independent of each other, since a student could be enrolled in multiple school years (see the assumptions outlined next)

Public Profit checked that the analytical approach, dataset structure/manipulation, and model statistics met the assumptions of binary logistic regressions:

1. The outcome variable is binary.
2. Observations (student records) are independent of each other.
3. There is little or no multicollinearity among the contribution variables.²⁸
4. There are no extreme outliers (also called “influential observations”).²⁹
5. Sample sizes are sufficiently large.
6. Contribution variables are linearly related to the log odds.

The last assumption, that contribution variables are linearly related to the log odds, was assessed using the Box-Tidwell test. All logistic regression models failed to meet this assumption. In essence, this means that the set of contribution variables used in the study are not linearly related to the outcome variable and so fitting a linear model to them does not work all that well. However, this is to be expected to some extent because the contribution variables used were predominately categorical (e.g., race/ethnicity, gender, international student status, financial aid status, etc.) which could not mathematically have a linear relationship to a binary outcome variable like persistence or student success.

²⁸ This was checked by calculating the variance inflation factor (VIF) which measures the correlation and its strength between contributing variables in a regression model. For all logistic regression models in this study, VIFs indicated no multicollinearity between variables.

²⁹ Extreme outliers were assessed by calculating Cook’s distance, which showed there were very few, if any, influential observations in the logistic regression models in this study. Given the low proportion of influential observations to overall sample size and that all observations were within reasonable programmatic bounds (e.g., later-in-life students), all observations were kept.

To ensure the logistic regression models and their results were still reportable, Public Profit also ran general additive models (GAMs) to check that contribution variables on their own were still resulting in similar trends of influence (i.e., positive or negative) and significance. Additionally, McFadden's pseudo-R-squared was calculated for each model which gives a sense of model fit. For all models, this measurement suggested moderate fit.

How do I interpret percent likelihoods from logistic regressions?

Throughout the results section we report on the logistic regressions in terms of percent likelihoods (i.e., "Students who participated in any SparkPoint service were **XX%** more likely to succeed than similar students who did not participate with SparkPoint.").

Here is a concrete way to interpret this with a **hypothetical example**: Let's pretend there are 200 non-SparkPoint students. Let's also pretend that half of the non-SparkPoint students, or 100 of them, do not succeed while the other half do (a ratio of 1:1). **If** we find in our hypothetical analysis that SparkPoint students are 200% more likely to succeed than non-SparkPoint students, **then** that means for every 100 SparkPoint students who do not succeed, 300 SparkPoint students do succeed (a ratio of 1:3).

APPENDIX B. DATA TABLES

SMCCD Students Served by SparkPoint

Table 1. Count of unique set of students served by SparkPoint across study time period.

| Campus | Count | Percent |
|-------------------|-------|---------|
| Cañada | 142 | 14% |
| CSM | 296 | 28% |
| Skyline | 401 | 38% |
| Multiple Campuses | 210 | 20% |
| District-Wide | 1,049 | 100% |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Unique set of SparkPoint-participating students eligible for student success study across all four school years.

Table 2. Count of students served by SparkPoint in each school year.

| School Year | District-Wide | Cañada | CSM | Skyline | Multiple Campuses |
|-------------|---------------|--------|-----|---------|-------------------|
| 2018-19 | 138 | 33 | 42 | 48 | 15 |
| 2019-20 | 657 | 94 | 172 | 271 | 120 |
| 2020-21 | 528 | 63 | 102 | 196 | 167 |
| 2021-22 | 473 | 58 | 126 | 130 | 159 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes SparkPoint-participating students eligible for student success study for each school year.

Table 3. Race/ethnicity of unique set of students served by SparkPoint across study time period.

| Race/Ethnicity | Count | Percent |
|--------------------------------|-------|---------|
| American Indian/Alaskan Native | - | - |
| Asian | 229 | 22% |
| Black - Non-Hispanic | 65 | 6% |
| Filipino | 100 | 10% |
| Hispanic | 420 | 40% |
| Multiracial | 59 | 6% |
| Pacific Islander | 27 | 3% |
| Unknown | 29 | 3% |
| White Non-Hispanic | 119 | 11% |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Unique set of SparkPoint-participating students eligible for student success study across all four school years; N=1,049. Note: Dash means the category had less than 10 students in it.

Table 4. Race/ethnicity of students served by SparkPoint in each school year.

| Race/Ethnicity | 2018-19 | 2019-20 | 2020-21 | 2021-22 |
|--------------------------------|----------|-----------|-----------|-----------|
| American Indian/Alaskan Native | - | - | - | - |
| Asian | 17% (24) | 23% (150) | 23% (122) | 18% (84) |
| Black - Non-Hispanic | 9% (12) | 6% (38) | 5% (26) | 7% (31) |
| Filipino | - | 10% (66) | 10% (55) | 9% (44) |
| Hispanic | 46% (63) | 40% (264) | 39% (206) | 44% (206) |
| Multiracial | - | 5% (31) | 5% (28) | 7% (32) |
| Pacific Islander | - | 2% (16) | 3% (14) | 3% (14) |
| Unknown | - | 2% (15) | 3% (18) | 3% (12) |
| White Non-Hispanic | 12% (17) | 12% (76) | 11% (58) | 10% (49) |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes SparkPoint-participating students eligible for student success study for each school year; 2018-19 N=138; 2019-20 N=657; 2020-21 N=528; 2021-22 N=473. Note: Dash means the category had less than 10 students in it.

Table 5. Gender of unique set of students served by SparkPoint across study time period.

| Gender | Count | Percent |
|---------|-------|---------|
| Female | 660 | 63% |
| Male | 367 | 35% |
| Unknown | 22 | 2% |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Unique set of SparkPoint-participating students eligible for student success study across all four school years; N=1,049.

Table 6. Gender of students served by SparkPoint in each school year.

| Gender | 2018-19 | 2019-20 | 2020-21 | 2021-22 |
|---------|----------|-----------|-----------|-----------|
| Female | 67% (92) | 61% (400) | 63% (335) | 67% (319) |
| Male | 30% (42) | 37% (242) | 35% (186) | 31% (147) |
| Unknown | - | 2% (15) | - | - |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes SparkPoint-participating students eligible for student success study for each school year; 2018-19 N=138; 2019-20 N=657; 2020-21 N=528; 2021-22 N=473. Note: Dash means the category had less than 10 students in it.

Table 7. International status of unique set of students served by SparkPoint across study time period.

| International Status | Count | Percent |
|------------------------------|-------|---------|
| Not an international student | 896 | 85% |
| International student | 153 | 15% |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Unique set of SparkPoint-participating students eligible for student success study across all four school years; N=1,049.

Table 8. International status of students served by SparkPoint in each school year.

| International Status | 2018-19 | 2019-20 | 2020-21 | 2021-22 |
|------------------------------|-----------|-----------|-----------|-----------|
| Not an international student | 88% (122) | 82% (542) | 85% (447) | 90% (425) |
| International student | 12% (16) | 18% (115) | 15% (81) | 10% (48) |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes SparkPoint-participating students eligible for student success study for each school year; 2018-19 N=138; 2019-20 N=657; 2020-21 N=528; 2021-22 N=473.

Table 9. Financial aid status of unique set of students served by SparkPoint across study time period.

| Financial Aid Status | Count | Percent |
|--------------------------------|-------|---------|
| Does not receive Financial Aid | 292 | 28% |
| Receives Financial Aid | 757 | 72% |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Unique set of SparkPoint-participating students eligible for student success study across all four school years; N=1,049.

Table 10. Financial aid status of students served by SparkPoint in each school year.

| Financial Aid Status | 2018-19 | 2019-20 | 2020-21 | 2021-22 |
|--------------------------------|-----------|-----------|-----------|-----------|
| Does not receive Financial Aid | 18% (25) | 32% (212) | 35% (184) | 32% (150) |
| Receives Financial Aid | 82% (113) | 68% (445) | 65% (344) | 68% (323) |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes SparkPoint-participating students eligible for student success study for each school year; 2018-19 N=138; 2019-20 N=657; 2020-21 N=528; 2021-22 N=473.

Table 11. First age of unique set of students served by SparkPoint across study time period.

| Mean | Median | Min | Max |
|------|--------|-----|-----|
| 25.6 | 22 | 15 | 70 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Unique set of SparkPoint-participating students eligible for student success study across all four school years, based on first enrollment term; N=1,049.

Table 12. Age of students served by SparkPoint in each school year.

| School Year | Mean | Median | Min | Max |
|-------------|------|--------|-----|-----|
| 2018-19 | 25.4 | 21 | 17 | 62 |
| 2019-20 | 25.6 | 22 | 15 | 65 |
| 2020-21 | 26.6 | 22 | 16 | 70 |
| 2021-22 | 27 | 23 | 17 | 71 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes SparkPoint-participating students eligible for student success study for each school year; 2018-19 N=138; 2019-20 N=657; 2020-21 N=528; 2021-22 N=473.

Table 13. Last cumulative GPA of unique set of students served by SparkPoint across study time period.

| Mean | Median | Min | Max |
|------|--------|-----|-----|
| 3.06 | 3.21 | 0 | 4 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Unique set of SparkPoint-participating students eligible for student success study across all four school years, based on last enrollment term; N=1,049.

Table 14. Cumulative GPA of students served by SparkPoint in each school year.

| School Year | Mean | Median | Min | Max |
|-------------|------|--------|-----|-----|
| 2018-19 | 2.87 | 3.06 | 0 | 4 |
| 2019-20 | 3.00 | 3.15 | 0 | 4 |
| 2020-21 | 3.16 | 3.26 | 0 | 4 |
| 2021-22 | 3.10 | 3.23 | 0 | 4 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes SparkPoint-participating students eligible for student success study for each school year; 2018-19 N=138; 2019-20 N=657; 2020-21 N=528; 2021-22 N=473.

SMCCD Student Success, Including Persistence

Table 15. Annual student success rates by campus

| School Year | District-Wide | Cañada | CSM | Skyline | Multiple Campuses |
|-------------|---------------|--------|-----|---------|-------------------|
| 2018-19 | 85% | 70% | 74% | 71% | 78% |
| 2019-20 | 84% | 72% | 76% | 74% | 78% |
| 2020-21 | 82% | 73% | 78% | 73% | 81% |
| 2021-22 | 80% | 71% | 75% | 72% | 84% |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study; 2018-19 N=11,780; 2019-20 N=11,628; 2020-21 N=10,928; 2021-22 N=10,215.

Table 16. Annual persistence rates by campus

| School Year | District-Wide | Cañada | CSM | Skyline | Multiple Campuses |
|-------------|---------------|--------|-----|---------|-------------------|
| 2018-19 | 73% | 70% | 74% | 71% | 78% |
| 2019-20 | 75% | 72% | 76% | 74% | 78% |
| 2020-21 | 76% | 73% | 78% | 73% | 81% |
| 2021-22 | 76% | 71% | 75% | 72% | 84% |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study; 2018-19 N=6,614; 2019-20 N=7,417; 2020-21 N=8,112; 2021-22 N=8,809.

Descriptive and Inferential Statistics for Evaluation Question #1: All SparkPoint Students

STUDENT SUCCESS

Table 17. Student success rates by SparkPoint participation

| School Year | Non-SparkPoint Students | SparkPoint Students | Percentage Point Difference |
|-------------|-------------------------|---------------------|-----------------------------|
| 2018-19 | 84% (11,642) | 93% (138) | + 9 * |
| 2019-20 | 84% (10,971) | 90% (657) | + 6 |
| 2020-21 | 82% (10,400) | 89% (528) | + 7 |
| 2021-22 | 79% (9,742) | 84% (473) | + 5 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study; 2018-19 N=11,780; 2019-20 N=11,628; 2020-21 N=10,928; 2021-22 N=10,215. Note: * means that the difference was statistically significant with 90% confidence when accounting for other variables (see Table 20 for the summary results of the logistic regression models).

Table 18. Student success rates by SparkPoint participation and campus

| School Year | Cañada | | CSM | | Skyline | | Multiple Campuses | |
|-------------|--------|-----|--------|-----|---------|-----|-------------------|------|
| | Non-SP | SP | Non-SP | SP | Non-SP | SP | Non-SP | SP |
| 2018-19 | 81% | 94% | 85% | 93% | 83% | 90% | 90% | 100% |
| 2019-20 | 80% | 89% | 84% | 90% | 83% | 88% | 88% | 94% |
| 2020-21 | 79% | 79% | 83% | 89% | 79% | 88% | 86% | 94% |
| 2021-22 | 75% | 84% | 78% | 83% | 76% | 82% | 86% | 86% |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study; 2018-19 N=11,780; 2019-20 N=11,628; 2020-21 N=10,928; 2021-22 N=10,215.

Table 19. Differences in student success rate between SparkPoint students and non-SparkPoint students

| School Year | Cañada | CSM | Skyline | Multiple Campuses |
|-------------|--------|-----|---------|-------------------|
| 2018-19 | + 13 | +8 | + 7 | + 10 |
| 2019-20 | + 9 | +6 | + 5 | + 6 |
| 2020-21 | 0 | +6 | + 9 | + 8 |
| 2021-22 | + 9 | +5 | + 6 | 0 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study; 2018-19 N=11,780; 2019-20 N=11,628; 2020-21 N=10,928; 2021-22 N=10,215.

Table 20. Summary results of logistic regression models on student success and SparkPoint participation

| Variable | | 2018-19 | | 2019-20 | | 2020-21 | | 2021-22 | |
|--------------------------------|---------------------|--------------------|------------|---------|-------|---------|-------|---------|-------|
| | | Significant (<0.1) | Likelihood | Sig. | L. | Sig. | L. | Sig. | L. |
| Intercept | | Yes | 98% | Yes | 104% | | | Yes | 36% |
| SparkPoint Part. | | Yes | 86% | | | | | | |
| Campus | CSM | Yes | 36% | Yes | 27% | Yes | 47% | Yes | 32% |
| | Cañada | Yes | 14% | | | Yes | 19% | Yes | 17% |
| | Multiple | Yes | 71% | Yes | 46% | Yes | 69% | Yes | 76% |
| Race/Ethnicity | Hispanic | Yes | -18% | Yes | -14% | Yes | -15% | Yes | -24% |
| | Asian | | | | | | | | |
| | Filipino | | | | | | | | |
| | Multiple | | | | | | | | |
| | Black, Non-Hispanic | | | Yes | -33% | | | Yes | -28% |
| | Unknown | | | | | | | | |
| | Pacific Islander | | | * | -26% | Yes | -43% | Yes | -30% |
| American Indian/Alaskan Native | | | | | | | | | |
| Gender | Female | | | | | | | | |
| | Unknown | | | | | | | | |
| Age | | Yes | -4.4% | Yes | -4.9% | Yes | -3.0% | Yes | -3.3% |
| International Status | | Yes | 37% | | | Yes | 31% | Yes | 51% |
| Financial Aid | | Yes | 89% | Yes | 81% | Yes | 111% | Yes | 130% |
| Cumulative GPA | | Yes | 103% | Yes | 115% | Yes | 100% | Yes | 69% |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study; 2018-19 N=11,780; 2019-20 N=11,628; 2020-21 N=10,928; 2021-22 N=10,215. Notes: Confidence level is set at 90%, so a variable coefficient is statistically significant when its p-value is less than 0.100. Likelihood is the resulting Odds (see models in Appendix) minus one multiplied by 100 (e.g., 1.30 Odds = 30% likelihood), which signifies how much more likely the outcome variable is to be true if the student was to have (one more of) a given contribution factor (e.g., likelihood to persist if female vs. base case of male or likelihood to persist if one more year older). * P-value for the estimate on Pacific Islander in 2019-20 was 0.100.

Table 21. Results of general additive model³⁰ on student success and SparkPoint participation

| Variable | 2018-19 | | 2019-20 | | 2020-21 | | 2021-22 | |
|----------------------|-------------|---------|---------|---------|---------|---------|---------|---------|
| | F-Statistic | P-Value | F-Stat. | P-Value | F-Stat. | P-Value | F-Stat. | P-Value |
| Intercept | 5.055 | 0.025 | 15.56 | 0.000 | 16.44 | 0.000 | 5.380 | 0.020 |
| SparkPoint Part. | 18.94 | 0.000 | 9.059 | 0.003 | 29.75 | 0.000 | 60.29 | 0.000 |
| Campus | 1.592 | 0.207 | 1.516 | 0.218 | 0.003 | 0.955 | 0.140 | 0.708 |
| Race/Ethnicity | 2.227 | 0.108 | 1.133 | 0.322 | 0.995 | 0.370 | 0.961 | 0.382 |
| Gender | 102.7 | 0.000 | 124.1 | 0.000 | 56.18 | 0.000 | 118.2 | 0.000 |
| Age | 6.263 | 0.012 | 1.507 | 0.22 | 6.096 | 0.014 | 1.917 | 0.166 |
| International Status | 72.71 | 0.000 | 59.02 | 0.000 | 158.1 | 0.000 | 203.6 | 0.000 |
| Financial Aid | 791.8 | 0.000 | 922.9 | 0.000 | 735.4 | 0.000 | 442.0 | 0.000 |
| Cumulative GPA | 5.055 | 0.025 | 15.56 | 0.000 | 16.44 | 0.000 | 5.380 | 0.020 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study; Degrees of Freedom=11,761; 2019-20 DF=11,609; 2020-21 DF=10,909; 2021-22 DF=10,195.

³⁰ General Additive Models or GAMs can be interpreted as an Analysis of Variance or ANOVAs, where the F-Statistic and corresponding P-Value of a grouping variable tell us whether the observed difference in the outcome variable between the groups is significant or not. These were run on each logistic regression to confirm and support the findings since the logistic regressions did not meet one of the assumptions (that the grouping variables are linearly related to the log-odds).

Table 22. Results of logistic regression on student success and SparkPoint participation in the 2018-19 school year

| Variable | | Estimate | P-Value | Odds |
|-----------------------------|---------------------------------------|----------|---------|-------|
| Intercept | | 0.683 | 0.000 | 1.980 |
| SparkPoint Part. | | 0.620 | 0.076 | 1.859 |
| Campus | <i>CSM</i> | 0.308 | 0.000 | 1.361 |
| | <i>Cañada</i> | 0.132 | 0.083 | 1.142 |
| | <i>Multiple</i> | 0.536 | 0.000 | 1.710 |
| Race/Ethnicity | <i>Hispanic</i> | -0.180 | 0.019 | 0.835 |
| | <i>Asian</i> | 0.101 | 0.342 | 1.106 |
| | <i>Filipino</i> | 0.039 | 0.718 | 1.040 |
| | <i>Multiple</i> | -0.005 | 0.967 | 0.995 |
| | <i>Black, Non-Hispanic</i> | 0.007 | 0.965 | 1.007 |
| | <i>Unknown</i> | -0.006 | 0.977 | 0.994 |
| | <i>Pacific Islander</i> | -0.261 | 0.171 | 0.770 |
| | <i>American Indian/Alaskan Native</i> | 0.415 | 0.606 | 1.514 |
| Gender | <i>Female</i> | 0.043 | 0.448 | 1.044 |
| | <i>Unknown</i> | -0.133 | 0.463 | 0.875 |
| Age | | -0.045 | 0.000 | 0.956 |
| International Status | | 0.313 | 0.029 | 1.367 |
| Financial Aid | | 0.638 | 0.000 | 1.893 |
| Cumulative GPA | | 0.710 | 0.000 | 2.033 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study; N=11,780; Residual Degrees of Freedom=11,761; Log-Likelihood=-4,482; Pseudo R-Squared=0.12.

Table 23. Results of logistic regression on student success and SparkPoint participation in the 2019-20 school year

| Variable | | Estimate | P-Value | Odds |
|-----------------------------|---------------------------------------|----------|---------|-------|
| Intercept | | 0.715 | 0.000 | 2.044 |
| SparkPoint Part. | | 0.217 | 0.121 | 1.243 |
| Campus | <i>CSM</i> | 0.236 | 0.001 | 1.266 |
| | <i>Cañada</i> | 0.043 | 0.581 | 1.044 |
| | <i>Multiple</i> | 0.378 | 0.000 | 1.460 |
| Race/Ethnicity | <i>Hispanic</i> | -0.147 | 0.064 | 0.863 |
| | <i>Asian</i> | 0.046 | 0.664 | 1.047 |
| | <i>Filipino</i> | -0.056 | 0.607 | 0.945 |
| | <i>Multiple</i> | 0.026 | 0.850 | 1.026 |
| | <i>Black, Non-Hispanic</i> | -0.402 | 0.006 | 0.669 |
| | <i>Unknown</i> | -0.010 | 0.949 | 0.990 |
| | <i>Pacific Islander</i> | -0.297 | 0.100 | 0.743 |
| | <i>American Indian/Alaskan Native</i> | 0.044 | 0.950 | 1.045 |
| Gender | <i>Female</i> | 0.053 | 0.347 | 1.055 |
| | <i>Unknown</i> | 0.112 | 0.533 | 1.118 |
| Age | | -0.050 | 0.000 | 0.951 |
| International Status | | -0.026 | 0.851 | 0.974 |
| Financial Aid | | 0.590 | 0.000 | 1.805 |
| Cumulative GPA | | 0.767 | 0.000 | 2.153 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study; N=11,628; Residual Degrees of Freedom=11,609; Log-Likelihood=-4,454; Pseudo R-Squared=0.13.

Table 24. Results of logistic regression on student success and SparkPoint participation in the 2020-21 school year

| Variable | | Estimate | P-Value | Odds |
|----------------------|---------------------------------------|----------|---------|-------|
| Intercept | | -0.030 | 0.810 | 0.970 |
| SparkPoint Part. | | 0.238 | 0.110 | 1.269 |
| Campus | <i>CSM</i> | 0.383 | 0.000 | 1.467 |
| | <i>Cañada</i> | 0.174 | 0.030 | 1.190 |
| | <i>Multiple</i> | 0.526 | 0.000 | 1.691 |
| Race/Ethnicity | <i>Hispanic</i> | -0.163 | 0.035 | 0.849 |
| | <i>Asian</i> | -0.108 | 0.292 | 0.898 |
| | <i>Filipino</i> | -0.129 | 0.211 | 0.879 |
| | <i>Multiple</i> | 0.192 | 0.152 | 1.212 |
| | <i>Black, Non-Hispanic</i> | -0.066 | 0.688 | 0.937 |
| | <i>Unknown</i> | 0.007 | 0.965 | 1.007 |
| | <i>Pacific Islander</i> | -0.553 | 0.002 | 0.575 |
| Gender | <i>American Indian/Alaskan Native</i> | -0.048 | 0.942 | 0.953 |
| | <i>Female</i> | 0.035 | 0.530 | 1.036 |
| | <i>Unknown</i> | -0.121 | 0.490 | 0.886 |
| Age | | -0.031 | 0.000 | 0.970 |
| International Status | | 0.268 | 0.085 | 1.307 |
| Financial Aid | | 0.746 | 0.000 | 2.109 |
| Cumulative GPA | | 0.695 | 0.000 | 2.004 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study; N=10,928; Residual Degrees of Freedom=10,909; Log-Likelihood=-4,499; Pseudo R-Squared=0.11.

Table 25. Results of logistic regression on student success and SparkPoint participation in the 2021-22 school year

| Variable | | Estimate | P-Value | Odds |
|-----------------------------|---------------------------------------|----------|---------|-------|
| Intercept | | 0.305 | 0.012 | 1.356 |
| SparkPoint Part. | | 0.037 | 0.783 | 1.038 |
| Campus | <i>CSM</i> | 0.275 | 0.000 | 1.317 |
| | <i>Cañada</i> | 0.156 | 0.050 | 1.169 |
| | <i>Multiple</i> | 0.567 | 0.000 | 1.763 |
| Race/Ethnicity | <i>Hispanic</i> | -0.276 | 0.000 | 0.759 |
| | <i>Asian</i> | -0.074 | 0.460 | 0.928 |
| | <i>Filipino</i> | -0.103 | 0.305 | 0.902 |
| | <i>Multiple</i> | -0.114 | 0.344 | 0.892 |
| | <i>Black, Non-Hispanic</i> | -0.322 | 0.038 | 0.724 |
| | <i>Unknown</i> | -0.217 | 0.173 | 0.805 |
| | <i>Pacific Islander</i> | -0.353 | 0.048 | 0.702 |
| | <i>American Indian/Alaskan Native</i> | 0.059 | 0.943 | 1.061 |
| Gender | <i>Female</i> | 0.047 | 0.388 | 1.048 |
| | <i>Unknown</i> | 0.098 | 0.593 | 1.103 |
| Age | | -0.034 | 0.000 | 0.967 |
| International Status | | 0.413 | 0.009 | 1.511 |
| Financial Aid | | 0.833 | 0.000 | 2.301 |
| Cumulative GPA | | 0.522 | 0.000 | 1.685 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study; N=10,214; Residual Degrees of Freedom=10,195; Log-Likelihood=-3,532; Pseudo R-Squared=0.09.

PERSISTENCE

Table 26. Persistence rates by SparkPoint participation

| School Year | Non-SparkPoint Students | SparkPoint Students | Percentage Point Difference |
|-------------|-------------------------|---------------------|-----------------------------|
| 2018-19 | 72% (6,532) | 88% (82) | + 16 * |
| 2019-20 | 74% (7,417) | 83% (393) | + 9 * |
| 2020-21 | 76% (8,112) | 84% (364) | + 8 |
| 2021-22 | 76% (8,809) | 80% (393) | + 4 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study; 2018-19 N=6,614; 2019-20 N=7,417; 2020-21 N=8,112; 2021-22 N=8,809. Note: * means that the difference was statistically significant with 90% confidence when accounting for other variables (see Table 29 for the summary results of the logistic regression models).

Table 27. Persistence rates by SparkPoint participation and campus

| School Year | Cañada | | CSM | | Skyline | | Multiple Campuses | |
|-------------|--------|-----|--------|-----|---------|-----|-------------------|------|
| | Non-SP | SP | Non-SP | SP | Non-SP | SP | Non-SP | SP |
| 2018-19 | 70% | 91% | 73% | 87% | 71% | 83% | 78% | 100% |
| 2019-20 | 71% | 84% | 75% | 83% | 74% | 81% | 78% | 87% |
| 2020-21 | 73% | 75% | 77% | 86% | 73% | 83% | 80% | 89% |
| 2021-22 | 71% | 82% | 75% | 80% | 72% | 75% | 84% | 84% |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study; 2018-19 N=6,614; 2019-20 N=7,417; 2020-21 N=8,112; 2021-22 N=8,809.

Table 28. Differences in persistence rate between SparkPoint students and non-SparkPoint students

| School Year | Cañada | CSM | Skyline | Multiple Campuses |
|-------------|--------|-----|---------|-------------------|
| 2018-19 | 21% | 14% | 12% | 22% |
| 2019-20 | 13% | 8% | 7% | 9% |
| 2020-21 | 2% | 9% | 10% | 9% |
| 2021-22 | 11% | 5% | 3% | 0% |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study; 2018-19 N=6,614; 2019-20 N=7,417; 2020-21 N=8,112; 2021-22 N=8,809.

Table 29. Summary results of logistic regression models on persistence and SparkPoint participation

| Variable | | 2018-19 | | 2019-20 | | 2020-21 | | 2021-22 | |
|----------------------|---------------------------------------|--------------------|------------|---------|-------|---------|-------|---------|-------|
| | | Significant (<0.1) | Likelihood | Sig. | L. | Sig. | L. | Sig. | L. |
| Intercept | | | | Yes | 41% | Yes | -2.4% | Yes | 39% |
| SparkPoint Part. | | Yes | 127% | Yes | 30% | * | 29% | | |
| Campus | <i>CSM</i> | Yes | 36% | Yes | 29% | Yes | 53% | Yes | 39% |
| | <i>Cañada</i> | Yes | 17% | | | Yes | 25% | Yes | 22% |
| | <i>Multiple</i> | Yes | 31% | | | Yes | 57% | Yes | 86% |
| Race/Ethnicity | <i>Hispanic</i> | | | | | | | Yes | -24% |
| | <i>Asian</i> | | | | | | | | |
| | <i>Filipino</i> | | | | | | | | |
| | <i>Multiple</i> | | | | | | | | |
| | <i>Black, Non-Hispanic</i> | | | Yes | -48% | | | Yes | -36% |
| | <i>Unknown</i> | | | | | | | | |
| | <i>Pacific Islander</i> | | | Yes | -37% | Yes | -47% | Yes | -30% |
| | <i>American Indian/Alaskan Native</i> | | | | | | | | |
| Gender | <i>Female</i> | | | | | | | | |
| | <i>Unknown</i> | | | | | | | | |
| Age | | Yes | -3.3% | Yes | -4.4% | Yes | -3.2% | Yes | -4.2% |
| International Status | | Yes | 134% | Yes | 48% | Yes | 64% | Yes | 76% |
| Financial Aid | | Yes | 92% | Yes | 89% | Yes | 127% | Yes | 140% |
| Cumulative GPA | | Yes | 82% | Yes | 94% | Yes | 93% | Yes | 67% |

Source: SMCCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study; 2018-19 N=6,614; 2019-20 N=7,417; 2020-21 N=8,112; 2021-22 N=8,809. Notes: Confidence level is set at 90%, so a variable coefficient is statistically significant when its p-value is less than 0.100. Likelihood is the resulting Odds (see models in Appendix) minus one multiplied by 100 (e.g., 1.30 Odds = 30% likelihood), which signifies how much more likely the outcome variable is to be true if the student was to have (one more of) a given contribution factor (e.g., likelihood to persist if female vs. base case of male or likelihood to persist if one more year older). * P-value for the estimate on SparkPoint Participation in 2020-21 was 0.103.

Table 30. Results of general additive model on persistence and SparkPoint participation

| Variable | 2018-19 | | 2019-20 | | 2020-21 | | 2021-22 | |
|----------------------|-------------|---------|---------|---------|---------|---------|---------|---------|
| | F-Statistic | P-Value | F-Stat. | P-Value | F-Stat. | P-Value | F-Stat. | P-Value |
| Intercept | 6.650 | 0.010 | 13.02 | 0.00 | 12.78 | 0.000 | 3.971 | 0.046 |
| SparkPoint Part. | 6.089 | 0.014 | 1.634 | 0.201 | 16.57 | 0.000 | 60.94 | 0.000 |
| Campus | 0.315 | 0.574 | 2.183 | 0.140 | 0.005 | 0.944 | 0.070 | 0.792 |
| Race/Ethnicity | 1.653 | 0.192 | 0.299 | 0.742 | 1.359 | 0.257 | 1.403 | 0.246 |
| Gender | 34.73 | 0.000 | 80.87 | 0.000 | 61.87 | 0.000 | 184.2 | 0.000 |
| Age | 34.10 | 0.000 | 13.32 | 0.000 | 12.16 | 0.000 | 4.601 | 0.032 |
| International Status | 66.06 | 0.000 | 59.47 | 0.000 | 164.7 | 0.000 | 211.6 | 0.000 |
| Financial Aid | 441.0 | 0.000 | 572.1 | 0.000 | 571.1 | 0.000 | 400.1 | 0.000 |
| Cumulative GPA | 6.650 | 0.010 | 13.03 | 0.000 | 12.78 | 0.000 | 3.971 | 0.046 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study; 2018-19 Degrees of Freedom=6,595; 2019-20 DF=7,398; 2020-21 DF=8,093; 2021-22 DF=8,789.

Table 31. Detailed results of logistic regression on persistence and SparkPoint participation in the 2018-19 school year

| Variable | | Estimate | P-Value | Odds |
|----------------------|---------------------------------------|----------|---------|-------|
| Intercept | | -0.008 | 0.950 | 0.992 |
| SparkPoint Part. | | 0.817 | 0.023 | 2.265 |
| Campus | <i>CSM</i> | 0.310 | 0.000 | 1.364 |
| | <i>Cañada</i> | 0.154 | 0.061 | 1.167 |
| | <i>Multiple</i> | 0.270 | 0.005 | 1.311 |
| Race/Ethnicity | <i>Hispanic</i> | -0.094 | 0.257 | 0.910 |
| | <i>Asian</i> | 0.019 | 0.867 | 1.019 |
| | <i>Filipino</i> | 0.037 | 0.752 | 1.037 |
| | <i>Multiple</i> | -0.139 | 0.335 | 0.871 |
| | <i>Black, Non-Hispanic</i> | -0.125 | 0.460 | 0.882 |
| | <i>Unknown</i> | 0.098 | 0.653 | 1.103 |
| | <i>Pacific Islander</i> | -0.238 | 0.256 | 0.788 |
| | <i>American Indian/Alaskan Native</i> | 0.425 | 0.632 | 1.529 |
| Gender | <i>Female</i> | -0.005 | 0.940 | 0.995 |
| | <i>Unknown</i> | -0.251 | 0.210 | 0.778 |
| Age | | -0.034 | 0.000 | 0.967 |
| International Status | | 0.851 | 0.000 | 2.342 |
| Financial Aid | | 0.653 | 0.000 | 1.921 |
| Cumulative GPA | | 0.600 | 0.000 | 1.823 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study; N=6,614; Residual Degrees of Freedom=6,595; Log-Likelihood=-3,539; Pseudo R-Squared=0.09.

Table 32. Detailed results of logistic regression on persistence and SparkPoint participation in the 2019-20 school year

| Variable | | Estimate | P-Value | Odds |
|-----------------------------|---------------------------------------|----------|---------|-------|
| Intercept | | 0.343 | 0.007 | 1.409 |
| SparkPoint Part. | | 0.264 | 0.071 | 1.302 |
| Campus | <i>CSM</i> | 0.253 | 0.001 | 1.287 |
| | <i>Cañada</i> | 0.055 | 0.497 | 1.057 |
| | <i>Multiple</i> | 0.127 | 0.159 | 1.135 |
| Race/Ethnicity | <i>Hispanic</i> | -0.112 | 0.183 | 0.894 |
| | <i>Asian</i> | -0.040 | 0.722 | 0.961 |
| | <i>Filipino</i> | -0.066 | 0.571 | 0.937 |
| | <i>Multiple</i> | -0.027 | 0.849 | 0.973 |
| | <i>Black, Non-Hispanic</i> | -0.644 | 0.000 | 0.525 |
| | <i>Unknown</i> | 0.068 | 0.677 | 1.071 |
| | <i>Pacific Islander</i> | -0.460 | 0.018 | 0.631 |
| | <i>American Indian/Alaskan Native</i> | -0.275 | 0.737 | 0.759 |
| Gender | <i>Female</i> | 0.018 | 0.766 | 1.018 |
| | <i>Unknown</i> | 0.033 | 0.862 | 1.033 |
| Age | | -0.045 | 0.000 | 0.956 |
| International Status | | 0.390 | 0.007 | 1.477 |
| Financial Aid | | 0.635 | 0.000 | 1.887 |
| Cumulative GPA | | 0.664 | 0.000 | 1.942 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study; N=7,417; Residual Degrees of Freedom=7,398; Log-Likelihood=-3,734; Pseudo R-Squared=0.11.

Table 33. Detailed results of logistic regression on persistence and SparkPoint participation in the 2020-21 school year

| Variable | | Estimate | P-Value | Odds |
|-----------------------------|---------------------------------------|----------|---------|-------|
| Intercept | | -0.272 | 0.040 | 0.762 |
| SparkPoint Part. | | 0.252 | 0.103 | 1.286 |
| Campus | <i>CSM</i> | 0.423 | 0.000 | 1.526 |
| | <i>Cañada</i> | 0.221 | 0.009 | 1.247 |
| | <i>Multiple</i> | 0.449 | 0.000 | 1.567 |
| Race/Ethnicity | <i>Hispanic</i> | -0.130 | 0.109 | 0.878 |
| | <i>Asian</i> | -0.135 | 0.210 | 0.874 |
| | <i>Filipino</i> | -0.142 | 0.189 | 0.868 |
| | <i>Multiple</i> | 0.220 | 0.114 | 1.246 |
| | <i>Black, Non-Hispanic</i> | -0.166 | 0.334 | 0.847 |
| | <i>Unknown</i> | 0.067 | 0.689 | 1.070 |
| | <i>Pacific Islander</i> | -0.636 | 0.001 | 0.530 |
| | <i>American Indian/Alaskan Native</i> | -0.450 | 0.558 | 0.638 |
| Gender | <i>Female</i> | -0.014 | 0.817 | 0.987 |
| | <i>Unknown</i> | -0.204 | 0.274 | 0.816 |
| Age | | -0.032 | 0.000 | 0.968 |
| International Status | | 0.492 | 0.002 | 1.635 |
| Financial Aid | | 0.821 | 0.000 | 2.274 |
| Cumulative GPA | | 0.656 | 0.000 | 1.927 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study; N=8,112; Residual Degrees of Freedom=8,093; Log-Likelihood=-3,937; Pseudo R-Squared=0.11.

Table 34. Detailed results of logistic regression on persistence and SparkPoint participation in the 2021-22 school year

| Variable | | Estimate | P-Value | Odds |
|-----------------------------|---------------------------------------|----------|---------|-------|
| Intercept | | 0.328 | 0.009 | 1.388 |
| SparkPoint Part. | | 0.012 | 0.929 | 1.012 |
| Campus | <i>CSM</i> | 0.329 | 0.000 | 1.390 |
| | <i>Cañada</i> | 0.198 | 0.017 | 1.219 |
| | <i>Multiple</i> | 0.620 | 0.000 | 1.859 |
| Race/Ethnicity | <i>Hispanic</i> | -0.274 | 0.000 | 0.760 |
| | <i>Asian</i> | -0.125 | 0.234 | 0.883 |
| | <i>Filipino</i> | -0.124 | 0.231 | 0.883 |
| | <i>Multiple</i> | -0.153 | 0.217 | 0.858 |
| | <i>Black, Non-Hispanic</i> | -0.443 | 0.007 | 0.642 |
| | <i>Unknown</i> | -0.199 | 0.228 | 0.819 |
| | <i>Pacific Islander</i> | -0.367 | 0.048 | 0.693 |
| | <i>American Indian/Alaskan Native</i> | -0.309 | 0.737 | 0.734 |
| Gender | <i>Female</i> | 0.025 | 0.656 | 1.025 |
| | <i>Unknown</i> | -0.011 | 0.953 | 0.989 |
| Age | | -0.043 | 0.000 | 0.958 |
| International Status | | 0.563 | 0.000 | 1.755 |
| Financial Aid | | 0.876 | 0.000 | 2.402 |
| Cumulative GPA | | 0.513 | 0.000 | 1.670 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study; N=8,808; Residual Degrees of Freedom=8,789; Log-Likelihood=-4,306; Pseudo R-Squared=0.11.

Descriptive and Inference Statistics for Evaluation Question #2: SparkPoint Financial Coaching Clients

STUDENT SUCCESS

Table 35. Student success rates by SparkPoint financial coaching dosage

| School Year | No Financial Coaching | Sufficient Financial Coaching | Percentage Point Difference |
|-------------|-----------------------|-------------------------------|-----------------------------|
| 2018-19 | 84% (11,695) | 96% (53) | + 12 * |
| 2019-20 | 84% (11,275) | 93% (243) | + 9 * |
| 2020-21 | 83% (10,631) | 92% (227) | + 9 |
| 2021-22 | 79% (9,959) | 85% (203) | + 6 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study and additionally excludes students who received insufficient financial coaching from SparkPoint; 2018-19 N=11,748; 2019-20 N=11,518; 2020-21 N=10,858; 2021-22 N=10,162. Note: * means that the difference was statistically significant with 90% confidence when accounting for other variables (see Table 38 for the summary results of the logistic regression models).

Table 36. Student success rates by SparkPoint financial coaching dosage and campus

| School Year | Cañada | | CSM | | Skyline | | Multiple Campuses | |
|-------------|--------|------------|------|------------|---------|------------|-------------------|------------|
| | None | Sufficient | None | Sufficient | None | Sufficient | None | Sufficient |
| 2018-19 | 81% | 91% | 85% | 94% | 83% | 100% | 90% | 100% |
| 2019-20 | 80% | 92% | 84% | 91% | 83% | 95% | 88% | 96% |
| 2020-21 | 79% | 82% | 83% | 88% | 80% | 94% | 87% | 97% |
| 2021-22 | 75% | 81% | 78% | 80% | 76% | 87% | 86% | 88% |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study and additionally excludes students who received insufficient financial coaching from SparkPoint; 2018-19 N=11,748; 2019-20 N=11,518; 2020-21 N=10,858; 2021-22 N=10,162.

Table 37. Differences in student success rate between none and sufficient SparkPoint financial coaching

| School Year | Cañada | CSM | Skyline | Multiple Campuses |
|-------------|--------|-----|---------|-------------------|
| 2018-19 | + 10 | + 9 | + 17 | + 10 |
| 2019-20 | + 12 | + 7 | + 12 | + 8 |
| 2020-21 | + 3 | + 5 | + 14 | + 10 |
| 2021-22 | + 6 | + 2 | + 11 | + 2 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study and additionally excludes students who received insufficient financial coaching from SparkPoint; 2018-19 N=11,748; 2019-20 N=11,518; 2020-21 N=10,858; 2021-22 N=10,162.

Table 38. Summary results of logistic regression models on student success and sufficient SparkPoint financial coaching dosage

| Variable | | 2018-19 | | 2019-20 | | 2020-21 | | 2021-22 | |
|----------------------|--------------------------------|--------------------|------------|---------|-------|---------|-------|---------|-------|
| | | Significant (<0.1) | Likelihood | Sig. | L. | Sig. | L. | Sig. | L. |
| Intercept | | Yes | 99% | Yes | 107% | | | Yes | 35% |
| Financial Coaching | | Yes | 273% | Yes | 67% | * | 50% | | |
| Campus | CSM | Yes | 36% | Yes | 25% | Yes | 45% | Yes | 32% |
| | Cañada | Yes | 14% | | | Yes | 19% | Yes | 17% |
| | Multiple | Yes | 70% | Yes | 44% | Yes | 68% | Yes | 78% |
| Race/Ethnicity | Hispanic | Yes | -16% | Yes | -14% | Yes | -15% | Yes | -24% |
| | Asian | | | | | | | | |
| | Filipino | | | | | | | | |
| | Multiple | | | | | | | | |
| | Black, Non-Hispanic | | | Yes | -32% | | | Yes | -28% |
| | Unknown | | | | | | | | |
| | Pacific Islander | | | | | Yes | -40% | Yes | -28% |
| Gender | American Indian/Alaskan Native | | | | | | | | |
| | Female | | | | | | | | |
| | Unknown | | | | | | | | |
| Age | | Yes | -4.5% | Yes | -4.9% | Yes | -3.0% | Yes | -3.3% |
| International Status | | Yes | 37% | | | Yes | 32% | Yes | 57% |
| Financial Aid | | Yes | 90% | Yes | 80% | Yes | 111% | Yes | 129% |
| Cumulative GPA | | Yes | 103% | Yes | 115% | Yes | 100% | Yes | 69% |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study and additionally excludes students who received insufficient financial coaching from SparkPoint; 2018-19 N=11,748; 2019-20 N=11,518; 2020-21 N=10,858; 2021-22 N=10,162. Notes: Confidence level is set at 90%, so a variable coefficient is statistically significant when its p-value is less than 0.100. Likelihood is the resulting Odds (see models in Appendix) minus one multiplied by 100 (e.g., 1.30 Odds = 30% likelihood), which signifies how much more likely the outcome variable is to be true if the student was to have (one more of) a given contribution factor (e.g., likelihood to persist if female vs. base case of male or likelihood to persist if one more year older). * P-value for the estimate on Financial Coaching in 2020-21 was 0.105.

Table 39. Results of general additive model on student success and sufficient SparkPoint financial coaching dosage

| Variable | 2018-19 | | 2019-20 | | 2020-21 | | 2021-22 | |
|----------------------|-------------|---------|---------|---------|---------|---------|---------|---------|
| | F-Statistic | P-Value | F-Stat. | P-Value | F-Stat. | P-Value | F-Stat. | P-Value |
| Intercept | 3.391 | 0.066 | 11.54 | 0.001 | 12.31 | 0.000 | 4.140 | 0.042 |
| Financial Coaching | 18.34 | 0.000 | 7.051 | 0.008 | 27.80 | 0.000 | 61.20 | 0.000 |
| Campus | 1.939 | 0.164 | 1.146 | 0.284 | 0.022 | 0.883 | 0.190 | 0.663 |
| Race/Ethnicity | 2.359 | 0.095 | 1.409 | 0.244 | 0.913 | 0.401 | 1.011 | 0.364 |
| Gender | 103.4 | 0.000 | 122.8 | 0.000 | 53.85 | 0.000 | 118.5 | 0.000 |
| Age | 6.495 | 0.011 | 2.128 | 0.145 | 7.607 | 0.006 | 2.960 | 0.085 |
| International Status | 73.54 | 0.000 | 59.88 | 0.000 | 157.8 | 0.000 | 198.3 | 0.000 |
| Financial Aid | 786.1 | 0.000 | 913.4 | 0.000 | 732.3 | 0.000 | 442.2 | 0.000 |
| Cumulative GPA | 3.391 | 0.066 | 11.54 | 0.001 | 12.31 | 0.000 | 4.140 | 0.042 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study and additionally excludes students who received insufficient financial coaching from SparkPoint; Degrees of Freedom=11,729; 2019-20 DF=11,499; 2020-21 DF=10,839; 2021-22 DF=10,142.

Table 40. Detailed results of logistic regression on student success and sufficient SparkPoint financial coaching in the 2018-19 school year

| Variable | | Estimate | P-Value | Odds |
|----------------------|---------------------------------------|----------|---------|-------|
| Intercept | | 0.686 | 0.000 | 1.986 |
| Financial Coaching | | 1.315 | 0.077 | 3.726 |
| Campus | <i>CSM</i> | 0.306 | 0.000 | 1.357 |
| | <i>Cañada</i> | 0.129 | 0.091 | 1.138 |
| | <i>Multiple</i> | 0.533 | 0.000 | 1.703 |
| | | | | |
| Race/Ethnicity | <i>Hispanic</i> | -0.179 | 0.020 | 0.836 |
| | <i>Asian</i> | 0.101 | 0.339 | 1.106 |
| | <i>Filipino</i> | 0.037 | 0.730 | 1.038 |
| | <i>Multiple</i> | -0.007 | 0.959 | 0.993 |
| | <i>Black, Non-Hispanic</i> | 0.045 | 0.778 | 1.046 |
| | <i>Unknown</i> | 0.004 | 0.984 | 1.004 |
| | <i>Pacific Islander</i> | -0.259 | 0.174 | 0.772 |
| | <i>American Indian/Alaskan Native</i> | 0.415 | 0.605 | 1.515 |
| Gender | <i>Female</i> | 0.046 | 0.422 | 1.047 |
| | <i>Unknown</i> | -0.129 | 0.478 | 0.879 |
| Age | | -0.046 | 0.000 | 0.955 |
| International Status | | 0.318 | 0.026 | 1.374 |
| Financial Aid | | 0.640 | 0.000 | 1.896 |
| Cumulative GPA | | 0.708 | 0.000 | 2.030 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study and additionally excludes students who received insufficient financial coaching from SparkPoint; N=11,748; Residual Degrees of Freedom=11,729; Log-Likelihood=-4,475; Pseudo R-Squared=0.12.

Table 41. Detailed results of logistic regression on student success and sufficient SparkPoint financial coaching in the 2019-20 school year

| Variable | | Estimate | P-Value | Odds |
|-----------------------------|---------------------------------------|----------|---------|-------|
| Intercept | | 0.729 | 0.000 | 2.072 |
| Financial Coaching | | 0.514 | 0.044 | 1.672 |
| Campus | <i>CSM</i> | 0.226 | 0.001 | 1.254 |
| | <i>Cañada</i> | 0.031 | 0.692 | 1.031 |
| | <i>Multiple</i> | 0.362 | 0.000 | 1.437 |
| Race/Ethnicity | <i>Hispanic</i> | -0.148 | 0.063 | 0.862 |
| | <i>Asian</i> | 0.036 | 0.733 | 1.037 |
| | <i>Filipino</i> | -0.060 | 0.583 | 0.942 |
| | <i>Multiple</i> | 0.042 | 0.763 | 1.042 |
| | <i>Black, Non-Hispanic</i> | -0.385 | 0.009 | 0.680 |
| | <i>Unknown</i> | -0.011 | 0.946 | 0.989 |
| | <i>Pacific Islander</i> | -0.291 | 0.110 | 0.748 |
| | <i>American Indian/Alaskan Native</i> | 0.069 | 0.923 | 1.072 |
| | | | | |
| Gender | <i>Female</i> | 0.058 | 0.309 | 1.060 |
| | <i>Unknown</i> | 0.113 | 0.527 | 1.120 |
| Age | | -0.050 | 0.000 | 0.951 |
| International Status | | -0.021 | 0.882 | 0.979 |
| Financial Aid | | 0.587 | 0.000 | 1.799 |
| Cumulative GPA | | 0.764 | 0.000 | 2.146 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study and additionally excludes students who received insufficient financial coaching from SparkPoint; N=11,518; Residual Degrees of Freedom=11,499; Log-Likelihood=-4,424; Pseudo R-Squared=0.13.

Table 42. Detailed results of logistic regression on student success and sufficient SparkPoint financial coaching in the 2020-21 school year

| Variable | | Estimate | P-Value | Odds |
|-----------------------------|---------------------------------------|----------|---------|-------|
| Intercept | | -0.030 | 0.811 | 0.970 |
| Financial Coaching | | 0.402 | 0.105 | 1.495 |
| Campus | <i>CSM</i> | 0.373 | 0.000 | 1.453 |
| | <i>Cañada</i> | 0.172 | 0.032 | 1.188 |
| | <i>Multiple</i> | 0.518 | 0.000 | 1.679 |
| Race/Ethnicity | <i>Hispanic</i> | -0.156 | 0.044 | 0.855 |
| | <i>Asian</i> | -0.107 | 0.297 | 0.899 |
| | <i>Filipino</i> | -0.127 | 0.218 | 0.881 |
| | <i>Multiple</i> | 0.204 | 0.131 | 1.226 |
| | <i>Black, Non-Hispanic</i> | -0.066 | 0.685 | 0.936 |
| | <i>Unknown</i> | 0.011 | 0.946 | 1.011 |
| | <i>Pacific Islander</i> | -0.516 | 0.004 | 0.597 |
| | <i>American Indian/Alaskan Native</i> | -0.021 | 0.976 | 0.980 |
| Gender | <i>Female</i> | 0.030 | 0.598 | 1.030 |
| | <i>Unknown</i> | -0.111 | 0.531 | 0.895 |
| Age | | -0.031 | 0.000 | 0.970 |
| International Status | | 0.275 | 0.076 | 1.317 |
| Financial Aid | | 0.747 | 0.000 | 2.111 |
| Cumulative GPA | | 0.694 | 0.000 | 2.002 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study and additionally excludes students who received insufficient financial coaching from SparkPoint; N=10,858; Residual Degrees of Freedom=10,839; Log-Likelihood=-4,477; Pseudo R-Squared=0.11.

Table 43. Detailed results of logistic regression on student success and sufficient SparkPoint financial coaching in the 2021-22 school year

| Variable | | Estimate | P-Value | Odds |
|----------------------|---------------------------------------|----------|---------|-------|
| Intercept | | 0.300 | 0.014 | 1.350 |
| Financial Coaching | | -0.016 | 0.938 | 0.984 |
| Campus | <i>CSM</i> | 0.277 | 0.000 | 1.319 |
| | <i>Cañada</i> | 0.157 | 0.049 | 1.170 |
| | <i>Multiple</i> | 0.575 | 0.000 | 1.777 |
| Race/Ethnicity | <i>Hispanic</i> | -0.270 | 0.000 | 0.763 |
| | <i>Asian</i> | -0.080 | 0.425 | 0.923 |
| | <i>Filipino</i> | -0.101 | 0.314 | 0.904 |
| | <i>Multiple</i> | -0.119 | 0.323 | 0.888 |
| | <i>Black, Non-Hispanic</i> | -0.326 | 0.036 | 0.722 |
| | <i>Unknown</i> | -0.218 | 0.171 | 0.804 |
| | <i>Pacific Islander</i> | -0.330 | 0.066 | 0.719 |
| Gender | <i>American Indian/Alaskan Native</i> | 0.069 | 0.935 | 1.071 |
| | <i>Female</i> | 0.049 | 0.365 | 1.050 |
| | <i>Unknown</i> | 0.091 | 0.621 | 1.096 |
| Age | | -0.034 | 0.000 | 0.967 |
| International Status | | 0.451 | 0.005 | 1.569 |
| Financial Aid | | 0.826 | 0.000 | 2.285 |
| Cumulative GPA | | 0.522 | 0.000 | 1.686 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for student success study and additionally excludes students who received insufficient financial coaching from SparkPoint; N=10,161; Residual Degrees of Freedom=10,142; Log-Likelihood=-4,663; Pseudo R-Squared=0.09.

PERSISTENCE

Table 44. Persistence rates by SparkPoint financial coaching dosage

| School Year | No Financial Coaching | Sufficient Financial Coaching | Percentage Point Difference |
|-------------|-----------------------|-------------------------------|-----------------------------|
| 2018-19 | 72% (6,565) | 93% (30) | + 21 * |
| 2019-20 | 75% (7,218) | 87% (137) | + 12 * |
| 2020-21 | 76% (7,929) | 87% (144) | + 11 |
| 2021-22 | 76% (8,603) | 81% (165) | + 5 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study and additionally excludes students who received insufficient financial coaching from SparkPoint; 2018-19 N=6,595; 2019-20 N=7,355; 2020-21 N=8,073; 2021-22 N=8,768. Note: * means that the difference was statistically significant with 90% confidence when accounting for other variables (see Table 47 for the summary results of the logistic regression models).

Table 45. Persistence rates by SparkPoint financial coaching dosage and campus

| School Year | Cañada | | CSM | | Skyline | | Multiple Campuses | |
|-------------|--------|------------|------|------------|---------|------------|-------------------|------------|
| | None | Sufficient | None | Sufficient | None | Sufficient | None | Sufficient |
| 2018-19 | 70% | 86% | 73% | 88% | 71% | 100% | 78% | 100% |
| 2019-20 | 72% | 86% | 75% | 85% | 74% | 91% | 78% | 92% |
| 2020-21 | 73% | 79% | 77% | 84% | 73% | 89% | 80% | 95% |
| 2021-22 | 71% | 77% | 75% | 77% | 72% | 79% | 84% | 87% |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study and additionally excludes students who received insufficient financial coaching from SparkPoint; 2018-19 N=6,595; 2019-20 N=7,355; 2020-21 N=8,073; 2021-22 N=8,768.

Table 46. Differences in persistence rate between none and sufficient SparkPoint financial coaching

| School Year | Cañada | CSM | Skyline | Multiple Campuses |
|-------------|--------|------|---------|-------------------|
| 2018-19 | + 16 | + 15 | + 29 | + 22 |
| 2019-20 | + 14 | + 10 | + 17 | + 14 |
| 2020-21 | + 6 | + 7 | + 16 | + 15 |
| 2021-22 | + 6 | + 2 | + 7 | + 3 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study and additionally excludes students who received insufficient financial coaching from SparkPoint; 2018-19 N=6,595; 2019-20 N=7,355; 2020-21 N=8,073; 2021-22 N=8,768.

Table 47. Summary results of logistic regression models on persistence and sufficient SparkPoint financial coaching dosage

| Variable | | 2018-19 | | 2019-20 | | 2020-21 | | 2021-22 | |
|----------------------|--------------------------------|--------------------|------------|---------|-------|---------|-------|---------|-------|
| | | Significant (<0.1) | Likelihood | Sig. | L. | Sig. | L. | Sig. | L. |
| Intercept | | | | Yes | 43% | Yes | -24% | Yes | 38% |
| Financial Coaching | | Yes | 328% | Yes | 68% | | | | |
| Campus | CSM | Yes | 36% | Yes | 28% | Yes | 51% | Yes | 39% |
| | Cañada | Yes | 17% | | | Yes | 25% | Yes | 22% |
| | Multiple | Yes | 30% | | | Yes | 56% | Yes | 87% |
| Race/Ethnicity | Hispanic | | | | | | | Yes | -24% |
| | Asian | | | | | | | | |
| | Filipino | | | | | | | | |
| | Multiple | | | | | Yes | 27% | | |
| | Black, Non-Hispanic | | | Yes | -46% | | | Yes | -36% |
| | Unknown | | | | | | | | |
| | Pacific Islander | | | Yes | -37% | Yes | -45% | Yes | -29% |
| Gender | American Indian/Alaskan Native | | | | | | | | |
| | Female | | | | | | | | |
| | Unknown | | | | | | | | |
| Age | | Yes | -3.3% | Yes | -4.4% | Yes | -3.1% | Yes | -4.2% |
| International Status | | Yes | 136% | Yes | 50% | Yes | 65% | Yes | 82% |
| Financial Aid | | Yes | 93% | Yes | 88% | Yes | 128% | Yes | 139% |
| Cumulative GPA | | Yes | 82% | Yes | 94% | Yes | 93% | Yes | 67% |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study and additionally excludes students who received insufficient financial coaching from SparkPoint; 2018-19 N=6,595; 2019-20 N=7,355; 2020-21 N=8,073; 2021-22 N=8,768. Note: Confidence level is set at 90%, so a variable coefficient is statistically significant when its p-value is less than 0.100. Likelihood is the resulting Odds (see models in Appendix) minus one multiplied by 100 (e.g., 1.30 Odds = 30% likelihood), which signifies how much more likely the outcome variable is to be true if the student was to have (one more of) a given contribution factor (e.g., likelihood to persist if female vs. base case of male or likelihood to persist if one more year older).

Table 48. Results of general additive model on persistence and sufficient SparkPoint financial coaching dosage

| Variable | 2018-19 | | 2019-20 | | 2020-21 | | 2021-22 | |
|----------------------|-------------|---------|---------|---------|---------|---------|---------|---------|
| | F-Statistic | P-Value | F-Stat. | P-Value | F-Stat. | P-Value | F-Stat. | P-Value |
| Intercept | 3.999 | 0.046 | 8.061 | 0.005 | 7.565 | 0.006 | 2.729 | 0.099 |
| Financial Coaching | 5.721 | 0.017 | 0.915 | 0.339 | 15.49 | 0.000 | 61.52 | 0.000 |
| Campus | 0.513 | 0.474 | 1.728 | 0.189 | 0.080 | 0.778 | 0.090 | 0.764 |
| Race/Ethnicity | 1.703 | 0.182 | 0.378 | 0.685 | 1.303 | 0.272 | 1.403 | 0.246 |
| Gender | 34.99 | 0.000 | 79.43 | 0.000 | 58.80 | 0.000 | 184.0 | 0.000 |
| Age | 34.83 | 0.000 | 15.12 | 0.000 | 13.83 | 0.000 | 6.190 | 0.013 |
| International Status | 67.32 | 0.000 | 60.05 | 0.000 | 166.0 | 0.000 | 206.9 | 0.000 |
| Financial Aid | 438.0 | 0.000 | 566.9 | 0.000 | 570.6 | 0.000 | 400.5 | 0.000 |
| Cumulative GPA | 3.999 | 0.046 | 8.061 | 0.005 | 7.565 | 0.006 | 2.729 | 0.099 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study and additionally excludes students who received insufficient financial coaching from SparkPoint; Degrees of Freedom=6,576; 2019-20 DF=7,336; 2020-21 DF=8,054; 2021-22 DF=8,748.

Table 49. Detailed results of logistic regression on persistence and sufficient SparkPoint financial coaching in the 2018-19 school year

| Variable | | Estimate | P-Value | Odds |
|----------------------|---------------------------------------|----------|---------|-------|
| Intercept | | -0.008 | 0.954 | 0.992 |
| Financial Coaching | | 1.454 | 0.055 | 4.279 |
| Campus | <i>CSM</i> | 0.308 | 0.000 | 1.360 |
| | <i>Cañada</i> | 0.152 | 0.064 | 1.165 |
| | <i>Multiple</i> | 0.265 | 0.006 | 1.303 |
| | | | | |
| Race/Ethnicity | <i>Hispanic</i> | -0.092 | 0.266 | 0.912 |
| | <i>Asian</i> | 0.020 | 0.860 | 1.020 |
| | <i>Filipino</i> | 0.035 | 0.762 | 1.036 |
| | <i>Multiple</i> | -0.140 | 0.330 | 0.869 |
| | <i>Black, Non-Hispanic</i> | -0.079 | 0.645 | 0.924 |
| | <i>Unknown</i> | 0.112 | 0.607 | 1.118 |
| Gender | <i>Pacific Islander</i> | -0.232 | 0.266 | 0.793 |
| | <i>American Indian/Alaskan Native</i> | 0.425 | 0.631 | 1.530 |
| | <i>Female</i> | -0.004 | 0.954 | 0.996 |
| | <i>Unknown</i> | -0.245 | 0.220 | 0.782 |
| Age | | -0.034 | 0.000 | 0.967 |
| International Status | | 0.860 | 0.000 | 2.362 |
| Financial Aid | | 0.656 | 0.000 | 1.927 |
| Cumulative GPA | | 0.599 | 0.000 | 1.820 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study and additionally excludes students who received insufficient financial coaching from SparkPoint; N=6,595; Residual Degrees of Freedom=6,576; Log-Likelihood=-3,532; Pseudo R-Squared=0.09.

Table 50. Detailed results of logistic regression on persistence and sufficient SparkPoint financial coaching in the 2019-20 school year

| Variable | | Estimate | P-Value | Odds |
|-----------------------------|---------------------------------------|----------|---------|-------|
| Intercept | | 0.354 | 0.006 | 1.425 |
| Financial Coaching | | 0.521 | 0.049 | 1.683 |
| Campus | <i>CSM</i> | 0.243 | 0.001 | 1.275 |
| | <i>Cañada</i> | 0.043 | 0.594 | 1.044 |
| | <i>Multiple</i> | 0.109 | 0.225 | 1.115 |
| Race/Ethnicity | <i>Hispanic</i> | -0.110 | 0.194 | 0.896 |
| | <i>Asian</i> | -0.047 | 0.681 | 0.954 |
| | <i>Filipino</i> | -0.066 | 0.566 | 0.936 |
| | <i>Multiple</i> | -0.005 | 0.972 | 0.995 |
| | <i>Black, Non-Hispanic</i> | -0.622 | 0.000 | 0.537 |
| | <i>Unknown</i> | 0.071 | 0.666 | 1.073 |
| | <i>Pacific Islander</i> | -0.461 | 0.019 | 0.631 |
| | <i>American Indian/Alaskan Native</i> | -0.233 | 0.778 | 0.792 |
| Gender | <i>Female</i> | 0.020 | 0.736 | 1.021 |
| | <i>Unknown</i> | 0.033 | 0.859 | 1.034 |
| Age | | -0.045 | 0.000 | 0.956 |
| International Status | | 0.404 | 0.005 | 1.498 |
| Financial Aid | | 0.633 | 0.000 | 1.883 |
| Cumulative GPA | | 0.662 | 0.000 | 1.939 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study and additionally excludes students who received insufficient financial coaching from SparkPoint; N=7,355; Residual Degrees of Freedom=7,336; Log-Likelihood=-3,710; Pseudo R-Squared=0.11.

Table 51. Detailed results of logistic regression on persistence and sufficient SparkPoint financial coaching in the 2020-21 school year

| Variable | | Estimate | P-Value | Odds |
|-----------------------------|---------------------------------------|----------|---------|-------|
| Intercept | | -0.279 | 0.035 | 0.757 |
| Financial Coaching | | 0.349 | 0.175 | 1.417 |
| Campus | <i>CSM</i> | 0.415 | 0.000 | 1.514 |
| | <i>Cañada</i> | 0.220 | 0.009 | 1.247 |
| | <i>Multiple</i> | 0.443 | 0.000 | 1.558 |
| Race/Ethnicity | <i>Hispanic</i> | -0.121 | 0.137 | 0.886 |
| | <i>Asian</i> | -0.128 | 0.233 | 0.879 |
| | <i>Filipino</i> | -0.138 | 0.201 | 0.871 |
| | <i>Multiple</i> | 0.235 | 0.092 | 1.265 |
| | <i>Black, Non-Hispanic</i> | -0.158 | 0.355 | 0.854 |
| | <i>Unknown</i> | 0.072 | 0.668 | 1.075 |
| | <i>Pacific Islander</i> | -0.605 | 0.002 | 0.546 |
| | <i>American Indian/Alaskan Native</i> | -0.414 | 0.592 | 0.661 |
| Gender | <i>Female</i> | -0.020 | 0.732 | 0.980 |
| | <i>Unknown</i> | -0.192 | 0.305 | 0.825 |
| Age | | -0.032 | 0.000 | 0.969 |
| International Status | | 0.502 | 0.002 | 1.652 |
| Financial Aid | | 0.826 | 0.000 | 2.284 |
| Cumulative GPA | | 0.656 | 0.000 | 1.928 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study and additionally excludes students who received insufficient financial coaching from SparkPoint; N=8,073; Residual Degrees of Freedom=8,054; Log-Likelihood=-3,920; Pseudo R-Squared=0.11.

Table 52. Detailed results of logistic regression on persistence and sufficient SparkPoint financial coaching in the 2021-22 school year

| Variable | | Estimate | P-Value | Odds |
|-----------------------------|---------------------------------------|----------|---------|-------|
| Intercept | | 0.323 | 0.011 | 1.381 |
| Financial Coaching | | -0.068 | 0.748 | 0.934 |
| Campus | <i>CSM</i> | 0.331 | 0.000 | 1.392 |
| | <i>Cañada</i> | 0.198 | 0.017 | 1.219 |
| | <i>Multiple</i> | 0.628 | 0.000 | 1.874 |
| Race/Ethnicity | <i>Hispanic</i> | -0.268 | 0.000 | 0.765 |
| | <i>Asian</i> | -0.132 | 0.208 | 0.877 |
| | <i>Filipino</i> | -0.122 | 0.239 | 0.885 |
| | <i>Multiple</i> | -0.155 | 0.209 | 0.856 |
| | <i>Black, Non-Hispanic</i> | -0.443 | 0.007 | 0.642 |
| | <i>Unknown</i> | -0.202 | 0.223 | 0.817 |
| | <i>Pacific Islander</i> | -0.344 | 0.065 | 0.709 |
| | <i>American Indian/Alaskan Native</i> | -0.305 | 0.741 | 0.737 |
| Gender | <i>Female</i> | 0.027 | 0.630 | 1.027 |
| | <i>Unknown</i> | -0.013 | 0.947 | 0.987 |
| Age | | -0.043 | 0.000 | 0.958 |
| International Status | | 0.601 | 0.000 | 1.824 |
| Financial Aid | | 0.870 | 0.000 | 2.387 |
| Cumulative GPA | | 0.513 | 0.000 | 1.671 |

Source: SMCCD PRIE Enrollment Data and UWBA SparkPoint Service Data, August 30, 2022. Only includes students eligible for persistence study and additionally excludes students who received insufficient financial coaching from SparkPoint; N=8,767; Residual Degrees of Freedom=8,748; Log-Likelihood=-4,288; Pseudo R-Squared=0.11.

APPENDIX C. MEANING-MAKING AGENDA

| | |
|----------------|--|
| 10:00-10:15 am | Welcome <ul style="list-style-type: none">• Introductions and icebreaker (All)• Agenda and goals (Public Profit)<ul style="list-style-type: none">○ Goals for today: 1) Share preliminary findings 2) Discuss context for these findings based on input from SparkPoint stakeholders and UWBA staff |
| 10:15-10:25 am | Framing <ul style="list-style-type: none">• Background on motivation and context (UWBA)• Background on project (Public Profit) |
| 10:25-10:35 am | Presentation of preliminary findings (Public Profit) <ul style="list-style-type: none">• Public Profit's process• Findings overview |
| 10:35-10:55 am | Think, Pair, Share (All) <ul style="list-style-type: none">• Individual reflection (5 min), Discuss in pairs (5 min), Group share out (10 min)• Prompts<ul style="list-style-type: none">○ What confirmed your expectations?○ What surprised you?○ What are you excited about?○ What are you wondering about? |
| 10:55-11:00 am | BREAK! |
| 11:00-11:30 am | Gallery Walk (All) <ul style="list-style-type: none">• Rotate in groups through the stations, add post-its with your ideas.• Station prompts<ul style="list-style-type: none">○ How have you seen SparkPoint financial coaching support persistence?○ How have you seen SparkPoint basic needs services support persistence?○ What other factors (not related to SparkPoint) have you seen influence persistence?○ Why might financial coaching have influenced persistence more in 2018-19/2019-20 than in 2020-21/2021-22?○ How has the pandemic influenced persistence? |
| 11:30-11:50 am | Group share-out and discussion (All) |
| 11:50-noon | Closing (Public Profit) |