



Vela Institute
ILLUMINATING EDUCATION

STUDENT SUCCESS
AGENCY

EXTERNAL EVALUATION

Student Success Agency

Service Delivery During
the Pandemic:
An Examination of
Service Events in 2020.

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About Vela Institute

Vela Institute is a non-profit organization dedicated to increasing access to evaluation, analytics and data tracking to education partners to improve student and community outcomes. Established in 2017, Vela Institute accomplishes its mission through applied research, data analytics, and the use of evidence-based practices.

This external evaluation of the Student Success Agency was conducted at the request of Student Success Agency administration.

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EXECUTIVE SUMMARY

The Student Success Agency (SSA) served 10th grade students identified through a GEAR UP partnership grant and included students attending a high school in Georgia during the 2019-2020 academic year. Students were given the opportunity to participate in the SSA program which included mentor services during spring of 2020. This report focuses on examining the characteristics of students served and how COVID-19 impacted service delivery during the pandemic.

The entire 10th grade cohort consisted of 343 students, 152 (44.3%) of these students were served by SSA during the performance period, which was compared to 7.3% of the 10th grade cohort served by other GEAR UP services. Student usage data provided by SSA indicated text messaging was the most frequent means of communication between students and their SSA mentor. SSA services peaked during March and April 2020. In terms of number of students served (151 in both months) and number of service events (2045 and 2023, respectively), interactions gradually declined in May and June, and reached a low in July 2020. Despite this leveling off, SSA mentors interacted with 132 students through a total of 1369 interactions in July 2020.

Students who were served by SSA were generally representative of the overall 10th grade cohort. Females were more likely to interact with SSA mentors as were students who had higher GPAs. However, students working with SSA had a similar race and ethnic composition when compared to the overall cohort and were similar in the number of absences the semester before engaging with SSA.

There were no differences in the interaction patterns from February to July 2020 with regard to race, ethnicity, gender, GPA, or absences. There were no differences in the interactions patterns from February to July 2020 with regard to race, ethnicity, GPA, or absences. These results are notable and suggest that SSA appears to be appealing to a diverse population of students and that SSA mentors interacted equally with students from a variety of background and levels of academic performance.

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PROJECT BACKGROUND

The Student Success Agency (SSA) was interested in learning how program participants represent the demographic and academic characteristics of a particular cohort of eligible students. There was some concern that students who are already performing well academically are more likely to choose to engage with SSA mentors compared with students who were not performing as well academically. If this self-selection bias was true, then it would be more difficult to determine the extent to which student outcomes can be solely attributed to engagement with an SSA agent.

To date, student-level information has not been available to examine the extent to which engaging with an SSA mentor was related to student-level characteristics. This project represented a unique opportunity to examine the extent to which student academic performance affected SSA participation and engagement.

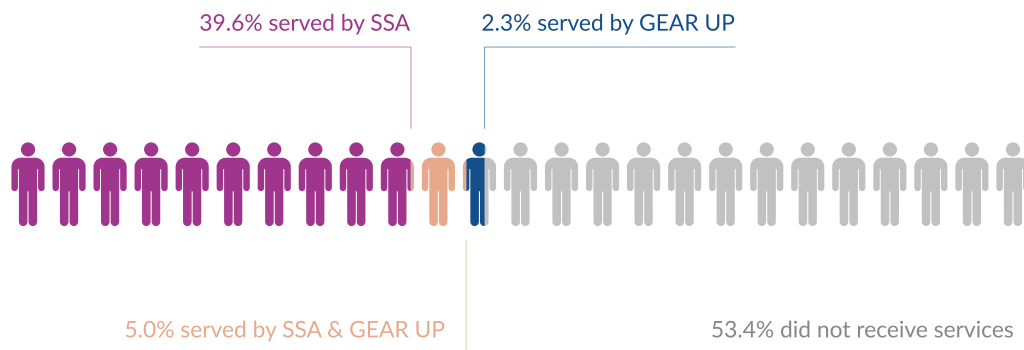
Additionally, as the global pandemic took hold in early 2020, this project provided a unique opportunity to assess the impact of COVID-19 on Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) and SSA service delivery to high school students.

PROJECT DATA

SSA provided student service data from February 1st 2020, the month the project launched and students began onboarding, to July 31st 2020. One hundred and fifty-two 10th grade students from a Georgia high school engaged with an SSA mentor during this time and represented 44.3% of the 10th grade class of students. Student level-data for all students in the 10th grade including students served was also provided by a GEAR UP program serving the same high school.

Examining the service delivery data for 10th graders revealed that 135 students (39.6%) were only served only by SSA, eight students (2.3%) only received a GEAR UP service, 17 students (5.0%) were served by both GEAR UP and SSA, and 183 students (53.4%) received no services during the spring semester of 2020, see Figure 1.

Figure 1 Percent of 10th grade students served by SSA and GEAR UP in the spring of 2020.



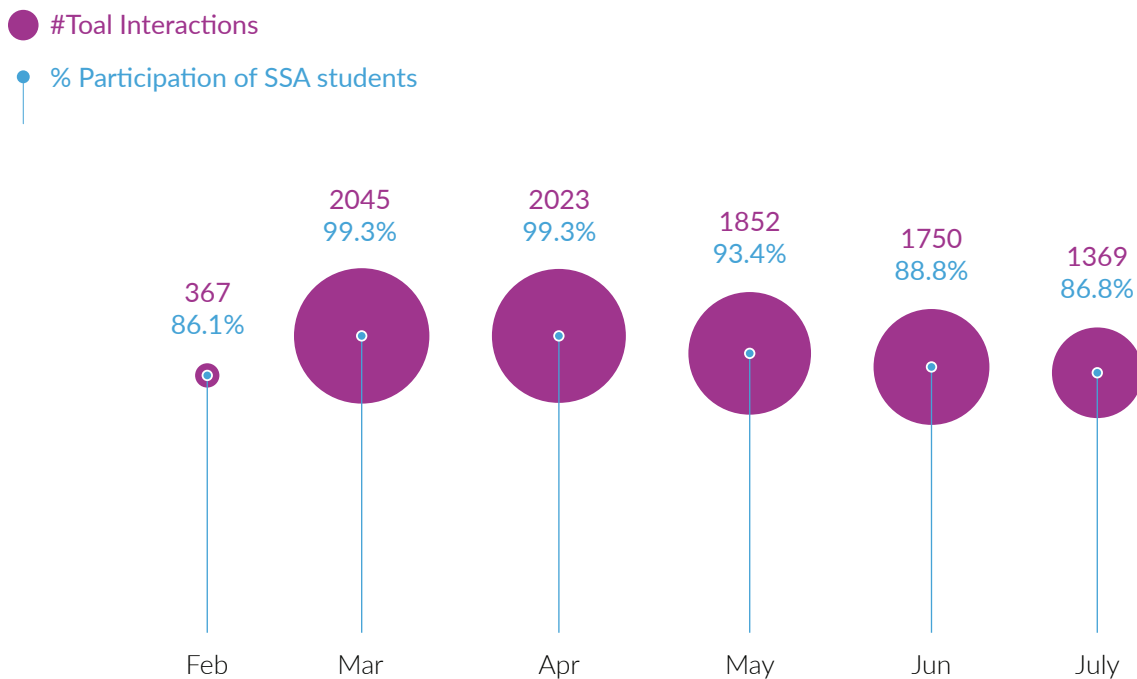
Examining the SSA engagement data revealed that while mentor and student interactions included both phone calls and text messages, 99.7% (9,375) of interactions took place using text messages compared with 0.3% (31) interactions taking place via a phone call. Further examination of SSA student interactions indicate that 65.7% of all interactions were initiated (both text and phone) by the mentor.

When examining interactions that took place via text, 65.8% of interactions were initiative by a mentor. For the students who spoke to their mentor on a phone call 61.3% of the interactions were initiated by the student.

STUDENT AND SSA MENTOR INTERACTIONS

Examining the extent to which students interacted with their SSA mentor from February to July 2020 revealed that interactions varied by month. Figure 2 below shows the number of students served in each month by SSA along with the percent participation of the students (152) who were served by SSA during the spring of 2020.

Figure 2 Student-Mentor Interactions from February to July 2020.



The number of students served was highest during the month of March and April (151), declined a bit in the month of May, and stabilized during the months of June and July, reaching a low of 132 students served in the month of July. The total number of interactions between student and SSA mentors followed a similar pattern. The total number of interactions were highest in March (2045) and April (2023), declined in May and June, and was the lowest in July (1369).

It is difficult to determine if these declines were in part due to the uncertainty caused by COVID-19 and the disruptions in the lives of students being served and the lives of SSA mentor's or was influenced by fact that school was out of session for students during the summer. Regardless of the reason for the declines, the results show that SSA mentors continued to have interacts with students during the height of the initial COVID-19 disruptions in spring 2020 semester.

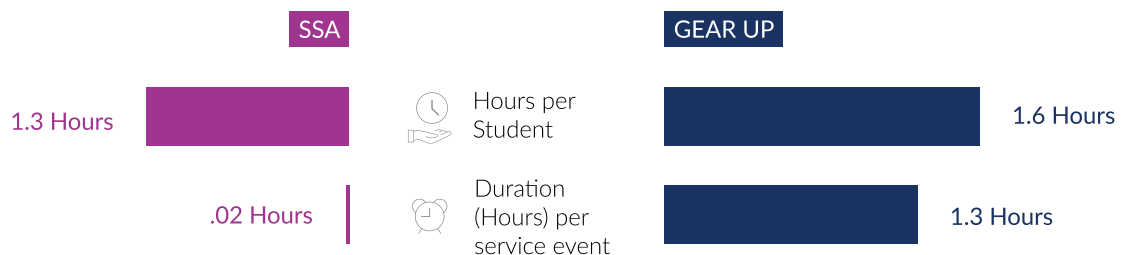
COMPARISON OF SSA AND GEAR UP PROGRAMMING

In the spring of 2020 schools across the country adopted virtual and distant learning strategies to avoid contact and spread of COVID-19. The loss of in person instruction also presented challenges in providing services to students aimed at supporting awareness and readiness for postsecondary education opportunities. The inclusion of GEAR UP service data provided a unique opportunity to examine how services delivered by SSA in a Georgia high school compared to GEAR UP service delivery.

As depicted in Figure 1, SSA served 152 students compared to 25 students served by other GEAR UP programming, with 17 students being served by both SSA and GEAR UP. Occurrences of each service event were tracked allowing a closer look at how in-person service delivery was potentially impacted by COVID-19. More specifically, each time a student received a service (i.e., a service event from either SSA or GEAR UP) that event was recorded as a unique occurrence. For example, if ten students each received two events then the total service occurrences would be 20. Results indicated that SSA served 152 students with a total of 9,406 service occurrences and for a duration of 159 hours. Other GEAR UP programs served 25 students in 31 occurrences and for a duration of 40.5 hours.

The nature of service interactions for SSA occurrences include text messages and phone calls whose average duration was just over 1 minute (1.02), compared to the traditional GEAR UP services that averaged 78 minutes. Figure 3 depicts the average hours per student served for GEAR UP and SSA.

Figure 3 Service Hour Breakdown for SSA vs GEAR UP



Together, these results suggest that SSA was able to provide more service events to more students and more frequently during the spring 2020 semester, which was the height of the initial COVID-19 disruption, compared with other GEAR UP services at this particular high school. While the average length of each SSA service event was substantially shorter than average GEAR UP service event, the total hours of services provided by SSA was higher than that of the other GEAR UP services during the spring 2020 semester.

STUDENT DEMOGRAPHICS AND ACADEMIC PERFORMANCE

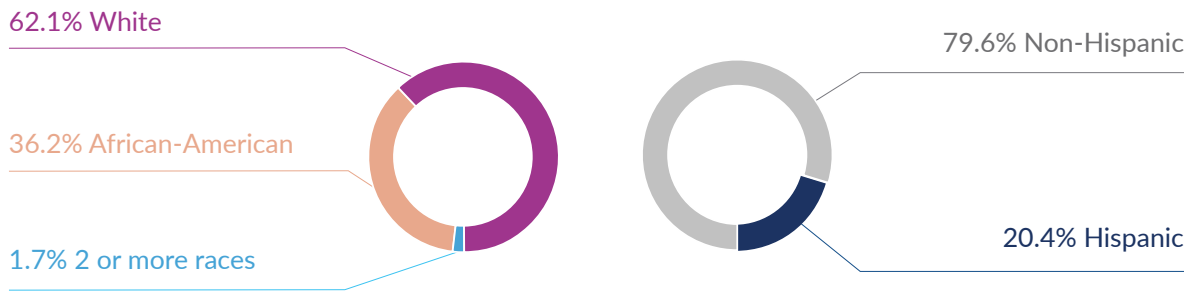
SSA participation and student characteristics

Student-level information has previously not been available limiting the ability to examine the extent to which participation and engagement with an SSA mentor was related to student-level characteristics. One of the unique opportunities offered by this analysis was the chance to determine the extent to which students served by SSA represent the background a school's population and describe the academic performance of students who participated and did not participate in SSA. This analysis, however, was not able to explore the impact that SSA servers had on academic performance since academic performance and absence data was obtained before the SSA intervention.

Student academic data was obtained for the first semester of the 2019-20 academic year and included student course performance and excused school absences. The second half of the year was greatly impacted by COVID-19 as many schools transitioned to remote work, therefore reliable academic performance data was not available for the second

Figure 4 Race and Ethnicity Composition of the 10th Grade and SSA Cohorts

Demographic breakdown for entire 10th grade cohort:



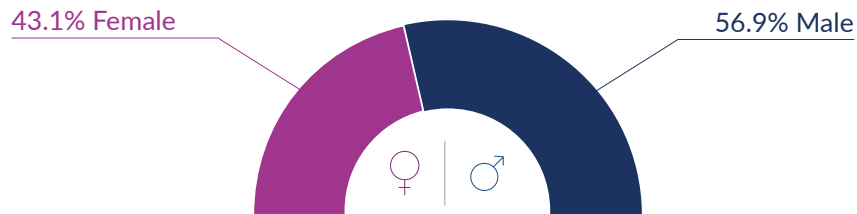
Demographic breakdown for students served by SSA cohort:



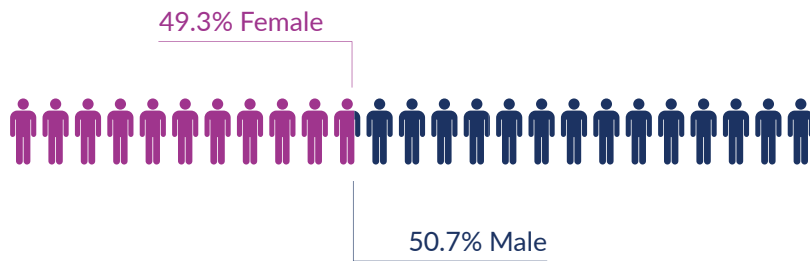
semester of the 2019-20 school year. Figure 4 shows the race-ethnicity breakdown for the entire 10th grade cohort and the students served by SSA. As seen in Figure 4, the race and ethnicity composition of the entire 10th grade cohort closely resembles that characteristics of the students served by SSA in 2019-2020. A Chi-square test confirmed that there was no statistically significant difference between the race, $\chi^2(2) = 1.05, p = .592$, and ethnicity, $\chi^2(1) = 1.83, p = .176$, characteristics of the students that did and did not participate in SSA services.

Figure 5 Gender Composition of the 10th grade and SSA Cohorts.

Gender breakdown for entire 10th grade:



Gender breakdown for students served by SSA cohort:



As seen in Figure 5, the gender split of the student served by SSA was almost equal, 77 student participants (50.7%) were male and 75 were female (49.3%). When comparing to the 343 students in 10th grade 195 are male (56.9%) and 148 or 42.1% are female, suggesting that a higher proportion of female student engaged with SSA compared with their male counterparts. A Chi-square test, $\chi^2(1) = 4.27, p = .039$, also suggested that a higher percentage of female students engaged with an SSA agent compared the proportion of female students in the 10th grade cohort.

Student academic performance was assessed by examining course performance and absences. Course performance was used to calculate a grade point average for each student for the first semester of the 2019-20 academic year. Grade-point-average (GPA) was calculated on a four-point scale using criteria established by the College Board¹. Absences were assessed using the reported excused absences for the first semester of the 2019-20 academic year. Figures 6 and 7 show the average calculated GPA and absences for both the entire 10th grade cohort and students served by SSA.

Figure 6 Grade point average for 10th grade and SSA cohorts.



As seen in Figure 6, the average GPA for the entire 10th grade cohort was 3.27 ($SD=.61$, $n=308$), while the average GPA for the 10th grade students that were served by SSA was 3.39 ($SD=.66$, $n=146$). A one-sample *t*-test comparing the two values indicated that the SSA students had a slightly higher average GPA compared to the entire cohort, $t(307)=3.41$, $p<.001$, $d=.19$. This observed difference can also be seen when comparing the average GPA of the students who were served by SSA ($M= 3.39$, $SD=.66$, $n=146$) and those not served by SSA ($M= 3.16$, $SD=.54$, $n=162$) with results from an independent samples *t*-test, $t(306)=3.28$, $p=.001$, $d=.37$, indicating that student served by SSA tended to have higher GPAs.

As seen in Figure 7, the average number of absences for the entire 10th grade cohort was 6.51 ($SD=8.33$, $n=310$), while the average number of absences for the 10th grade students that were served by SSA was 6.05 ($SD=6.80$, $n=146$). A one-sample *t*-test comparing the two values indicated that the average number of absences from students served by SSA was similar to the of the entire 10th grade cohort, $t(309)=0.01$, $p=.994$, $d<.01$.

This similarity was also observed when comparing the average number of absences of

¹<https://pages.collegeboard.org/how-to-convert-gpa-4.0-scale>

Figure 7 Absences for 10th grade and SSA cohorts

When comparing the **average absences of SSA students to the entire cohort...**

6.1
SSA Students



6.5
Entire 10th
Grade Cohort



Students who were **not served by SSA** had an average absence rate of:

6.9

Students who **were served by SSA** had an average absence rate of:

6.1

the students who were served by SSA ($M= 6.05$, $SD=6.80$, $n=146$) and those not served by SSA ($M= 6.19$, $SD=9.48$, $n=164$) with results from an independent samples t-test, $t(308)=0.19$, $p=.361$, $d=.11$, indicating that student served by SSA were similar².

Together these results suggest that students who were served by SSA were generally representative of the overall 10th grade cohort. Females were more likely to interact with mentors as were students with higher GPA's. However, students working with SSA had a similar race and ethnic composition when compared to the overall cohort and were similar in the number of absences the semester before engaging with SSA. Together these results suggest that SSA works with students from a variety of backgrounds and with multiple levels of academic performance.

SSA Mentor Interactions and Student Characteristics

The availability of student-level data allowed for an examination of differences between the number of students who interacted with a mentor and the number of interactions over time. That is, student characteristics of race, ethnicity, gender, GPA, and absences were examined to determine if students from certain backgrounds or different levels of academic performance were more or less likely to interact with a SSA mentor during the months of February to July 2020. A series of Chi-square tests of association were run to determine if the number of students that interacted with a SSA mentor during the months of February to July 2020 differed by race, ethnicity, or gender. Results indicated that there was no relationship between race³, ethnicity⁴, or gender⁵ and the number of students that

²An examination of distribution of the number of absences for the 10th grade cohort and the students served and not-served by SSA indicated an over-dispersed distribution. As such, a Kruskal-Wallis, non-parametric test was also conducted to examine the difference between students served and not served by SSA. Those results also indicated that the students served by SSA were similar to those not served by SSA in terms of the number of absences, $\chi^2(1) = 0.41$, $p=.522$, $\epsilon^2=.03$.

interacted with a mentor during those months. A series of Kruskal-Wallis, non-parametric tests were used to examine the extent to which the number of interactions between students and SSA mentor varied by those same student background characteristics. Result indicated that there was no relationship between race³, ethnicity⁴, or gender⁵. Together these results suggest that students from all backgrounds were equally interacted with their SSA mentors throughout the performance period.

A series of Spearman Rho analyses were conducted to determine if the number of students that interacted with a SSA mentor during the months of February to July 2020 was related to GPA or absences. Results indicated that there was no relationship between GPA or absences and the number of students that interacted with a mentor during those months. A series of Spearman Rho analyses were also used to examine the extent to which the number of interactions between students and SSA mentor varied by academic performance. Result indicated that there was no relationship between GPA⁶ and absences⁷. Together these results suggest that students from all levels of academic performance equally interacted with their SSA mentors throughout the performance period.

These results collectively showed that while there were some differences between gender and GPA regarding the students who were and were not served by SSA during the 2020 spring semester, gender and GPA were not related to the SSA interactions. That is, there were no differences in the interaction patterns from February to July 2020 with regard to race, ethnicity, gender, GPA, or absences among the students who engaged with SSA. Together these results show that SSA mentors equally interact with students from a variety of background and levels of academic performance.

³Chi-square tests of association examining the number of students interacting with a SSA mentor from February to July 2020: $\chi^2(2)$ ranged from 0.67 to 4.39, p -values ranged from .715 to .111, ϵ^2 ranged from <.01 to .03.

Kruskal-Wallis tests examining the number of interactions between students and SSA mentors: $\chi^2(2)$ ranged from 0.73 to 3.17, p -values ranged from .694 to .205, ϵ^2 ranged from <.01 to .02.

⁴Chi-square tests of association examining the number of students interacting with a SSA mentor from February to July 2020: $\chi^2(1)$ ranged from 0.14 to 2.03, p -values ranged from .713 to .154, ϵ^2 ranged from <.01 to .01.

Kruskal-Wallis tests examining the number of interactions between students and SSA mentors: $\chi^2(1)$ ranged from 0.86 to 3.46, p -values ranged from .354 to .063, ϵ^2 ranged from .01 to .02.

⁵Chi-square tests of association examining the number of students interacting with a SSA mentor from February to July 2020: $\chi^2(1)$ ranged from 0.17 to 1.59, p -values ranged from .678 to .207, ϵ^2 ranged from <.01 to .01.

Kruskal-Wallis tests examining the number of interactions between students and SSA mentors: $\chi^2(1)$ ranged from 0.09 to 1.57, p -values ranged from .770 to .211, ϵ^2 ranged from <.01 to .01.

⁶Spearman's Rho examining the number of students interacting with a SSA mentor from February to July 2020: ϵ^2 ranged from -0.09 to 0.10 and p -values ranged from .938 to .231.

Spearman's Rho examining the number of interactions between students and SSA mentors: ϵ^2 ranged from -0.05 to 0.12 and p -values ranged from .663 to .080.

⁷Spearman's Rho examining the number of students interacting with a SSA mentor from February to July 2020: ϵ^2 ranged from 0.00 to 0.15 and p -values ranged from .962 to .074.

⁸Kruskal-Wallis tests examining for the number of interactions between students and SSA mentors: ϵ^2 ranged from -0.06 to 0.11 and p -values ranged from .799 to .192.

CONCLUSIONS AND NEXT STEPS:

The results presented here provide some support for the ability of SSA to reach representative groups of students. Traditionally underrepresented groups of students were observed to participate in SSA in similar percentages as in the overall cohort of eligible students. This was evidenced by the fact the proportion of students who participated in SSA was similar to the overall 10th grade cohort in terms of race, ethnicity, and number of absences. Since SSA programs give students the opportunity to opt in the temptation is to assume that only students who are “high achievers” would participate. This notion was partially support as students who chose to engage with SSA had a slight higher average GPA compared with students who did not participate with SSA. However, no differences by race, ethnicity, gender, GPA, and absences were found when looking at engagement with SSA mentors.

When examining the ability to reach students during a pandemic, SSA student service records demonstrate the ability to reach and connect with students at a greater rate than traditional service delivery. SSA was able to provide more service events to more students and more frequently during the spring 2020 semester, which was the height of the initial COVID-19 disruption at the high school in the study. While the average length of each SSA service event was substantially shorter than average GEAR UP service event, the total hours of services provided by SSA was higher than that of the other GEAR UP services during the spring 2020 semester.