Mary Stangler
Center for Academic Success
Annual Report

Covering services for Academic Year 2021-2022

ST. CLOUD
TECHNICAL & COMMUNITY
COLLEGE
A member of Minnesota State

Table of Contents

This report will give an overview of the staffing and services provided to students for academic year 2021-2022.

Mission

The Mary Stangler Center for Academic Success is committed to providing an inclusive learning environment that fosters respect and provides assistance to learners of all abilities and backgrounds. We seek to complement classroom instruction by reinforcing concepts and thought processes through individual and small-group meetings. Our holistic approach to tutoring encourages creative, independent thinking and problem solving—essential tools for success in college and beyond.

CAS Staff Information

The CAS was staffed by both professional staff and peer tutors. The peer tutors will be discussed later in this report. There were 5 professional staff positions employed in the CAS throughout the year.

Teri Johnson – Teri is a staff member who started in the CAS in August 2010. She is employed full-time as one of the Math Center Coordinators. Teri works with the math tutors to provide tutoring services for students seeking help in all levels of math. She also does classroom presentations and reviews workshops for students. Teri is also one of the lead trainers for our tutors and coordinates our CRLA program.

Danielle Naumann – Danielle started at SCTCC in January 2016. She is employed full-time. Danielle works with the Science tutors to provide tutoring services for students seeking help in all levels of science. Danielle also works with our science faculty to staff the open labs on various Fridays throughout the semester. Danielle is also an academic skills coach in the Success Skills Program.

Seth Naslund - Seth began his employment at the CAS in January 2018. He is a full-time employee, and he coordinates the writing center as well as being the main tutor for Logic. Seth works with the writing tutors to provide tutoring services for students seeking help in all levels of writing.

Abby Welle – Abby is a staff member who started in the CAS in August 2021. She is a full-time employee as the English Speakers of Other Languages (ESOL) coordinator as well as the main tutor for Spanish. Abby works with writing tutors to provide tutoring services for students seeking help in all three levels of the ESOL program. Abby also works with Seth as a writing tutor.

Kerby Plante – Kerby started in January 2010 as the director of the CAS. He is employed full-time. Kerby oversees all aspects of the CAS including staff supervision, hiring of tutors, and budget management. Kerby also coordinates the Success Skills Program through the CAS which involves academic coaching and success workshops. Kerby also manages the HOPE grant which works with students facing financial emergencies. Kerby also supervises the Accessibility Services area as well as Wellness Resource Services. Kerby is also the Conduct Officer at SCTCC. Starting in February 2022, Kerby became the interim Director of Advising and Career Services (ended July 2022).

2021-2022 Student Tutors

Employment of student employees this past year was negligible. We were able to find some student employees to work the front desk and fill in some tutoring hours, but it was difficult to find consistent employees for math and science. With more students taking online classes and wages also increasing, students are less willing to work on campus when they have no need to come to campus and can make more money working an off campus job.

CAS 2021-2022 Tutoring Statistics

Drop-In Tutoring

Drop-in Numbers

Starting in fall 2021, the CAS returned to offering drop-in tutoring. This was offered 2 days a week for each subject. The remaining days were for appointments. This proved to be confusing for some students to remember particularly those looking for writing help. We would often see students who would come in on off subject days looking for help. If a tutor was open, a tutor would step in and help these students.

For fall 2021, we had hoped to use the TutorTrac software for our logging drop-in tutoring and scheduled appointments but were unable to secure funding. Our old sign-in system that we used prior to the COVID-19 pandemic was no longer functioning and starfish was unable to work for our needs. After trying to get both working for several weeks, the decision was made not to track our drop-in numbers as we would be missing several weeks of data.

For spring 2022, we used a paper form for students to fill out when signing in. While these forms let us know what students come in and what days, it is hard to get an accurate length of stays and classes as students did not always fill this form out accurately. Many students also did not sign in/out. Another issue with the paper forms is that the data had to be manually checked (many students would not print the full name of the class) and manually entered. This is time-consuming and wasteful.

In the spring semester, the campus pivoted to online learning for two weeks. During this time, there was no drop-in tutoring.

3 students who came in for drop-in tutoring were not students at SCTCC or not taking the class at SCTCC. For at least one, it wasn't known to the tutor that the student was not eligible for tutoring in the CAS until well into the session. These students are not included in any of the following data.

There is a minimum of 534 drop-in visits with 122 unique students. 71 of these students did not utilize the appointment services.

The number of one-time visits is very high. This number may be higher than the actual number since many students did not sign in. Some of these one-time-only visitors may have come in for help on an item that only requires a one-time visit.

Drop-In Visits Spring 2022		
Number of drop-ins	Total	Only Used Drop-in
1 time	54	48
2-9 times	52	22
10 or more times	16	1
Median (Average)	2 (4.28)	1 (2.02)

Drop-In Length

With COVID pandemic, our plan for drop-in tutoring was to limit students to one visit per day with a maximum of 2 hours in the CAS to keep the number of students to 50% capacity. However, this proved to be unneeded as we never reached 50% capacity. Excluding the 74 times students did not sign out, in spring, the average stay was 86 minutes.

Drop-in by Subject

Students came in for 61 different classes. The following are the top 5 classes

Drop In Visits by Subject Spring 2022	
Class	Number of visits
Introductory Statistics	59

Human Anatomy/Physiology I	48
Stretch Analytical Writing I	38
Stretch Analytical Writing II	37
College Algebra	28

Appointment-Based Tutoring

Appointment Numbers

Beginning in March 2020, the CAS began to utilize Microsoft Bookings to schedule appointments for all levels of tutoring (face-to-face and online). This was due to having to move fully online because of COVID. We were able to track the number of appointments scheduled for a full academic year. Going forward, we would like to continue to use scheduling as an option with a different platform that is more user-friendly.

For the past academic year, the CAS had 234 unique users that used scheduled academic support services. There were 153 in the fall and 126 in the spring with 47 using scheduled tutoring both semesters.

In the spring semester, the campus pivoted to online learning for two weeks. During this time, all appointments were online. Even with this, the number of appointments decreased by almost 100. This was not surprising as the CAS always sees a drop in students in spring. The ratio of kept appointments to missed appointments was consistent.

Number of Students: Attended Sessions					
In-person		Online		Total	
Fall 2021	Spring 2022	Fall 2021	Spring 2022	Fall 2021	Spring 2022
418	201	167	282	585	483

Number of Students: Missed Appointments					
In-person		Online		Total	
Fall 2021	Spring 2022	Fall 2021	Spring 2022	Fall 2021	Spring 2022
18	20	43	28	61	47

A missed appointment means the student did not contact CAS within 15 minutes after the start of their appointment that they were not going to make their appointment. For fall this was 40 unique students with 14 students having missed two or more appointments. In spring, this was 28 unique students with 12 students missing two or more appointments.

Appointments can be made a week up to two hours in advance. Students who cancel within 2 hours of the start of the appointment prevent another student from making an appointment for that time. In fall 2021, at least 20 appointments were canceled within 2 hours of the start of the appointment. The average time is 25 minutes before the start of the appointment. The majority of these appointments were for math and science.

For spring 2022, at least 18 times people canceled their appointments. The average time is 25 minutes before the start of the appointment. The majority of these appointments were for math.

Appointment Distribution*		
Number of Appointments	**Fall 2021 (% of total)**	**Spring 2022 (% of total)**
1 time	68 (44%)	55 (44%)
2-9 times	64 (42%)	61 (48%)
10 or more times	21 (14%)	10 (8%)

*These numbers are for students who attended their session, and it does not include those that missed/canceled their appointment.

For fall we cannot see how many used both drop-in and appointment-based tutoring. Some of the 68 students who only had one appointment also used drop-in tutoring.

For online tutoring, there is no benchmark to use for an ideal return rate. We are able to see that there is a large number of students that only scheduled one tutoring session. By having a lower 1-time rate, students are feeling comfortable coming back and using the services more than once. For this academic year, the median number of appointments was 2 for fall and spring.

In the fall, most appointments were for the morning across subjects (except for ESOL). This changed in the spring, when most appointments were in the afternoon. See Heat Maps in Appendix A.

Appointment Length

Students were able to make appointments for 45-50 minutes. Tutors had the discretion of going longer if needed/possible. In the fall, appointment length varied from 5 to 95 minutes with the average length of appointment being 45 minutes. For spring, the length varied from 5 to 150 minutes with an average length of 50 minutes. For the Academic year, students used the CAS for more than 817 hours.

Appointments by Subject

For the year, you can see that math and science were the most popular subjects for students to access scheduled tutoring. For math and science, there was a large shift in the preferred delivery method. The humanities saw a large jump in students from fall to spring. The delivery method for these students was almost evenly split between online and in-person.

Appointments by Subject*									
Subject	Math F2F	Math Online	Science F2F	Science Online	Humanities F2F	Humanities Online	ESOL F2F	ESOL Online	Other
Fall 2021	105	55	132	70	24	24	36	0	6
Spring 2022	51	127	32	72	92	70	17	6	16
total	156	182	164	142	116	94	53	6	22
% +/- fall to spring	-51.4	+130.9	-75.8	+2.8	+283.3	191.7	52.7	NA	166.7

*These numbers do not correspond to the number of appointments per coordinator.

**Math includes subject courses, physics, pharmacology, technical math courses HITM courses, and Microsoft suite-focused classes. Science includes subject courses (BLGY, CHEM, ENVR) and nursing courses. Humanities include subject courses (ENGL and READ) and paper-heavy courses (diversity and social justice, communications, psychology, etc). Other includes Accounting, logic, Spanish, computer programming, and economics.

In the fall there were 59 different subjects. Here are the top 10 for appointments kept with more than one student.

Top 10 Classes in Fall			
Class	Number of Appointments Kept (made)	Unique Students	Median Number of appointments per student
General Biology I	79 (86)	30	1.5
Introductory Statistics	62 (77)	9	1
Stretch Analytical Writing I	41 (46)	16	1
Human Biology	27 (30)	9	1
College Algebra	25 (27)	6	1
General, Organic, and Biological Chemistry Foundations	25 (27)	3	11
Writing For College	25 (26)	4	6.5
Introduction to Critical Thinking	24 (24)	2	12
Intro to Gerontology	19 (19)	2	9.5
Human Anatomy/Physiology II	18 (18)	3	2

In the spring there were 55 different subjects. Here are the top 10 for appointments kept with more than one student.

Top Classes in Spring			
Class	Number of Appointments Kept (Made)	Unique Students	Median Number of appointments per student
Stretch Analytical Writing I	57 (60)	18	2
Introductory Statistics	53 (62)	9	4
College Algebra	52 (58)	11	4
Stretch Analytical Writing II	35 (41)	10	2
General Chemistry II	32 (32)	4	8.8
American History Until 1877	20 (21)	5	2
Writing for College	16 (19)	2	7.5
General Biology I	14 (18)	9	1
General, Organic and Biological Chemistry Foundations	14 (14)	3	6
Conceptual Physics	13 (14)	3	3

Drop-in and Appointment Combined Numbers (Spring 2022)

Most students preferred using appointments. Those that used both types of services, used our services the most.
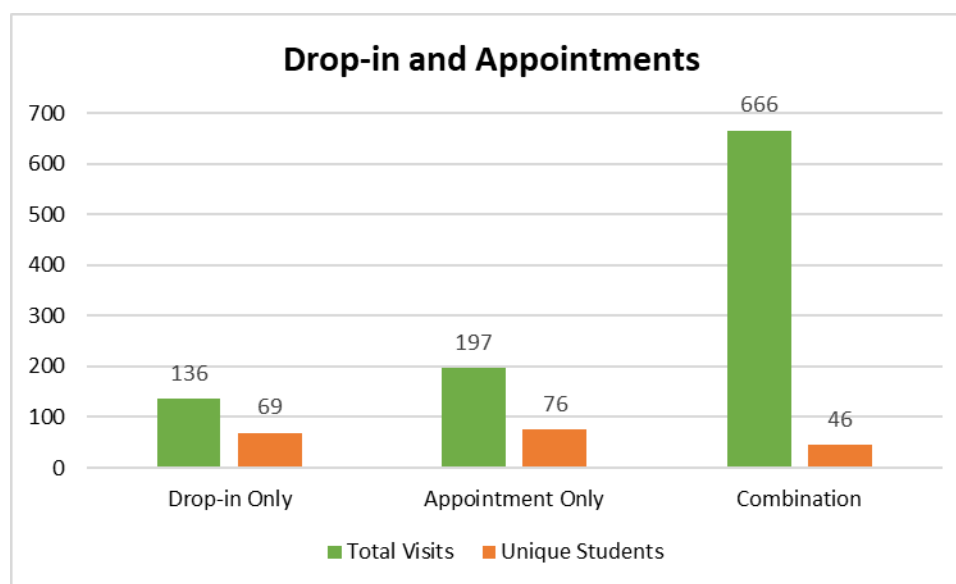
ESOL and Developmental Tutoring

Tutoring ESOL students in a virtual environment is challenging. Many students prefer face-to-face interaction. This can be seen in the number of students that choose to tutor face to face for ESOL services instead of online. The CAS will need to continue to monitor services for these students to ensure that their needs are being met throughout the year.

There is a notion that only developmental students use tutoring services. In fall 2021 8.8%, spring 2022 6.4% (based on appointment and drop-in tutoring) of visits were for developmental/ESOL courses. This challenges the notion that only developmental students use the CAS. While this trend is the same as in past semesters, the percentage for fall 2021 and spring 2022 semesters are lower than in the past. This academic year, there were fewer developmental/ESOL courses, and many math courses have co-requisites. Only the higher corequisite class was noted. With math pathways changing, the way the CAS monitors developmental math will change in the next year.

Of the developmental/ESOL courses, ESOL had the highest percentage of total kept appointments. Many ESOL students had issues with what day was designated for appointments or drop-ins. When possible, we would accommodate these students as best we could.
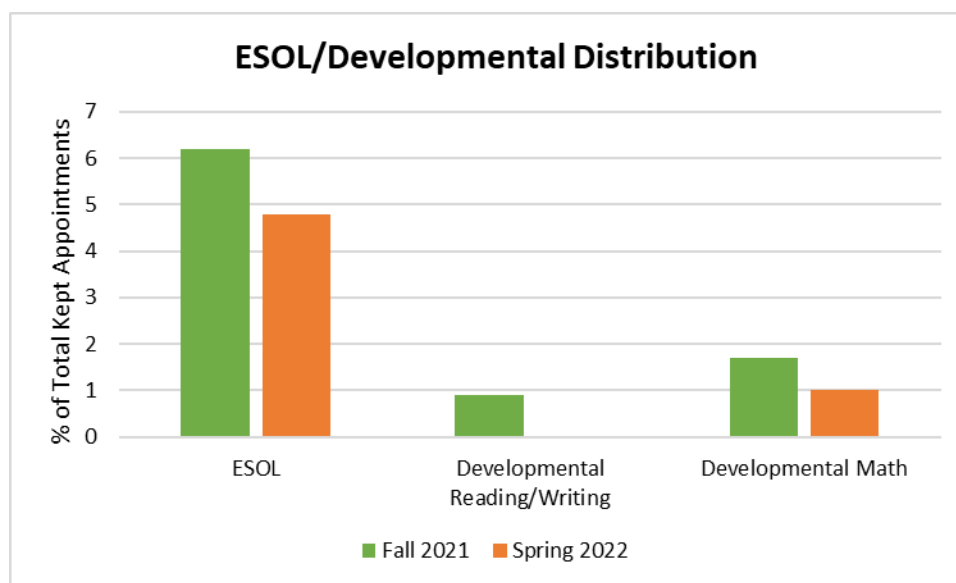
Tutoring Outcomes

Based On GPA and Completion Rate

For the fall and spring semesters, a random sample was collected from the students who did not use the CAS to use against the information gathered from

students who used the CAS. The non-CAS sample comes from the population of students who are in at least one LAS class. We did not include those students who are strictly in program classes since it is unusual to see one of these students use the main CAS services and many programs have different grading scales/grade requirements. We then compared the term GPA students to the students who used the CAS.

CAS visits are broken down into all visits, 1-10 visits, and 11 or more visits. These numbers come from other tutoring program research. To have statistical significance, we use the α=0.05 level of significance.

This is the first academic year with tutoring done by appointment and by drop-in tutoring. We can make some comparisons to the 2020-2021 academic year, but the 2020-2021 was tutoring by appointment only.

Non-Disaggregated

For fall 2021, it appears the GPA for students who used the CAS, regardless of number of visits, and the completion rate (for 11 or more visits) for those that used the is higher than those that do not. However, this difference is not significant.
Similarly, for spring 2022, in terms of GPA and completion rate, there was not a significant difference those that used our services and those that did not.
While we would always GPA and completion rate to be higher for those that use the CAS, it does not mean our services are not needed nor is it a cause for concern. The students who used the CAS may have done better than if they had not used the CAS.

See tables 1-2 in the appendix for details.

Disaggregated By Race/Ethnicity

We separated the term GPA and completion rates among White students, Black/African American students, and BIPOC. BIPOC students are those students who self-identify as Black/African American, LatinX, Asian, Pacific Islander, American Indian/Alaskan Native, or as 2 or more races. We did not separate the data further by race because of the small portion of students in these groups.   We ran analysis comparing White and Black/African American students and also White and BIPOC students.

On average, African American/Black students and BIPOC students used the CAS more than white students (2 more visits in fall and 1 more in spring). Students of color were more likely to make an appointment than white students. For fall and spring, white students tended to take one more credit than Black/African American and BIPOC students.

Here are some positive discoveries:

- For Fall 2021
    - The GPA of white students who used the CAS had a statistically higher GPA than white students who did not use the CAS.
    - The GPA for Black/African American students who used the CAS 11 or more times had a statistically higher GPA than Black/African American students and white students who did not use the CAS.
    - The GPA for BIPOC students who used the CAS 11 or more times had a statistically higher GPA than BIPOC students and white students who did not use the CAS.
    - African American and BIPOC students who used the CAS 11 or more times did have a difference in GPA and completion rate than white students who used the CAS.
- For Spring 2022
    - The completion rate of white students who used the CAS had a statistically higher completion than white students who did not use the CAS.
    - The completion rate of Black/African American students who used the CAS had a statistically higher completion rate than Black/African American students who did not at the 10% significance level.
    - African American and BIPOC students who used appointment-based services 11 or more times did have a difference in GPA and completion rate than white students who used appointment-based services

Here are some concerns:
- The GPA and completion rate of White students using the CAS is higher than students of color for 1-10 visits for fall and spring.
- In spring, the completion rate of white students using the CAS (appointments and drop-in tutoring) was higher than Black/African American students no matter the number of visits.

See tables 3-9 in the appendix for details.

Disaggregated By First-Generation Status

For fall 2021, first-generation students and non-first-generation students whose the CAS about the same number of times, on average. In spring, first-generation students, on average, had two more appointments than non-first-generation students. For drop-in and appointments combined, first-generation used the services, on average, one more time than non-first-generation students. First-generation students tended to take fewer credits than non-first-generation students.

For the random sample of spring, those that did use the CAS and were first-generation had a higher GPA than those that were not first-generation. This goes against the trend in past years.

Here are some positive discoveries:

- In the fall, first-generation students who used the CAS 11+times had a higher GPA than first-generation students who did not use the CAS. For 1-10 visits, there was not a significant difference in GPA
- There was no significant difference between first-generation students and non-first-generation students in terms of GPA and completion rate.

Here are some Concerns:

- In spring, first-generation students who used drop-in and/or appointment services had a lower GPA than non-first-generation students who used the same services. This was true overall and for 1-10 visits. For first-generation students who used the CAS 11 or more times, there was no difference.

See tables 10-15 in the appendix for details.

Semester-to-Semester Retention

Spring to Fall

From spring 2021 to fall 2022, the retention rate of students who used the CAS was 60.5%. If we remove students who transferred, graduated, or were suspended, then the retention rate is 81.65%.

When we control for the number of visits, students who visited the CAS 11 or more times, had a much higher retention rate.

Retention by Visits

	1-10 Visits	11 or More Visits
Retention Rate	61	58.3
Retention Rate (transferred, graduated, or suspended students removed)	79.8	100
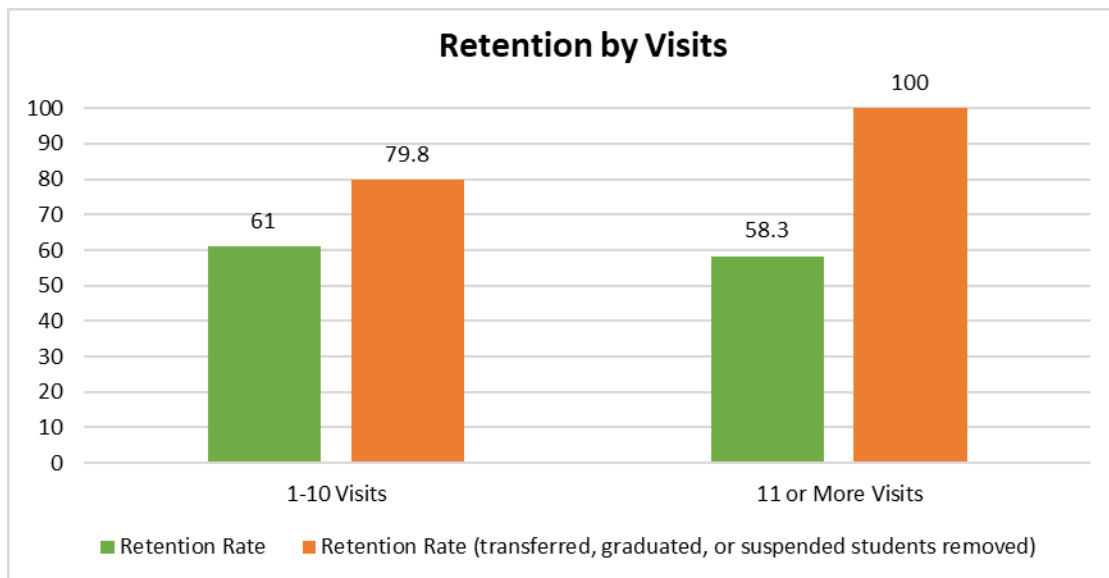
When we control for race/ethnicity, the retention rates for students of color are slightly lower than for white students without removing transferred, graduated, or suspended students. However, when we removed students who transferred, graduated,

or were suspended, BIPOC students had a slightly higher retention rate than their white peers. Overall, the retention rates of students with different ethnicities are similar to the overall CAS retention rates.

Retention by Race/Ethnicities

Race/Ethnicity	Retention Rate	Retention Rate (transferred, graduated, or suspended students removed)
Black/African American	58.1	83.3
White	66.03	81.4
BIPOC	58.1	83.1

*BIPOC includes students who self-identify as Black/African American LatinX, Asian, Pacific Islander, American Indian/Alaskan Native, or as 2 or more races

When we control for first-generation status, the retention rates are very close. However, when we remove students who transferred, graduated, or were suspended, then the non-first-generation was slightly higher.

Retention Rates by First-Generation Status

Status	Retention Rate	Retention Rate (transferred, graduated, or suspended students removed)
First-Generation	60.6	83.3
Non-First-Generation	60	85.7
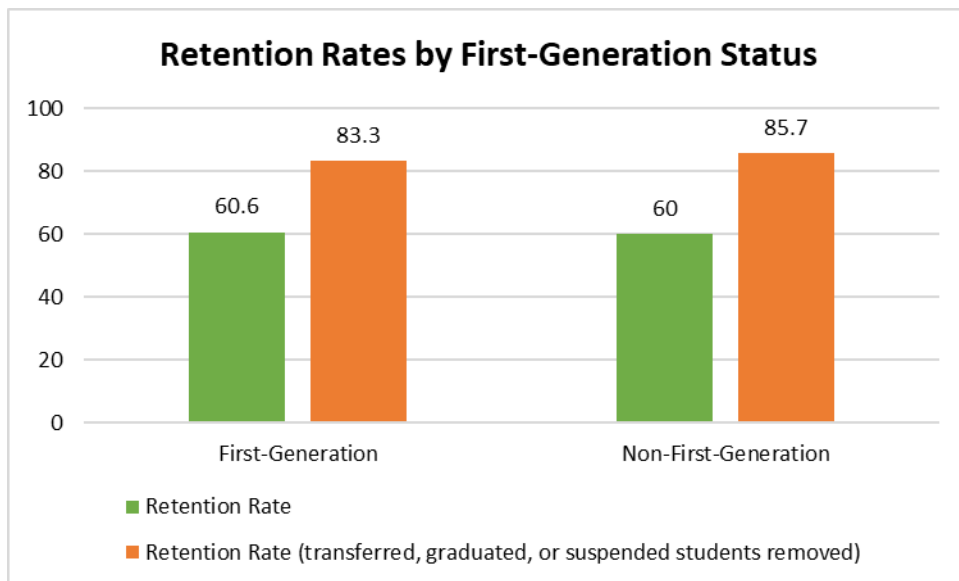
Fall to Spring

Traditionally, the retention rate is higher for fall to spring than spring to fall because students are more likely to graduate/transfer in the spring.
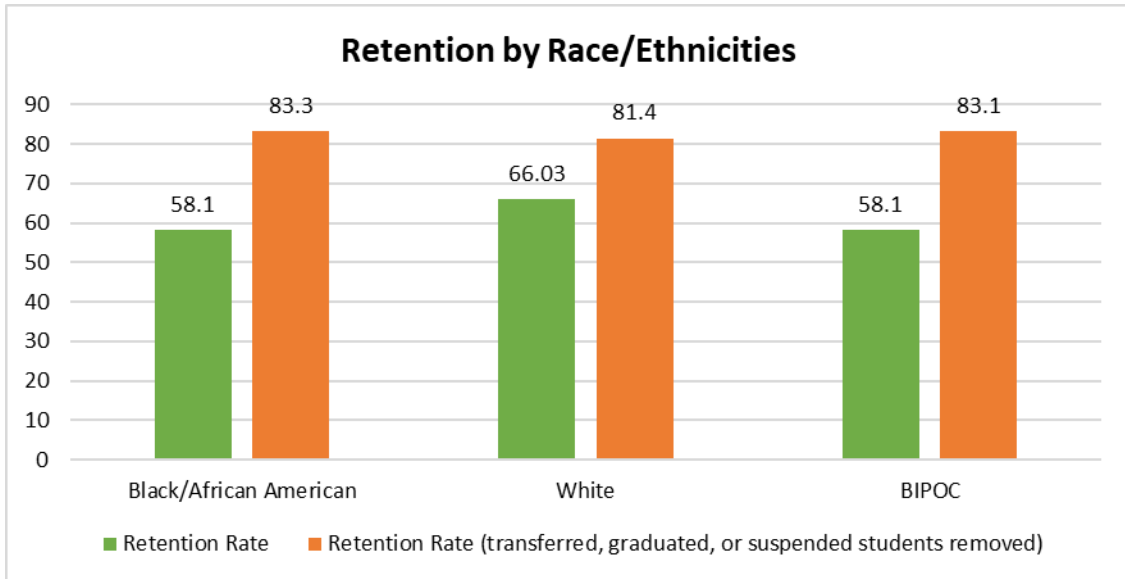
From fall 2021 to spring 2022, the retention rate of students who used the CAS was 72.0%. If we remove students who transferred, graduated, or were suspended, then the retention rate is 85.6%.

When we control for the number of visits, it appears that the retention rate for 11 or more visits is lower than 1-10 visits. It is important to note that the number of students who used the CAS 11 or more times is much smaller than the amount using the CAS 1-10 times.

Retention by Visits

	1-10 Visits	11 or More Visits
Retention Rate	75.6	61.1
Retention Rate (transferred, graduated, or suspended students removed)	88.7	84.6

- ■ Retention Rate
- ■ Retention Rate (transferred, graduated, or suspended students removed)
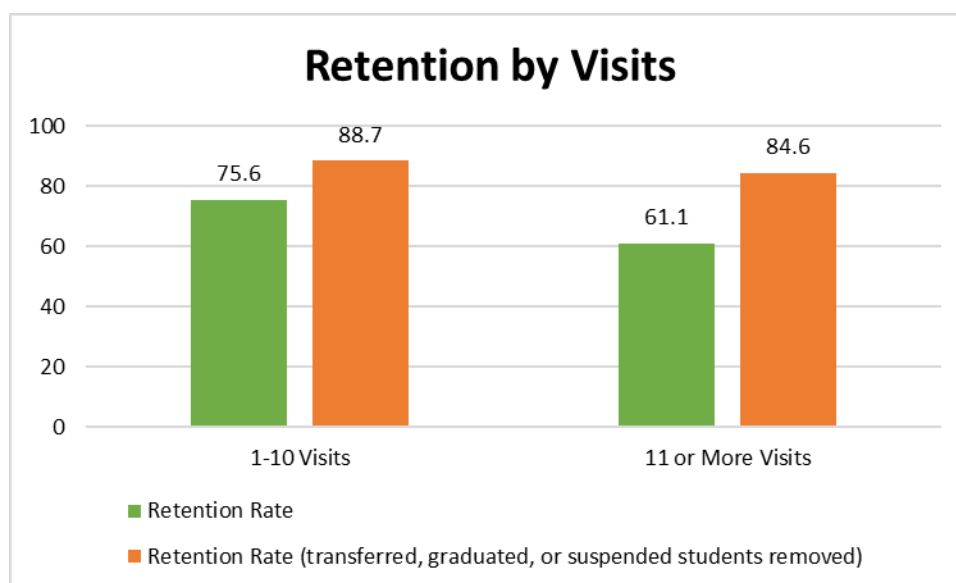
When we control for race/ethnicity, the retention rates are not too similar to the CAS as a whole. It is concerning that African American/Black students had about a 5% lower retention rate than their white peers.

Retention by Race/Ethnicities
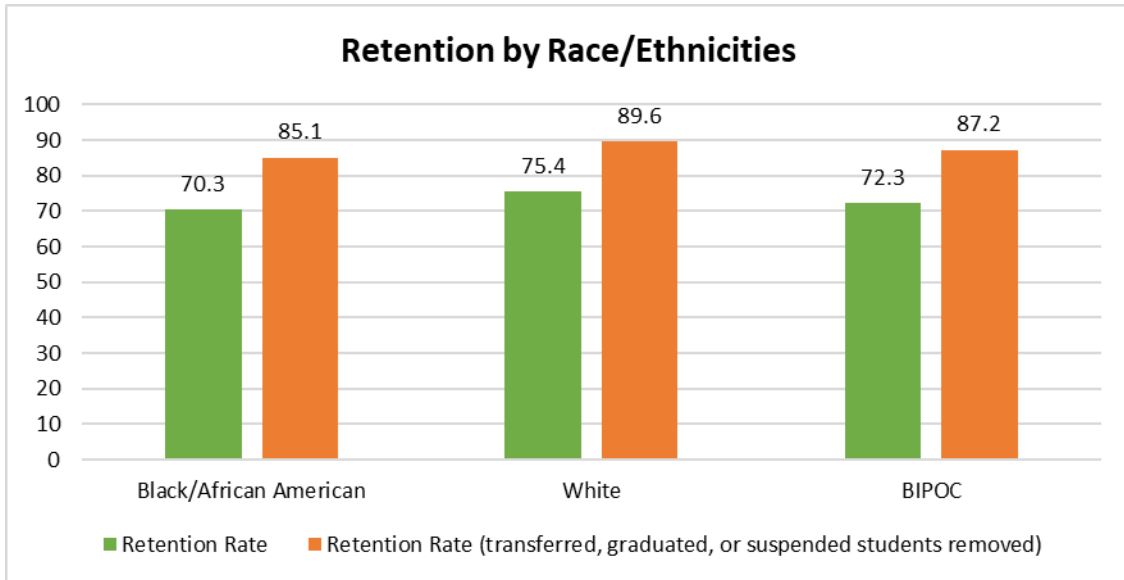
*Non-White includes students who self-identify as Black/African American LatinX, Asian, Pacific Islander, American Indian/Alaskan Native, or as 2 or more races.

When we control for first-generation status, the non-first-generation had a higher retention rate until we removed graduated, transferred, or suspended students.

Retention Rates by First-Generation Status
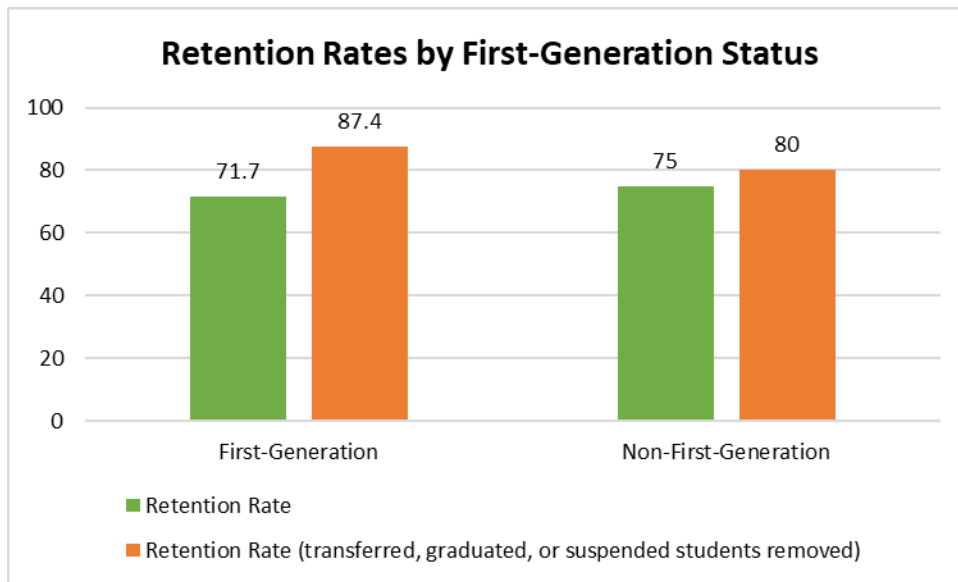
Demographics of the Students who used the CAS

CAS Fall 2021 refers to those that used appointments that semester. Spring 2022 refers to any student who used our services. Spring 2022 appointments refer to students who kept an appointment at least once. Like for fall, these students may have also used drop-in tutoring.

Race/Ethnicity Distribution

Prior to moving to scheduled tutoring with the pandemic, the CAS has a more diverse population than SCTCC as a whole. The largest difference was with black/African American and White student ratios. The ratio of Black/African American students using the CAS is much larger than SCTCC while the ratio of White Students using the CAS is smaller than SCTCC.

SCTCC
0% 4% 3%
0%
7%
14%
66%
6%

CAS Fall 2021
3%
0%
0% 2% 1%
38%
1%
55%

CAS Spring 2022
0% 1% 0% 0%
0%
5%
31%
60%
3%

CAS Spring 2022 Appointments
3% 1% 0% 1%
0%
36%
58%
1%

- ■ American Indian/ Alaskan Native
- ■ Asian
- ■ Black or African American
- ■ LatinX of any race
- ■ White
- ■ Native Hawaiian/Other Pacific Islander
- ■ Two or More rasces
- ■ Unknown
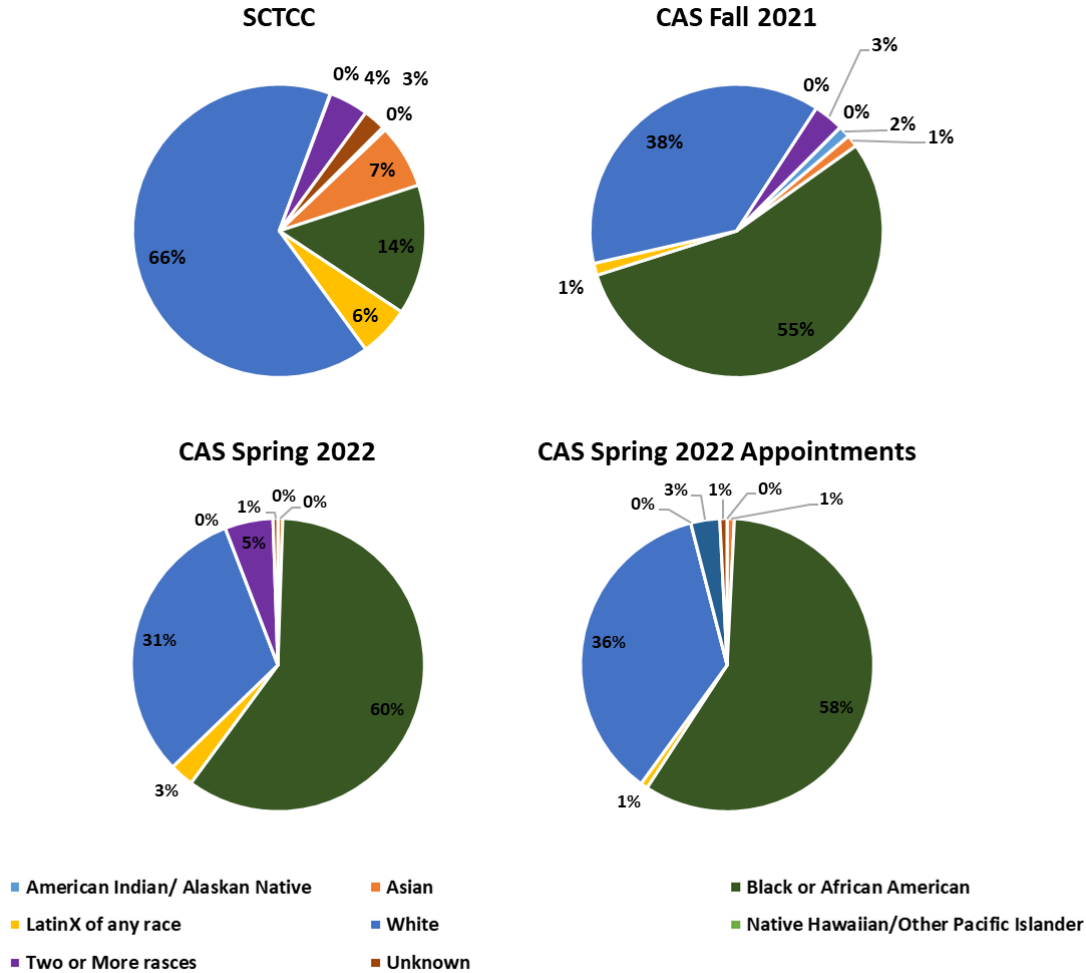
Gender Distribution

Comparing the distribution of genders at SCTCC and the CAS, the CAS had a significantly higher proportion of females than SCTCC as a whole. It is important to note that our resource for collecting information has only two options for gender (male and female). The amount of distribution of gender is similar between fall and spring.

SCTCC

40%
60%

CAS Fall 2021

28%
72%

CAS Spring 2022

30%
70%

CAS Spring 2022 - Appointments

27%
73%

■ Female ■ Male
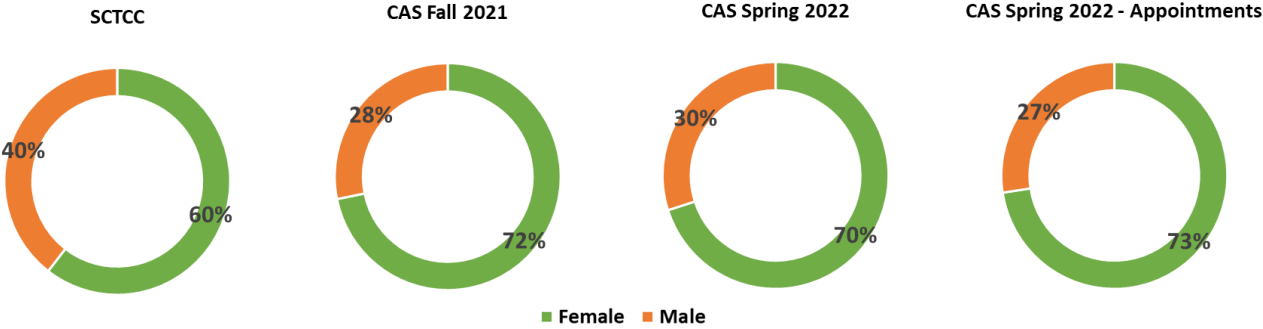
Age Distribution

The distribution of ages of students who used the CAS is similar to the age distribution of SCTCC but slightly older. The biggest difference is for those 18 and younger. SCTCC as a whole has a larger proportion in this age category than the CAS.

Age Distribution

(Age groups: 18 & under, 19-20, 21-24, 25-34, 35-44, 45-54, 55+)

■ SCTCC ■ CAS Fall 2020 ■ CAS Spring 2021 ■ CAS Spring 2021 Appointments
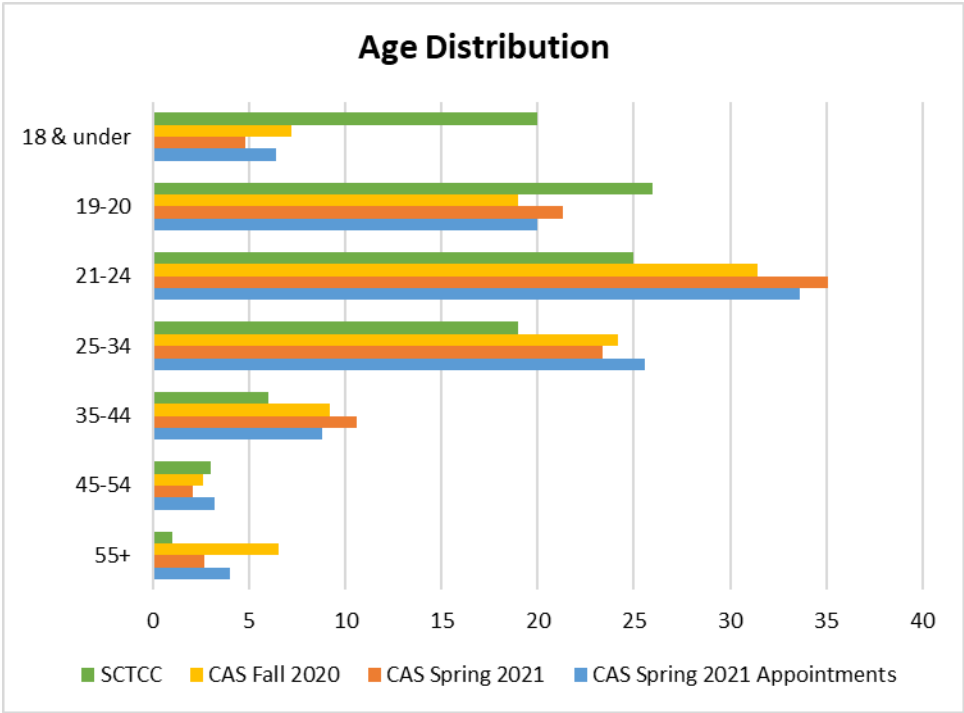
First-Generation

The CAS had a much higher percentage of first-generation students than SCTCC as a whole.

% First-Generation

Category	Value
SCTCC	58.67
CAS Fall	69.28
CAS Spring	64.89
CAS Spring Appoint	64.8
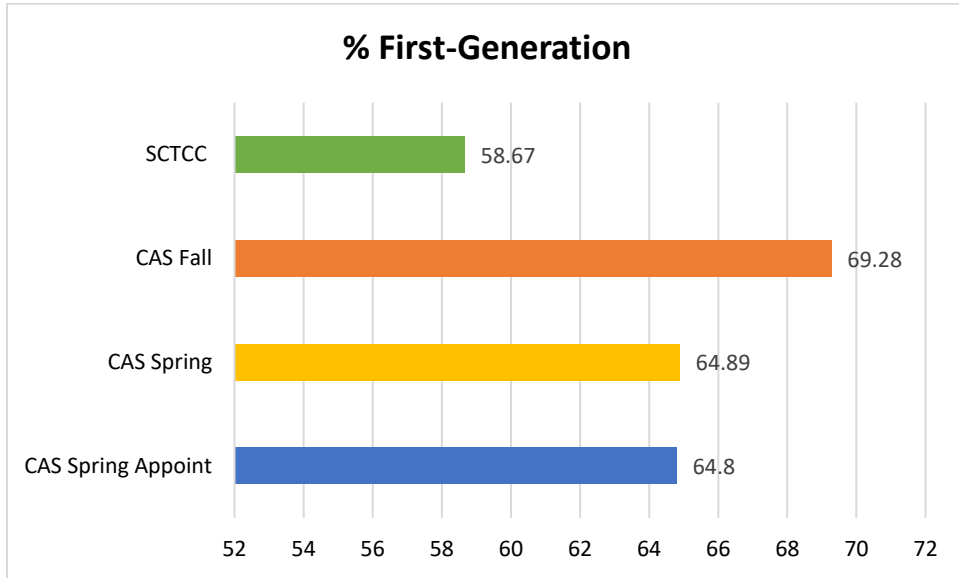
Tutor.com Tutoring

Online tutoring at SCTCC has mainly gone through Tutor.com, which is a service that the state system contracted with. Each student is given 15 hours to use throughout the academic year. Drop-off Essay reviews do not count toward the 15 hours. System-wide, students in the system utilized over 34,000 sessions for nearly 26,200 hours. SCTCC utilized over 500 sessions for 169 students lasting nearly 300 hours. This does not include the summer session.

The breakdown of numbers for SCTCC is as follows:

	Fall 2021	Spring 2022
Total Sessions	258	237
Unique Students	112	72
Average Length	35.9 minutes	35.7
Service Rating out of 5	4.46	4.46
% Would recommend service	93.1	100

In the fall, of the 112 students, 17 also used the CAS for a total of 43 sessions. Roughly half of these sessions occurred outside CAS hours. In the Spring 15 of the 72 students who used tutor.com also used the CAS. This accounts for 93 sessions with almost 70% occurring outside CAS hours.

Tutor.com sends early alerts for four types of concerns

- Prerequisite Knowledge: Is the student missing information they should know?
- Content Mastery: Is the student having difficulty mastering the content?
- Unusually Long Session (tutor.com tutors typically cap sessions at 1 hour)
- Frequent Subject Request

Sometimes a student will get an early alert, but CAS tutors would not flag the student. For example, a tutor.com tutor may expect a student to know certain material, but the CAS tutor knows the student won't learn that material until later on in the class. Another example is a student was asking for help making a graph for a lab report in excel from different biology tutors but was unable to get help (Biology tutors should know how to make a basic bar graph in excel). The student was then flagged for frequent subject request.

Breakdown of Early Alerts (% of total sessions)

	Fall 2021	Spring 2022
Prerequisite Knowledge	7	8.9
Content Mastery	1.9	3.8
Unusually Long Session	16.3	21.1
Frequent Subject Request	7	11

The drop-off essay review was the most popular service used on Tutor.com. Some instructors require students to submit papers to tutor.com for feedback through the drop-off essay review. The most asked for subjects through Tutor.com are as follows

Drop-in and Appointments

Category	Total Visits	Unique Students
Drop-in Only	136	69
Appointment Only	197	76
Combination	666	46

■ Total Visits ■ Unique Students
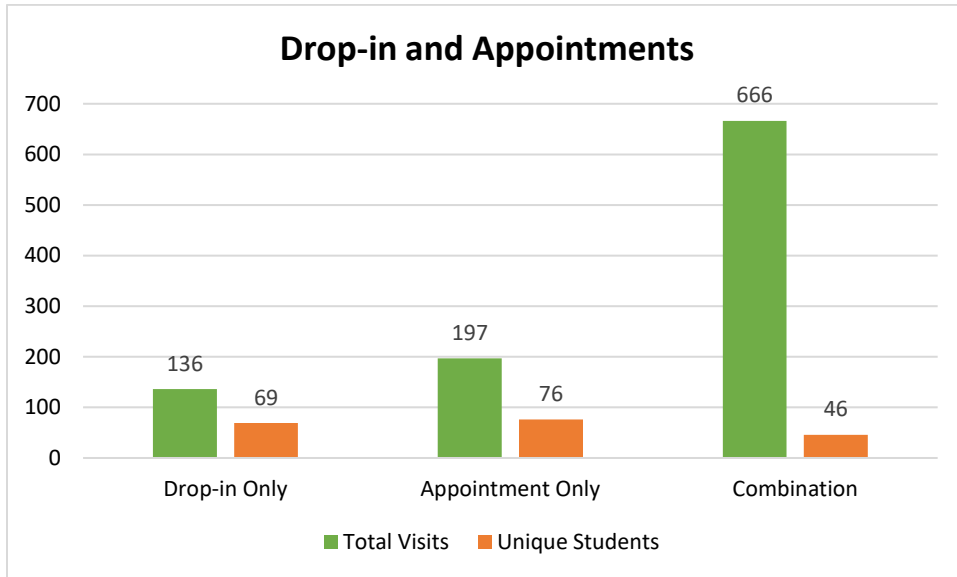
Most students used Tutor.com in the late afternoon, evening, and at night as shown in the heat map below. The fall and spring semesters were similar, so the heat map is for the academic year. Tutor.com tended to be busy at different times than the CAS appointments (see heat maps in appendix A).
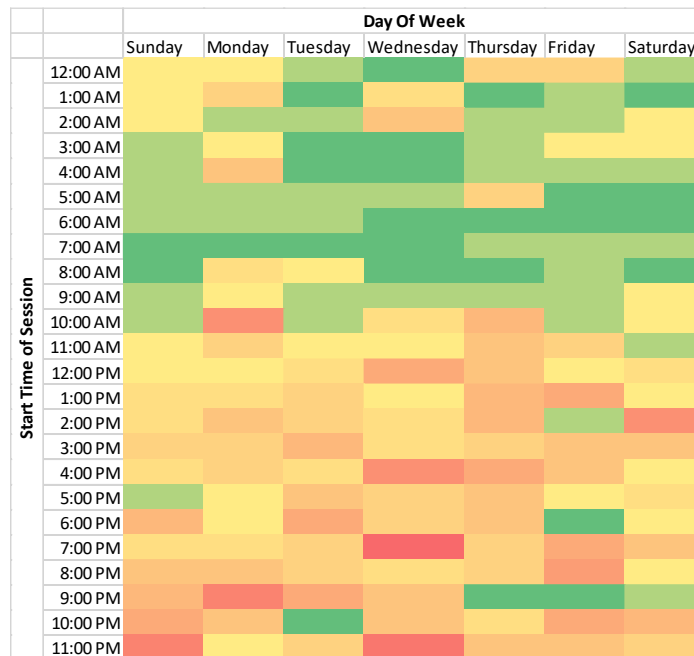
CAS 2021-2022 Student Survey

At the end of each semester, the CAS emails a survey to all students who had used our services at least once during the semester. For the fall semester, 164 students were emailed with 30 replies (18.3% response rate). For the spring semester, 166 students were emailed with 15 replies (11.06% response rate). This section will give highlights of the questions asked and summarize those results.

Are you glad SCTCC is offering tutoring with CAS staff?

Overwhelmingly, students in both the fall and spring said they were glad that the CAS was offering tutoring with our staff. Of the 45 total responses every student said "yes" that they were glad we were offering this service.

Did you utilize in-person tutoring, online tutoring, or both this past semester?

53% of students said they only used online tutoring. 16% of students used both face-to-face and online and 31% of students used face-to face-only.

Do you prefer in-person or online tutoring?

82% of student prefer face to face tutoring. This is difficult for the CAS because most LAS classes are now online with fewer students coming to campus for any classes or services.

Summary of other questions

- 95.6% of students would recommend tutoring to a friend
- 87.8% of students stated tutoring helped understand homework assignments
- 78.6% of student said tutoring is helping to improve their grades
- 87.8% of students feel more confident with their school work after using the CAS
- 67.5% of students feel the service is helping them stay enrolled in their classes

What recommendations do you have for the CAS to improve tutoring?

<u>Top 3 Things the CAS Can Improve Upon</u>

1. Drop in tutoring
2. Later hours
3. Longer sessions

Challenges

<u>*2021-2022 Challenges*</u>

- **Offering 2 types of services** – Starting in the fall, the CAS brought back drop-in tutoring two days a week with other days having appointments. Math and science were on drop-ins on Monday and Tuesdays while writing/ESOLhad drop-in tutoring on Wednesdays and Thursdays. Students would repeatedly come in the wrong day for drop-in tutoring. Although there with a sign in the front of the CAS, bookmarks, and reminders on what day the current day was (who was on drop-in or appointments), students would repeatedly come in the wrong day for drop-in tutoring (many of these were repeat customers). Tutors would accommodate these students when they could, but it did bring frustration for students and staff.

- **Online classes** - In the past, with so many in-person classes, students would come in between classes, before, or after classes for drop-in tutoring. With COVID, many classes are still online. These students wouldn't come to campus and many did not use drop-in tutoring. While we were able to help these students with online tutoring, there may have been some students who were not able to make online appointments (due to tutors being booked) and/or did not want to come in person.

- **Communication with faculty –** Our staff continued to connect with faculty throughout the year. We posted detailed information about accessing our services as well as updates on when we were open on campus. Even at the end of the term, we would hear from students that they never heard about the CAS from their faculty nor how they could get help from us.

- **Technology –** We utilized Bookings for our scheduling software, but it was very archaic in relation to what students are used to. Many times they could not schedule from a phone or tablet nor could they easily adjust appointments. Students were registering under multiple names and using emails that did not work. There was no easy way to track these students down and we would have to go into two to three different systems to finally figure out who the appointment was for. We would also get students from other colleges that we would not know were for other schools until meeting with the student. By having better technology, we could save time and frustration on all ends.

- **Online Homework Aids** - Students are using online homework help platforms such as Chegg, Course Hero, Grammarly and Mathway. For some of these, students are paying a fee to be able to see solutions to labs and homework. Others, students are putting in a problem and getting the answer. With these available, students are not using our services as much as they should. They are also using this instead of putting the work in.

There was even a case where a student got the answers to a lab report and passed it on as their own. It was caught by a tutor because the tutor knew the student couldn't understand the material enough to give such answers and the answers were written in a style unlike the student's style. If the student would have gotten help to better understand the material, the student would have been able to write the report themselves.

- **Staffing** – Like many industries, we have had issues finding student workers. With a decrease in budget, we are unable to hire the number of tutors we would need to be fully drop-in and appointment-based services. Many students are able to find higher paying employment elsewhere. Other students do not want to work directly with other students due to COVID concerns.

- **On-going planning –** Because of the uncertainty with COVID and staffing, we have been unable to plan effectively going forward. We would like to establish a three-pronged approach to tutoring, but we have not been able to work on the planning because we are unsure as to whether we will be able to have more people in our space and how many student tutors we can afford/find. If we cannot have larger groups, it will make getting everyone here more difficult. We hope that more clarity happens this summer which will allow for better ongoing planning.

- **Co-curricular Assessment -** As part of the accreditation for the college, one of the co-curricular outcomes was setting a SMART Goal. Before the start of their second appointment, a tutor would ask what the student's goal was for the semester and help create a SMART goal. Every student's goal was to either pass the class or get a good grade in the class. Most students (and tutors) did not want to do this as it took time out of their appointment. Going forward, the tutors will not be asking about SMART goals in a formal sense.

Opportunities

- **CAS WIG** – Along with every department on campus, the CAS has created a Wildly Important Goal (WIG). This goal is to decrease the percentage of students that only access the CAS for scheduled tutoring one time. We plan on achieving this by connecting with students bi-weekly after appointments.

- **Early Alerts** – Similar to Tutor.com, tutors could mark students as having the prerequisite knowledge, see if they have attempted work outside the CAS, and if they are having difficulty mastering the subject. This would give us a better sense of who the student who uses the CAS appointments are per subject.

Appendix A: Heatmaps

Heatmaps of CAS appointments by Subject

	FALL	Spring

Math

	Wednesday	Thursday	Friday
8:00 AM			
9:00 AM			
10:00 AM			
11:00 AM			
12:00 PM			
1:00 PM			
2:00 PM			
3:00 PM			

Science

	Wednesday	Thursday	Friday
8:00 AM			
9:00 AM			
10:00 AM			
11:00 AM			
12:00 PM			
1:00 PM			
2:00 PM			
3:00 PM			
4:00 PM			

Humanities

	Monday	Tuesday	Friday
8:00 AM			
9:00 AM			
10:00 AM			
11:00 AM			
12:00 PM			
1:00 PM			
2:00 PM			
3:00 PM			
4:00 PM			

ESOL

	Monday	Tuesday	Friday
8:00 AM			
9:00 AM			
10:00 AM			
11:00 AM			
12:00 PM			
1:00 PM			
2:00 PM			
3:00 PM			
4:00 PM			
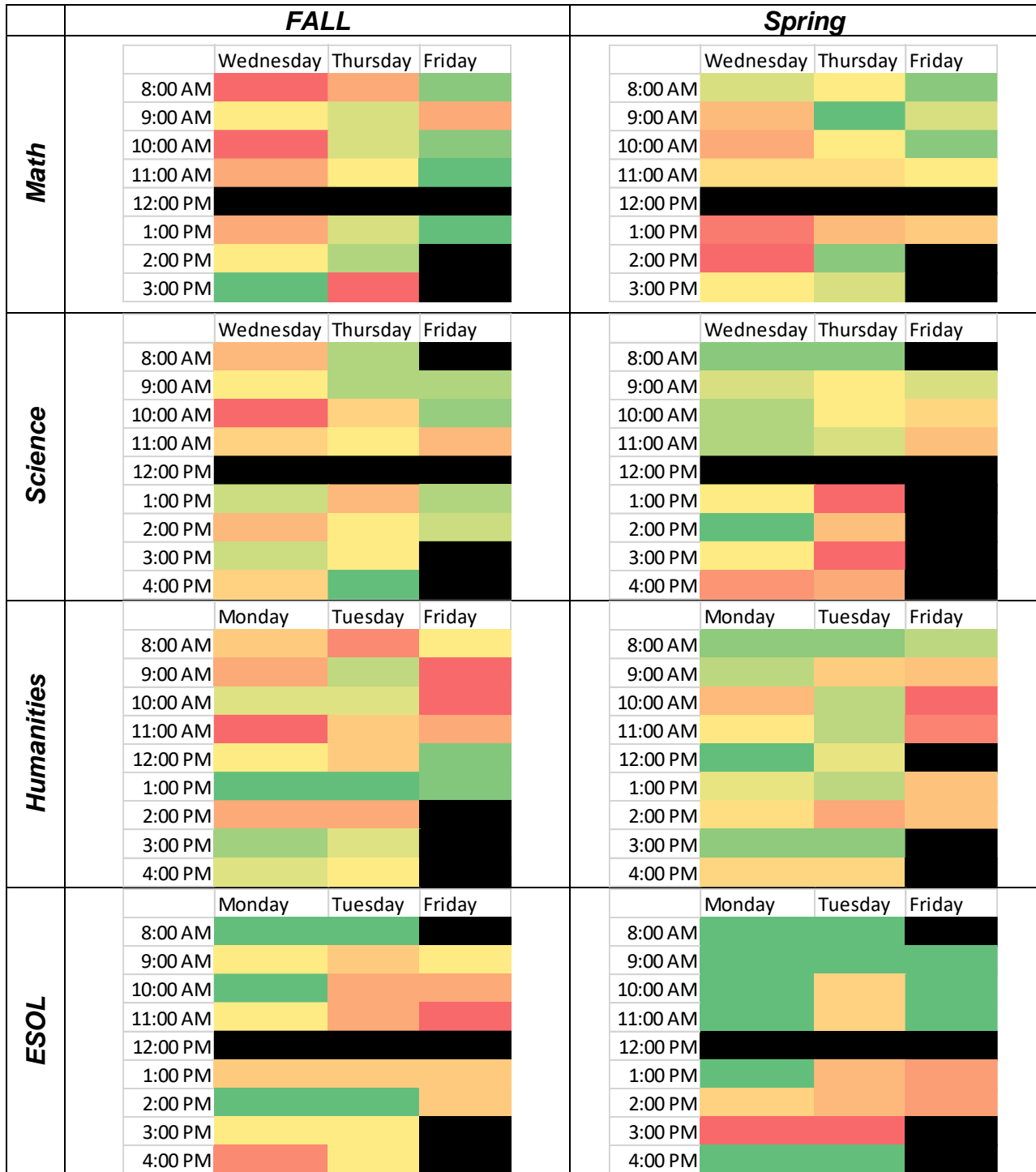
	Monday	Tuesday	Friday			Monday	Tuesday	Friday
Other	8:00 AM					8:00 AM		
	9:00 AM					9:00 AM		
	10:00 AM					10:00 AM		
	11:00 AM					11:00 AM		
	12:00 PM					12:00 PM		
	1:00 PM					1:00 PM		
	2:00 PM					2:00 PM		
	3:00 PM					3:00 PM		
	4:00 PM					4:00 PM		

*Black refers to times to when appointments were unavailable (lunch breaks, CAS closed, tutor unavailable)

**Math includes subject courses, physics, pharmacology, technical math courses HITM courses and Microsoft suite focused classes. Science includes subject courses (BLGY, CHEM, ENVR) and nursing courses. Humanities includes subject courses (ENGL and READ) and paper heavy courses (diversity and social justice, communications, psychology, etc). Other includes Accounting, logic, Spanish, computer programming, economics.

Heat Maps of Fall and Spring for all appointments

Fall

Start Time of Session	Day Of Week				
	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 AM					
9:00 AM					
10:00 AM					
11:00 AM					
12:00 PM					
1:00 PM					
2:00 PM					
3:00 PM					
4:00 PM					

Spring

Start Time of Session	Day Of Week				
	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 AM					
9:00 AM					
10:00 AM					
11:00 AM					
12:00 PM					
1:00 PM					
2:00 PM					
3:00 PM					
4:00 PM					
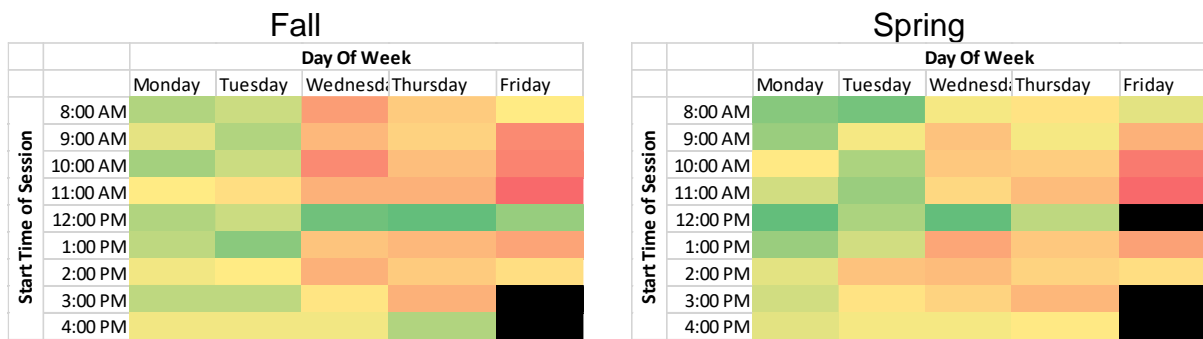
Heat Map for fall and Spring combined

Start Time of Session	Day Of Week				
	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 AM					
9:00 AM					
10:00 AM					
11:00 AM					
12:00 PM					
1:00 PM					
2:00 PM					
3:00 PM					
4:00 PM					
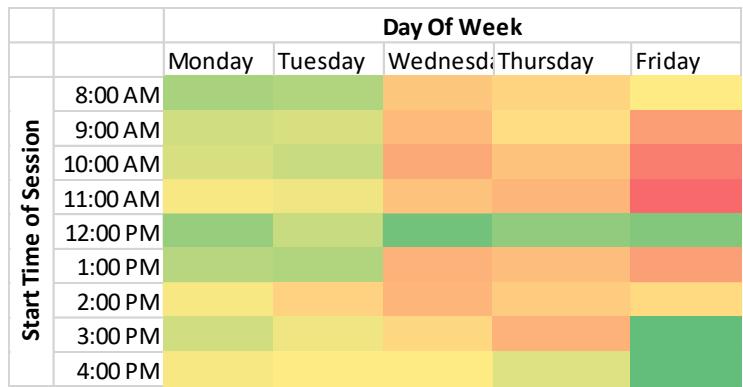
Appendix B : Tables

Non-Disaggregated Tables

Table 1

GPA Comparisons: Non-Disaggregated						
	Fall 2021		Spring 2022 -Appointment Only		Spring 2022 -Combination	
	Average Term GPA (Average Cumulative GPA)	Average Number of Credits Attempted	Average Term GPA (Average Cumulative GPA)	Average Number of Credits Attempted	Average Term GPA (Average Cumulative GPA)	Average Number of Credits Attempted
CAS Overall	2.93 (3.04)	10.7	2.76 (3.04)	9.78	2.78 (2.98)	9.49
CAS 1-10 Visits	2.89 (3.03)	10.8	2.75 (3.04)	9.84	2.76 (2.98)	9.41
CAS 11 +Visits	3.27 (3.12)	10.1	2.96 (3.09)	9	2.91 (2.95)	10
No CAS	2.87 (2.98)	11.5	2.91 (2.94)	10.13	2.91 (2.94)	10.13

Table 2

Completion Rate Comparisons: Non-Disaggregated						
	Fall 2021		Spring 2022 -Appointment Only		Spring 2022 -Combination	
	Term Completion Rate	Cumulative Competition rate	Term Completion Rate	Cumulative Competition rate	Term Completion Rate	Cumulative Competition rate
CAS Overall	80.81	84.07	85.88	85.15	83.30	83.54
CAS 1-10 Visits	79.9	83.34	85.53	84.98	83.36	84.03
CAS 11+ Visits	86.85	89.38	81.51	84.14	82.91	80.49
No CAS	81.53	81.7	78.95	83.49	78.95	83.49

Disaggregated by Race/Ethnicity Tables

Table 3

	Credits Attempted by Race/Ethnicity								
	Fall 2021			Spring 2022 -Appointment Only			Spring 2022 -Combination		
	White	Black/African American	BIPOC	White	Black/African American	BIPOC	White	Black/African American	BIPOC
Overall	12.2	9.4	9.5	11.04	9.18	9.02	93.70	8.84	8.80
CAS 1-10 Visits	12	9.4	9.6	11.07	9.18	9.04	94.62	8.69	8.64
CAS 11+ Visits	15	9.3	9.2	10	9.14	8.88	85.60	9.70	9.65
No CAS	11.4	9.6	10.6	10.57	8.7	9.63	10.57	8.7	9.63

Table 4

	Term GPA by Race/Ethnicity								
	Fall 2021			Spring 2022 -Appointment Only			Spring 2022 -Combination		
	White	Black/African American	BIPOC	White	Black/African American	BIPOC	White	Black/African American	BIPOC
Overall	3.32 n=57	2.7 n=81	2.72 n=87	3.15 n=45	2.47 n=69	2.51 n=74	3.21 n=59	2.54 n=104	2.56 n=119
CAS 1-10 Visits	3.32 n=53	2.58 n=68	2.62 n=73	3.13 n=44	2.44 n=62	2.74 n=65	3.32 n=53	2.50 M=88	2.50 n=100
CAS 11 or More Visits	3.24 n=4	3.24 n=13	3.27 n=14	4 n=1	2.77 n=7	2.84 n=9	3.0 n=6	2.79 n=16	2.89 n=19
No CAS	2.73 n=92	2.68 n=32	2.88 n=50	3.04 n=120	2.64 n=32	2.59 n=49	3.04 n=120	2.64 n=32	2.59 n=49

Table 5

Term Completion Rate Comparisons by Ethnicity/Race								
	Fall 2021			Spring 2022 -Appointment Only			Spring 2022 -Combination		
	White	Black/African American	BIPOC	White	Black/African American	BIPOC	White	Black/African American	BIPOC
Overall	86.63 n=57	76.29 n=81	76.87 n=94	93.68 n=45	81 n=72	80.7 n=79	93.70 n=59	77.88 n=111	78.37 n=128
CAS 1-10 Visits	86.56 n=55	74.33 n=67	75.01 n=79	93.53 n=44	81.81 n=65	80.86 n=70	94.62 n=54	77.68 n=94	77.69 n=108
CAS 11 or More Visits	88.46 n=2	85.68 n=14	86.64 n=15	100 n=1	73.57 n=7	79.44 n=9	85.60 n=7	78.95 n=17	82.11 n=20
No CAS	80.6 n=98	74.83 n=38	79.13 n=57	84.04 n=129	69.62 n=41	68.40 n=60	84.04 n=129	69.62 n=41	68.40 n=60

Table 6

Term GPA Comparisons by Race/Ethnicity Test Results									
	Fall 2021			Spring 2022 -Appointment Only			Spring 2022 -Combination		
	Overall vs. No CAS	1-10 vs. No CAS	11+ vs No CAS	Overall vs. No CAS	1-10 vs. No CAS	11+ vs No	Overall vs. No CAS	1-10 vs. No CAS	11+ vs No
White CAS vs. White No CAS	CAS> NO	CAS > No	NA	Not significant	Not significant	NA	Not significant	Not significant	NA
Black CAS vs. Black No CAS	Not significant	Not significant	CAS > No	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant
Black CAS vs White No CAS	Not significant	Not significant	CAS > No	CAS < NO	CAS < NO	Not significant	CAS < NO	CAS < NO	Not significant
White CAS vs. Black NO CAS	CAS> NO	CAS> NO	NA	CAS>No	CAS>No	NA	CAS>No	CAS>No	NA
BIPOC CAS vs. BIPOC No CAS	Not significant	Not significant	CAS > No	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant
BIPOC CAS vs. White No CAS	Not significant	Not significant	CAS > No	CAS < NO	CAS < NO	Not significant	CAS < NO	CAS < NO	Not significant
White CAS vs. BIPOC No CAS	CAS> NO	CAS> NO	NA	CAS>No	CAS>No	NA	CAS>No	CAS>No	NA

Table 7

Term GPA Comparisons by Race/Ethnicity Test Results									
	Fall 2021			Spring 2022 -Appointment Only			Spring 2022 -Combination		
	White Overall	White 1-10	White 11+	White Overall	White 1-10	White 11+	White Overall	White 1-10	White 11+
Black Overall	White>Black	White > Black	NA	White>Black	White>Black	NA	White>Black	White>Black	NA
Black 1-10	White>Black	White > Black	NA	White>Black	White>Black	NA	White>Black	White>Black	NA
Black 11+	Not significant	Not significant	NA	Not significant	Not significant	NA	Not significant	White>Black	NA
BIPOC Overall	White>BIPOC	White>BIPOC	NA	White>BIPOC	White>BIPOC	NA	White>BIPOC	White>BIPOC	NA
BIPOC 1-10	White > BIPOC	White > BIPOC	NA	White>BIPOC	White>BIPOC	NA	White>BIPOC	White>BIPOC	NA
BOPOC 11+	Not significant	Not significant	NA	Not significant	Not significant	NA	Not significant	Not significant	NA

Table 8

Term Completion Rates by Race/Ethnicity Test Results									
	Fall 2021			Spring 2022 -Appointment Only			Spring 2022 -Combination		
	Overall vs. No CAS	1-10 vs. No CAS	11+ vs No CAS	Overall vs. No CAS	1-10 vs. No CAS	11+ vs No CAS	Overall vs. No CAS	1-10 vs. No CAS	11+ vs No CAS
White CAS vs. White No CAS	Not significant	Not significant	NA	CAS>NO	CAS>No	NA	CAS>NO	CAS>No	NA
Black CAS vs. Black No CAS	Not significant	Not significant	Not significant	Significant at 10%	Significant at 10%	Not significant	Not significant	Not significant	Not significant
Black CAS vs White No CAS	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant
White CAS vs. Black NO CAS	Not significant	Not significant	NA	CAS>NO	CAS>No	NA	CAS>NO	CAS>No	NA
BIPOC CAS vs. BIPOC No CAS	Not significant	Not significant	Not significant	CAS>NO	CAS>No	Not significant	Not significant	Not significant	Not significant
BIPOC CAS vs. White No CAS	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant
White CAS vs. BIPOC No CAS	Not significant	Not significant	NA	CAS>NO	CAS>No	NA	CAS>NO	CAS>No	NA

Table 9

Term Completion Rates by Race/Ethnicity Test Results									
	Fall 2021			Spring 2022 -Appointment Only			Spring 2022 -Combination		
	White Overall	White 1-10	White 11+	White Overall	White 1-10	White 11+	White Overall	White 1-10	White 11+
Black Overall	White>Black	White>Black	NA	White>Black	White>Black	NA	White>Black	White>Black	NA
Black 1-10	White>Black	White>Black	NA	White>Black	White>Black	NA	White>Black	White>Black	NA
Black 11+	Not significant	Not significant	NA	Not significant	Not significant	NA	White>Black	White>Black	NA
BIPOC Overall	White>BIPOC	White>BIPOC	NA	White>BIPOC	White>BIPOC	NA	White>BIPOC	White>BIPOC	NA
BIPOC 1-10	White>BIPOC	White>BIPOC	NA	White>BIPOC	White>BIPOC	NA	White>BIPOC	White>BIPOC	NA
BOPOC 11+	Not significant	Not significant	NA	Not significant	Not significant	NA	Not significant	White>BIPOC	NA

Disaggregated by First-Generation Status Tables

Table 10

Credits Attempted by First-Generation Status						
	Fall 2021		Spring 2022 Appointment Only		Spring 2022 Combination	
	First-Generation	Non-First-Generation	First-Generation	Non-First-Generation	First-Generation	Non-First-Generation
Overall	10.35	11.81	9.20	10.8	8.95	10.65
CAS 1-10 Visits	10.39	11.89	9.11	11	8.64	10.92
CAS 11 +	10	11.25	10.14	8	10.63	7.33
No CAS	10.81	12.02	10.27	10.27	10.27	10.27

Table 10

Term GPA by First-Generation Status						
	Fall 2021		Spring 2022 Appointment Only		Spring 2022 Combination	
	First-Generation	Non-First-Generation	First-Generation	Non-First-Generation	First-Generation	Non-First-Generation
Overall	2.89 n=100	3.00 n=31	2.69 n=77	2.94 n=21	2.69 n=117	3.02 n=39
CAS 1-10 Visits	2.89 n=89	2.93 n=27	2.69 n=70	2.93 n=27	2.63 n=99	3.07 n=36
CAS 11 or More Visits	3.11 n=11	3.49 n=4	2.77 n=7	3.12 n=2	3.05 n=19	2.41 n=3
No CAS	2.78 n=92	2.81 n=45	2.94 n=100	2.86 n=62	2.94 n=100	2.86 n=62

Table 11

Term Completion Rate Comparison by First-Generation Status						
	Fall 2021		Spring 2022 Appointment Only		Spring 2022 Combination	
	First-Generation	Non-First-Generation	First-Generation	Non-First-Generation	First-Generation	Non-First-Generation
Overall	81.17 n=106	81.55 n=32	84.47 n=81	87.58 n=30	83.83 n=122	86.36 n=41
CAS 1-10 Visits	80.89 n=94	79.93 n=28	84.51 n=74	86.71 n=28	84.26 n=103	86.60 n=38
CAS 11 or More Visits	83.29 n=13	94.23 n=4	73.57 n=7	100 n=2	81.51 n=19	83.33 n=3
No CAS	80.20 n=99	83.20 n=48	78.23 n=113	81.88 n=65	78.23 n=113	81.88 n=65

Table 12

	Fall 2021			Spring 2022 Appointment Only			Spring 2022 Combination		
Term GPA Comparisons by First-Generation Status Test Results									
	Overall vs. No CAS	1-10 vs. No CAS	11+ vs No CAS	Overall vs. No CAS	1-10 vs. No CAS	11+ vs No CAS	Overall vs. No CAS	1-10 vs. No CAS	11+ vs No CAS
First-Gen CAS vs. First-Gen No CAS	Not significant	Not significant	CAS>No CAS	Not significant	Not significant	NA	No CAS>CAS		Not significant
Non-First-Gen CAS vs. Non-First-Gen No CAS	Not significant	Not significant	NA	Not significant	Not significant	NA	Not significant	Not significant	NA
First-Gen CAS vs. Non-First Gen No CAS	Not significant	Not significant	Not significant	Not significant	Not significant	NA	Not significant	Not significant	Not significant
Non-First-Gen CAS vs. First-Gen No CAS	Not significant	Not significant	NA	Not significant	Not significant	NA	Not significant	Not significant	NA

Table 13

	Fall 2021			Spring 2022 Appointment Only			Spring 2022 Combination		
Term GPA Comparisons by First-Generation Status Test Results									
	Non-First-Gen Overall	Non-First-Gen 1-10	Non-First-Gen 11+	Non-First-Gen Overall	Non-First-Gen 1-10	Non-First-Gen 11+	Non-First-Gen Overall	Non-First-Gen 1-10	Non-First-Gen 11+
First-Gen Overall	Not significant	Not significant	NA	Not significant	Not significant	NA	Non>First	Non>First	NA
First-Gen 1-10	Not significant	Not significant	NA	Not significant	Not significant	NA	Non>First	Non>First	NA
First-Gen 11+	Not significant	Not significant	NA	NA	NA	NA	Not significant	Not significant	NA

Table 14

Term Completion Rate Comparisons by First-Generation Status Test Results									
	Fall 2021			Spring 2022 Appointment Only			Spring 2022 Combination		
	Overall vs. No CAS	1-10 vs. No CAS	11+ vs No CAS	Overall vs. No CAS	1-10 vs. No CAS	11+ vs No CAS	Overall vs. No CAS	1-10 vs. No CAS	11+ vs No CAS
First-Gen CAS vs. First-Gen No CAS	Not significant	Not significant	Not significant	Not significant	Not significant	NA	Not significant	Not significant	Not significant
Non-First-Gen CAS vs. Non-First-Gen No CAS	Not significant	Not significant	NA	Not significant	Not significant	NA	Not significant	Not significant	NA
First-Gen CAS vs. Non-First Gen No CAS	Not significant	Not significant	Not significant	Not significant	Not significant	NA	Not significant	Not significant	Not significant
Non-First-Gen CAS vs. First-Gen No CAS	Not significant	Not significant	NA	Not significant	Not significant	NA	Not significant	Not significant	NA

Table 15

Term Completion Rate Comparisons by First-Generation Status Test Results									
	Fall 2021			Spring 2022 Appointment Only			Spring 2022 Combination		
	Non-First-Gen Overall	Non-First-Gen 1-10	Non-First-Gen 11+	Non-First-Gen Overall	Non-First-Gen 1-10	Non-First-Gen 11+	Non-First-Gen Overall	Non-First-Gen 1-10	Non-First-Gen 11+
First-Gen Overall	Not significant	Not significant	NA	Not significant	Not significant	NA	Not significant	Not significant	NA
First-Gen 1-10	Not significant	Not significant	NA	Not significant	Not significant	NA	Not significant	Not significant	NA
First-Gen 11+	Not significant	Not significant	NA	NA	NA	NA	Not significant	Not significant	NA