RESEARCH BRIEF

Topic: Student use of NetTutor online tutoring at CCSF (Fall 2016 - Spring 2018)

Date: July 16, 2018

OVERVIEW

All students enrolled in at CCSF have access to tutoring 24 hours a day through an online tutoring platform, NetTutor. This service gives students the opportunity to access tutoring when on campus tutoring centers are closed, or they are unable to travel to campus. Students can access NetTutor through CCSF's online course management system, Canvas, using their Canvas account, or by creating a NetTutor account, on the NetTutor website, using a CCSF student email address.

This Research Brief uses data from NetTutor and from CCSF to examine students' use of NetTutor, student demographics, enrollment patterns, and course success.

NETTUTOR USAGE

How many students used NetTutor?

Between Fall 2016 and Spring 2018 (five semesters), there were 500 unique CCSF emails used to log into NetTutor using either a Canvas account or a NetTutor account with a CCSF email address.

Over the five semesters:
- Students have participated in 3,017 tutoring sessions.
- Over half (55.0%) of students accessed NetTutor two or more times.
- 16.8% of students used NetTutor in multiple (two or more) semesters.

How did student's access NetTutor?

Students have the option to access NetTutor either through Canvas, by clicking a link on the main Canvas landing page, or directly on the NetTutor website, through a NetTutor account they can set up using a CCSF email address. Each semester, the most popular way to login to NetTutor was through the NetTutor website with a CCSF Email address.

Table 1: Tally of student NetTutor login method by term

Method of login	Fall 2016	Spring 2017	Summer 2017	Fall 2017	Spring 2018
	N = 94	N = 166	N = 37	N = 177	N = 158
Canvas account	18.1%	39.8%	40.5%	41.2%	39.2%
NetTutor account	76.6%	56.6%	56.8%	52.5%	55.1%
Both (Canvas and NetTutor)	5.3%	3.6%	2.7%	6.2%	5.7%

Which students are using NetTutor?

This section covers student demographics (ethnicity, gender, etc.) and enrollment patterns which include the campus student attend, classes online or in person, and number of courses enrolled in one semester.

Definitions:

All NetTutor:
Students who had one or more NetTutor logins through Canvas or the NetTutor website.

College Total:
All Credit student enrolled at CCSF between Fall 2016 to Spring 2018. This includes the students in the All NetTutor group.

Student demographics

Demographics are included for the 469 students who had a valid CCSF student email address (email ends in @mail.ccsf.edu). Each student is only counted only once.

A higher proportion of Asian students utilized NetTutor compared to the College Total. Among the White students, the All NetTutor proportion was lower than the College Total. All other group sizes were similar between the All NetTutor group and the College Total.

Chart 1: Comparison of student subpopulations by ethnicity, Fall 2016 - Spring 2018
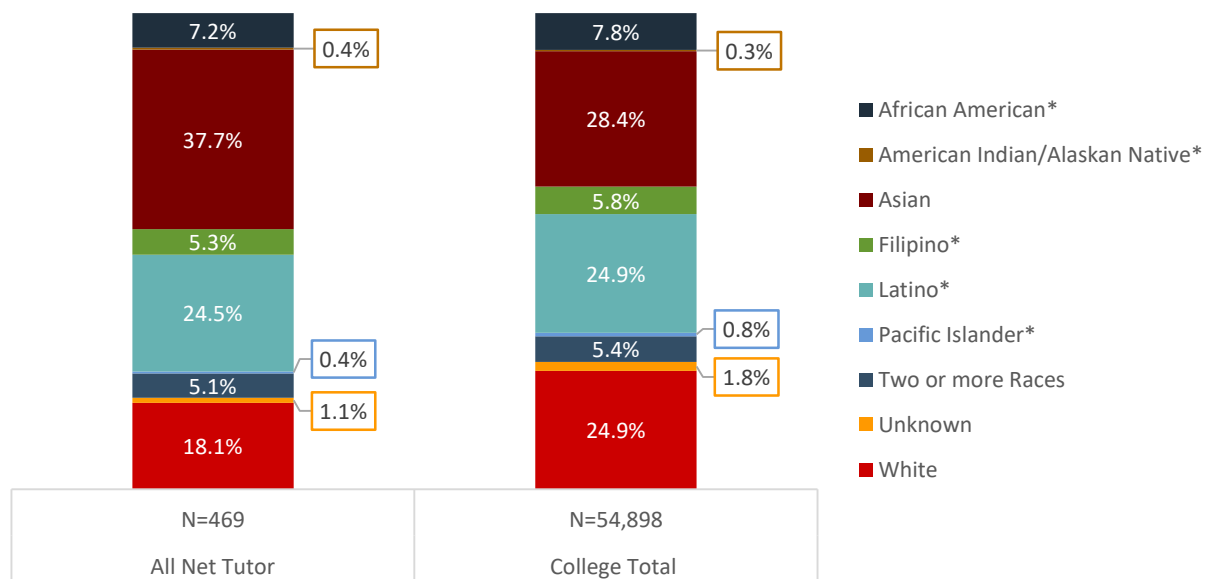
* CCSF Student Equity Populations

Overall female students utilized NetTutor more than male students (see Chart 2). And students in other demographic groups were well represented among students accessing NetTutor when compared to the College Total (see Chart 3).

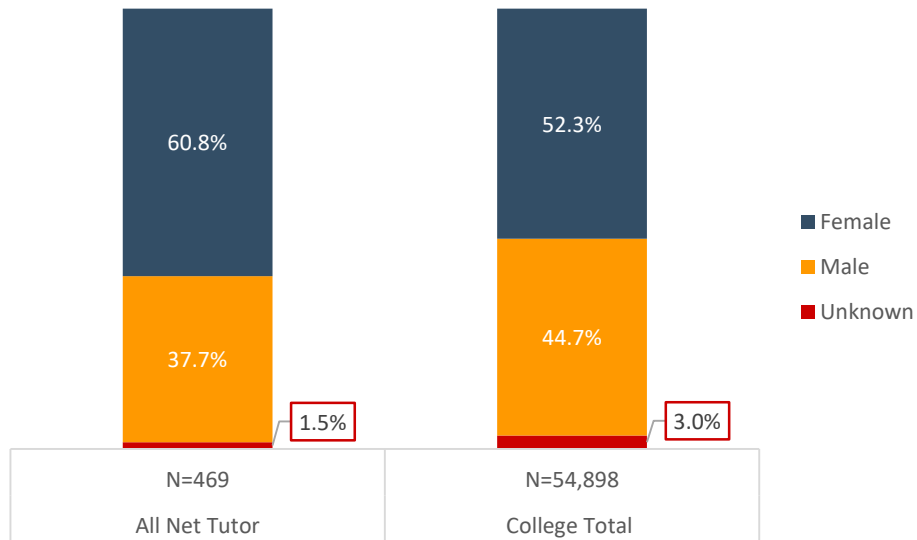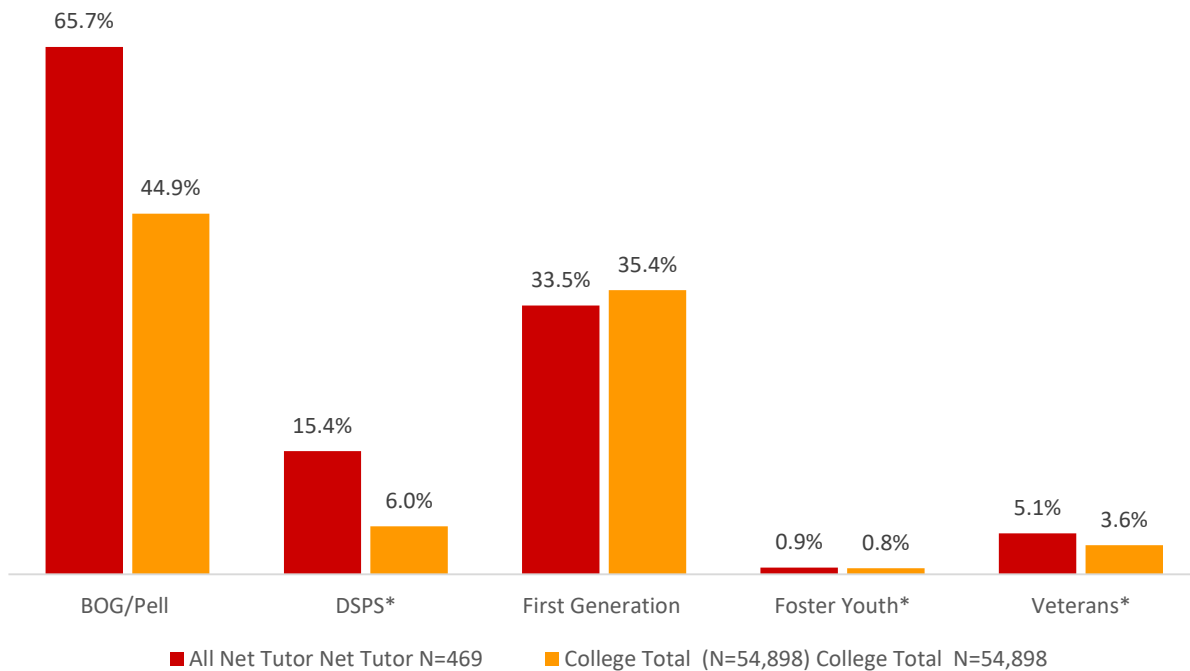Chart 2: Comparison of student subpopulations by gender, Fall 2016 - Spring 2018

Chart 3: Comparison of student subpopulations by various demographics, Fall 2016 - Spring 2018


* CCSF Student Equity Populations

Enrollment patterns

Student's enrollment patterns change from semester to semester. To capture all of the students' enrollment patterns, students are counted each term they use NetTutor and are enrolled in at least one credit course at CCSF.

Are students enrolled in online courses utilizing NetTutor?

Between Fall 2016 and Spring 2018, 11% of the credit course offerings at CCSF were online courses. Students using NetTutor enrolled in 1,979 courses over the five semesters and 16.6% of the enrolled courses were online courses. While 9% of students using NetTutor enrolled solely in online courses, just over 30% enrolled in both online and in person courses, as illustrated in Chart 4.
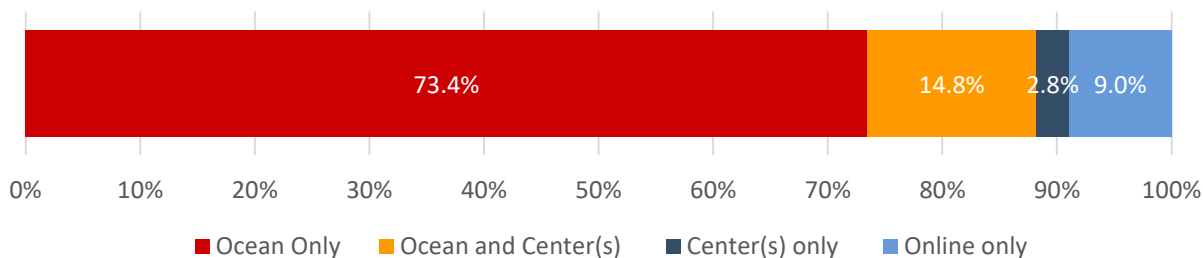
Chart 4: Enrollment modality types among NetTutor users (N=568) Fall 2016 – Spring 2018
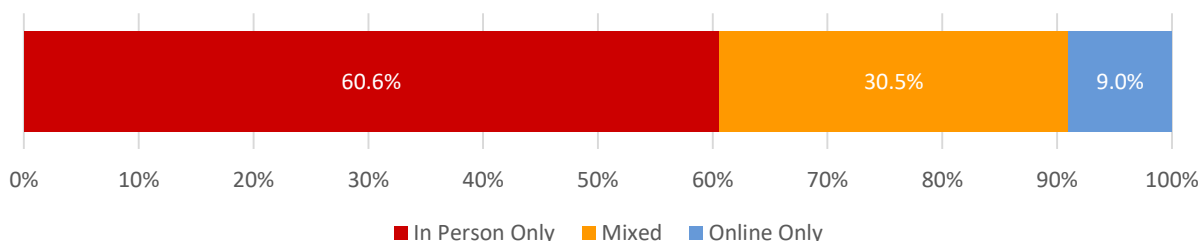
Where are students taking their courses?

The majority of students using NetTutor are taking credit courses, in person, at Ocean campus.

**Chart 5: Campus/Center(s) attended by NetTutor users (N=568) Fall 2016 – Spring 2018**

*Students taking both online and in person course were assigned to the location of the in person courses

How many classes are student enrolled in?

The majority of students are enrolled in 3 or more courses in a semester.

Chart 6: Number of courses enrolled per semester among NetTutor users (N=568) Fall 2016 – Spring 2018
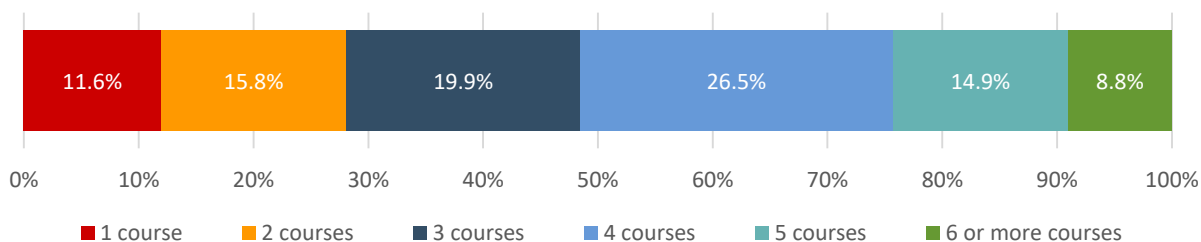
Are students successful in their courses?

When students log in to NetTutor through Canvas the course the student is receiving tutoring for is identified. When students log into NetTutor through the NetTutor website the course is not identified. For this reason, only students logged in through Canvas are included in the course success section and only the courses they received tutoring in are used.

Definitions:

Course Success:
Students receiving a grade of C or higher (A, B, C, P) in a course.

NetTutor through Canvas:
 Students who had one or more NetTutor logins through Canvas.

College Matched Courses
The population of students who are enrolled in any section of a course for which at least one student is accessing tutoring from NetTutor. When students log in through Canvas, the course associated with the student's link to NetTutor is logged. The list of those courses is included as Appendix.

Overall Course Success
The course success rate of students who used NetTutor is 10 percentage points higher than the college average and even higher than the matched courses.
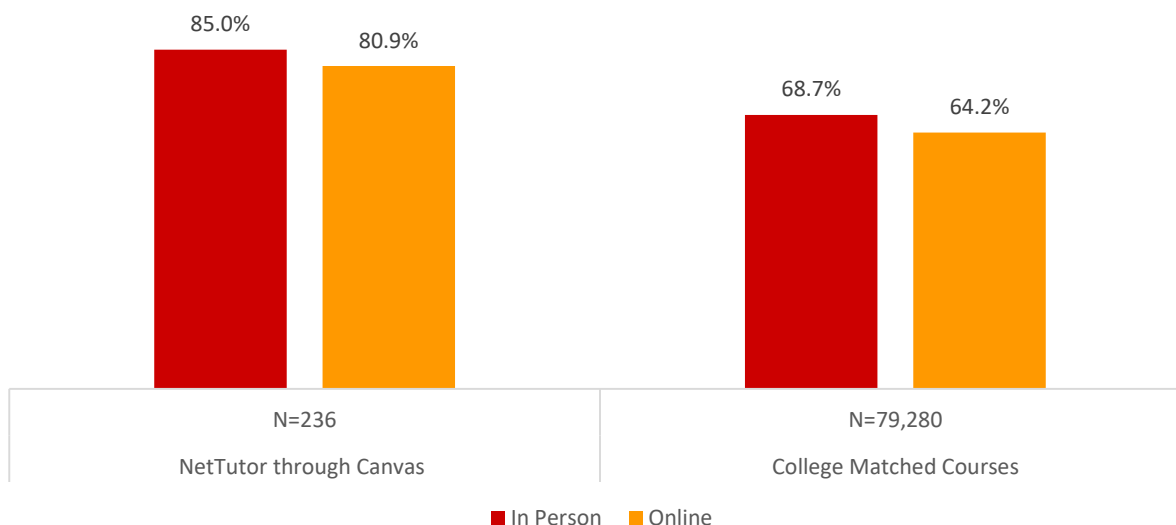
Chart 7: Overall course success, Fall 2016 – Spring 2018

83.5% — N=236 — NetTutor through Canvas

68.0% — N=79,280 — College Matched Courses
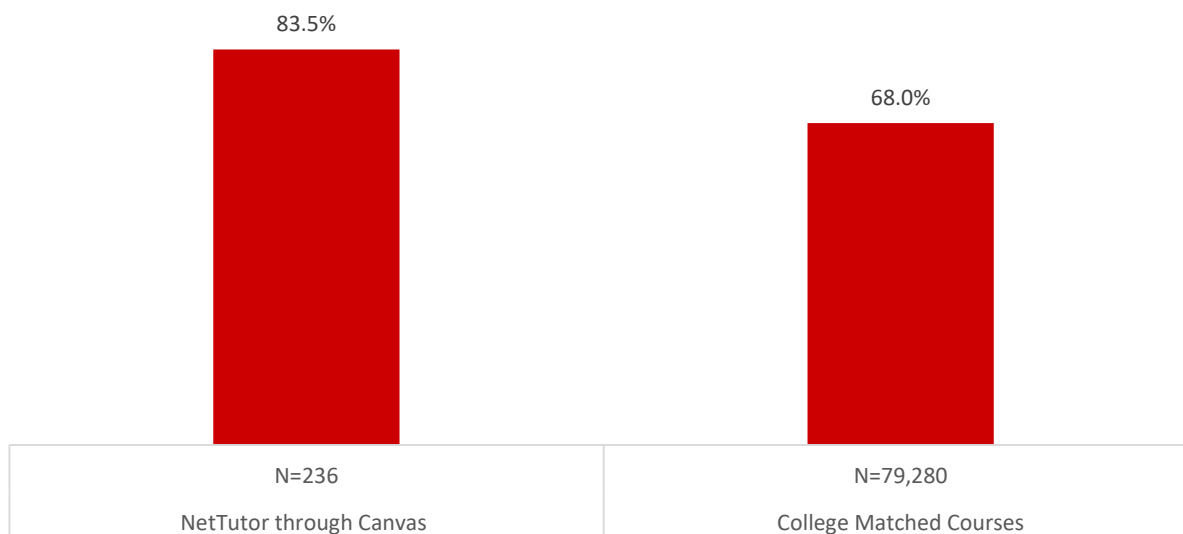
Course success by online or in person

At CCSF online courses on average have a lower course success rates than in person courses. The same finding is true for students who received tutoring via NetTutor.

Chart 8: Course Success by course modality, Fall 2016 – Spring 2018

|	NetTutor through Canvas	College Matched Courses
In Person	85.0%	68.7%
Online	80.9%	64.2%
N	N=236	N=79,280

In Person   Online

Is there an equity gap in course success?

When course success is disaggregated by ethnicity all groups are not completing at the same rate. Ideally, all groups would be passing their courses as the same rate as the average course success rate. At CCSF, the ethnicity groups with equity gaps are American Indian/Alaskan Native, African American, Latino, Pacific Islander, and Filipino students.

Among the students using NetTutor through Canvas, there is no equity gap for Latino students, but there was still a significant gap for African American students.

Chart 9: Course success by student ethnicity for NetTutor users (N=236) Fall 2016 – Spring 2018

African American*	Asian	Latino*	Two or more Races	White	Total
68.8%	88.0%	83.9%	80.0%	87.8%	83.5%
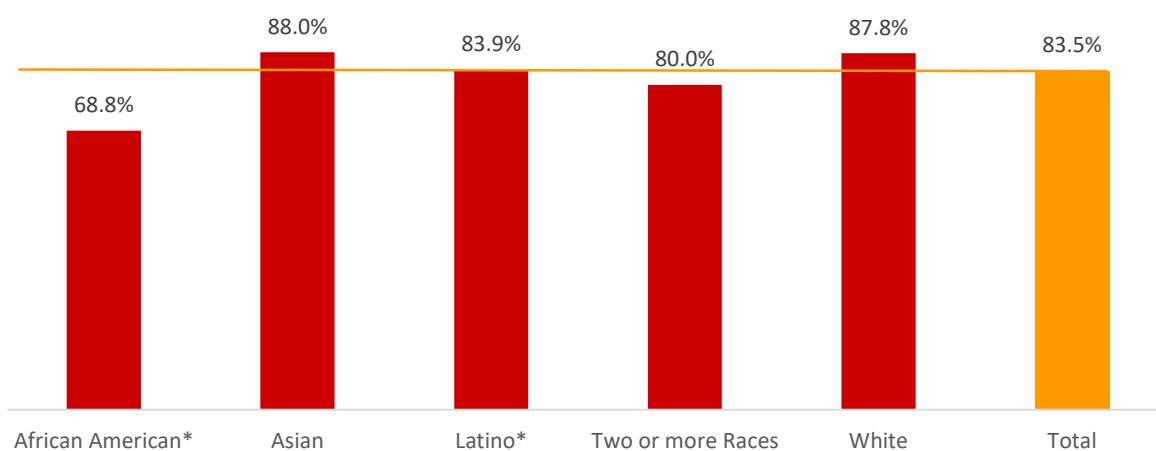
* CCSF Student Equity Populations
**Course success for ethnicity groups with very few student (American Indian/Alaskan Native, Filipino, Pacific Islander and unknown) are not displayed to protect the privacy of students.

METHODOLOGY

Considerations

Self-Selection Bias
Self-section bias happens when individuals decide to participate in, or "self-select" into, a group. In this case, students who received tutoring through NetTutor self-selected into tutoring. This self-selection makes it difficult to determine if the differences between the NetTutored group and the comparison group are due to the tutoring they received or the type of students who choose to go to tutoring.

Total unique count of students
The unique count is difficult to tease out because some emails are associated with multiple NetTutor account IDs, with differing names. Without a definitive unique identifier, we are unable to determine which is the same person with different accounts and who are different people using the same email address. The unique count of emails was used as a proxy for the number of students.

Excluded Data
- Two students logged into NetTutor through Canvas for a noncredit course. The students were excluded from the Course Success section but included in the student demographics section.
- Faculty emails (ccsf.edu) were excluded all together
- Students who were not enrolled in a course during the term they logged into NetTutor were excluded from the Course Success section.
- Any invalid CCSF student ID's were excluded. If the email address did not match an email address in Banner the students were excluded.

Time
Students received tutoring through NetTutor for varying lengths of time, anywhere from 1min upward. All tutoring sessions were included in the research brief.

SOURCE

NetTutor (MPONTIOUS.NETTUTOR) Attached to Banner SIS (GOREMAL, SHRTCKN, SHRTCKG, CLIN.SWBRBKG, CLIN.SWBRSUP)

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Micheline Pontious, Research Analyst

APPENDIX

All of the courses in the table below are the course students on NetTutor received tutoring. These are only the courses where students log in through Canvas.

AAPS 104	CINE 23A	ENGL 88	LALS 14	PHYC 2AC
ACCT 1	CNIT 106	ENGL 91	LERN 50	PHYC 2AL
ACCT 2	CS 101	ENGL 93	LGBT 50	PHYC 4A
ACCT 51	CS 177	ENGL 95	LIS 10	PHYC 4AL
ADMJ 62	CS 231	ENGL 1A	MATH 40	PHYC 4B
ART 102	CS 270	ENGL 1B	MATH 45	PHYC 4BL
ART 106	CS 110A	ENGL 1C	MATH 60	PHYC 4C
ART 108	CS 110B	ENGL 88B	MATH 80	PHYS 12
ASAM 10	CS 111A	ENGN 38	MATH 90	POLS 1
ASTR 4	CS 111B	ENGN 10A	MATH 115	PSYC 1
BCST 119	CS 111C	HIST 17A	MATH 110A	PSYC 5
BIO 9	CS 130A	HLTH 10	MATH 110B	PSYC 11
BIO 19	CS 131A	HLTH 52	MRKT 122	PSYC 17
BIO 120	CS 151A	HLTH 82	MRKT 170	R E 181
BSL 1	CS 155A	HLTH 170	NURS 56	SOC 1
BSL 2	CS 160B	HLTH 175	PHST 20	SPCH 1A
BSMA 68	CS 230W	HLTH 177	PHYC 10	VMD 122
CDEV 67	ECON 3	HUM 7	PHYC 40	
CHEM 32	ECON 5	IDST 50	PHYC 41	
CINE 21	EMTP 122	INTR 163	PHYC 10L	
CINE 20A	ENGL 86	LALS 1	PHYC 2A	