

# Classroom Tutoring Student Demographics and Outcomes Fall 2015 - Summer 2018

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#### **Executive Summary**

As one component of the Proyecto Éxito grant evaluation, the present study was conducted as a follow-up to previous reports which examined the implementation of the Classroom Tutoring (CT) program at San Diego Mesa College. As in previous studies, the current study examines student access to Classroom Tutoring (CT) by student demographics and compares outcomes of students who attended and did not attend CT sessions.

- 1. Across all sections: comparing the demographics and outcomes of CT sections and Non-CT sections of the same course.
- 2. Within CT sections: comparing the demographics and outcomes of students in the CT sections by whether or not they accessed the CT outside of class.

To this end, student demographics, course enrollment, and grade data were obtained from the SDCCD information system for students enrolled in CT-designated course sections during Fall 2015 through Summer 2018 semesters. Additionally, Classroom Tutoring attendance data were provided by the CT Coordinator and then linked to student enrollment information. The project centered on the following research questions:

- Do students who participate in Classroom Tutoring differ, demographically and academically, from students who do not?
- Do students who participate in Classroom Tutoring perform better in their CTassigned courses than students who do not participate in CT?

Spring 2018 and Summer 2018 terms are the latest terms added to this iteration of the CT report. A summary of the study's findings is provided on the following pages. Data tables illustrating detailed findings are provided in Appendix A. General Campus data corresponds to headcount disaggregated by student characteristics.



#### **Across All Sections**

### Methodology

- All CT sections were compared with all non-CT sections of the same course.
- CRN and term list provided by CT coordinator were merged with enrollment records.
- Comparison courses include sections of the same course taught during the same term.
- Excluded Sections: ACP, Legacy/CCAP, SDSU, UCSD, Honors Contracts, cancelled classes, and Intersession.
- Excluded enrollments: students who dropped before census or do not have a valid grade on record.

#### Access

- Overall: There was no significant difference between the age, ethnicity, gender, or first generation status of students who enrolled in CT sections versus those enrolled in non-CT sections of the same course.
- Ethnicity (Table 1.1): The representation of each ethnic group in the courses examined (CT and non-CT) was slightly different than their representation on the campus as a whole. Latinx students represented 41% of courses examined, compared to a lower 35% across campus. On the other hand, white students represented 30% of courses examined, compared to a higher 33% across campus. Overall, there was not a significant difference in the representation of each ethnic group in the CT vs. Non-CT sections. Some individual terms showed slight disparities in access by ethnicity (all less than five percentage points), however, when the terms are collapsed, no ethnic group representation in CT sections was more than one percentage point different than their representation within the non-CT sections.
- Gender (Table 1.2): The gender representation in the courses examined (CT and non-CT) was slightly different than the gender representation of the campus as a whole. The courses examined had a slightly higher percent of males (49%) than what is seen on campus during the same terms (46%). Summer 2018 saw significantly lower representation of females in CT sections (47%) as compared to their representation in non-CT sections (56%). A similar trend occurred in Summer 2016, when females represented 50% of CT sections versus 56% of non-CT sections. However, when combining all terms together, the difference in representation of each gender in CT sections and non-CT sections was less than one percentage point.
- <u>Age (Table 1.3 and 1.4)</u>: The representation of students age 18-24 is significantly higher in the CT-sections (73%) as compared to the general campus (58%). However, within the courses examined, the representation of each age group in the CT sections was comparable to that in the non-CT sections (within two



percentage points). Within individual terms, the average age of students in the CT sections was less than one year difference to that of non-CT sections, with the exception of Summer 2016 where students in the CT sections had an average age of 25 compared to 23.1 for non-CT sections.

#### Outcomes

- Overall: There seems to be a modest improvement in success rate in CT sections as compared to non-CT sections. In aggregate, the success rate of all CT sections during the reporting period was 68% compared to 64% for non-CT sections. Retention rate and GPA also were moderately higher for CT sections as compared to non-CT sections.
- <u>Term (Table 2.1)</u>: When examining each term independently, Spring 2016 was the only term for which the CT section success rate (56%) was lower than the non-CT sections success rate (63%). The terms that had the largest gains in success rate for CT sections were Summer 2017 (six percentage points), Spring 2018 (five percentage points), and Fall 2018 (six percentage points).
- <u>Subject (Table 2.2)</u>: The CT intervention had mixed results across subjects. There were five subjects where the success rates in the CT sections were below those of the non-CT sections and six subjects where the CT sections had higher success rates. The subjects with the greatest differences in success rates were Psychology (+14 percentage points), French (-eight percentage points), and Accounting (-seven percentage points). However, each of these subject areas only had between one to three CT sections. The subjects with the largest number of CT sections and therefore with the largest sample of students were Math (54 CT sections) and English (14 CT sections). Math students in the CT sections had a seven percentage point increase in success rate and English students a three percentage point increase in comparison to their non-CT counterparts.
- <u>Course (Table 2.3)</u>: Excluding specific courses with less than three CT sections, MATH104 had the greatest gain for CT sections (nine percentage points) over non-CT sections, followed by CHEM152 (eight percentage points), and ACCT116A (seven percentage points). On the other end of the spectrum, ASTR101 and ANTH102 showed lower success rates for CT sections than non-CT sections (negative six and negative five percentage points, respectively). Among courses with only one or two sections, ENGL043 showed the greatest gain for CT-sections than non-CT sections (21percentage points), while BIOL160 CT-sections had the greatest gap in success rate (15 percentage points lower) compared to the non-CT sections.
- Ethnicity (Table 2.4): The groups with the largest representation in the CT sections and therefore the largest samples were Latinx students (n= 1,802) and white students (n=1,317). Three groups had fewer than 100 enrollments in the CT sections, American Indian (n=12), Pacific Islander (n= 25), and Unreported (n= 66); therefore results should be interpreted with caution. Of the groups with robust sample sizes, Latinx students in CT sections saw the largest gains



compared to non-CT sections (four percentage points), closely followed by white students (3.7 percentage points). With the exception of students with unreported ethnicities, all groups in CT sections had a net advantage in terms of success than students in non-CT sections. For both CT and non-CT sections, success rates greatly varied by ethnicity. For instance, although both Latinx and white students in CT sections had a success rate about four percentage points higher than their counterparts in non-CT sections, success rates for Latinx students in both CT and non-CT sections were 11percentange points lower than the success rates of white students. Moreover, the equity gaps (the difference between the group's success rate and the overall success rate) for Latinx students in CT and non-CT Latinx students remained at five percentage points. Furthermore, African American students in CT sections had a larger equity gap (11 percentage points) than African American students in non-CT sections (nine percentage points).

 Gender (Table 2.5): Both males and females saw moderate improvements in success rates in CT sections as compared to non-CT sections (four and three percentage points, respectively). There was an apparent small equity gap, with males succeeding at rates below the overall rate in both CT and non-CT sections ((negative one and two percentage points, respectively).

#### Within CT Sections

### Methodology

- This analysis focuses on CT sections only and compares those who attended CT sessions outside of class with those who did not. Those who attended CT sessions outside of class are referred to as "CT users" in this report.
- Attendance reports received from CT coordinator were merged with enrollment records.
- Attendance reports include CT name, student name, CSID, and session dates.
- CT coordinator provided crosswalk between CRN and CT name.
- Data were restructured so that CRNs were mapped to the session record and unduplicated at the Student/CRN level so that each student's record indicated a total number of sessions attended for the course.
- Excluded enrollments: students who dropped before census or those who do not have a valid grade on record.
- Note: There were 166 instances where students in the CT attendance reports
  were not enrolled in the section with CT's assigned to them. These students were
  not included in the "within section" analysis. They were however, part of the
  "across section" analysis and may influence the outcomes for sections
  designated as "non-CT" as they were enrolled in non-CT sections.



#### Access

- Overall (Table 4.1): Within CT sections, students had the option of accessing the CT outside of class hours. Across all terms and courses, 31% of students in the CT sections opted to access the CT outside of class (n = 1,367), these CT users had an average of 6.3 visits with the CT. The percentage of students that accessed the CT outside class hours and the average number of visits are higher in the summer terms (9-28 percentage points higher than the overall access rate). However, enrollments, and therefore the sample size, are considerably smaller during the summer.
- Ethnicity (Table 3.1): Latinx students represented 43% CT users, compared to 40% of non-CT users. Asian students represented eight percent of CT users, compared to 11% of non-CT users. For all other ethnic groups, the representation of CT users and non-CT users only varied by two percentage points or less. Within CT users, the average number of visits across ethnicity was between five and seven for African Americans (n=122), Filipino (n=43), Latinx (n=589), and white students (n=409). American Indian students accessed the CT an average of 18.5 times (n=4) and students in the 'other' ethnic group accessed the CT an average of 7.4 times (n=20). Asian students accessed the CT 4.7 times (n=108) and Pacific Islander students 2.4 visits times (n=20).
- Gender (Tables 3.2 & 4.5): Females appeared to be more likely to access the CT than males, with 34% of females accessing the CT compared to 28% of males. Moreover, females represented 55% of CT users, compared to 49% of non-CT users. The average number of visits by those who accessed the CT was not significantly different across gender.
- Age (Tables 3.3 & 4.5): Students under age 18 and 18 to 24 years old accessed the CT at lower rates than students of other age groups (30% and 28%, respectively). However, 18 to 24 year old students represented 65% CT users and 77% of non-CT users. Students 40 to 49 years old had the highest rate of participation (49%) and the greatest average number of visits (10.8). Students 25 to 39 years old had a higher representation (four percentage points) among students accessing CT than among those who did not. All other groups were comparable regardless of CT access status.
- <u>Subject (Table 3.4 & 4.3)</u>: The percent of students across subject areas who accessed the CT outside class hours ranged from 15% (Anthropology) to 59% (French) of students enrolled in CT sections. Representation between CT users and non-CT users was similar for all subjects (within three percentage points), with the exception of Math (10 percentage points higher) and Astronomy (four percentage points lower) than non-CT users. Students studying Chemistry had the greatest number of average visits at 8.5.
- <u>Course (Table 3.5 & 4.3)</u>: Students in FREN101 CT sections had the highest percentage of CT users (59%) while students in ENGL 043 had the lowest (11%). MATH104 and CHEM152 students both had the highest average number of visits

Sources: SDCCD Information System and SARS Attendance Reports.

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(8.8 and 8.6, respectively), although the access rates for these courses was below the overall rate of 31% (20% and 24%, respectively).

#### Outcomes

- Overall: CT users had higher success rates (77%) than non-CT users (63%). Students with more than 10 visits saw the highest rate of success rates at 86%, followed by students with both 3-5 and 6-10 visits, both at 79%. With the exception of Summer 2018, CT users showed higher success rates than non-CT users each term. However, it is important to note that Summer 2018 non-CT users had a higher than usual success rate, which likely contributed to the seemingly lower performance of CT users when compared to non-CT users.
- <u>Subject (Table 4.2)</u>: The subjects with the largest positive difference in success rates between CT users and non-CT users were French (29 percentage points higher), Geography (28 percentage points higher), Anthropology (28 percentage points higher), and Geology (26 percentage points higher). English to Speakers of Other Languages (ESOL) was the only subject with lower success rates among CT users than non-CT users (13 percentage points lower). However, there has been only once CT section for ESOL and therefore the sample size remains small (n=25). Interestingly, there were no significant correlations across subject with regard to the average number of CT visits by users or the percent of students who used the CT and the success rate of the courses within that subject. However, there was a significant positive correlation between the percentage of students accessing CT after class hours and GPA (r=.590, p <.05).
- Course/Section (Table 4.3): At the section level, however, there is a moderate significant positive correlation between the number of students who accessed the CT and the overall success rate of that section (r= .264, p <.01). Additionally, there is a significant positive correlation between the number of students who access the CT and the GPA for that section (r= .353, p<.01). The total number of visits also had a modest significant positive correlation with overall success rate (r = .204, p >.05) and a significant correlation with GPA (r = .325, p>.01). Moreover, there was a modest significant correlation between the percentage of students accessing CT after class hours and both overall success rate (r=.204, p >.05) and GPA (r=.325, p <.01). However, neither total number of visits or percent of students accessing CT outside of class were correlated with CT user success rates at a significant level.
- Math and English courses were analyzed in aggregate at the subject, course, and section levels. Math and English were the only subjects with more than two distinct courses participating in the CT program during the reporting period. ENG043 and ENG049 only included one section each, therefore additional analysis for these courses was not included at the course level. ENG047A and ENG101 showed similar gains in success rate for CT users compared to non-CT users (23-25 percentage points), suggesting that the CT program was effective for both courses. The changes in success rate for CT users in various Math courses ranged from a



seven percentage point decline in MATH046 to a 15 percentage point gain in MATH116.

- Ethnicity (Table 4.4): Every ethnic group with the exception of those with unreported ethnicity saw an increase in success rates for students who accessed the CT outside class hours as compared to those who did not. Filipino students who accessed the CT outside of class saw the greatest gains compared to their non-CT user counterparts (18 percentage points higher). They were followed by Pacific Islander (17 percentage points higher), white (17 percentage points higher), Latinx (16 percentage points higher), and African American (13 percentage points higher) CT users (American Indian students were excluded from this analysis due to their small sample size). Moreover, students of most ethnic groups who accessed the CT outside of class increased their success rates above the overall success rate for CT sections. African American students were the only exception, falling three percentage points below the overall success rate. Despite these gains, equity gaps persisted for both CT users and non-CT users. For instance, the success rate for Latinx students in the CT courses examined was five percentage points below the overall success rate. When isolating CT users, the equity gap declined to negative four percentage points for Latinx students. For African American students in CT sections, the overall equity gap was -11 percentage points and -12 percentage points among CT users only. African American students had above average participation rates, with 37% of students accessing the CT outside of class, averaging 6.8 visits. Yet, African American students' success rate was 12 percentage points below the overall success rate for both CT users and non-CT users.
- Gender (Table 4.5): Both females and males showed significant gains for CT users compared to non-CT users (14 and 13 percentage points higher, respectively). The equity gap between the genders was within two percentage points for all groups. A greater portion of female students (34%) accessed the CT than male students (28%). However, males who accessed the CT had slightly more visits on average (6.5) compared to females (6.1).

#### **Conclusion and Recommendations**

Overall, access to CT sections and to the class room tutors outside of class seem to reflect the general representational access to the courses included in the analysis. Additionally, the CT program appears to have an overall positive impact on success rates. However, the level of improvements in success rates varies by subject area, course, and section. Multiple factors could be contributing to this variation. For instance, not all CT courses have had the same number of iterations. For this reason, one should be cautious when drawing conclusions about CT sections with smaller sample sizes. Variation in success may also reflect inconsistencies in the implementation of the program in each classroom or in the characteristics of students who choose to access the CT. One possible scenario might involve messaging from



faculty that encourages students who are "struggling" to use the CT, thereby improving the success rate for a group of students who may not have otherwise passed. Alternatively, there may be messaging around CT use that draws high performing students, thereby increasing the success rate of an already high performing group and widening the gap between users and non-users.

Over the nine terms included in this study, CT sections result in a higher success rates than non-CT sections. Moreover, within CT sections, it is those students who access the CT outside of class that achieve higher success rates. There were two exceptions to these trends:

- (1) [Across all sections] in Spring 2016 non-CT sections had a higher success rate than CT sections, and
- (2) [Within CT sections] in Summer 2018, non-CT users had higher success rates than CT users.

While on the surface the CT program seemed to underperform in Spring 2016, the success rate of CT-users (71%) not only greatly exceeded the success rate of the students in the same sections that choose not to access the CT outside of class (48%), but also the success rate of students in non-CT sections (63%). The Spring 2016 exception could be attributed more to the lower than usual success rate of non-CT users observed in this term. The performance of non-CT users in CT sections may also have had an effect in the seemingly lower success rate of CT-users in Summer 2018; non-CT users achieved a higher success rate in Summer 2018 (87%) than in any of the other term included in this study. This higher rate than usual success rate had the effect of undermining the success of CT-users when compared side-by-side. Nonetheless, CT-users still performed well in Summer 2018, achieving a higher success rate (83%) than in the majority of terms examined and a higher success rates than non-CT sections in that term (80%).

By comparing the success rates of CT-users to the success of students in non-CT sections, CT-users consistently achieved higher rates in all of the terms examined. The same is true across all subjects, across courses (except ENG049 and MATH046), across ethnicities (except unreported), gender, and age groups.

While many ethnic groups experienced positive gains when enrolled in CT sections and/or accessing the CT outside class, equity gaps remained. This was especially evident among African American students (see Table 2.4). Addressing equity gaps should remain of central focus as the program is explicitly intended to support historically underserved student groups.



# Appendix A: Data Summary Tables for CT Student Demographics and Course Outcomes

## **Across All Sections: ACCESS**

Table 1.1

Ethnicity	СТ	Non-CT	General Campus
African American	8%	7%	7%
American Indian	<1%	<1%	<1%
Asian	10%	9%	11%
Filipino	4%	4%	5%
Latinx	41%	41%	35%
Pacific Islander	1%	1%	1%
White	30%	30%	33%
Other	6%	6%	6%
Unreported	1%	2%	2%

Table 1.2

Gender	СТ	Non-CT	General Campus
Female	51%	51%	54%
Male	49%	49%	46%

Table 1.3

Age	СТ	Non-CT	General Campus
Under 18	1%	1%	5%
18 - 24	73%	71%	58%
25 - 29	16%	16%	21%
30 - 39	7%	9%	15%
40 - 49	2%	2%	5%
50 and >	1%	1%	4%

Table 1.4

Average Age	СТ	Non-CT
FA15	22.7	22.6
SP16	23.5	23.5
SU16	25	23.1
FA16	23	22.9
SP17	23	23.6
SU17	24	24.5
FA17	22.8	23.5
SP18	23.3	23.9
SU18	23.2	24.1



# Across All Sections: Outcomes

Table 2.1

	Section	n Count	Enroll	ments	Avera	ge Size	Retenti	on Rate	GF	PA		Success R	ate
Term	СТ	Non- CT	СТ	Non- CT	СТ	Non- CT	СТ	Non- CT	СТ	Non- CT	СТ	Non-CT	Difference
FA15	9	126	251	3,185	27.9	25.3	88%	87%	2.57	2.53	72%	70%	2%
SP16	18	138	575	3,683	31.9	26.7	81%	84%	2.21	2.35	56%	63%	-7%
SU16	3	2	133	78	44.3	39	86%	90%	2.71	2.46	73%	71%	2%
FA16	15	112	609	4,498	40.6	40.2	87%	85%	2.30	2.29	65%	61%	4%
SP17	22	134	890	4,980	40.5	37.2	87%	83%	2.43	2.30	65%	61%	4%
SU17	5	17	191	562	38.2	33.1	89%	89%	3.05	2.74	83%	77%	6%
FA17	15	137	631	5,007	42.1	36.5	89%	86%	2.48	2.45	70%	66%	4%
SP18	25	185	891	6,431	35.6	34.8	86%	84%	2.46	2.34	67%	62%	5%
SU18	7	12	257	388	36.7	32.3	94%	92%	3.05	2.70	85%	80%	6%
Overall	119	863	4428	28,812	37.2	33.4	87%	85%	2.49	2.38	68%	64%	4%

Table 2.2

Table 2.2													
	Section	n Count	Enroll	ments	Averag	ge Size	Retention	on Rate	GF	PA		Success R	ate
Subject	СТ	Non- CT	СТ	Non- CT	СТ	Non- CT	СТ	Non- CT	СТ	Non- CT	СТ	Non-CT	Difference
ACCT	3	30	133	1,080	44.3	36	90%	85%	3.05	2.77	77%	69%	7%
ANTH	4	36	176	1,180	44	32.8	85%	87%	1.94	2.16	55%	60%	-5%
ASTR	9	34	382	1,308	42.4	38.5	79%	82%	1.97	2.15	51%	57%	-6%
BIOL	12	83	277	1,941	23.1	23.4	83%	85%	2.32	2.37	63%	66%	-2%
CHEM	8	35	377	1,707	47.1	48.8	92%	90%	2.70	2.53	78%	72%	5%
ENGL	14	211	335	4,929	23.9	23.4	89%	86%	2.61	2.55	72%	69%	3%
ESOL	1	-	25	-	25	-	88%	-	2.86	-	80%	-	-
FREN	1	5	29	124	29	24.8	72%	80%	2.95	2.86	59%	66%	-8%
GEOG	7	23	278	781	39.7	34	86%	86%	2.61	2.31	68%	62%	5%
GEOL	4	12	154	446	38.5	37.2	96%	89%	2.59	2.62	75%	73%	2%
MATH	54	330	2174	12,984	40.3	39.3	87%	83%	2.48	2.31	68%	61%	7%
PSYC	2	64	88	2,332	44	36.4	94%	88%	2.54	2.29	75%	61%	14%



Table 2.3

	Section	n Count	Enrolli	ments	Avera	ge Size	Retentio	on Rate	GF	PA		Success R	ate
Course	СТ	Non- CT	СТ	Non- CT	СТ	Non- CT	СТ	Non- CT	СТ	Non- CT	СТ	Non-CT	Difference
ACCT116A	3	30	133	1,080	44.3	36	90%	85%	3.05	2.77	77%	69%	7%
ANTH102	4	36	176	1,180	44	32.8	85%	87%	1.94	2.16	55%	60%	-5%
ASTR101	9	34	382	1,308	42.4	38.5	79%	82%	1.97	2.15	51%	57%	-6%
BIOL107	10	78	239	1,830	23.9	23.5	86%	86%	2.41	2.38	68%	67%	1%
BIOL160	2	5	38	111	19	22.2	66%	69%	1.52	2.12	34%	50%	-15%
CHEM100	3	14	119	685	39.7	48.9	91%	89%	2.31	2.45	71%	72%	-1%
CHEM152	5	21	258	1,022	51.6	48.7	93%	91%	2.88	2.59	81%	72%	8%
ENGL043	1	11	27	255	27	23.2	96%	82%	2.96	2.21	82%	60%	21%
ENGL047A	7	30	165	720	23.6	24	87%	89%	2.60	2.39	70%	68%	3%
ENGL049	1	26	26	649	26	25	100%	88%	2.12	2.60	77%	73%	4%
ENGL101	5	144	117	3,305	23.4	23	87%	85%	2.65	2.61	70%	69%	1%
ESOL045	1	-	25	-	25	-	88%	-	2.86	-	80%	-	-
FREN101	1	5	29	124	29	24.8	72%	80%	2.95	2.86	59%	66%	-8%
GEOG101	7	23	278	781	39.7	34	86%	86%	2.61	2.31	68%	62%	5%
GEOL100	4	12	154	446	38.5	37.2	96%	89%	2.59	2.62	75%	73%	2%
MATH046	2	26	80	1,014	40	39	81%	80%	1.36	1.97	40%	52%	-12%
MATH092	16	70	553	2,347	34.6	33.5	90%	86%	2.35	2.40	71%	68%	3%
MATH096	11	69	439	2,741	39.9	39.7	83%	81%	2.37	2.14	62%	57%	5%
MATH104	5	35	225	1,353	45	38.7	88%	80%	2.43	2.33	65%	56%	9%
MATH116	9	46	341	1,917	37.9	41.7	84%	83%	2.52	2.41	63%	63%	0%
MATH119	9	83	438	3,569	48.7	43	89%	85%	2.86	2.51	77%	65%	13%
MATH141	2	1	98	43	49	43	95%	93%	3.21	2.63	89%	77%	12%
PSYC101	2	64	88	2,332	44	36.4	94%	88%	2.54	2.29	75%	61%	14%



Table 2.4

Ethnicity	Enroll	ments	Retenti	etention Rate GF			Success Equity Succes			Success	Rate
	СТ	Non-CT	СТ	Non-CT	СТ	Non-CT	СТ	Non-CT	СТ	Non-CT	Difference
African American	333	1,955	84%	82%	1.99	1.98	-11%	-9%	57%	55%	2%
American Indian	12	87	92%	84%	2.91	2.37	16%	-3%	83%	61%	22%
Asian	439	2,525	92%	89%	2.87	2.83	10%	11%	78%	75%	3%
Filipino	187	1,212	85%	85%	2.59	2.50	2%	3%	70%	66%	3%
Latinx	1,802	11,827	85%	83%	2.26	2.14	-5%	-5%	63%	59%	4%
Pacific Islander	25	191	88%	81%	2.17	2.22	-8%	-4%	60%	60%	<1%
White	1,317	8,753	89%	86%	2.76	2.64	6%	6%	73%	70%	4%
Other	247	1,817	89%	85%	2.48	2.26	-1%	-3%	67%	61%	6%
Unreported	66	445	92%	89%	2.56	2.86	4%	11%	71%	75%	-4%
Overall	4,428	28,812	87%	85%	2.49	2.38	-	-	68%	64%	4%

Table 2.5

Gender	Enroll	ments	Retenti	on Rate	GI	PA		SS Equity Success Rate			Rate
	СТ	Non-CT	СТ	Non-CT	СТ	Non-CT	СТ	Non-CT	СТ	Non-CT	Difference
Female	2,247	14,680	88%	85%	2.52	2.44	1%	2%	69%	65%	3%
Male	2,181	14,132	86%	84%	2.45	2.32	-1%	-2%	66%	62%	4%
Overall	4,428	28,812	87%	85%	2.49	2.38	-	-	68%	64%	4%

Table 2.6

Age	Enroll	ments	Retenti	etention Rate GPA Success Equity Gap		Retention Rate		' '   Su		Success	Rate
	СТ	Non-CT	СТ	Non-CT	СТ	Non-CT	СТ	Non-CT	СТ	Non-CT	Difference
Under 18	30	233	93%	91%	3.58	2.73	23%	10%	90%	74%	16%
18 - 24	3,246	20,452	87%	85%	2.35	2.28	-2%	-1%	65%	63%	3%
25 - 29	689	4,665	87%	84%	2.80	2.54	6%	1%	73%	65%	8%
30 - 39	323	2,461	88%	84%	2.89	2.75	9%	6%	77%	70%	7%
40 - 49	96	650	82%	85%	2.85	2.80	5%	6%	73%	70%	3%
50 and >	44	351	80%	82%	2.50	2.68	-11%	4%	57%	68%	-11%
Overall	4,428	28,812	87%	85%	2.49	2.38	-	-	68%	64%	4%



# Within CT Sections: Access

Table 3.1

Ethnicity	Number	of Visits	Percent of I	Enrollments
Ethnicity	Used CT	Did not use CT	Used CT	Did not use CT
African American	6.8	0	9%	7%
American Indian	18.5	0	0%	0%
Asian	4.7	0	8%	11%
Filipino	5.6	0	3%	5%
Latinx	6.6	0	43%	40%
Pacific Islander	3.2	0	1%	0%
White	6.1	0	30%	30%
Other	7.4	0	5%	6%
Unreported	5.8	0	1%	2%

Table 3.2

Gender	Number	of Visits	Percent of Enrollments				
Gender	Used CT	Did not use CT	Used CT	Did not use CT			
Female	6.1	0	55%	49%			
Male	6.5	0	45%	51%			

Table 3.3

14616 313						
۸۵٥	Number	of Visits	Percent of Enrollments			
Age	Used CT	Did not use CT	Used CT	Did not use CT		
Under 18	5.6	0	1%	1%		
18 - 24	5.7	0	65%	77%		
25 - 29	6.2	0	18%	14%		
30 - 39	8.7	0	10%	6%		
40 - 49	10.8	0	3%	2%		
50 and >	7.3	0	2%	1%		



Table 3.4

Subject	Number	of Visits	Percent of I	Enrollments
Subject	Used CT	Did not use CT	Used CT	Did not use CT
ACCT	6.4	0	3%	3%
ANTH	4.3	0	2%	5%
ASTR	5.7	0	6%	10%
BIOL	6.8	0	7%	6%
CHEM	8.5	0	7%	9%
ENGL	4.6	0	9%	7%
ESOL	3.8	0	1%	0%
FREN	4.9	0	1%	0%
GEOG	4.6	0	5%	7%
GEOL	3.3	0	2%	4%
MATH	6.8	0	56%	46%
PSYC	2.6	0	1%	2%

Table 3.5

Course	Number	of Visits	Percent of I	Enrollments
Course	Used CT	Did not use CT	Used CT	Did not use CT
ACCT116A	6.4	0	3%	3%
ANTH102	4.3	0	2%	5%
ASTR101	5.7	0	6%	10%
BIOL107	7.4	0	6%	5%
BIOL160	3.5	0	1%	1%
CHEM100	8.4	0	2%	3%
CHEM152	8.6	0	4%	6%
ENGL043	1.0	0	0%	1%
ENGL047A	3.8	0	6%	3%
ENGL049	2.3	0	0%	1%
ENGL101	6.7	0	3%	2%
ESOL045	3.8	0	1%	0%
FREN101	4.9	0	1%	0%
GEOG101	4.6	0	5%	7%
GEOL100	3.3	0	2%	4%
MATH046	5.3	0	1%	2%
MATH092	6.7	0	15%	11%
MATH096	7.7	0	14%	8%
MATH104	8.8	0	3%	6%
MATH116	5.3	0	7%	8%
MATH119	6.6	0	11%	9%
MATH141	6.4	0	3%	2%
PSYC101	2.6	0	1%	2%



## Within CT Sections: Outcomes

Table 4.1

Term	Enrollments		Retention Rate		GF	GPA		Success Rate			Total Visits	% Used
Tellii	Used CT	Did not use CT	Used CT	Did not use CT	Used CT	Did not use CT	Used CT	Did not use CT	Difference	Used CT	Used CT	СТ
FA15	77	174	92%	86%	2.79	2.46	78%	70%	8%	6.5	503	31%
SP16	205	370	92%	76%	2.43	2.04	71%	48%	22%	5.7	1175	36%
SU16	78	55	90%	80%	2.88	2.44	81%	62%	19%	6.9	541	59%
FA16	176	433	88%	87%	2.48	2.23	69%	64%	6%	5.1	893	29%
SP17	256	634	93%	85%	2.71	2.31	77%	60%	17%	6.7	1727	29%
SU17	77	114	94%	85%	3.28	2.89	90%	78%	12%	7.3	560	40%
FA17	149	482	93%	87%	2.85	2.36	83%	65%	18%	6.7	1000	24%
SP18	247	644	89%	85%	2.66	2.38	75%	64%	11%	6.2	1524	28%
SU18	102	155	93%	94%	2.95	3.11	83%	87%	-3%	7	712	40%
Overall	1367	3061	91%	85%	2.70	2.37	77%	63%	14%	6.3	8635	31%

Table 4.2

Subject	Enrollments		Retention Rate		G	GPA		Success Rate			Total Visits	% Used
Subject	Used CT	Did not use CT	Used CT	Did not use CT	Used CT	Did not use CT	Used CT	Did not use CT	Differen ce	Used CT	Used CT	СТ
ACCT	43	90	95%	87%	2.95	3.10	81%	74%	7%	6.4	276	32%
ANTH	27	149	96%	83%	2.46	1.82	78%	50%	28%	4.3	117	15%
ASTR	84	298	89%	76%	2.38	1.84	68%	46%	22%	5.7	479	22%
BIOL	94	183	93%	79%	2.64	2.12	80%	55%	25%	6.8	637	34%
CHEM	90	287	93%	92%	2.82	2.67	80%	77%	3%	8.5	767	24%
ENGL	128	207	95%	85%	2.96	2.34	83%	65%	18%	4.6	592	38%
ESOL	11	14	91%	86%	2.22	3.33	73%	86%	-13%	3.8	42	44%
FREN	17	12	82%	58%	3.21	2.43	71%	42%	29%	4.9	84	59%
GEOG	71	207	97%	82%	3.13	2.40	89%	60%	28%	4.6	330	26%
GEOL	26	128	100%	95%	3.20	2.46	96%	70%	26%	3.3	86	17%
MATH	759	1415	89%	86%	2.64	2.39	74%	65%	9%	6.8	5180	35%
PSYC	17	71	100%	93%	2.35	2.59	77%	75%	2%	2.6	45	19%



Table 4.3

Carras	Enroll	ments	Retenti	on Rate	GI	PA	S	uccess Rat	e	Average Visits	Total Visits	% Used
Course	Used CT	Did not use CT	Used CT	Did not use CT	Used CT	Did not use CT	Used CT	Did not use CT	Differen ce	Used CT	Used CT	СТ
ACCT116A	43	90	95%	87%	2.95	3.10	81%	74%	7%	6.4	276	32%
ANTH102	27	149	96%	83%	2.46	1.82	78%	50%	28%	4.3	117	15%
ASTR101	84	298	89%	76%	2.38	1.84	68%	46%	22%	5.7	479	22%
BIOL107	78	161	95%	82%	2.77	2.21	85%	60%	25%	7.4	581	33%
BIOL160	16	22	81%	55%	1.92	1.08	56%	18%	38%	3.5	56	42%
CHEM100	29	90	97%	89%	2.57	2.22	79%	69%	10%	8.4	245	24%
CHEM152	61	197	92%	93%	2.95	2.86	80%	81%	-1%	8.6	522	24%
ENGL043	3	24	100%	96%	1.67	3.14	67%	83%	-16%	1	3	11%
ENGL047A	81	84	98%	77%	2.87	2.28	83%	58%	25%	3.8	307	49%
ENGL049	3	23	100%	100%	1.67	2.18	67%	78%	-11%	2.3	7	12%
ENGL101	41	76	90%	86%	3.41	2.22	85%	62%	23%	6.7	275	35%
ESOL045	11	14	91%	86%	2.22	3.33	73%	86%	-13%	3.8	42	44%
FREN101	17	12	82%	58%	3.21	2.43	71%	42%	29%	4.9	84	59%
GEOG101	71	207	97%	82%	3.13	2.40	89%	60%	29%	4.6	330	26%
GEOL100	26	128	100%	95%	3.20	2.46	96%	70%	26%	3.3	86	17%
MATH046	20	60	75%	83%	1.50	1.32	35%	42%	-7%	5.3	105	25%
MATH092	208	345	91%	89%	2.50	2.26	77%	67%	10%	6.7	1389	38%
MATH096	198	241	85%	80%	2.61	2.17	68%	56%	12%	7.7	1525	45%
MATH104	45	180	89%	88%	2.31	2.46	67%	65%	2%	8.8	398	20%
MATH116	99	242	91%	81%	2.78	2.40	74%	59%	15%	5.3	521	29%
MATH119	153	285	90%	88%	2.97	2.80	83%	74%	9%	6.6	1010	35%
MATH141	36	62	94%	95%	3.06	3.29	86%	90%	-4%	6.4	232	37%
PSYC101	17	71	100%	93%	2.35	2.59	76%	75%	1%	2.6	45	19%



Table 4.4

Ethnicity	Enrollments		Retention Rate		GI	GPA		Success Rate			Total Visits	% Used
Limitity	Used	Did not	Used	Did not	Used	Did not	Used CT	Did not	Differen	Used CT	Used CT	СТ
	СТ	use CT	СТ	use CT	СТ	use CT	Useu Ci	use CT	ce	Useu Ci	Useu Ci	
African												
American	122	211	83%	85%	2.37	1.77	65%	52%	13%	6.8	828	37%
American												
Indian	4	8	100%	88%	3.46	2.59	100%	75%	25%	18.5	74	33%
Asian	108	331	95%	90%	2.87	2.88	82%	76%	6%	4.7	510	25%
Filipino	43	144	93%	82%	2.89	2.49	84%	65%	18%	5.6	242	23%
Latinx	589	1213	90%	82%	2.52	2.10	73%	57%	16%	6.6	3886	33%
Pacific												
Islander	10	15	90%	87%	2.74	1.73	70%	53%	17%	3.2	32	40%
White	409	908	94%	86%	3.00	2.64	85%	68%	17%	6.1	2490	31%
Other	62	185	92%	88%	2.62	2.43	71%	65%	6%	7.4	457	25%
Unreported	20	46	90%	94%	2.48	2.60	70%	72%	-2%	5.8	116	30%

Table 4.5

Candar	Enroll	ments	Retenti	on Rate	GI	PA	S	uccess Rat	e	Average Visits	Total Visits	% Used
Gender	Used CT	Did not use CT	Used CT	Did not use CT	Used CT	Did not use CT	Used CT	Did not Di	Differen ce	Used CT	Used CT	СТ
Female	755	1492	92%	86%	2.73	2.41	78%	64%	14%	6.1	4640	34%
Male	612	1569	91%	85%	2.68	2.34	75%	63%	13%	6.5	3995	28%

Table 4.6

Λαρ	Enrollments		Retention Rate		GPA		S	uccess Rat	e	Average Visits	Total Visits	% Used
Age	Used CT	Did not use CT	Used CT	Did not use CT	Used CT	Did not use CT	Used CT	Did not use CT	Differen ce	Used CT	Used CT	СТ
Under 18	9	21	100%	91%	3.68	3.53	100%	86%	14%	5.6	50	30%
18 - 24	894	2352	92%	85%	2.62	2.24	76%	61%	15%	5.7	5120	28%
25 - 29	250	439	92%	84%	2.88	2.75	80%	70%	11%	6.2	1546	36%
30 - 39	140	183	86%	90%	2.90	2.88	78%	75%	3%	8.7	1213	43%
40 - 49	47	49	85%	80%	2.80	2.91	72%	74%	-1%	10.8	509	49%
50 and >	27	17	89%	65%	2.35	2.85	59%	53%	6%	7.3	197	61%