

TUTORIAL ASSISTANCE PROGRAM

Impact of Participating in Tutoring on Academic Outcomes and Personal Growth 2010-2012



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Introduction

The Tutorial Assistance Program (TAP) in the Academic Resource Center (ARC) provides academic support for students on a walk-in basis. Students taking Mathematics, English, and other courses in high demand also have the option of scheduling one-on-one appointments with tutors. The tutoring program provides service to specific courses each quarter and offers open tutoring sessions for high demand subjects. A list of courses that have been supported by the tutoring program from fall 2010 through spring 2012 can be found in Tables 4a-5c. This report examines the academic and personal benefits the tutoring program offers its tutors and students.

Course Selection

The Tutorial Assistance Program supports many courses each quarter. Tutoring subjects selected for support have been historically based on student demand for services. More so, because the tutorial program is paid for and annually funded by the Student Services Committee (SSC) through student Registration Fees, the program monitors and reports all tutorial use to the SSC every year. For more than 10 years, tutorial support has been offered for lower division Math, Chemistry, Physics, and Writing/English classes.

In the last 5 years, TAP has developed several campus partnerships to offer additional evening and weekend services. Key among those services are evening tutoring hours offered to the housing community at Pentland Hills and athletics tutoring at the Academic Fitness Center. Humanities and social sciences courses have been supported and expanded due to consultation with the directors of African Student Programs, Chicano Student Programs, and TRIO scholars. For example, Psychology and Sociology moved from an appointment only service that was offered on a cyclical basis, to a drop-in format offered during the full academic year.

Most recently, and since 2009, TAP has developed academic partnerships with two foreign languages departments (Spanish and Italian) to offer extra credit opportunities to students in Spanish 004 and students enrolled in introductory Italian courses (1-4).

Tutors

In order to be a tutor, students must have a minimum cumulative and quarter GPA of 3.0 (B). Tutors must also hold a 3.3 GPA (B+) in their tutoring subject area. In addition, students who started as freshmen must have 5 full-time quarters of completed UCR coursework on record. Transfer students must have at least 1 full-time quarter on record. Students must also be available and enrolled at UCR for the entire school year. In addition, tutors in many subject areas must have completed a certain set of courses in order to be eligible.

Tutors are trained during the first three days of the fall quarter before courses begin. All tutors participate in a three tiered training program comprised of ARC Employee orientation (8 hours), ARC CORE training (6-8 hours), and tutor specific training (12 hours). If needed, a mid-year tutor training may also be offered if tutor evaluations, student trends, or policy and procedural changes occur.

ARC Employee orientation is completed by new employees one time. This orientation covers university and departmental work requirements, resources, and completion of the UC mandated hiring paperwork.

ARC CORE training raises awareness and creates dialogue among student employees about the delivery of academic services to a diverse college population. All student employees who are tutors, supplemental instruction leaders, office assistants, and math proctors are required to complete the ARC CORE training. Topics included in this training session were selected in consultation with the ARC management team and program coordinators for all ARC support programs. This training session discusses professionalism, ethics, diversity, and conflict resolution.

Tutors also complete TAP training which focuses on topics specific to tutoring. New tutors complete a three-day training series (3.5 hours/day) and are joined by returning tutors on the last day. TAP training reviews the role of a tutor, how tutoring works, learning styles, how to support independent learning, establishing rapport, and practicing tutoring.

Tutoring Schedule

TAP traditionally operates 8 weeks out of each academic term (fall, winter, and spring) for Math, Physics, and Chemistry and for 7 weeks for English and other subjects. Tutoring sessions are not offered during the first and last weeks of the quarter. During Summer Session, tutoring runs for 4 out of 5 weeks for sessions I and II. The program also supports Summer Bridge for all 7 weeks of the program. Over time, budget cuts have forced TAP to cut tutoring hours for most courses in half. For example, prior to 2008, English/Writing tutoring was offered for 70-80 hours per week. In 2009, budget cuts forced English/Writing tutoring to be cut to 35 hours per week.

Methodology

Evaluation of the Tutorial Assistance Program is designed to help faculty, staff and administrators better understand the impact of participation in tutoring on course performance, academic performance, and personal development. This evaluation is organized to answer the following research questions:

1. Do tutors experience an increase in their GPA from when they begin tutoring to when they finish being a tutor?
2. What personal development outcomes do tutors gain from the Tutorial Assistance Program?
3. What was the impact of participating in the Tutorial Assistance Program on course performance?
 - a. Does meeting with a tutor impact course performance?
 - b. Does the use of other ARC services impact course performance?

4. What personal development outcomes do tutees gain from the Tutorial Assistance Program?

Sample and Data Sources

This report summarizes data collected from myriad sources. User satisfaction surveys are summarized for fall 2010 through spring 2012. Data for academic outcomes and demographic background characteristics were collected from student enrollment information. Data for personal development outcomes were collected from focus groups and interviews of tutors and open-ended surveys of tutees who participated in the tutoring program between fall 2009 and spring 2013. Students' participation in tutoring and other ARC programs were recorded using AccuTrack. Students are required to sign in when using any service in the ARC. We first present general information about the tutoring program and then discuss student academic and personal development outcomes.

Tutors: Academic and Personal Development Outcomes

Table 1 displays the background characteristics of tutors who were employed by the Tutorial Assistance program from fall 2010 through spring 2012. In this time period, sixty-four undergraduate students were hired to support the tutorial assistance program. A majority of students hired are upper classmen. Most of the tutors hired are either in the College of Natural and Agricultural Sciences (CNAS) ; this reflects the high number of courses in the natural, physical, and life sciences that are supported in the ARC (see Tables 4a-5c). The College of Humanities, Arts and Social Sciences (CHASS) also supplies a large number of tutors.

We examined tutors' cumulative GPA at the time of hiring and their cumulative GPA when they left the tutoring program to determine if tutors experienced an increase due to participation in the program. We found no significant difference between entering GPA (mean=3.56) and exit GPA (mean=3.57) (see Table 2). This outcome is not surprising since most tutors are upper division students with a B+ average and GPA is less affected by additional high grades as time goes on.

To gain an understanding of benefits experienced by tutors, we conducted focus groups and interviews of 10 tutors who were employed between fall 2009 and spring 2012. The summary of their responses are included in Tables 3a through 3c. We note that tutors often chose to be employed as tutors because it is the best paying job on campus with an hourly rate over \$12.00 per hour. Students also appreciated the flexibility of their schedules and that the position allowed them to study an area of interest. Overall, tutors liked that they were able to help other students and that the job was rewarding.

Tutors felt that their communication and interpersonal skills improved because they were exposed to the challenge of explaining concepts to students of different skill levels. Many felt that their subject matter knowledge improved as well. Since tutors were constantly reviewing material, they understood it and retained it better which also helped them on placement exams for graduate school. Tutors felt their time management and study skills improved and many felt their leadership skills improved. Some tutors reported that their experience as a tutor was helpful in getting them internships and fellowships.

When asked what they did not like about tutoring and what they would change about the program, tutors responded that the scheduling of tutoring sessions was often tight and/or crowded. Many tutors had to rush to the ARC after class or rush to class after their ARC appointments. A more flexible schedule that does not start on the hour may help alleviate this issue. Tutors are also interested in getting feedback from tutees about their meetings and have recommended that a suggestion box be implemented. Tutors feel the space is often crowded.

Tutees: Academic and Personal Development Outcomes

Students in need of tutoring services are instructed to attend services through drop-in or appointment. A majority of the subjects serviced by tutoring provide drop-in appointments available when tutors are scheduled to be in the ARC. Tutoring is available for selected courses in Biology, Business, Chemistry, Economics, Mathematics, Italian, Physics, Psychology, Sociology, Spanish and Statistics. (see Tables 4a-5c). For these courses, drop-in tutoring may involve individual or small group appointments, typically 15 minutes in length.

Students in need of tutoring support for English courses or writing assistance must schedule an appointment by coming to the ARC the day they want to meet with a tutor. Students are limited to one 30 minute session per day and must bring a printed copy of their paper or assignment to get help. Only students enrolled in introductory English courses or writing-heavy courses in the humanities and social sciences are allowed to attend. This may mean that students in science or engineering courses that require writing are unable to get writing assistance for assignments.

Since Mathematics is a high-demand subject for tutoring, students also have the option of signing up for a same-day 15-minute appointment with a tutor. Only select math courses are supported, however, and students are limited to two appointments per day.

To gain a better understanding of the demand for various subjects, we have summarized the supported courses for AY 2010-11 and AY 2011-12 in Tables 4a-5c. These tables show how many student sign-ins there were for each course by quarter. We merged this data with student course-level data to see if students were enrolled in the course they signed-in for when attending tutoring. We also report the number and percentage of unmatched sign-ins. Unmatched sign-ins represent the number of students who signed in for tutoring with a course for which they were not enrolled. It is important to note that tutors are available at specific times but may support multiple courses during that time period which may add to the confusion when students are signing in for services. It is possible that unmatched sign-ins represent students who came in for tutoring support but selected the wrong course. Overall, it appears that Chemistry, English, Mathematics, and Physics are very popular subjects among students attending tutoring services.

Next, we examined the academic and demographic background characteristics of tutees for AY 2010-11 and AY 2011-12 (see Tables 6-9). Many students attending tutoring services are freshmen and sophomores and most are in CNAS and CHASS. Students have cumulative and quarter GPAs in the B- to C+ range.

We looked at what week students come to tutoring for the first time. There is no clear trend across the ten week quarter in the pattern of students' first use of tutoring services (see Figures 1 and 2). We do see some spikes in attendance around mid-term and finals weeks though tutoring

is not always held at the very beginning and very end of the quarter. Some of these may be due to incorrect sign-ins. We also examined how many times per quarter students typically attend tutoring sessions (see Figures 3 and 4). Overall, most students only come to tutoring one or two times total throughout a given quarter. Due to the low attendance of most students, we do not anticipate that results will show drastic improvement in final course grades.

Tables 11 through 15 compare final course grades between students who attended tutoring and a randomly matched group of students enrolled in the same courses who did not attend tutoring. Students are matched on high school GPA, SAT score, and college of their major. We created high school GPA groups and cumulative SAT score groups to ensure students could be more easily matched. We conducted t-tests by quarter and examined final course grade differences for students overall and at the course-level for courses with over 40 students who attended tutoring. Students who attended tutoring not tied to a specific course were dropped from the analysis. Overall there are no differences between the end of course grades for students who attended tutoring and for students who did not. Throughout 2010-2011 and 2011-2012, some end-of-course grade differences are significantly better for students who attended tutoring over students who did not in the following courses:

CHEM112A (Winter 2011, Winter 2012)
ENGL001A (Winter 2012)
ENGL001B (Spring 2011)
ENGL004 (Fall 2010)
PHYS040A (Fall 2011)
SPN004 (Fall 2010, Spring 2011)

For English courses (ENGL 001A, 001B, 004), student tutees received one-on-one 30 minute sessions, and thus tutees benefited from more personalized tutoring services. For Spanish courses (SPN 004), student tutees received extra course credit for participation in TAP services. Thus, it would appear that tutoring services tailored to individual student needs (one-on-one appointments) and course syllabi (e.g., extra credit for TAP participation) result in significant academic gains for student tutees. Academic gains associated with CHEM 112A and PHYS40A could be further explored to determine whether rate of student participation in ARC services overall (e.g., TAP and supplemental instruction) or student demographic characteristics (e.g., gender, first-generation status) affect academic outcomes.

In two math classes, MATH 008B (Fall 2011) and MATH 009B (Fall 2010), there were significant differences for students who participated in tutoring. However, these student tutees scored *lower* than student who did not participate in TAP services. Preliminary analysis suggests that those who utilized tutoring may have been academically less well prepared for college, as indicated by lower average SAT verbal and math scores. At the same time, tutoring may still have provided assistance and prevented even lower course grades. These issues warrant further study.

To gain an understanding of why students attended tutoring and what personal development improvements they may have gained from the program, we sent a survey to students who participated in the program in 2011-2012 (see Tables 16a-16d). We received feedback from 57 students, a very low response rate. Most students decided to attend tutoring because they needed

help with homework or understanding the course material. Many students reported that tutoring helped them to gain a better understanding of the material as well. Overall, students felt the tutors were friendly and helpful. A few students said that tutoring gave them more confidence in academics and improved their study skills. When asked about what they would change about the tutoring program, students said they would like more tutors and that the tutoring area of the ARC was often crowded or that there was a long wait to see tutors.

Discussion

The tutoring program has benefitted its tutors through providing experience related to teaching. This teaching experience has led to an increased understanding of basic material which has helped tutors to retain information. Students (i.e., tutees) who participated in the tutoring program did not show much improvement in their final course grades, except for a few courses (e.g., ENGL and SPN) where individualized tutoring or course-based extra credit incentivized student participation. This finding is not surprising since students rarely attend more than one or two tutoring sessions in the ARC. The tutoring program may want to encourage students to keep attending tutoring and to collaborate with course instructors to coordinate instruction and potentially incentivize TAP participation (e.g., extra credit). However, encouraging more student traffic will add to the already impacted program. Students and tutors have already reported that there are not enough tutors or enough space for tutees to be seen and get the attention they need. Increasing traffic will only add to the space and resource problem. It is anticipated that students who see tutors more often and with individualized attention would show academic improvement over time.

Table 1. Background Characteristics of Tutors When Hired Fall 2010 through Spring 2012

| Class Level When Hired | 64 | % |
|-------------------------------|-----------|----------|
| Freshman | 1 | 1.6% |
| Sophomore | 6 | 9.4% |
| Junior | 24 | 37.5% |
| Senior | 32 | 50.0% |
| 2 nd Baccalaureate | 1 | 1.6% |
| College | 64 | % |
| CNAS | 28 | 43.8% |
| CHASS | 22 | 34.4% |
| BCoE | 10 | 15.6% |
| SoBA | 4 | 6.3% |
| Gender | 64 | % |
| Male | 32 | 50.0% |
| Female | 32 | 50.0% |
| Ethnicity | 64 | % |
| Asian | 23 | 35.9% |
| Caucasian | 14 | 21.9% |
| Hispanic | 16 | 25.0% |
| Unknown | 4 | 6.3% |
| African American | 4 | 6.3% |
| Other | 3 | 4.7% |
| Generation | 64 | % |
| First Generation | 30 | 53.1% |
| Not First Generation | 34 | 46.9% |
| Income | 64 | % |
| Not Low Income | 47 | 73.4% |
| Low Income | 17 | 26.6% |

Table 2. Mean Entry and Exit GPA of Tutors 2010-2012 **N=64**

| | Mean | SD |
|-----------|-------------|-----------|
| Entry GPA | 3.56 | 0.26 |
| Exit GPA | 3.57 | 0.25 |

Table 3a. Tutor Interview Summary

Why did you become a peer tutor?

- I needed a job
- Best paying job on campus
- Flexible with school and classes
- Relevant to area of study (more experience)

What did you like about being a tutor?

- The opportunity to network with other students and tutors
- I helped many students
- Students were grateful
- It was a rewarding experience
- I gained leadership skills

Participating in the program as a tutor can have many potential, personal, and professional benefits. What have you gained while being a tutor?

Has the program had an impact on your communication skills?

- I can explain the material better
- My confidence in leading increased
- I got better at public speaking
- I learned how to think like a student while tutoring
- I got better at communicating with people of different backgrounds
- I learned how to explain concepts in multiple ways

Has the program had an impact on your social or interpersonal skills?

- I have made more connections/networks
- I learned how to mask my frustration
- I learned how to behave/communicate in a professional setting
- I became more outgoing

Has the program had an impact on your subject matter knowledge?

- I feel prepared when practicing/studying for exams
- I was able to understand multiple approaches to different subjects
- My retention of the material improved

Has the program had an impact on your leadership experience?

- I mastered the ability to run/supervise a team
- My time management improved
- My interpersonal skills improved
- I am more confident in leading
- I apply the skills I learned to my current job
- I am able to take on more responsibilities
- I am more able to take initiative

Table 3b. Tutor Interview Summary Continued

Has the program had an impact on your appreciation for diversity?

- I feel better prepared to teach/TA
- I learned how to interact with people who have different skill levels
- I felt as though I became more approachable
- No, because UCR is already diverse

Has the program had an impact on the type of student you are? (Study skills, time management, etc.)

- My time management improved
- I felt more efficient and studied more
- I learned different study skills
- I learned to think like an instructor

How has the tutoring program prepared you for your current or future academic opportunities or work positions?

- I gained leadership experience
- I learned time management
- My communication skills improved
- I became more responsible
- I became a private tutor
- I applied to graduate school

Was your experience helpful for graduate school or placement exams?

- Yes, because the subjects I tutored were in the placement exams I took
- It helped me prepare for the application process to graduate school
- I was able to score highly on the GREs
- I was more confident in applying to graduate school

Was your experience helpful in getting you a fellowship or internship?

- No, because tutoring is not related to my current position
- I received a fellowship due to my experience as a tutor
- My experience was good for internships
- I was able to apply for teaching assistantship

If you didn't work as a tutor what would you be doing instead?

- I would be working in retail
- I would be working somewhere else on campus
- I would be in a teaching related position
- Unemployed

Table 3c. Tutor Interview Summary Continued

What did you not like about being a tutor?

- Being viewed as an answer key by students
- The large number of students coming in at the same time
- Meetings were unorganized and last minute
- I had no time to eat because of the tight schedule
- There was not enough funding for the time and resources needed to serve the students

If you could change the program, what would you change?

- White boards instead of chalkboards
- Advertise the services more
- Hire more tutors because it gets overwhelming during finals week
- More space
- More hours/flexibility
- Start the appointments at the half hour instead of the hour to avoid being late to class/appointments
- Get feedback from students/suggestion box
- Get updates on the ARC so we can stay connected after employment
- Tutoring in housing is very complicated

Is there anything else you would like to add about the tutoring program?

- Graduate students should be able to be tutors
- It was the most rewarding experience in my undergraduate career

Table 4a: Course Sign-ins Fall 2010-Spring 2011

| Course | Fall 2010 | | | Winter 2011 | | | Spring 2011 | | |
|---------------|-----------|-----------|------------|-------------|-----------|------------|-------------|-----------|------------|
| | Sign In | Unmatched | %Unmatched | Sign In | Unmatched | %Unmatched | Sign In | Unmatched | %Unmatched |
| BIO Other | 8 | | | 6 | | | 4 | | |
| BIO 005A | 50 | 4 | 8.0% | 56 | 2 | 3.6% | 3 | 3 | 100.0% |
| BIO 005B | 1 | 1 | 100.0% | 10 | 1 | 10.0% | 32 | 3 | 9.4% |
| BIO 005C | 14 | 1 | 7.1% | 1 | 1 | 100.0% | 6 | 3 | 50.0% |
| BIO 102 | 9 | 3 | 33.3% | | | | 5 | 1 | 20.0% |
| BUS Other | 19 | | | 29 | | | 26 | | |
| BUS 010 | 1 | 1 | 100.0% | 1 | 1 | 100.0% | 2 | 1 | 50.0% |
| BUS 020 | 13 | 3 | 23.1% | 5 | 2 | 40.0% | 12 | 7 | 58.3% |
| Breadth All | 1 | | | 2 | | | 3 | | |
| Breadth BCoE | 1 | | | 1 | | | 1 | | |
| Breadth CHASS | 3 | | | | | | 1 | | |
| CHEM Other | 36 | | | 10 | | | 9 | | |
| CHEM 001A | 220 | 20 | 9.1% | 171 | 16 | 9.4% | 3 | 3 | 100.0% |
| CHEM 001B | 2 | 2 | 100.0% | 112 | 6 | 5.4% | 141 | 7 | 5.0% |
| CHEM 001C | 114 | 6 | 5.3% | 1 | 1 | 100.0% | 92 | 10 | 10.9% |
| CHEM 112A | 60 | 3 | 5.0% | 73 | 5 | 6.8% | 3 | 3 | 100.0% |
| CHEM 112B | | | | 50 | 3 | 6.0% | 47 | 5 | 10.6% |
| CHEM 112C | 13 | 1 | 7.7% | 1 | 1 | 100.0% | 20 | 1 | 5.0% |
| CS | 3 | | | | | | 4 | | |
| ECON Other | 7 | | | 12 | | | 9 | | |
| ECON 002 | 4 | 1 | 25.0% | 27 | 5 | 18.5% | 5 | 4 | 80.0% |
| ECON 003 | 4 | 0 | 0.0% | 13 | 4 | 30.8% | 15 | 1 | 6.7% |
| ECON 102 | 11 | 1 | 9.1% | 35 | 3 | 8.6% | 30 | 3 | 10.0% |
| ECON 103 | 1 | 1 | 100.0% | 14 | 2 | 14.3% | 15 | 8 | 53.3% |
| ENGL Other | 95 | | | 112 | | | 82 | | |
| ENGL 001A | 48 | 3 | 6.3% | 80 | 2 | 2.5% | 40 | 3 | 7.5% |
| ENGL 001B | 3 | 3 | 100.0% | 80 | 5 | 6.3% | 99 | 7 | 7.1% |
| ENGL 001C | 7 | 6 | 85.7% | 18 | 14 | 77.8% | 7 | 3 | 42.9% |
| ENGL 004 | 57 | 9 | 15.8% | 45 | 11 | 24.4% | 18 | 6 | 33.3% |
| ENGL 005 | 4 | 2 | 50.0% | 1 | 1 | 100.0% | 1 | 1 | 100.0% |
| LATIN | 1 | | | 1 | | | 18 | | |

Table 4b: Course Sign-ins Fall 2010-Spring 2011 Continued

| Course | Fall 2010 | | | Winter 2011 | | | Spring 2011 | | |
|------------|-----------|-----------|------------|-------------|-----------|------------|-------------|-----------|------------|
| | Sign In | Unmatched | %Unmatched | Sign In | Unmatched | %Unmatched | Sign In | Unmatched | %Unmatched |
| MATH Other | 38 | | | 38 | | | 1 | | |
| LNCR 035 | 6 | | | 8 | | | | | |
| MATH 004 | 45 | 5 | 11.1% | 23 | 1 | 4.3% | 9 | 1 | 11.1% |
| MATH 005 | 37 | 5 | 13.5% | 4 | 1 | 25.0% | 5 | 1 | 20.0% |
| MATH 008A | 34 | 1 | 2.9% | 47 | 3 | 6.4% | 35 | 3 | 8.6% |
| MATH 008B | 79 | 6 | 7.6% | 77 | 8 | 10.4% | 42 | 5 | 11.9% |
| MATH 009A | 67 | 9 | 13.4% | 67 | 6 | 9.0% | 16 | 4 | 25.0% |
| MATH 009B | 109 | 7 | 6.4% | 158 | 8 | 5.1% | 111 | 10 | 9.0% |
| MATH 009C | 59 | 6 | 10.2% | 41 | 6 | 14.6% | 97 | 5 | 5.2% |
| MATH 010A | 28 | 3 | 10.7% | 50 | 5 | 10.0% | 29 | 2 | 6.9% |
| MATH 010B | 20 | 3 | 15.0% | 12 | 1 | 8.3% | 42 | 5 | 11.9% |
| MATH 022 | 16 | 1 | 6.3% | 32 | 2 | 6.3% | 11 | 3 | 27.3% |
| MATH 023 | 1 | 1 | 100.0% | | | | | | |
| MATH 146A | 16 | 13 | 81.3% | | | | | | |
| MATH 146B | | | | 13 | 11 | 84.6% | | | |
| MATH 146C | | | | | | | 1 | 1 | 100.0% |
| Other | 14 | | | 25 | | | 15 | | |
| PHYS Other | 9 | | | 3 | | | 6 | | |
| PHYS 002A | 93 | 6 | 6.5% | 2 | 2 | 100.0% | 95 | 5 | 5.3% |
| PHYS 002B | 29 | 5 | 17.2% | 74 | 3 | 4.1% | 3 | 3 | 100.0% |
| PHYS 002C | 2 | 2 | 100.0% | 22 | 3 | 13.6% | 48 | 3 | 6.3% |
| PHYS 040A | 41 | 4 | 9.8% | 38 | 4 | 10.5% | 7 | 7 | 100.0% |
| PHYS 040B | | | | 38 | 5 | 13.2% | 31 | 5 | 16.1% |
| PHYS 040C | 19 | 1 | 5.3% | 2 | 2 | 100.0% | 17 | 0 | 0.0% |
| PSYC Other | 7 | | | 2 | | | 2 | | |
| PSYC 001 | 12 | 1 | 8.3% | 8 | 1 | 12.5% | 1 | 0 | 0.0% |
| PSYC 002 | 18 | 4 | 22.2% | 7 | 1 | 14.3% | 4 | 4 | 100.0% |
| PSYC 011 | 3 | 0 | 0.0% | 5 | 2 | 40.0% | 8 | 0 | 0.0% |
| PSYC 012 | 4 | 0 | 0.0% | 3 | 1 | 33.3% | 3 | 0 | 0.0% |
| PSYC 110 | | | | 3 | 0 | 0.0% | | | |

Table 4c: Course Sign-ins Fall 2010-Spring 2011 Continued

| Course | Fall 2010 | | | Winter 2011 | | | Spring 2011 | | |
|--------------|-----------|-----------|------------|-------------|-----------|------------|-------------|-----------|------------|
| | Sign In | Unmatched | %Unmatched | Sign In | Unmatched | %Unmatched | Sign In | Unmatched | %Unmatched |
| SOC Other | 5 | | | 4 | | | 3 | | |
| SOC 001 | 11 | 1 | 9.1% | 4 | 0 | 0.0% | 9 | 1 | 11.1% |
| SOC 004 | 4 | 0 | 0.0% | 5 | 1 | 20.0% | 3 | 1 | 33.3% |
| SOC 005 | 7 | 0 | 0.0% | 12 | 1 | 8.3% | 3 | 0 | 0.0% |
| SOC 035 | 1 | 0 | 0.0% | | | | | | |
| SOC 150 | 2 | 0 | 0.0% | | | | | | |
| SPAN 001 | 5 | 2 | 40.0% | 4 | 2 | 50.0% | 1 | 0 | 0.0% |
| SPAN 002 | 6 | 1 | 16.7% | 8 | 0 | 0.0% | 5 | 2 | 40.0% |
| SPAN 003 | 2 | 0 | 0.0% | 1 | 0 | 0.0% | 5 | 1 | 20.0% |
| SPAN 004 | 49 | 2 | 4.1% | 64 | 2 | 3.1% | 46 | 2 | 4.3% |
| SPAN 005 | 1 | 0 | 0.0% | 5 | 0 | 0.0% | 1 | 0 | 0.0% |
| SPAN 006 | | | | 3 | 0 | 0.0% | 6 | 0 | 0.0% |
| STAT 100A | 10 | 4 | 40.0% | 21 | 3 | 14.3% | 30 | 15 | 50.0% |
| STAT 100B | | | | 2 | 0 | 0.0% | 4 | 1 | 25.0% |
| Workshp ENGL | 11 | | | 12 | | | 6 | | |
| Workshp MATH | | | | | | | 5 | | |
| Total | 1730 | 164 | | 1914 | 171 | | 1519 | 173 | |

Table 5a: Course Sign-ins Fall 2011-Spring 2012

| Course | Fall 2011 | | | Winter 2012 | | | Spring 2012 | | |
|------------|-----------|-----------|------------|-------------|-----------|------------|-------------|-----------|------------|
| | Sign In | Unmatched | %Unmatched | Sign In | Unmatched | %Unmatched | Sign In | Unmatched | %Unmatched |
| BIO Other | 31 | | | 7 | | | 2 | | |
| BIO 005A | 28 | 2 | 7.2% | 23 | 3 | 13.0% | 3 | 3 | 100.0% |
| BIO 005B | | | | 23 | 0 | 0.0% | 16 | 0 | 0.0% |
| BIO 005C | 2 | 1 | 50.0% | | | | 8 | 3 | 37.5% |
| BIO 102 | 4 | 0 | 0.0% | 2 | 2 | 100.0% | 2 | 1 | 50.0% |
| BUS Other | 9 | | | 16 | | | 20 | | |
| BUS 010 | 5 | 4 | 80.0% | 3 | 1 | 33.3% | | | |
| BUS 020 | 25 | 5 | 20.0% | 20 | 3 | 15.0% | 18 | 3 | 16.7% |
| CHEM Other | 190 | | | 12 | | | 4 | | |
| CHEM 001A | 71 | 5 | 7.0% | 41 | 7 | 17.1% | 6 | 6 | 100.0% |
| CHEM 001B | | | | 92 | 7 | 7.6% | 41 | 10 | 24.4% |
| CHEM 001C | 73 | 3 | 4.1% | 2 | 2 | 100.0% | 84 | 9 | 10.7% |
| CHEM 112A | 34 | 0 | 0.0% | 86 | 1 | 1.2% | | | |
| CHEM 112B | | | | 59 | 13 | 22.0% | 88 | 7 | 8.0% |
| CHEM 112C | 12 | 2 | 16.7% | 15 | 15 | 100.0% | 39 | 11 | 28.2% |
| CS | 8 | | | 1 | | | 2 | | |
| ECON Other | 18 | | | 14 | | | 25 | | |
| ECON 002 | 20 | 5 | 25.0% | 10 | 2 | 20.0% | 8 | 4 | 50.0% |
| ECON 003 | 28 | 1 | 3.6% | 8 | 1 | 12.5% | 10 | 2 | 20.0% |
| ECON 102 | 9 | 2 | 22.2% | 4 | 1 | 25.0% | 13 | 6 | 46.2% |
| ECON 103 | 19 | 4 | 21.1% | 11 | 1 | 9.1% | 3 | 0 | 0.0% |
| ENGL Other | 146 | | | 99 | | | 95 | | |
| ENGL 001A | 64 | 5 | 7.8% | 63 | 7 | 11.1% | 37 | 3 | 8.1% |
| ENGL 001B | 4 | 4 | 100.0% | 59 | 2 | 3.4% | 54 | 4 | 7.4% |
| ENGL 001C | 5 | 4 | 80.0% | 5 | 2 | 40.0% | 39 | 5 | 12.8% |
| ENGL 004 | 47 | 6 | 12.8% | 32 | 8 | 25.0% | 18 | 7 | 38.9% |
| ENGL 005 | 2 | 2 | 100.0% | | | | 1 | 1 | 100.0% |
| FREN 001 | | | | 1 | 1 | 100.0% | 1 | 1 | 100.0% |
| FREN 002 | | | | 1 | 1 | 100.0% | | | |
| FREN 004 | | | | | | | 4 | 0 | 0.0% |
| HIST Other | | | | | | | 3 | | |

Table 5b: Course Sign-ins Fall 2011-Spring 2012 Continued

| Course | Fall 2011 | | | Winter 2012 | | | Spring 2012 | | |
|------------|-----------|-----------|------------|-------------|-----------|------------|-------------|-----------|------------|
| | Sign In | Unmatched | %Unmatched | Sign In | Unmatched | %Unmatched | Sign In | Unmatched | %Unmatched |
| ITAL 001 | | | | | | | 2 | 0 | 0.0% |
| ITAL 002 | | | | 4 | 0 | 0.0% | 1 | 1 | 100.0% |
| ITAL 003 | | | | | | | 19 | 0 | 0.0% |
| ITAL 101B | | | | | | | 1 | 1 | 100.0% |
| MATH Other | 41 | | | 47 | | | 24 | | |
| LNCR 035 | 7 | | | 6 | | | 3 | | |
| MATH 004 | 25 | 2 | 8.0% | 14 | 3 | 21.4% | 6 | 2 | 33.3% |
| MATH 005 | 20 | 2 | 10.0% | 10 | 0 | 0.0% | 4 | 2 | 50.0% |
| MATH 008A | 18 | 3 | 16.7% | 10 | 0 | 0.0% | 3 | 1 | 33.3% |
| MATH 008B | 55 | 3 | 5.5% | 33 | 6 | 18.2% | 15 | 3 | 20.0% |
| MATH 009A | 47 | 9 | 19.1% | 25 | 7 | 28.0% | 15 | 3 | 20.0% |
| MATH 009B | 128 | 9 | 7.0% | 96 | 6 | 6.3% | 47 | 6 | 12.8% |
| MATH 009C | 83 | 6 | 7.2% | 76 | 7 | 9.2% | 53 | 11 | 20.8% |
| MATH 010A | 30 | 4 | 13.3% | 32 | 4 | 12.5% | 37 | 4 | 10.8% |
| MATH 010B | 19 | 3 | 15.8% | 23 | 3 | 13.0% | 24 | 1 | 4.2% |
| MATH 022 | 11 | 1 | 9.1% | 21 | 3 | 14.3% | 3 | 0 | 0.0% |
| MATH 146A | 18 | 16 | 88.9% | | | | | | |
| MATH 146B | | | | 12 | 12 | 100.0% | | | |
| MATH 146C | | | | | | | 8 | 7 | 87.5% |
| Other | 26 | | | 28 | | | | | |
| PHYS Other | 120 | | | 10 | | | 6 | | |
| PHYS 002A | 39 | 5 | 12.8% | 3 | 3 | 100.0% | 89 | 3 | 3.4% |
| PHYS 002B | 7 | 0 | 0.0% | 50 | 3 | 6.0% | 2 | 2 | 100.0% |
| PHYS 002C | 1 | 1 | 100.0% | 12 | 2 | 16.7% | 39 | 3 | 7.7% |
| PHYS 040A | 49 | 8 | 16.3% | 37 | 2 | 5.4% | 2 | 2 | 100.0% |
| PHYS 040B | 4 | 4 | 100.0% | 26 | 2 | 7.7% | 22 | 1 | 4.5% |
| PHYS 040C | 11 | 2 | 18.2% | | | | 20 | 1 | 5.0% |
| POSC Other | | | | | | | 6 | | |

Table 5c: Course Sign-ins Fall 2011-Spring 2012 Continued

| Course | Fall 2011 | | | Winter 2012 | | | Spring 2012 | | |
|------------|-----------|-----------|------------|-------------|-----------|------------|-------------|-----------|------------|
| | Sign In | Unmatched | %Unmatched | Sign In | Unmatched | %Unmatched | Sign In | Unmatched | %Unmatched |
| PSYC Other | 14 | | | 3 | | | 3 | | |
| PSYC 001 | 6 | 0 | 0.0% | 5 | 1 | 20.0% | 3 | 1 | 33.3% |
| PSYC 002 | 5 | 4 | 80.0% | 8 | 2 | 25.0% | 9 | 3 | 33.3% |
| PSYC 011 | 2 | 0 | 0.0% | 2 | 0 | 0.0% | 6 | 0 | 0.0% |
| PSYC 012 | | | | 3 | 0 | 0.0% | 11 | 0 | 0.0% |
| PSYC 160 | | | | 1 | 0 | 0.0% | 1 | 1 | 100.0% |
| PSYC 169 | | | | 4 | 1 | 25.0% | | | |
| PSYC 179 | 1 | 1 | 100.0% | 1 | 0 | 0.0% | | | |
| SOC Other | 8 | | | 7 | | | 3 | | |
| SOC 001 | 20 | 2 | 10.0% | 1 | 1 | 100.0% | 4 | 1 | 25.0% |
| SOC 004 | 1 | 0 | 0.0% | 3 | 0 | 0.0% | 1 | 0 | 0.0% |
| SOC 005 | | | | 2 | 0 | 0.0% | 5 | 0 | 0.0% |
| SPAN 001 | 6 | 0 | 0.0% | 1 | 1 | 100.0% | 4 | 3 | 75.0% |
| SPAN 002 | 2 | 0 | 0.0% | 8 | 0 | 0.0% | 6 | 1 | 16.7% |
| SPAN 003 | 4 | 1 | 25.0% | 1 | 0 | 0.0% | 5 | 0 | 0.0% |
| SPAN 004 | 62 | 1 | 1.6% | 53 | 3 | 5.7% | 80 | 0 | 0.0% |
| SPAN 005 | 1 | 0 | 0.0% | 8 | 0 | 0.0% | 2 | 0 | 0.0% |
| SPAN 006 | 5 | 3 | 60.0% | 5 | 0 | 0.0% | 7 | 2 | 28.6% |
| STAT 100A | 15 | 11 | 73.3% | 15 | 8 | 53.3% | 18 | | |
| STAT 100B | 2 | 1 | 50.0% | 5 | 1 | 20.0% | 4 | 1 | 50.0% |
| TRiO | 14 | | | | | | | | |
| Total | 1781 | 157 | | 1420 | 161 | | 1267 | 153 | |

Table 6. Background Characteristics of Tutees by Quarter of Service 2010-2011

| Quarter of Service | Fall 2010 | | Winter 2011 | | Spring 2011 | |
|-------------------------------|------------------|----------|--------------------|----------|--------------------|----------|
| Class Level | 1330 | % | 1404 | % | 1153 | % |
| Freshman | 549 | 41.3% | 549 | 39.1% | 392 | 34.0% |
| Sophomore | 399 | 30.0% | 402 | 28.6% | 348 | 30.2% |
| Junior | 232 | 17.4% | 288 | 20.5% | 240 | 20.8% |
| Senior | 142 | 10.7% | 159 | 11.3% | 170 | 14.7% |
| 2 nd Baccalaureate | 1 | 0.1% | -- | -- | -- | -- |
| Limited | -- | -- | -- | -- | -- | -- |
| Masters | 6 | 0.5% | 4 | 0.3% | 3 | 0.3% |
| Doctorate | 1 | 0.1% | 2 | 0.1% | -- | -- |
| College | 1330 | % | 1404 | % | 1153 | % |
| CNAS | 633 | 47.6% | 587 | 41.8% | 493 | 42.8% |
| CHASS | 491 | 36.9% | 568 | 40.5% | 442 | 38.3% |
| BCoE | 182 | 13.7% | 210 | 15.0% | 180 | 15.6% |
| SoBA | 17 | 1.3% | 33 | 2.4% | 35 | 3.0% |
| Graduate School | 7 | 0.5% | 6 | 0.4% | 3 | 0.3% |
| Gender | 1327 | % | 1400 | % | 1148 | % |
| Female | 794 | 59.8% | 834 | 59.6% | 702 | 61.2% |
| Male | 533 | 40.2% | 566 | 40.4% | 446 | 38.9% |
| Ethnicity | 1330 | % | 1404 | % | 1153 | % |
| Asian | 549 | 41.3% | 553 | 39.4% | 476 | 41.3% |
| Hispanic | 400 | 30.1% | 450 | 32.1% | 362 | 31.4% |
| Caucasian | 164 | 12.3% | 167 | 11.9% | 136 | 11.8% |
| African American | 161 | 12.1% | 171 | 12.2% | 129 | 11.2% |
| Unknown | 35 | 2.6% | 40 | 2.9% | 32 | 2.3% |
| Other | 17 | 1.3% | 19 | 1.4% | 12 | 1.0% |
| Native American | 4 | 0.3% | 4 | 0.3% | 6 | 0.5% |
| Generation | 1330 | % | 1404 | % | 1153 | % |
| First Generation | 687 | 51.7% | 780 | 55.6% | 628 | 54.5% |
| Not First Generation | 643 | 48.4% | 624 | 44.4% | 525 | 45.5% |
| Income | 1330 | % | 1404 | % | 1153 | % |
| Not Low Income | 637 | 47.9% | 627 | 44.7% | 544 | 47.2% |
| Low Income | 693 | 52.1% | 777 | 55.3% | 609 | 52.8% |

Table 7. Academic Background Characteristics of Tutees, AY 2010-11

| Fall 2010 | Mean | Std. Dev. | Min | Max | N |
|-----------------------------|-------------|------------------|------------|------------|----------|
| SAT Verbal | 492.34 | 78.79 | 240 | 760 | 1201 |
| SAT Math | 531.22 | 93.60 | 240 | 800 | 1201 |
| SAT Writing | 502.75 | 81.49 | 200 | 760 | 1193 |
| High School GPA | 3.49 | 0.34 | 2.25 | 4.87 | 1203 |
| Spring 2010 Quarter GPA | 2.67 | 0.70 | 0.22 | 4.00 | 806 |
| Spring 2010 Cumulative GPA | 2.77 | 0.50 | 1.52 | 3.97 | 817 |
| Fall 2010 Quarter GPA | 2.66 | 0.72 | 0.36 | 4.00 | 1310 |
| Fall 2010 Cumulative GPA | 2.74 | 0.57 | 0.62 | 4.00 | 1321 |
| Fall 2010 Number of Units | 13.55 | 2.79 | 4 | 22 | 1310 |
| Winter 2011 | Mean | Std. Dev. | Min | Max | N |
| SAT Verbal | 485.13 | 81.89 | 230 | 760 | 1273 |
| SAT Math | 523.82 | 90.72 | 230 | 780 | 1273 |
| SAT Writing | 494.51 | 82.41 | 290 | 760 | 1259 |
| High School GPA | 3.50 | 0.34 | 2.45 | 4.61 | 1277 |
| Fall 2010 Quarter GPA | 2.69 | 0.73 | 0.31 | 4.00 | 1378 |
| Fall 2010 Cumulative GPA | 2.75 | 0.59 | 0.31 | 4.00 | 1386 |
| Winter 2011 Quarter GPA | 2.71 | 0.70 | 0.38 | 4.00 | 1380 |
| Winter 2011 Cumulative GPA | 2.75 | 0.54 | 0.82 | 4.00 | 1397 |
| Winter 2011 Number of Units | 13.99 | 3.00 | 4 | 24 | 1380 |
| Spring 2011 | Mean | Std. Dev. | Min | Max | N |
| SAT Verbal | 489.67 | 80.20 | 240 | 760 | 1050 |
| SAT Math | 530.39 | 91.31 | 240 | 800 | 1050 |
| SAT Writing | 497.64 | 80.18 | 200 | 800 | 1036 |
| High School GPA | 3.51 | 0.33 | 2.25 | 4.85 | 1055 |
| Winter 2011 Quarter GPA | 2.75 | 0.69 | 0.31 | 4.00 | 1137 |
| Winter 2011 Cumulative GPA | 2.78 | 0.52 | 1.19 | 4.00 | 1146 |
| Spring 2011 Quarter GPA | 2.76 | 0.72 | 0.29 | 4.00 | 1139 |
| Spring 2011 Cumulative GPA | 2.80 | 0.49 | 1.23 | 4.00 | 1150 |
| Spring 2011 Number of Units | 13.58 | 2.85 | 4 | 21 | 1139 |

Table 8. Background Characteristics of Tutees by Quarter of Service 2011-2012

| Quarter of Service | Fall 2011 | | Winter 2012 | | Spring 2012 | |
|-------------------------------|------------------|----------|--------------------|----------|--------------------|----------|
| Class Level | 1271 | % | 1121 | % | 987 | % |
| Freshman | 409 | 32.2% | 291 | 26.0% | 180 | 18.2% |
| Sophomore | 465 | 36.6% | 426 | 38.0% | 357 | 36.2% |
| Junior | 225 | 17.7% | 222 | 19.8% | 232 | 23.5% |
| Senior | 163 | 12.8% | 175 | 15.6% | 214 | 21.7% |
| 2 nd Baccalaureate | 1 | 0.1% | 1 | 0.1% | -- | -- |
| Limited | 1 | 0.1% | 2 | 0.2% | 1 | 0.1% |
| Masters | 7 | 0.6% | 4 | 0.4% | 3 | 0.3% |
| Doctorate | -- | -- | -- | -- | -- | -- |
| College | 1271 | % | 1121 | % | 987 | % |
| CNAS | 530 | 41.7% | 403 | 36.0% | 348 | 35.3% |
| CHASS | 537 | 42.3% | 530 | 47.3% | 463 | 47.0% |
| BCoE | 168 | 13.2% | 157 | 14.0% | 134 | 13.6% |
| SoBA | 29 | 2.3% | 27 | 2.4% | 39 | 4.0% |
| Graduate School | 7 | 0.6% | 4 | 0.4% | 3 | 0.3% |
| Gender | 1269 | % | 1121 | % | 987 | % |
| Female | 807 | 63.6% | 687 | 61.3% | 620 | 63.0% |
| Male | 462 | 36.4% | 434 | 38.7% | 364 | 37.0% |
| Ethnicity | 1271 | % | 1121 | % | 987 | % |
| Asian | 466 | 36.7% | 407 | 36.3% | 377 | 38.2% |
| Hispanic | 450 | 35.4% | 390 | 34.8% | 336 | 33.0% |
| Caucasian | 170 | 13.4% | 151 | 13.5% | 126 | 12.8% |
| African American | 139 | 10.9% | 136 | 12.1% | 120 | 12.2% |
| Unknown | 34 | 2.7% | 25 | 2.2% | 28 | 2.8% |
| Other | 9 | 0.7% | 8 | 0.7% | 6 | 0.6% |
| Native American | 3 | 0.2% | 4 | 0.4% | 4 | 0.4% |
| Generation | 1271 | % | 1121 | % | | |
| First Generation | 728 | 57.3% | 650 | 58.0% | | |
| Not First Generation | 543 | 42.7% | 471 | 42.0% | | |
| Income | 1271 | % | 1121 | % | | |
| Not Low Income | 565 | 44.5% | 498 | 44.4% | | |
| Low Income | 706 | 55.6% | 623 | 55.6% | | |

Table 9. Academic Background Characteristics of Tutees, AY 2011-12

| Fall 2011 | | | | | |
|-----------------------------|-------------|------------------|------------|------------|----------|
| | Mean | Std. Dev. | Min | Max | N |
| SAT Verbal | 489.39 | 82.23 | 200 | 800 | 1116 |
| SAT Math | 525.64 | 91.40 | 240 | 800 | 1116 |
| SAT Writing | 499.64 | 81.44 | 200 | 720 | 1110 |
| High School GPA | 3.55 | 0.35 | 2.35 | 4.74 | 1123 |
| Spring 2011 Quarter GPA | 2.80 | 0.69 | 0.39 | 4.00 | 899 |
| Spring 2011 Cumulative GPA | 2.79 | 0.49 | 1.61 | 4.00 | 903 |
| Fall 2011 Quarter GPA | 2.76 | 0.74 | 0.07 | 4.00 | 1257 |
| Fall 2011 Cumulative GPA | 2.83 | 0.54 | 0.31 | 4.00 | 1262 |
| Fall 2011 Number of Units | 13.47 | 2.62 | 1 | 21 | 1259 |
| Winter 2012 | | | | | |
| | Mean | Std. Dev. | Min | Max | N |
| SAT Verbal | 487.85 | 79.13 | 250 | 760 | 1001 |
| SAT Math | 526.41 | 92.90 | 240 | 800 | 1001 |
| SAT Writing | 495.88 | 79.84 | 200 | 750 | 990 |
| High School GPA | 3.54 | 0.34 | 2.22 | 4.74 | 1006 |
| Fall 2011 Quarter GPA | 2.77 | 0.74 | 0.07 | 4.00 | 1095 |
| Fall 2011 Cumulative GPA | 2.83 | 0.55 | 0.44 | 4.00 | 1104 |
| Winter 2012 Quarter GPA | 2.81 | 0.71 | 0.24 | 4.00 | 1105 |
| Winter 2012 Cumulative GPA | 2.83 | 0.52 | 0.44 | 4.00 | 1117 |
| Winter 2012 Number of Units | 13.75 | 2.79 | 4 | 24 | 1105 |
| Spring 2012 | | | | | |
| | Mean | Std. Dev. | Min | Max | N |
| SAT Verbal | 483.21 | 78.07 | 240 | 780 | 889 |
| SAT Math | 522.37 | 90.79 | 250 | 800 | 889 |
| SAT Writing | 493.93 | 78.09 | 290 | 720 | 883 |
| High School GPA | 3.52 | 0.34 | 2.25 | 4.85 | 889 |
| Winter 2012 Quarter GPA | 2.83 | 0.72 | 0.35 | 4.00 | 968 |
| Winter 2012 Cumulative GPA | 2.81 | 0.51 | 0.74 | 4.00 | 975 |
| Spring 2012 Quarter GPA | 2.80 | 0.70 | 0.19 | 4.00 | 979 |
| Spring 2012 Cumulative GPA | 2.83 | 0.49 | 1.39 | 4.00 | 984 |
| Spring 2012 Number of Units | 13.59 | 2.82 | 1 | 22 | 979 |

Figure 1. First Tutor Visit Week, AY 2010-11

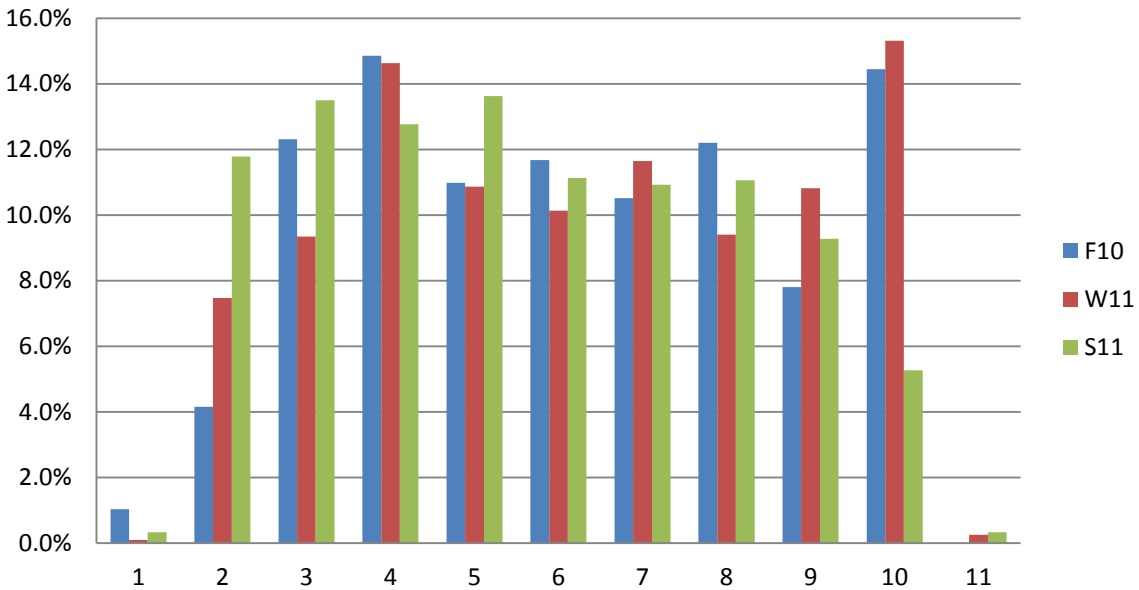


Figure 2. First Tutor Visit Week, AY 2011-12

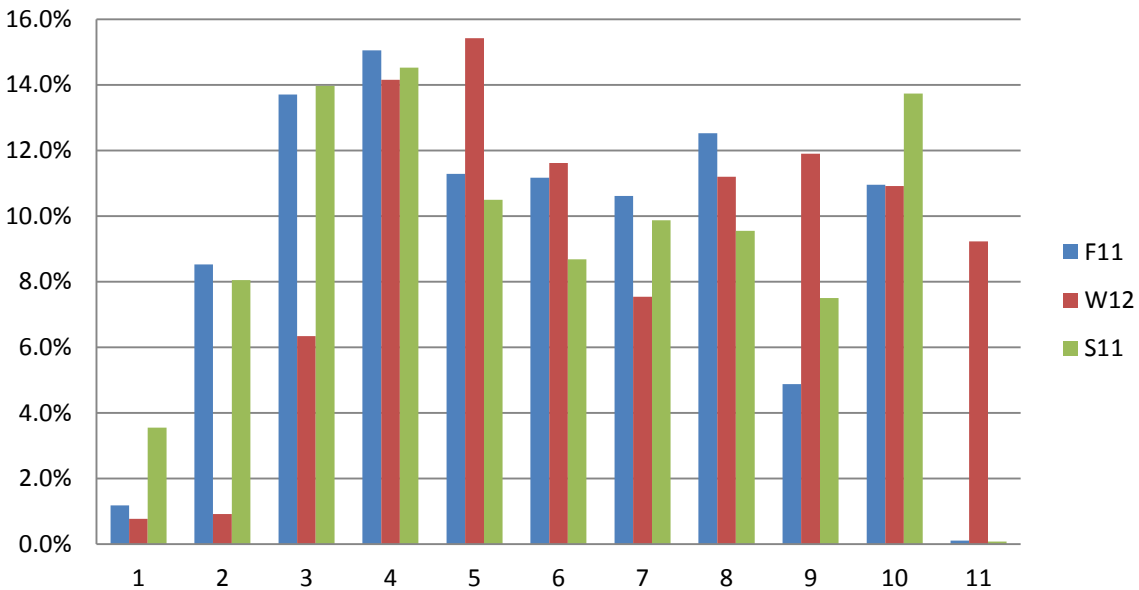


Figure 3. Number of Tutoring Visits, AY 2010-11

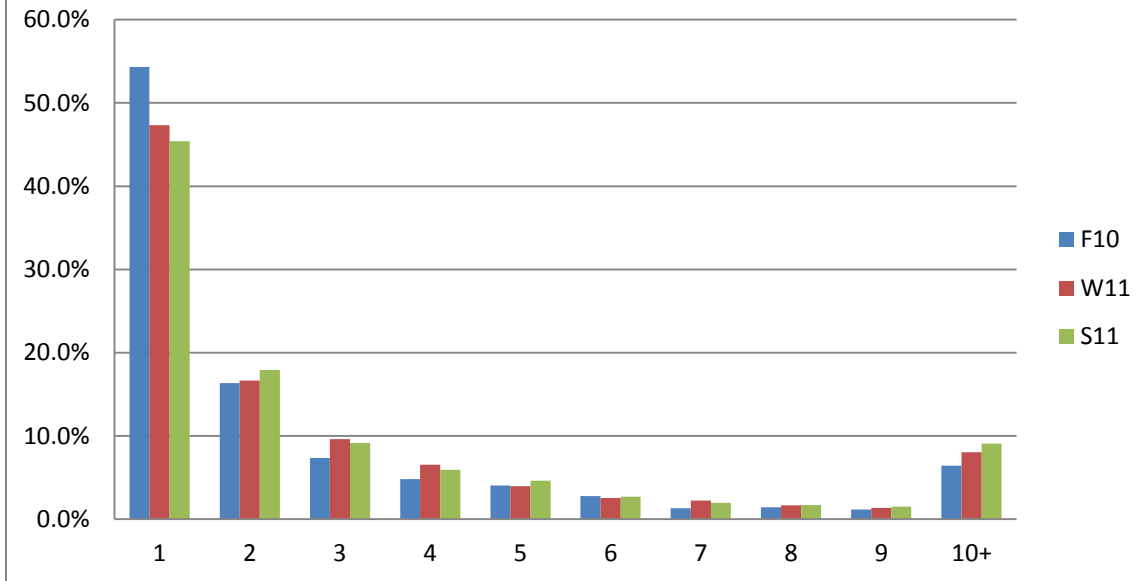


Figure 4. Number of Tutoring Visits, AY 2011-12

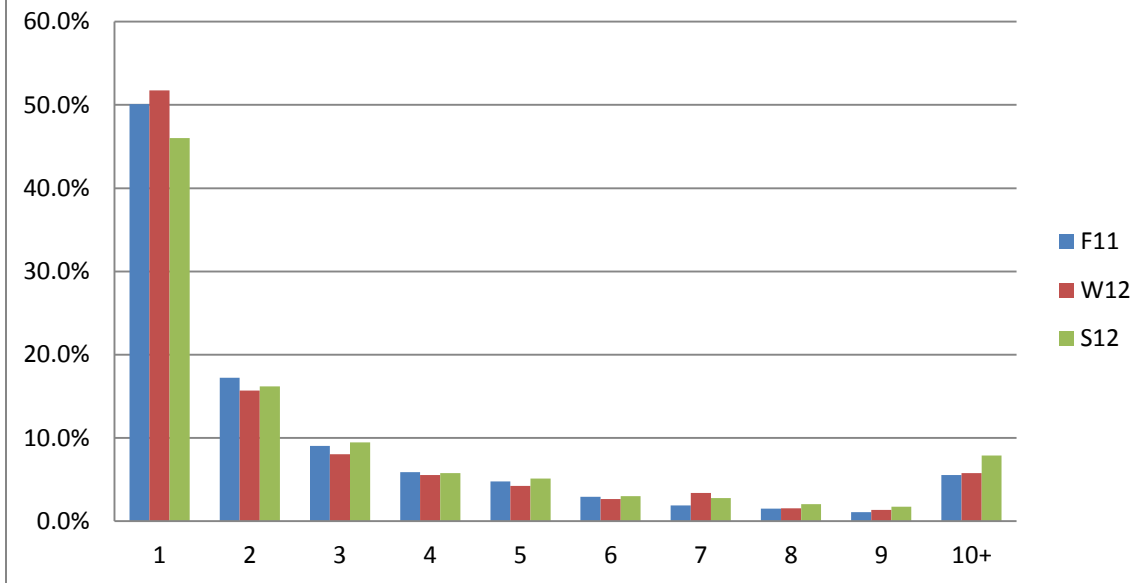


Table 10. Average Course Grades for Tutoring Students vs. Matched Non-Tutoring Students Fall 2010

| Course Grade | Student Attended Tutoring | | Student Did Not Attend Tutoring | |
|-----------------|---------------------------|------|---------------------------------|------|
| | Mean (Std. Dev.) | N | Mean (Std. Dev.) | N |
| Overall | 2.37 0.99 | 1154 | 2.40 1.02 | 1160 |
| BIOL005A | 1.88 1.00 | 45 | 1.98 1.07 | 45 |
| CHEM001A | 2.32 0.85 | 185 | 2.14 0.96 | 188 |
| CHEM001C | 2.47 0.80 | 95 | 2.43 0.86 | 97 |
| CHEM112A | 2.52 0.75 | 51 | 2.58 0.92 | 53 |
| ENGL001A | 3.00 0.76 | 45 | 2.80 1.07 | 43 |
| ENGL004 | 2.27* 0.49 | 47 | 2.02* 0.65 | 47 |
| MATH008B | 2.44 0.95 | 71 | 2.64 0.95 | 69 |
| MATH009A | 2.61 0.87 | 52 | 2.70 1.19 | 51 |
| MATH009B | 1.98* 1.19 | 83 | 2.47* 1.08 | 89 |
| MATH009C | 2.14 1.14 | 49 | 2.54 1.13 | 46 |
| PHYS002A | 2.84 0.92 | 78 | 2.70 0.99 | 78 |
| SPN004 | 3.28* 0.67 | 40 | 2.54* 1.24 | 40 |

* Indicates statistically significant at the 0.05 level.

Table 11. Average Course Grades for Tutoring Students vs. Matched Non-Tutoring Students Winter 2011

| Course Grade | Student Attended Tutoring | | Student Did Not Attend Tutoring | |
|-----------------|---------------------------|------|---------------------------------|------|
| | Mean (Std. Dev.) | N | Mean (Std. Dev.) | N |
| Overall | 2.53 1.02 | 1301 | 2.50 1.00 | 1303 |
| BIOL005A | 1.94 1.21 | 52 | 2.16 0.95 | 53 |
| CHEM001A | 2.32 0.96 | 149 | 2.43 1.01 | 148 |
| CHEM001B | 2.30 1.06 | 96 | 2.16 0.88 | 96 |
| CHEM112A | 3.12* 0.65 | 67 | 2.83* 0.76 | 66 |
| CHEM112B | 2.32 0.87 | 39 | 2.54 1.01 | 39 |
| ENGL001A | 2.90 0.67 | 73 | 2.63 0.95 | 71 |
| ENGL001B | 3.12 0.59 | 72 | 3.07 0.53 | 71 |
| MATH008A | 1.59 1.09 | 41 | 1.93 1.08 | 41 |
| MATH008B | 2.43 1.10 | 62 | 2.29 1.01 | 61 |
| MATH009A | 2.04 0.97 | 46 | 2.00 1.10 | 55 |
| MATH009B | 2.28 1.16 | 141 | 2.21 1.15 | 138 |
| MATH010A | 2.98 0.63 | 44 | 2.68 0.89 | 44 |
| PHYS002B | 2.85 0.65 | 61 | 2.97 0.87 | 62 |
| SPN004 | 3.13 0.81 | 41 | 2.91 1.06 | 41 |

* Indicates statistically significant at the 0.05 level.

Table 12. Average Course Grades for Tutoring Students vs. Matched Non-Tutoring Students Spring 2011

| Course Grade | Student Attended Tutoring | | Student Did Not Attend Tutoring | |
|-----------------|---------------------------|------|---------------------------------|------|
| | Mean (Std. Dev.) | N | Mean (Std. Dev.) | N |
| Overall | 2.51 1.03 | 1035 | 2.46 1.04 | 1032 |
| CHEM001B | 1.93 0.83 | 125 | 1.92 0.89 | 124 |
| CHEM001C | 2.61 0.98 | 75 | 2.55 1.02 | 76 |
| CHEM112B | 2.43 1.01 | 37 | 2.27 0.91 | 36 |
| ENGL001B | 3.14* 0.52 | 89 | 2.87* 0.80 | 88 |
| MATH008B | 2.03 1.20 | 32 | 2.02 1.23 | 32 |
| MATH009B | 2.51 1.01 | 98 | 2.42 0.91 | 99 |
| MATH009C | 2.38 1.12 | 85 | 2.22 1.21 | 84 |
| MATH010B | 2.26 1.07 | 33 | 2.51 1.04 | 34 |
| PHYS002A | 3.17 0.64 | 78 | 3.08 0.78 | 79 |
| PHYS002C | 2.96 0.74 | 37 | 3.25 0.65 | 37 |
| SPN004 | 3.09* 0.80 | 39 | 2.62* 1.09 | 36 |

* Indicates statistically significant at the 0.05 level.

Table 13. Average Course Grades for Tutoring Students vs. Matched Non-Tutoring Students Fall 2011

| Course Grade | Student Attended Tutoring | | Student Did Not Attend Tutoring | |
|-----------------|---------------------------|-----|---------------------------------|-----|
| | Mean (Std. Dev.) | N | Mean (Std. Dev.) | N |
| Overall | 2.44 1.01 | 844 | 2.43 1.08 | 831 |
| CHEM001A | 2.96 0.85 | 62 | 2.95 0.92 | 62 |
| CHEM001C | 2.38 0.79 | 63 | 2.34 0.95 | 62 |
| ENGL001A | 2.69 0.77 | 56 | 2.80 0.82 | 55 |
| ENGL004 | 2.25 0.39 | 40 | 2.13 0.63 | 40 |
| MATH008B | 1.94* 0.97 | 47 | 2.42* 1.15 | 47 |
| MATH009A | 3.02 0.72 | 32 | 2.87 0.96 | 32 |
| MATH009B | 2.29 1.18 | 110 | 2.23 1.18 | 108 |
| MATH009C | 1.91 1.09 | 59 | 2.13 1.29 | 54 |
| PHYS002A | 2.83 0.90 | 32 | 2.36 0.91 | 32 |
| PHYS040A | 2.49* 0.80 | 37 | 2.10* 0.84 | 36 |
| SPN004 | 3.05 0.97 | 35 | 2.69 1.17 | 35 |

* Indicates statistically significant at the 0.05 level.

Table 14. Average Course Grades for Tutoring Students vs. Matched Non-Tutoring Students Winter 2012

| Course Grade | Student Attended Tutoring | | Student Did Not Attend Tutoring | |
|-----------------|---------------------------|-----|---------------------------------|-----|
| | Mean (Std. Dev.) | N | Mean (Std. Dev.) | N |
| Overall | 2.61 (0.99) | 886 | 2.58 (0.95) | 881 |
| CHEM001A | 2.84 (0.79) | 32 | 2.80 (0.81) | 32 |
| CHEM001B | 2.36 (1.08) | 80 | 2.61 (0.87) | 81 |
| CHEM112A | 3.17* (0.67) | 79 | 2.84* (0.88) | 78 |
| CHEM112B | 2.47 (0.99) | 37 | 2.34 (1.06) | 36 |
| ENGL001A | 2.93* (0.66) | 54 | 2.67* (0.77) | 55 |
| ENGL001B | 2.88 (0.56) | 55 | 2.95 (0.69) | 55 |
| MATH009B | 2.27 (1.11) | 82 | 2.12 (1.08) | 79 |
| MATH009C | 2.14 (1.16) | 60 | 2.45 (0.90) | 62 |
| PHYS002B | 3.21 (0.65) | 40 | 3.05 (0.68) | 40 |
| SPN 004 | 3.05 (0.86) | 43 | 2.86 (0.93) | 43 |

* Indicates statistically significant at the 0.05 level.

Table 15. Average Course Grades for Tutoring Students vs. Matched Non-Tutoring Students Spring 2012

| Course Grade | Student Attended Tutoring | | Student Did Not Attend Tutoring | |
|-----------------|---------------------------|-----|---------------------------------|-----|
| | Mean (Std. Dev.) | N | Mean (Std. Dev.) | N |
| Overall | 2.65 (0.87) | 782 | 2.61 (0.95) | 768 |
| CHEM001C | 2.74 (0.89) | 71 | 2.79 (0.82) | 72 |
| CHEM112B | 2.29 (0.84) | 79 | 2.28 (0.77) | 77 |
| ENGL001B | 3.02 (0.59) | 50 | 2.97 (0.85) | 49 |
| MATH009C | 2.68 (1.03) | 38 | 2.44 (1.27) | 34 |
| PHYS002A | 2.74 (0.75) | 82 | 2.65 (0.86) | 81 |
| SPN 004 | 2.91 (0.85) | 57 | 3.02 (0.97) | 56 |

* Indicates statistically significant at the 0.05 level.

Table 16a. Tutoring Experience Survey Data

| What quarter(s) did you participate in the tutoring program? | 57 | % |
|---|-----------|----------|
| FALL 2010 | 9 | 15.8% |
| WINTER 2011 | 9 | 15.8% |
| SPRING 2011 | 9 | 15.8% |
| FALL 2011 | 19 | 33.3% |
| WINTER 2012 | 24 | 42.1% |
| SPRING 2012 | 21 | 36.8% |
| FALL 2012 | 38 | 66.7% |
| WINRER 2013 | 38 | 66.7% |
| SPRING 2013 (current) | 21 | 36.8% |
| Why did you decide to use the tutoring program? | 57 | % |
| Needed help with course material/assignments/studying | 49 | 86.0% |
| Needed to improve grades | 9 | 15.8% |
| Office hours not enough/unavailable | 9 | 15.8% |
| Was referred by someone | 4 | 7.0% |
| Extra credit | 3 | 5.3% |
| To clarify any confusion | 3 | 5.3% |
| Mandatory because of Subject To Dismissal | 1 | 1.8% |
| Did not answer | 1 | 1.8% |
| What did you like about the tutoring program? | 57 | % |
| Tutors were friendly/approachable | 23 | 40.1% |
| There was help when needed | 16 | 28.1% |
| Tutors were helpful | 15 | 26.3% |
| The tutoring hours were flexible | 6 | 10.5% |
| It was a positive experience | 5 | 8.8% |
| Program was easy to access/use | 5 | 8.8% |
| The One-on-one relationship with tutor | 5 | 8.8% |
| The environment was welcoming | 5 | 8.8% |
| It was a good place to study | 4 | 7.0% |
| The service was free | 3 | 5.3% |
| Did not answer | 1 | 1.8% |
| How has the program impacted your understanding of the subject matter in course? | 57 | % |
| Got a better understanding of the material | 33 | 57.9% |
| Completed assignments early/on time | 5 | 8.8% |
| It did not | 5 | 8.8% |
| Learned new concepts/approaches | 5 | 8.8% |
| Grades improved | 3 | 5.3% |
| Studied more efficiently | 1 | 1.8% |
| Did not answer | 6 | 10.5% |

Table 16b. Tutoring Experience Survey Data (continued)

| Besides course content, what else have you gained from the tutoring program? For example, has the tutoring had an impact on your study skills, time management, or confidence? How? Please describe. | | |
|---|-----------|----------|
| | 57 | % |
| Confidence in academics | 13 | 22.8% |
| Study skills | 8 | 14.0% |
| Nothing | 7 | 12.3% |
| It is okay to ask for help | 6 | 10.5% |
| Time management | 6 | 10.5% |
| Tutors become your friends | 3 | 5.3% |
| Better thought processes | 2 | 3.5% |
| Focus on homework/no distractions | 2 | 3.5% |
| Organization skills | 2 | 3.5% |
| Communication skills/networking | 1 | 1.8% |
| New writing techniques | 1 | 1.8% |
| Did not answer | 13 | 22.8% |
| How has the program affected the way you study or prepare for courses? | | |
| | 57 | % |
| Early preparation/studying for classes | 14 | 24.6% |
| No impact | 8 | 14.0% |
| I review with a tutor before my exam | 4 | 7.0% |
| I do my homework without difficulty now | 3 | 5.3% |
| Study outside the classroom | 3 | 5.3% |
| Better time management | 2 | 3.5% |
| Better understanding of course material | 2 | 3.5% |
| More open to ask for help | 2 | 3.5% |
| Reinforced studying | 2 | 3.5% |
| Revise papers before turning them in | 2 | 3.5% |
| Better note taking in class | 1 | 1.8% |
| Study effectively with other students | 1 | 1.8% |
| Did not answer | 17 | 29.8% |
| How has the program affected your communication, interpersonal, and/or social skills? | | |
| | 57 | % |
| It did not | 20 | 35.1% |
| Better communication skills | 5 | 8.8% |
| More sociable | 5 | 8.8% |
| More confidence | 3 | 5.3% |
| It is okay to ask for help | 2 | 3.5% |
| How to ask better questions | 1 | 1.8% |
| I learned to have more Patience | 1 | 1.8% |
| Putting advice from tutors into action | 1 | 1.8% |
| Did not answer | 16 | 28.1% |

Table 16c. Tutoring Experience Survey Data (continued)

| Has the program had an impact on the types of jobs you might pursue in the future? | 57 | % |
|--|-----------|----------|
| No | 27 | 47.4% |
| I want to be a tutor | 6 | 10.5% |
| Not sure/cannot say | 2 | 3.5% |
| Applying tutoring skills to help my children's learning abilities | 1 | 1.8% |
| Doctor: simplifying terms for patients and being patient | 1 | 1.8% |
| Occupation that provides knowledge to customers | 1 | 1.8% |
| Did not answer | 18 | 31.6% |
| Has the program had an impact on how you feel about college overall? | 57 | % |
| College experience made easier because of ARC | 14 | 24.6% |
| There is help available when needed | 11 | 19.3% |
| No | 10 | 17.5% |
| I feel as though UCR cares about its students | 6 | 10.5% |
| I am not the only student struggling in classes | 2 | 3.5% |
| A little frustration when tutors did not know answers to questions | 2 | 3.5% |
| Making friends was easy at the ARC | 2 | 3.5% |
| Did not answer | 13 | 22.8% |
| What did you not like about the tutoring program? If you could change the program, what would you change and why? | 57 | % |
| More tutors | 14 | 24.6% |
| Limited knowledge tutors had on the material/could not help | 10 | 17.5% |
| Waiting time to see tutor | 9 | 15.8% |
| Too crowded | 7 | 12.3% |
| Nothing | 5 | 8.8% |
| Online tutoring program | 2 | 3.5% |
| Tutors were lazy | 2 | 3.5% |
| Expand hours to weekends | 1 | 3.5% |
| Promote tutoring services | 1 | 3.5% |
| The tutors/I did not like them | 1 | 3.5% |
| Tutor's friends were a distraction | 1 | 1.8% |
| Tutors not present when they were supposed to be | 1 | 1.8% |
| Tutors were late | 1 | 1.8% |
| Did not answer | 12 | 21.1% |

Table 16d. Tutoring Experience Survey Data (continued)

| Is there anything else you would like to add about the tutoring program? | 57 | % |
|---|-----------|----------|
| No additional comments | 9 | 15.8% |
| Great program | 8 | 14.0% |
| Awesome/helpful tutors | 6 | 10.5% |
| Thanks | 3 | 5.3% |
| Add more tutors | 2 | 3.5% |
| Train the tutors | 2 | 3.5% |
| Add “how to improve oral English” | 1 | 1.8% |
| Engage students who are in the same class | 1 | 1.8% |
| Limit time students get service | 1 | 1.8% |
| Needs improvement (not specific) | 1 | 1.8% |
| Tutoring is not for everyone | 1 | 1.8% |
| Did not answer | 21 | 36.8% |