



The Impact of Scholarships on Student Performance

Introduction

This brief examines the number, nature, and dollar amount of scholarships awarded by CCSF from Spring 2005 through Fall 2007. In addition, the brief presents demographic information for scholarship recipients, compared to the overall credit population. The academic performance of scholarship students is compared to a group of similar students matched on demographic and academic characteristics prior to the scholarship term.¹ Academic performance includes subsequent terms enrolled, units enrolled, units passed, GPA, and attainment of transfer-level English and math.

This initial evaluation of scholarship students finds that students between the ages of 20 and 29, and African American, Asian / Pacific Islander and Latino students are well represented among scholarship recipients. Scholarships appear to have a positive effect on the number of terms enrolled and units attempted, and, while no effect on overall units passed or GPA is evident, scholarship recipients appear to be more likely than comparison groups to attain transfer-level English or math. Incentive scholarships seem to have a particularly salutary effect.

The six categories of scholarships utilized for the data presented in Tables 1 through 8 are as follows:

- **Basic Skills:** two incentive scholarships—the Mosaic scholarship and the College Readiness scholarship—with awards of \$500 per semester
- **General:** 24 different scholarships ranging from \$200 to \$3,000 each
- **Goldman:** merit- and need-based awards ranging from \$150 to \$333—changed to renewable, incentive scholarships in 2007-08
- **Osher:** awards ranging from \$150 to \$333 for students in career and technical programs—previously merit- and need-based but changed to renewable, incentive scholarships in 2007-08
- **Select Department:** 137 different merit-based scholarships ranging from \$50 to \$3,000

Most tables in this report refer to the five categories above (detailed descriptions available in Appendix A). In addition, a sixth category—“**Multiple**”—includes students who received two or more concurrent scholarships during the semesters covered in this report.

¹ The comparison group was designed selecting similar students matched by characteristics including number of units and terms enrolled prior to the scholarship term; general academic success; and age, gender and ethnicity.

Number of Scholarship Recipients and Average Award Amounts

The number of scholarships awarded to credit students at CCSF has been changing over the last four years. As Table 1 shows, in Spring 2006 the number of awards greatly increased to 1,046 students. This high figure reflects the scholarship award philosophy used at the time for Goldman and Osher scholarships which automatically provided small amounts of money to students who met certain criteria even if they did not apply for the scholarships. In spring 2007, the number of students awarded scholarships dropped to 332. This drop was partially due to a gap in funding for the Goldman scholarships, and a readjusted disbursement schedule for the Osher Scholars that substantially increased the dollar amount of the award to each student. Most recently, in Spring 2008, the number of recipients increased slightly to 381.

Table 2 shows the average scholarship award amounts, which averaged \$496 in Spring 2008.

Table 1 – Number of Scholarships Awarded by Term, Spring 2005 – Spring 2008

Scholarships	Spring 2005	Fall 2005	Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008
Basic Skills	-	-	48	45	75	102	113
General	-	26	50	-	56	-	49
Goldman	173	162	586	448	-	-	124
Osher	624	389	253	505	122	-	-
Select Dept	-	18	54	-	46	-	44
Multiple	-	24	55	15	32	-	51
Grand Total	797	619	1,046	1,013	332	103	381

Table 2 – Average Award Amount by Term, Spring 2005 – Spring 2008

Scholarships	Spring 2005	Fall 2005	Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008
Basic Skills	-	-	\$245	\$250	\$500	\$500	\$500
General	-	\$285	\$270	-	\$660	-	\$787
Goldman	\$149	\$149	\$149	\$332	-	-	\$300
Osher	\$150	\$150	\$149	\$332	\$268	-	-
Select Dept	-	\$337	\$501	-	\$488	-	\$395
Multiple	-	\$672	\$858	\$566	\$896	-	n/a
Overall Average	\$149	\$318	\$362	\$370	\$562	\$500	\$496

Demographics of Scholarship Recipients

Tables 3 through 5 provide an overview of scholarship recipients from Spring 2005 to Fall 2007 with breakdowns by ethnicity, age, and gender. Some general findings are as follows:

- Asian Pacific Islander (API) students comprise 38% of scholarship recipients, somewhat higher than the overall percentage of API students in the credit population (31%); except for Basic Skills scholarships where API students represent 30% of recipients.
- With the exception of General scholarships, African American students received a larger percentage of scholarships than their proportion within the credit population. For example, African American students received 16% of Basic Skills scholarships, whereas African American students comprise only 9% of the credit population.

- Latino students received the highest percentage of Basic Skills scholarships (34%) but fewer received General scholarships (6%). Latino students comprise 15% of the credit population.
- Students ages 20-24 are well represented among scholarship recipients—42% of scholarships are awarded to students in this group but only 27% of credit students fall into this age range.
- Both 16-19 and 20-24 age groups are disproportionately more likely to receive Basic Skills scholarships. Combined, these students receive 62% of Basic Skills scholarships.
- Women receive more scholarships than men on average, generally consistent with their numbers in the total population—58% of recipients are women and women comprise 56% of credit students.
- Women are disproportionately more likely than men to receive Basic Skills, Select Department, and Multiple scholarships—women receive between 63% and 66% of these scholarships.

**Table 3 – Ethnic Group Distribution of Scholarship Recipients by Scholarship Type
Spring 2005 – Fall 2007**

Scholarships	African American	Asian / Pacific Islander	Filipino	Latino	Other Non-White	Unknown/ No Response	White	Total*
Basic Skills	16%	30%	8%	34%	1%	2%	8%	100%
General	5%	43%	5%	6%	4%	7%	30%	100%
Goldman	13%	40%	4%	15%	4%	5%	17%	100%
Osher	15%	37%	5%	15%	3%	5%	19%	100%
Select Dept	15%	43%	3%	16%	3%	3%	15%	100%
Multiple	12%	36%	4%	13%	2%	7%	25%	100%
Total Percent	14%	38%	5%	16%	3%	5%	18%	100%
All Credit Students	9%	31%	7%	15%	3%	7%	28%	100%

* American Indian / Alaskan Native percentage not shown -- varies between 0% and 2% by scholarship.

**Table 4 – Age Group Distribution of Scholarship Recipients by Scholarship Type
Spring 2005 – Fall 2007**

Scholarships	16 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 49	50 Plus	Total*
Basic Skills	21%	41%	15%	10%	6%	5%	2%	100%
General	8%	30%	22%	17%	14%	7%	3%	100%
Goldman	6%	46%	19%	10%	6%	8%	5%	100%
Osher	6%	41%	24%	13%	5%	7%	4%	100%
Select Dept	3%	31%	21%	18%	8%	13%	5%	100%
Multiple	5%	40%	23%	7%	13%	7%	5%	100%
Total Percent	7%	42%	22%	12%	6%	7%	4%	100%
All Credit Students	11%	27%	19%	12%	9%	11%	11%	100%

* Unknown / No Response percentage not shown -- varies between 0% and 1% by scholarship.

Table 5 – Scholarships Awarded Spring 2005 – Fall 2007, by Gender

Scholarships	Female	Male	Total*
Basic Skills	67%	30%	100%
General	61%	38%	100%
Goldman	55%	44%	100%
Osher	57%	41%	100%
Select Dept	63%	36%	100%
Multiple	63%	37%	100%
Grand Total	58%	41%	100%
All Credit Students	56%	43%	100%

* No Response percentage not shown--varies from 0% to 2%.

Academic Performance of Scholarship Recipients

Tables 6 through 8 provide data regarding student performance. Results suggest that scholarships have a positive impact on some measures of performance—most notably on units attempted and terms enrolled. There is no evidence of overall effect upon units passed or GPA.

- Overall, scholarship students enrolled in more terms (3.64 compared to 3.09) and took more units (36.5 compared to 25.0) following their scholarship term than the comparison group. This tendency of scholarship students to stay longer and take more units is consistent across the three ethnic groups for which data is presented. (Tables 6 and 7) **An F-test found these differences were statistically significant at the .0001 level.**
- Differences between scholarship recipients overall and the comparison groups with regard to GPA and units passed are small and **not statistically significant.** (Table 6)
- Students are more likely to reach transfer-level mathematics or English coursework if they have received a scholarship. Overall, 32% of students who received a scholarship reached transfer-level mathematics versus 20% of the comparison group. In English, 39% of scholarship recipients reached a transfer level versus 25% of the comparison group. (Table 8) **These were also statistically significant at the .0001 level.**

Table 6 – Academic Performance after the Scholarship Term, by Selected Ethnic Groups For Scholarship Recipients versus a Comparison Group from Spring 2005 – Fall 2007*

	N	Terms Enrolled	Units Attempted (Number)	Units Passed (Percent)	GPA	GPA Standard Deviation
All Recipients	3,847	3.64	36.5	74%	2.79	n/a
Comparison Group	3,272	3.09	25.0	74%	2.76	0.98
African American Recipients	537	3.58	34.5	62%	2.40	n/a
Comparison Group	420	2.91	22.7	62%	2.38	1.01
Asian / Pacific Islander Recipients	1,460	3.85	39.9	79%	2.86	n/a
Comparison Group	1,337	3.23	28.3	78%	2.82	0.91
Latino Recipients	625	3.65	35.5	69%	2.60	n/a
Comparison Group	543	3.23	25.2	70%	2.57	0.99

* The comparison group is comprised of "similar" students matched on demographic variables and enrollment characteristics such as course success, terms enrolled and units enrolled prior to the scholarship term.

More detail for Table 6 is available in Appendix B.

Table 7 presents another view of the terms enrolled and units attempted after receipt of a scholarship. The data are presented by the term of the scholarship award starting in Spring 2005. With a few exceptions, scholarship recipients on average completed more terms and more units after receiving a scholarship than those in the comparison groups who did not receive a scholarship. For example, scholarship recipients who received an award in Spring 2005 stayed an additional 4.71 terms and took 44.3 units during that time. The comparison group stayed 3.84 terms and took 29.6 units. In the case of all comparisons of the scholarship total with the comparison group, **an F-test found these differences were statistically significant at the .0001 level.**

Table 7 – Persistence during and after the Scholarship Term Through Spring 2008*

Spring 2005 through Spring 2008	N	Terms Enrolled	Units Attempted
Goldman	173	4.95	47.4
Osher	624	4.64	43.5
Scholarship Total	797	4.71	44.3
Comparison	682	3.84	29.6
Fall 2005 through Spring 2008	N	Terms Enrolled	Units Attempted
General	25	3.12	34.3
Goldman	160	4.32	46.4
Osher	385	4.24	44.7
Select Dept	18	4.33	37.3
Multiple	24	3.21	41.3
Scholarship Total	612	4.18	44.4
Comparison	533	3.64	29.9
Spring 2006 through Spring 2008	N	Terms Enrolled	Units Attempted
Basic Skills	44	4.11	39.7
General	48	2.94	31.3
Goldman	576	3.80	37.2
Osher	245	3.76	34.9
Select Dept	50	3.04	28.9
Multiple	55	3.38	34.2
Scholarship Total	1,018	3.70	35.9
Comparison	949	3.05	24.1
Fall 2006 through Spring 2008	N	Terms Enrolled	Units Attempted
Basic Skills	42	3.43	36.4
Goldman	447	3.10	32.2
Osher	497	3.10	32.6
Multiple	15	3.40	36.3
Scholarship Total	1,001	3.12	32.6
Comparison	835	2.61	22.3

* Excludes 47 students who received scholarships but subsequently dropped all their enrollments. Similar students are also excluded from the comparison groups.

Table 8 presents achievement in mathematics and English. Overall, 32% of students who received a scholarship reached transfer-level math versus 20% of the comparison group. In English, 39% of scholarship recipients reached a transfer level versus 25% of the comparison group. Except for the lowest levels of math and English/ESL placement, students who received a scholarship were more likely to reach transfer level than a comparison group of students. For example, of students who started in Math 840 (elementary algebra, two levels below transfer), 26% of scholarship students reached a transfer level versus 15% of the comparison group. Of scholarship recipients who started in English 94 (two levels below transfer), 42% reached

transfer level versus 29% of the comparison group. A chi-square test shows these differences above a Math E or English L/140 level to be statistically significant at a minimum level of .001.

**Table 8 – Students Reaching Transfer-Level Math or English as of Spring 2008
By Their Math or English Level at Scholarship Term²**

	Comparison		Scholarship	
Math Level at Entry	Total N	% of Total Reaching Transfer Math	Total N	% of Total Reaching Transfer Math
E	349	5%	286	5%
840	546	15%	608	26%
850	182	37%	225	53%
860	223	39%	233	61%
Total	1,300	20%	1,352	32%
English or ESL Level at Entry	Total N	% of Total Reaching Transfer English	Total N	% of Total Reaching Transfer English
L / 140	170	3%	159	4%
90 / 150	216	5%	206	12%
92 / 160	212	12%	197	24%
94	385	29%	456	42%
96	383	50%	436	69%
Total	1,366	25%	1,454	39%

Incentive Scholarships

Finally, Tables 9 and 10 show student performance based upon two scholarship categories: **unsolicited** (scholarships that students receive automatically without applying³) and **incentive** (renewable scholarships that require students to maintain minimum GPAs, units enrolled, etc.). In this analysis, the incentive scholarships are the Basic Skills scholarships.⁴ There are too few merit scholarships to include them in the analysis.

- Students receiving incentive or unsolicited scholarships reached transfer-level English in greater percentages than the comparison group. Overall, 47% of incentive students reached a transfer level versus 43% of unsolicited scholarship students and 26% of the comparison group. At each course level, recipients of incentive scholarships tend to outperform other student groups. (Table 9)
- In mathematics, incentive scholarship students were similarly more likely to reach transfer level than the unsolicited scholarship group as well as the comparison group (41%, 34% and 21% respectively). (Table 9)
- In math, 58% of incentive scholarship recipients passed at least one math course compared to 47% for the unsolicited and 30% for the comparison group. (Table 10)
- In English, 77% of incentive scholarship recipients passed at least one English class, compared to 65% for unsolicited and 46% for the comparison group. (Table 10)

² Unduplicated. Students receiving scholarships in multiple terms are counted once, i.e. their first scholarship term.

³ This practice was previously used for some scholarships but has recently been discontinued.

⁴ For the timeframe used in this brief, the Goldman and Osher scholarships were not incentive scholarships.

At all levels above Math E and English 90/150 (and overall), the results are statistically significant at least at the .001 level.

**Table 9 – Students Reaching Transfer Level Math or English
By Their Math or English Level at Scholarship Term and Scholarship Type
For Spring 2006 through Spring 2007**

Math Level at Entry	Comparison Group		Unsolicited Scholarships		Incentive Scholarships	
	Total N	% of Total Reaching Transfer Math	Total N	% of Total Reaching Transfer Math	Total N	% of Total Reaching Transfer Math
E	195	8%	123	7%	16	19%
840/850/855	297	23%	232	34%	44	43%
860	102	42%	92	70%	9	67%
Total N	594	21%	447	34%	69	41%
English or ESL Level at Entry	Total N	% of Total Reaching Transfer English	Total N	% of Total Reaching Transfer English	Total N	% of Total Reaching Transfer English
L / 140	95	3%	78	3%	5	20%
90 / 150	111	8%	81	15%	23	9%
92 / 160	109	12%	71	31%	27	48%
94	224	31%	172	52%	28	75%
96	205	50%	180	71%	9	67%
Total N	744	26%	582	43%	92	47%

**Table 10 – Students Passing at Least One Course in the English or Mathematics Sequences
By Their Math or English Level at Scholarship Term and Scholarship Type
For Spring 2006 through Spring 2007**

Math Level at Entry	Comparison Group		Unsolicited Scholarships		Incentive Scholarships	
	Total N	% Passing One Math Course	Total N	% Passing One Math Course	Total N	% Passing One Math Course
E	195	21%	123	31%	16	44%
840/850/855	297	32%	232	47%	44	61%
860	102	42%	92	70%	9	67%
Total	594	30%	447	47%	69	58%
English or ESL Level at Entry	Total N	% Passing One English Course	Total N	% Passing One English Course	Total N	% Passing One English Course
L / 140	95	42%	78	54%	5	80%
90 / 150	111	31%	81	49%	23	61%
92 / 160	109	45%	71	65%	27	78%
94	224	51%	172	72%	28	93%
96	205	50%	180	71%	9	67%
Total	744	46%	582	65%	92	77%

Conclusion

In summary, scholarship students were more likely to be female, students of color, between 20 and 24 years old. Scholarship recipients tended to remain at CCSF longer and take more units than a comparison group of students. They were more likely to reach transfer-level English and

math when compared to similar students who did not receive scholarships. In general, students receiving incentive scholarships advanced further in math and English courses than students receiving unsolicited scholarships and a comparison group of similar students.

A study by MDRC of several community colleges located throughout the nation indicates that providing students with scholarships that require regular meetings with an advisor increased student persistence (i.e., re-enrollment) from one semester to the next.⁵ Our findings appear to support those of MDRC, at least for English.

The issue of student motivation often comes up in studies like these. Unfortunately, we cannot determine from this data whether or how motivation plays a role. It is possible that students who apply for scholarships are more motivated, but it is also possible that the scholarships themselves provide additional motivation.

Anecdotal evidence suggests that the financial burden of college often impacts a students' ability to persist; scholarships can help alleviate this burden, thereby boosting levels of persistence. A study conducted by The National Center for Public Policy in Higher Education substantiates this claim, finding that "affordability is a serious problem for many community college students, and fees are not the main cause."⁶ However, the positive impacts shown in this brief occurred as a result of a very small amount of scholarship money. Perhaps the recognition by the college via the scholarship and contact with college personnel, particularly as required by incentive scholarships, provides a spark that would otherwise not be there. Certainly it is also possible that greater financial assistance would further improve student performance—these findings only suggest that a relatively small amount of assistance appears to have a positive impact.

⁵ See, for example, Scrivener, S. and M. Pih. (2007). *Enhancing student services at Owens Community Colleges: Early results from the Opening Doors Demonstration in Ohio*. MDRC.

⁶ Zumeta, W. and D. Frankle. (2007). *California community colleges: Making them stronger and more affordable*. The National Center for Public Policy and Higher Education.

Appendix A: Description of Scholarships

We have included the following types of scholarships:

- **Basic Skills:** Includes two incentive scholarships—the Mosaic scholarship and the College Readiness scholarship—with awards of \$500 per semester. Both scholarships target students enrolled in pre-collegiate basic skills courses (those courses at the lowest end of the pre-collegiate sequence).

Requirements for Basic Skills scholarships:

1. Maintain a minimum of nine (9) credit units.
2. Completed at least one Basic Skills course. (Check Course Listing with your counselor.)
3. Be enrolled in one Basic Skills class each semester the award is given.
4. Maintain a Term and Cumulative GPA of 2.0 or better
5. Students may participate in only one of the following scholarship programs: The Richard Goldman Scholars, the Mosaic Scholars, College Readiness Program or the CalWORKS Basic Skills Program

Renewable eligibility based on the following requirements.

1. Must attend two appointments with a program counselor during each semester when scholarship funds are being awarded.
2. Have an updated counselor-prepared or electronic education plan every semester.
3. Participate in at least one academic enrichment session designated by your counselor each semester.

- **General:** Includes 24 different scholarships ranging from \$200 to \$3,000 each. These scholarships are generally awarded to students based on merit (including the completion of varying numbers of units, enrollment in varying numbers of units, and the achievement of GPAs ranging from 2.5 to 3.5). CCSF's Scholarship Committee reviews applications and determines the recipients.
- **Goldman:** During the time period covered by this report, these scholarships were awarded based on merit and need for students who had completed at least 9 units, were enrolled in at least 9 units, and had a minimum GPA of 2.5. During 2007-08, the nature of these scholarships changed to be renewable incentive scholarships requiring maintenance of a 2.0 GPA, completion of at least 9 units, continuing enrollment in 9 units, an updated education plan every semester, and regular engagement with a counselor in order to qualify for automatic renewal.
- **Osher:** These scholarships had the same eligibility requirements as the Goldman scholarships during the time period of this report, but were focused on students enrolled in career and technical programs (see above). Like the Goldman scholarships, these awards changed in 2007-08 to become renewable incentive scholarships with the following requirements: establishment and maintenance of a GPA of 2.5 or greater, completion of at least 18 units, and continuing enrollment in 9 or more units (the first award of these new scholarships will occur in Fall 2008).
- **Select Department:** Comprises 137 different merit-based scholarships ranging from \$50 to \$3,000. Eligibility ranges in terms of the number of units completed and in progress and minimum GPA requirements range from 2.0 to 3.5. These scholarships are awarded by a variety of committees and individuals both internal and external to the College.

Appendix B: Detail for Table 6

Scholarships	N	Terms Enrolled	Units Attempted (Number)	Units Passed (Percent)	GPA	GPA Standard Deviation
All Recipients						
Basic Skills	260	2.35	25.1	74%	2.59	0.80
General	129	2.61	28.1	93%	3.69	0.34
Goldman	1,355	3.77	37.9	72%	2.73	0.85
Osher	1,863	3.88	38.4	73%	2.73	0.86
Select Dept	114	2.91	27.2	87%	3.20	0.69
Multiple	126	2.98	32.6	88%	3.42	0.66
Total	3,847	3.64	36.5	74%	2.79	n/a
African American Recipients						
Basic Skills	42	2.45	26.6	71%	2.44	0.92
General	6	3.33	39.5	80%	3.34	0.54
Goldman	178	3.60	33.9	61%	2.42	0.86
Osher	279	3.79	36.2	60%	2.30	0.89
Select Dept	17	3.12	28.6	74%	2.67	0.84
Multiple	15	3.40	35.7	78%	3.15	0.73
Total	537	3.58	34.5	62%	2.40	n/a
Asian / Pacific Islander Recipients						
Basic Skills	77	2.44	25.3	79%	2.73	0.71
General	54	2.37	25.8	96%	3.74	0.27
Goldman	539	4.09	42.7	77%	2.79	0.75
Osher	695	4.09	41.9	77%	2.80	0.78
Select Dept	50	2.56	25.7	89%	3.22	0.66
Multiple	45	2.93	33.0	92%	3.50	0.54
Total	1,460	3.85	39.9	79%	2.86	n/a
Latino Recipients						
Basic Skills	90	2.58	27.0	69%	2.47	0.82
General	8	3.25	29.7	82%	3.39	0.39
Goldman	209	3.75	36.8	68%	2.55	0.85
Osher	284	3.99	37.8	69%	2.59	0.84
Select Dept	18	3.28	31.5	84%	3.33	0.59
Multiple	16	3.06	32.7	79%	3.04	0.95
Total	625	3.65	35.5	69%	2.60	n/a