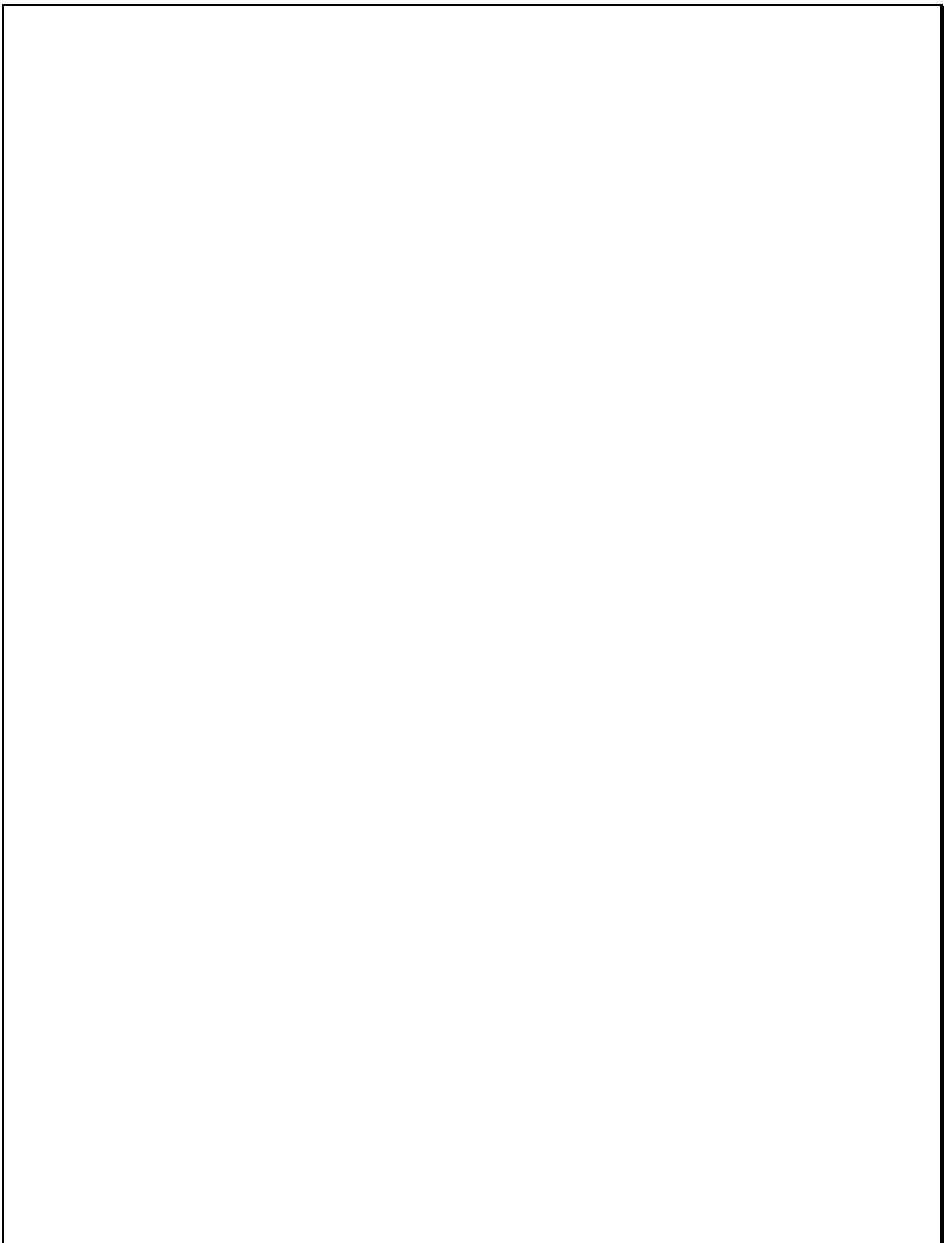


**Tutoring Center**  
**Student Success in Key Courses**

**Fall 2006**

*Prepared by the Office of Research*  
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## Introduction

As part of its ongoing improvement efforts, the Tutoring Center at Harper College was interested in investigating the impact of its services on students. Specifically, the Tutoring Center was interested in the success of students in key courses and how the success of their students compared to that of students who had not utilized the Tutoring Center. The key courses were:

- ACC101,
- CIS101,
- ENG101,
- MTH080, and
- PHY121.

The Tutoring Center provided a list of 812 students that had been tutored in one of the key courses during the fall or spring of FY06. The report is organized into an Introduction, a Results and Discussion Section that analyzes student success, and a Summary section that highlights key findings.

## Results and Discussion

Information on the students' usage of tutoring services, key courses, and final class grades was obtained from the Tutoring Center's records. Harper's Regent system was queried to create a database of students who were enrolled in one of the key courses in the same semester as tutored students. As noted above, there were 812 students who were tutored in one of the key courses during fall or spring of FY06. There were 4,598 non-tutored students enrolled in the same course sections as the tutored students (students were excluded if they were enrolled in a section in which none of their peers were tutored). Table 1 shows the proportion of students in each of the key courses.

**Table 1: Enrollment in Key Courses, FY06**

Course	Tutored		Non-tutored		% of students tutored
	N	%	N	%	
ACC101	266	32.8%	769	16.8%	25.7%
CIS101	58	7.1%	531	11.6%	9.8%
ENG101	180	22.2%	1,827	39.8%	9.0%
MTH080	218	26.8%	1,403	30.6%	13.4%
PHY121	90	11.1%	56	1.2%	61.6%
Total	821		4,598		15.0%

As shown in Table 1, the majority of students tutored in key courses sought assistance with ACC101, MTH080, and ENG101. The courses with the largest proportions of students seeking tutoring assistance were PHY121 and ACC101.

The following tables show the grade distributions for each of the key courses by semester, comparing tutored and non-tutored students.

**Table 2: Student Success in ACC101**

Grade	Fall FY06 <sup>a</sup>				Spring FY06 <sup>b</sup>			
	Tutored		Non-tutored		Tutored		Non-tutored	
	N	%	N	%	N	%	N	%
A	20	14.2%	35	8.8%	26	20.8%	38	10.2%
B	20	14.2%	45	11.4%	21	16.8%	41	11.0%
C	29	20.6%	44	11.1%	40	32.0%	53	14.2%
D	17	12.1%	30	7.6%	12	9.6%	30	8.0%
F	15	10.6%	100	25.3%	12	9.6%	84	22.5%
W	40	28.4%	142	35.9%	14	11.2%	126	33.8%

<sup>a</sup> Grade distributions were significantly different for tutored vs. non-tutored students ( $\chi^2=29.90$ ,  $df=5$ ,  $p<.01$ ).

<sup>b</sup> Grade distributions were significantly different for tutored vs. non-tutored students ( $\chi^2=52.30$ ,  $df=5$ ,  $p<.01$ ).

Table 2 shows that students who were tutored in ACC101 received higher grades than students who were not. For fall FY06, the passing rate (grade of C or better) was 49.0% for tutored students and 31.3% for non-tutored students. For spring FY06, the passing rate (grade of C or better) was 69.6% for tutored students and 35.4% for non-tutored students.

**Table 3: Student Success in CIS101**

Grade	Fall FY06 <sup>a</sup>				Spring FY06			
	Tutored		Non-tutored		Tutored		Non-tutored	
	N	%	N	%	N	%	N	%
A	9	27.3%	67	20.9%	6	24.0%	32	15.2%
B	14	42.4%	60	18.8%	7	28.0%	40	19.0%
C	6	18.2%	56	17.5%	4	16.0%	45	21.3%
D	2	6.1%	26	8.1%	2	8.0%	17	8.1%
F	2	6.1%	62	19.4%	6	24.0%	43	20.4%
W	0	0.0%	49	15.3%	0	0.0%	34	16.1%

<sup>a</sup> Grade distributions were significantly different for tutored vs. non-tutored students ( $\chi^2=16.70$ ,  $df=5$ ,  $p<.01$ ).

Table 3 shows that students who were tutored in CIS101 during fall FY06 received higher grades than students who were not. For fall FY06, the passing rate (grade of C or better) was 87.9% for tutored students and 57.2% for non-tutored students. For spring FY06, the passing rate (grade of C or better) was 68.0% for tutored students and 55.5% for non-tutored students; the difference in grade distributions was not statistically significant.

**Table 4: Student Success in ENG101**

Grade	Fall FY06 <sup>a</sup>				Spring FY06 <sup>b</sup>			
	Tutored		Non-tutored		Tutored		Non-tutored	
	N	%	N	%	N	%	N	%
A	31	29.5%	196	19.5%	18	24.0%	159	19.3%
B	34	32.4%	283	28.2%	35	46.7%	182	22.1%
C	23	21.9%	173	17.2%	11	14.7%	162	19.7%
D	7	6.7%	65	6.5%	2	2.7%	37	4.5%
F	5	4.8%	167	16.7%	2	2.7%	138	16.7%
W	5	4.8%	119	11.9%	7	9.3%	146	17.7%

<sup>a</sup> Grade distributions were significantly different for tutored vs. non-tutored students ( $\chi^2=19.31$ ,  $df=5$ ,  $p<.01$ ).

<sup>b</sup> Grade distributions were significantly different for tutored vs. non-tutored students ( $\chi^2=30.99$ ,  $df=5$ ,  $p<.01$ ).

As shown in Table 4, students who were tutored in ENG101 received higher grades than students who were not. For fall FY06, the passing rate (grade of C or better) was 83.8% for tutored students and 64.9% for non-tutored students. For spring FY06, the passing rate (grade of C or better) was 85.4% for tutored students and 61.1% for non-tutored students.

**Table 5: Student Success in MTH080**

Grade	Fall FY06 <sup>a</sup>				Spring FY06 <sup>b</sup>			
	Tutored		Non-tutored		Tutored		Non-tutored	
	N	%	N	%	N	%	N	%
A	11	8.0%	68	8.7%	16	20.0%	74	11.8%
B	31	22.5%	140	18.0%	17	21.3%	101	16.2%
C	45	32.6%	165	21.2%	26	32.5%	126	20.2%
D	19	13.8%	80	10.3%	5	6.3%	45	7.2%
F	12	8.7%	150	19.3%	4	5.0%	126	20.2%
W	20	14.5%	175	22.5%	12	15.0%	153	24.5%

<sup>a</sup> Grade distributions were significantly different for tutored vs. non-tutored students ( $\chi^2=20.24$ ,  $df=5$ ,  $p<.01$ ).

<sup>b</sup> Grade distributions were significantly different for tutored vs. non-tutored students ( $\chi^2=21.46$ ,  $df=5$ ,  $p<.01$ ).

Students who were tutored in MTH080 (see Table 5 above) received higher grades than students who were not. For fall FY06, the passing rate (grade of C or better) was 63.1% for tutored students and 47.9% for non-tutored students. For spring FY06, the passing rate (grade of C or better) was 73.8% for tutored students and 48.2% for non-tutored students.

**Table 6: Student Success in PHY121**

Grade	Fall FY06 <sup>a</sup>				Spring FY06			
	Tutored		Non-tutored		Tutored		Non-tutored	
	N	%	N	%	N	%	N	%
A	7	11.9%	7	20.0%	2	6.5%	2	9.5%
B	17	28.8%	5	14.3%	8	25.8%	5	23.8%
C	16	27.1%	7	20.0%	9	29.0%	9	42.9%
D	4	6.8%	0	0.0%	2	6.5%	0	0.0%
F	0	0.0%	5	14.3%	1	3.2%	2	9.5%
W	15	25.4%	11	31.4%	9	29.0%	3	14.3%

<sup>a</sup> Grade distributions were significantly different for tutored vs. non-tutored students ( $\chi^2=14.50$ ,  $df=5$ ,  $p<.05$ ).

As shown in Table 6, students who were tutored in PHY121 in fall FY06 received higher grades than students who were not. For fall FY06, the passing rate (grade of C or better) was 67.8% for tutored students and 54.3% for non-tutored students. For spring FY06, the passing rate (grade of C or better) was 61.3% for tutored students and 76.2% for non-tutored students; the difference in grade distributions was not statistically significant. This course was unique among the key courses in that it was the only course in which the majority of students (61.6%, see Table 1) sought tutoring assistance. This course also had the smallest enrollment among the key courses (146 students, or 2.7% of the total population for this study).

### Summary

In fall 2006, the Tutoring Center made available a database of 812 students who were tutored in a key course (ACC101, CIS101, ENG101, MTH080, or PHY121) during the fall and spring of FY06. Harper's Regent system was queried to compile information about students who were enrolled in the same sections as these students but who had not come to the Tutoring Center for assistance. There were 4,598 of these students.

The largest proportions of tutored students were found ACC101, MTH080, and ENG101. The largest proportion of students seeking tutoring assistance was found in PHY121 (61.6%, compared to 25.7% for ACC101 which had the next-largest proportion).

The Tutoring Center does appear to have a positive impact on student success: across all key courses, students who were tutored were more likely to pass their course with a grade of C or better than those who were not tutored. The only exceptions were for sections of CIS101 and PHY121 offered in spring FY06; for spring offerings of these courses, the difference in student passing rates was not statistically significant. The average difference in passing rates between tutored and non-tutored students was 17.8%. The highest passing rates were in ENG101 (84.6% for tutored students and 63.0% for non-tutored students), while the lowest passing rates were in ACC101 (59.3% for tutored students and 33.4% for non-tutored students).