

**Oakland Community College
1998-99 Institutional Effectiveness
Developmental Education Final Report**

Results

Initial findings indicate that a small yet significant portion of the student population is served by the remedial education provided under OCC's Developmental Education Purpose. The pattern of enrollment in Developmental Education courses has been relatively stable, declining only slightly over the last seven academic years.

1. Overall, participation in Developmental Education has declined somewhat since 1991/92 and constituted 10% of all Student Credit Hours during the 1997/98 academic year. In particular, drops in enrollment were seen in the numbers of First-time students taking developmental English. On the other hand, developmental math enrollment was more stable.
2. Across the fall terms from 1994 to 1995, successful completion rates for students enrolled in Developmental Education courses have fluctuated between the 40 and 60% marks. On average, 58% of English students and 44% of Math students successfully finished their developmental courses.

Oakland Community College
Institutional Effectiveness Modifications
Developmental Education (1999-00)

1. The extent to which students are successful *after* completing their developmental course(s) will be provided. Former Developmental Education students will be tracked and their completion rates compared to overall completion rates in non-developmental courses.
2. Information garnered from environmental scanning efforts will be incorporated into the Effectiveness Report to provide a broader context in which to understand Developmental Education at OCC.

- Call to find out details re:
this study



1998-99 Developmental Education Study

Individual Report for Oakland Community College

Prepared by:
Catherine Augustine
June, 1999

Executive Summary

- This individual report is intended to be a supplement to the 1998-99 Developmental Education Study on Michigan's developmental students. Please refer to that report for information on study purpose, research questions, and methods. This supplemental report presents information on developmental and non-developmental students from Oakland Community College and from the 1998-99 Developmental Education Study database.
- It is important to remember that although many comparisons were possible and statistically valid, the sample size from OCC is small and may not be representative of all students at OCC. Further research with a larger sample size should help to expand upon the findings in this study.
- In general, all students at OCC (both developmental and non-developmental) appear to perform as well as all students in the DES database. All students in the OCC sample have comparable GPAs, comparable last semesters attended, and a higher ratio of credits attempted to credits completed than do students in the DES database.
- In terms of comparing developmental students' pass rates, simply by comparing percentages, students from OCC were less likely to pass all three developmental courses than were students in the DES database. However, these differences are not statistically significant.
- Despite the somewhat lower pass rates in the developmental courses, the developmental students from OCC were just as likely to eventually pass college-level English and college-level math. This success stems in part from the high percentage of students at OCC who fail their developmental course, yet still go on to pass the college-level course. *- this is not a reason* *redundant*
- In terms of comparing developmental students to non-developmental students at OCC, non-developmental students have higher GPAs, as is the case for students in the DES database. However, OCC's developmental students have comparable ratios of credits attempted to credits completed, which is not the case for students in the DES database.
- In terms of comparing the pass rates of developmental to non-developmental students at OCC, developmental students are just as likely, if not more likely, to pass all of the college-level courses we examined.
- Part of the reason why the developmental students at OCC perform so well in comparison to the non-developmental students is that the non-developmental students have fairly low pass rates in math and political science. ***** Non-developmental students at OCC are less likely to have passed either math or political science than were non-developmental students in the DES database.
- Perhaps the most surprising finding in this study is how well the OCC developmental students who have failed the developmental courses do in subsequent college-level courses. We did not see this pattern in the DES database. There are no indications that the college-level courses are "easy," given that a lower percentage of OCC non-developmental students pass the college-level courses than do the DES non-developmental students.

Introduction

This individual report is intended to be a supplement to the 1998-99 Developmental Education Study on Michigan's developmental students. Please refer to that report for information on study purpose, research questions, and methods. The information contained in this supplemental report is intended for, and has been tailored to, developmental educators at Oakland Community College.

Study Results

Overall, there are 4,406 students in the developmental education study database (herein described as the DES database). Of these, 51% (n=2,238) are developmental, and 49% (n=2,168) are non-developmental. In terms of enrollment status in the Fall 1995 semester, for students in the DES database, 48% (n=2,115) were full-time and 52% (n=2,291) were part-time. Oakland Community College (OCC) provided us with 193 usable cases of students. Of these, 51% are developmental (n=99) and 49% are non-developmental (N=94). In terms of enrollment status in the Fall 1995 semester, 19% were full-time (n=36) and 81% were part-time (n=157). Table 1 presents a comparison of OCC's students to the general population of students.

huge diff. bet. OCC & gen pop

Table 1
Means and Standard Deviations for All Students (Developmental and Non-Developmental)

	All Other Students in DES Database (N = 4,209)	OCC Students (N = 193)	t-Value
GPA	2.20 (1.19)	2.24 (1.18)	Not significant
Credits Attempted	32 (26)	23 (21)	5.72*
Credits Attempted to Credits Completed Ratio	.74 (.33) %	.86 (.28) %	-5.66*
Last Semester Attended ¹	5.90* (3.28)	6.20 (3.68)	Not significant

* $p < .0001$

Note: standard deviations are in parentheses

*4 = Spring/Summer 1996, 5 = Fall 1996, 6 = Winter 1997; 7 = Spring/Summer 1997

¹ All semester information in the database is set up as: Fall, Winter, Spring/Summer. We termed the main semester starting in January "winter" even if the individual college called this a spring semester. We collapsed all spring and summer semesters into one semester.

Although the number of students from OCC is much lower than the number of students in the DES database, comparisons between these two groups are still valid. As Table 1 demonstrates, all students in the OCC sample have a comparable GPA to all students in the DES database. Although the students from OCC have a lower number of credits attempted, this finding is almost certainly due to the higher percentage of part-time students in OCC's sample. In fact, the OCC students have a higher ratio of credits attempted to credits completed, which is a more valid measure of success for these student samples.

The students from OCC tended to remain enrolled at their institution for as long, if not longer, than did the students in the DES database. The average last semester attended for OCC students is Winter 1997. Figure 1 presents a more detailed comparison between OCC and all students in the DES database by displaying the percentages of students by their last semester attended at their institution. This figure demonstrates that students from OCC are more likely than students in the DES database to still be enrolled in Fall 1998. On the one hand, this finding may be due to the higher percentage of part-time students in the OCC sample—perhaps they are still enrolled in Fall 1998 because it is taking them longer to complete their studies. However, traditionally, part-time students have had lower retention rates, so this finding could also be viewed with surprise.

Figure 1. Percentage of Students by Their Last Semester Attended for Students in the DES Database and OCC Students

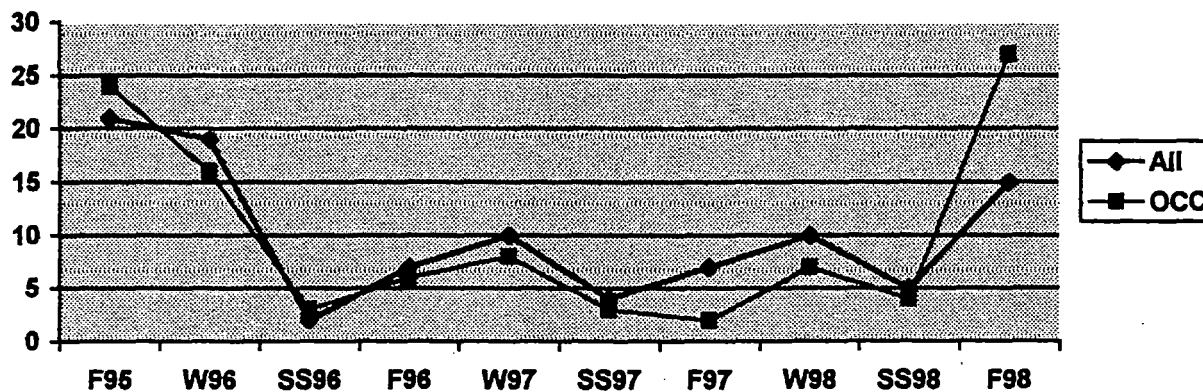


Table 2 compares pass rates in developmental courses for the students from OCC and all other students in the DES database. Although in all three cases, the students from OCC were less likely to pass the developmental course, these differences are not statistically significant, meaning that the number of cases were low and the difference between the percentages were too small to not be dismissed as happening by chance.

Table 2
Number and Percentage of Students Who Took and Passed Developmental Courses

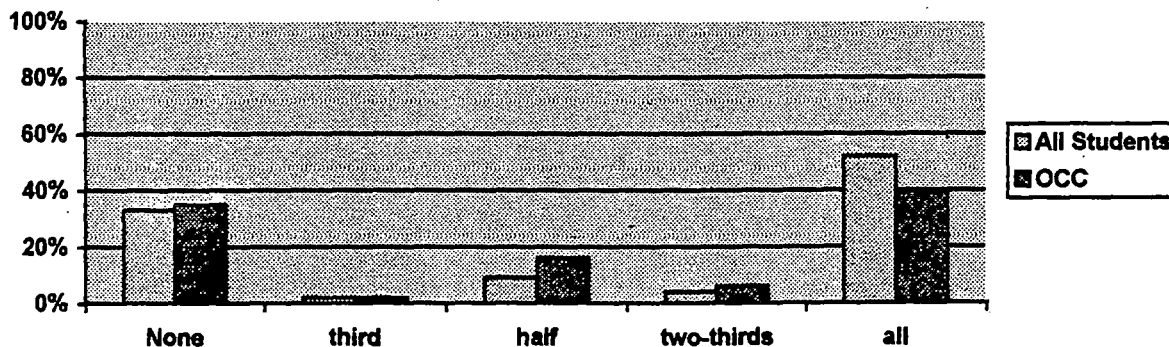
Developmental Course	All Other Students in DES Database		OCC Students		t-Value
	Number Enrolled	% who Passed	Number Enrolled	% who Passed	
English	1,105	67%	77	58%	Not sig.
Math	1,471	53%	65	43%	Not sig.
Reading	733	67%	22	59%	Not sig.

*over 1/3 of dev
 OCC students
 passed 0 of
 dev. courses
 they enrolled in*

*p < .01

Figure 2 demonstrates the pass rates for developmental students for all of the developmental courses they enrolled in (one to three courses were possible). For students in the DES database, slightly more than half of the developmental students (52%) passed all of their developmental courses, regardless of the number of courses they took. One third of the students (33%) did not pass any of their developmental courses, regardless of the number of courses they took. The remaining 15% passed either one-third or one-half or two-thirds of their developmental courses. For OCC developmental students, 40% passed all of the courses they enrolled in and 35% passed none of the developmental courses they enrolled in. Although the OCC students are less likely to pass all of the developmental courses they enrolled in, this difference is not statistically significant.

Figure 2 Pass Rates for All Developmental Courses Taken



In the 1998-99 Developmental Education study, we found that students who passed their developmental courses and then went on to take a college-level course in the same subject area were more likely to pass that college-level course than were students who had failed the developmental course. Surprisingly, the students in the OCC sample did not follow this pattern. Students who failed the developmental courses performed just as well in the college-level courses as those students who had passed developmental courses. For the OCC students, 29 of

OCC

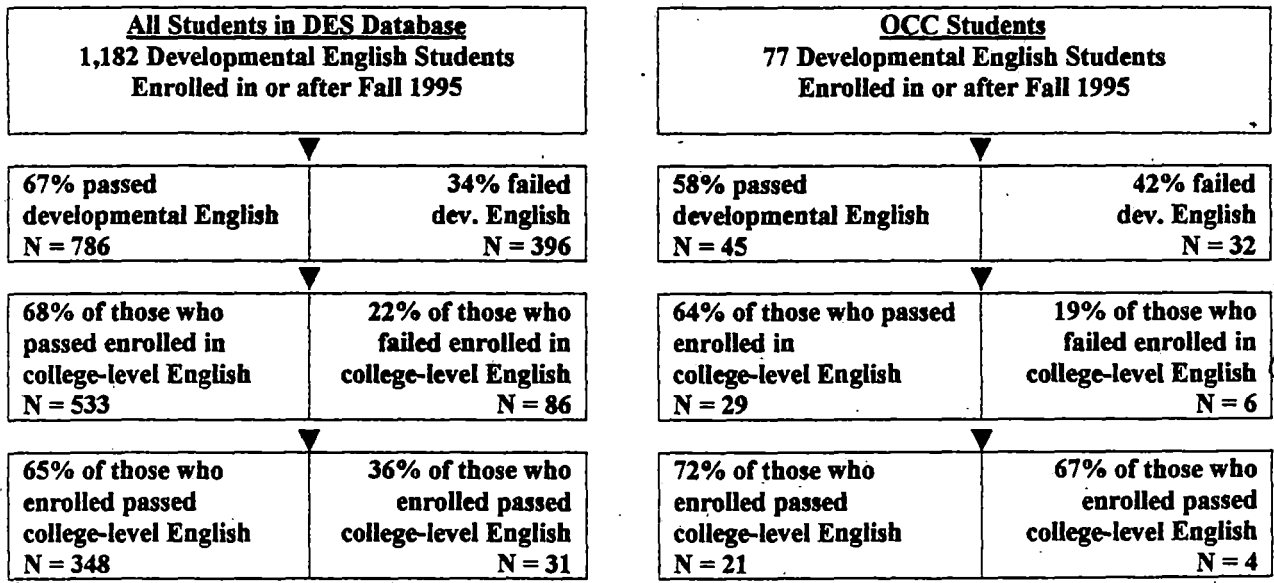
the students who passed developmental English went on to enroll in college-level English. Of these students, 21 (72%) passed the college-level English course. Six OCC students failed developmental English, yet still enrolled in college-level English. Of these students, 4 (67%) passed the college-level English course. Fourteen of the OCC students who passed developmental math went on to enroll in college-level math. Of these, 6 (43%) passed the college-level math course. Another 7 OCC students failed the developmental math course, yet still enrolled in the college-level math course. Three of these students (43%) passed the college-level math course. Seven of the OCC students passed developmental reading and enrolled in political science. Of these, 6 (86%) passed the political science course. One student failed developmental reading, yet still enrolled in political science. This student passed political science.

The following two figures summarize the paths taken by two groups of students: those who enrolled in developmental English and those who enrolled in developmental math sometime in or after Fall 1995. Of the 1,182 students in the DES database who enrolled in developmental English, 379 (32%) went on to enroll in and pass college-level English sometime between Winter 1996 and Fall 1998. Of the 1,536 students who enrolled in developmental math, 223 (15%) went on to enroll in and pass college-level math sometime between Winter 1996 and Fall 1998.

For OCC, of the 77 students who enrolled in developmental English in or after Fall 1995, 32% enrolled in and passed college-level English by Fall 1998 (n=25). This percentage is the same as that for all students in the DES database. The OCC students did especially well in passing college-level English—especially those students who had failed developmental English.

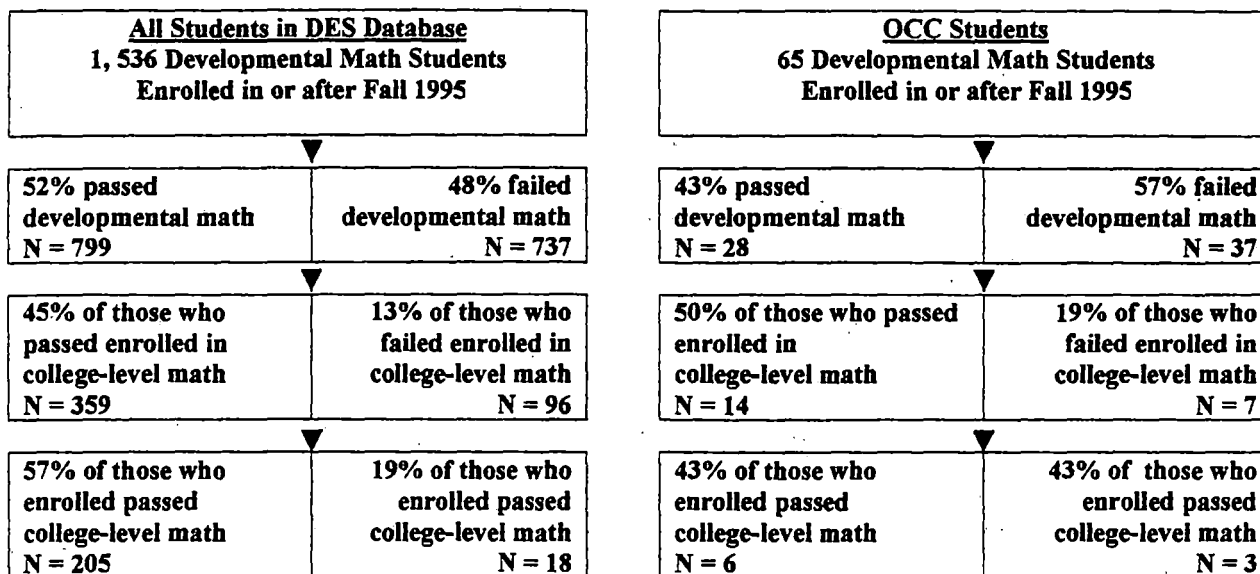
Of the 65 OCC students who enrolled in developmental math sometime in or after Fall 1995, 14% passed college-level math by Fall 1998 (n=9). This percentage is practically the same as that for students in the DES database (15%). Although, percentage-wise, fewer OCC students who had passed developmental math passed college-level math, more OCC students who had failed developmental math passed college-level math.

Figure 3
Paths of Developmental English Students from Fall 1995 – Fall 1998



These are such small #'s the assumptions are questionable

Figure 4
Paths of Developmental Math Students from Fall 1995 – Fall 1998



Tables 3 and 4 compare developmental students to non-developmental students on GPA, credits attempted to credits completed, and last semester attended. Table 3 is for students in the DES database. For these students, non-developmental students have higher GPAs and higher credits attempted to credits completed ratios. However developmental students have a higher last semester attended.

Table 3
Comparisons of Developmental to Non-Developmental Students on GPA, Credits Attempted to Credits Completed, and Last Semester Attended for Students in DES Database

	GPA	Credits Attempted to Credits Completed	Last Semester Attended [♦]
Developmental (n=2,238)	1.95	.70	6.09
Non-Developmental (n=2,168)	2.46	.79	5.74
T value	-14.513*	-8.629*	3.569*

♦4=Spring/Summer 1996; 5=Fall 1996; 6=Winter 1997; 7=Spring/Summer 1997

*p<.0001

Table 4 presents the comparison of developmental to non-developmental students on GPA, credits attempted to credits completed, and last semester attended for OCC students. As was the case for all students in the DES database, developmental students at OCC have a lower cumulative GPA. However, there is no difference between OCC's developmental and non-developmental students on either the ratio of credits attempted to credits completed or the last semester these students attended.

Table 4

Comparisons of Developmental to Non-Developmental Students on GPA, Credits Attempted to Credits Completed, and Last Semester Attended for OCC Students

	GPA	Credits Attempted to Credits Completed	Last Semester Attended*
Developmental (n=99)	2.08	.87	6.55
Non-Developmental (n=94)	2.41	.86	5.83
T value	-1.99*	Not significant	Not significant

*5=Fall 1996; 6=Winter 1997; 7=Spring/Summer 1997

* $p < .05$

Tables 5 and 6 compare developmental to non-developmental students on whether they passed their college-level English, math, and political science courses. The developmental students in these two tables had passed their developmental course in the same subject (reading for political science) prior to enrolling in the college-level course. Table 5 presents information on students in the DES database. For these students, a higher percentage of non-developmental students passed college-level English than did developmental students. This finding held for developmental students who had passed either developmental English or developmental reading prior to enrolling in college-level English. There was no statistically significant difference between developmental and non-developmental students on passing either college-level math or political science.

Table 5

Pass Rates in Non-Developmental Course by Developmental Status for Students in DES Database

Non-Developmental Course

	English N=2,022	Math N=1,430	Political Science N=921	English (reading) N=1,751
Developmental	65% (of 533)	57% (of 359)	65% (of 162)	59% (of 262)
Non-Developmental	71% (of 1,489)	60% (of 1,071)	69% (of 759)	71% (of 1,489)
T-value	-2.283*	Not significant	Not significant	-3.654**

* p significant @ $< .05$, ** p significant @ $< .0001$

Note: Numbers in parentheses are number of students who enrolled in college-level course.

Table 6 presents the same information for OCC students. Surprisingly, the developmental students at OCC perform as well as, if not better than, the non-developmental students at OCC. There is only one statistically significant difference between groups—students

who had passed developmental reading were more likely to pass political science than were students who never enrolled in developmental reading (or any other developmental courses). However, there were only 7 developmental students in this comparison, so further study with a greater number of students could show if this difference can be replicated. Part of the reason why the developmental students at OCC perform so well in comparison with the non-developmental students is that the non-developmental students have fairly low pass rates in these courses, especially in math and political science. In fact, the OCC non-developmental students are statistically significantly less likely to have passed math than are non-developmental students in the DES database ($t=2.81, p<.01$). In addition, the OCC non-developmental students are statistically significantly less likely to have passed political science than are non-developmental students in the DES database ($t=2.46, p<.05$). *X

Table 6

Pass Rates in Non-Developmental Course by Developmental Status for OCC Students

Non-Developmental Course

Student Status	English N=78	Math N=53	Political Science N=37	English (reading) N=57
Developmental	72% (of 29)	43% (of 14)	86% (of 7)	63% (of 8)
Non-Developmental	63% (of 49)	38% (of 39)	47% (of 30)	63% (of 49)
T value	Not significant	Not significant	2.29*	Not significant

Note: Numbers in parentheses are number of students who enrolled in college-level course.

* $p < .05$

Summary

This supplemental report presents information on developmental and non-developmental students from Oakland Community College and from the 1998-99 Developmental Education Study database. It is important to remember that although many comparisons were possible and statistically valid, the sample size from OCC is small and may not be representative of all students at OCC. Further research with a larger sample size should help to expand upon the findings in this study.

In general, all students at OCC (both developmental and non-developmental) appear to perform as well as all students in the DES database. All students in the OCC sample have comparable GPAs, comparable last semesters attended, and a higher ratio of credits attempted to credits completed than do students in the DES database. }

In terms of comparing developmental students' pass rates, simply by comparing percentages, students from OCC were less likely to pass all of the three developmental courses than were students in the DES database. However, these differences are not statistically significant. Despite the somewhat lower pass rates in the developmental courses, the developmental students from OCC were just as likely to eventually pass college-level English

and college-level math. This success stems in part from the high percentage of students at OCC who fail their developmental course, yet still go on to pass the college-level course.

10
NO

In terms of comparing developmental students to non-developmental students at OCC, non-developmental students have higher GPAs, as is the case for students in the DES database. However, OCC's developmental students have comparable ratios of credits attempted to credits completed, which is not the case for students in the DES database. This finding is likely related to the finding that even those developmental students who do not pass the developmental courses are fairly likely to go on and pass college-level courses.

In terms of comparing the pass rates of developmental to non-developmental students at OCC, developmental students are just as likely, if not more likely, to pass all of the college-level courses we examined. The students in this analysis are only those who had passed their developmental courses. Part of the reason why the developmental students at OCC perform so well in comparison to the non-developmental students is that the non-developmental students have fairly low pass rates in math and political science. Non-developmental students at OCC are statistically less likely to have passed either math or political science than were non-developmental students in the DES database.

Perhaps the most surprising finding in this study is how well the OCC developmental students who have failed the developmental courses do in subsequent college-level courses. We did not see this pattern in the overall DES database. There are no indications that the college-level courses are "easy," given that a lower percentage of OCC non-developmental students pass the college-level courses than do the DES non-developmental students. As these findings are based on a very small number of students who failed the developmental courses and then went on to pass a college-level course, developmental educators at OCC could further investigate this phenomenon to discern whether it holds for a larger student sample.