

Student Performance in Compressed Basic Skills Courses

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EXECUTIVE SUMMARY

Students enrolled in compressed format, basic skills classes have higher successful course completion rates than students enrolled in regular session basic skills classes. The pattern of higher successful course completion rates for compressed basic skills courses is consistent across departments and for every basic skills course offered in the compressed format.

The pattern of higher successful course completion rates in compressed basic skills courses was observed for every ethnic group, for males and females, and all age groups.

Marginal students achieve higher successful course completion rates when enrolled in compressed basic skills courses. Students with grade point averages below 2.00 have higher successful course completion rates in compressed basic skills courses than their counterparts enrolled in regular session courses.

Students attempting compressed basic skills courses have slightly higher grade point averages than those enrolling in regular session courses. The mean grade point average for students attempting compressed basic skills courses offered in the six week format is 2.35 compared to 2.50 for students enrolling in the eight week format and 2.27 for students enrolling in 15 to 18 week basic skills courses. The overall grade point average for students enrolling in basic skills courses was 2.29.

When compared to their overall representation in basic skills courses, older students make up a slightly higher percentage of students enrolled in compressed format basic skills courses. Students aged 25 years and older comprise approximately 28% of the total basic skills enrollments between spring 1998 and fall 2001, however, students aged 25 years and older comprise about 31% of the compressed basic skills enrollments. This slight over-representation of older students in compressed format basic skills courses is not large enough to have impacted the pattern of higher success rates for compressed basic skills courses.

For the three departments under study, basic skills math enrollments represented the greatest percentage of all basic skills enrollments during the period. Approximately 54% of the total basic skills enrollments were in math, followed by reading at 24% and English at 22%. There were slight differences in enrollments between women and men. Approximately 56% of all of the basic skills course enrollments for women were in math, compared to 49% for the males. Males were more likely than females to attempt basic skills English classes. Nearly 27% of all of the basic skills course enrollments for men were in English compared to approximately 20% for females.

Older students were more likely than younger students to attempt basic skills math classes. Approximately 52% of course enrollments for students below the age of 25 were for basic skills math courses. In comparison, nearly 59% of the course enrollments for students aged 25 years and above were for basic skills math classes.

Almost 67% of course enrollments for white students were in the area of math, compared to 57% of the course enrollments for African American students. In comparison, only 24% of the basic skills course enrollments for Asian and Pacific Islander students were in math. For Asian and Pacific Islanders, the highest percentage of course enrollments were in English (45%) followed by reading (31%).

Introduction

Prevalence of Developmental Education in Community Colleges

A study of remedial education across segments of American higher education released in 1996 by the National Center for Education Statistics describes important trends in community college remedial education. The study estimates that in fall 1995, 41% of students entering community colleges nationwide required remediation in one of three subjects -- reading, writing, or math. Community colleges were also more likely than other institutions to report an increase in remedial enrollments from the previous five years. Fifty-five percent of community colleges perceived an increase in the number of students enrolled in remedial education at their institutions between 1990 and 1995. Additionally, public two-year colleges perceived 54% of their remedial students as requiring one or more years of remediation, with 10% of remedial students perceived as seriously deficient, requiring remediation of longer than one year. Math represented the most significant area of remediation for entering community college students; 34% of entering community college students required remediation in math.

Relationship between Time Required for Remediation and Persistence

As primary providers of basic skills education, community colleges have accommodated increased demand for remedial education services by extending their curriculum to serve a greater variety of student preparedness levels. A 1996 study by the National Center for Education Statistics, documents that community colleges, on average, offer a greater number of remedial courses than other higher education institutions, a trend particularly apparent in math (Lewis and Ferris, 1996). In fall 1995, the average number of remedial mathematics courses offered in the community colleges was 3.6 compared to 2.0 for public four-year universities. At Cerritos College, students testing into the lowest level of math are expected to complete four math courses prior to attempting a transfer level math course.

Extension of the remedial basic skills curriculum, particularly the math curriculum, in the community colleges although appropriate in terms of accommodating disparate levels of preparation, exacerbates the problem associated with the length of time required for successful remediation and the achievement of college level skills. Even though the negative relationship between the length of time required for remediation, student persistence, and college success is well documented (Adelman, 1998; Boylan, et al., 1996; Kangas & Ma, 1992) current scheduling practices and curriculum structures at community colleges in general and Cerritos College in particular demand that transfer oriented students seriously deficient in English, reading, or math successfully complete several levels of courses, often over a period of two or more years, before even attempting a transferable course. In their efforts to accommodate various levels of preparation, community colleges have unintentionally imposed an institutional barrier to transfer by extending the basic skills curriculum.

Compressed Course Approach

While the notion of offering accelerated courses to developmental education students seems counterintuitive, there is evidence indicating the viability of the concept. The

study most relevant to the discussion of student success in compressed format courses at community colleges was conducted at Santa Monica Community College (Geltner & Logan, 2001). The authors examined successful course completion, or the percentage of students passing courses with a grade of C or better, and withdrawal rates for native students enrolled in compressed format courses and compared them with the success and withdrawal rates of native students enrolled in regular term classes. University students enrolled in one summer school course at the college were excluded from the analysis. Additionally, grades received were aggregated across variables based upon the length of the course. Assuming that instructors with higher than average grade distributions were not over represented in the compressed scheduling format, the effect of grading variation by instructor was removed as a factor influencing success rates.

Analyses of success rates by department revealed that with the exception of two subject areas, successful course completion rates were higher for courses offered in compressed formats than in traditional semester length courses. In general, shorter course length corresponded to higher course completion rates. In math, those courses offered in the six week compressed format had successful course completion rates of 67% compared to 61% for courses compressed in an eight week time period and 52% for the regular length 16 week course. Withdrawal rates were also related to length of time in course. Shorter courses had lower withdrawal rates than did longer courses. In math, the withdrawal rates were 17% for the six week course, 21% for the eight week course, and 26% for the 16 week course.

The authors also observed the same relationship between class length and success rates when controlling for demographic characteristics such as age and ethnicity and for student performance characteristics such as cumulative grade point average and student probationary status. While the authors note that better students tended to enroll in the compressed courses, even those students with lower cumulative grade point averages or probationary status achieved higher success rates in aggregate than their counterparts enrolled in traditional length courses. Forty percent of probationary students enrolled in six week courses successfully completed them compared to 33% of those enrolled in eight-week courses and only 23% of probationary students enrolled in 16-week classes. The same general pattern of higher success rates for shorter courses was observed for all ethnic and age groups.

Student Success in Compressed Basic Skills Courses

Although the Santa Monica study addresses the overall success rates of community college students enrolled in compressed courses, it does not specifically address the performance of students enrolled in basic skills classes offered in the compressed format. It is also unclear whether the compressed math and English courses in the Santa Monica study contain an over representation of transfer level courses.

Because of the limitations of the Santa Monica study and the lack of published research in the area of basic skills courses offered in a compressed format, the Cerritos College Office of Research and Planning conducted a study of success rates in compressed basic

skills math, English, and reading classes in order to ascertain whether offering basic skills courses in the compressed format would be beneficial to Cerritos College students.

Purpose

The primary purpose of this study is to examine whether the relationship between session length and course success observed at Santa Monica College exists for basic skills courses offered at Cerritos College. It is not the intent of this study to provide information on the degree of remediation required by newly entering Cerritos College students. Characteristics of newly entering Cerritos College basic skills students will be addressed in a separate study.

Method

Population of Interest

The population of interest for this study is continuing Cerritos College students enrolled in at least one basic skills English, reading, or math course that was offered in both a compressed and regular session format.

In order to identify the population of interest, student enrollment records for Spring 1998 through Fall 2001 were compiled and aggregated by type of course. Courses are identified in the database as basic skills, vocational, or transfer. Only those records for students enrolled in courses designated as basic skills were included in the study and only those students identified as continuing students at Cerritos College were included in the study. Students who were categorized as either new to college or new to Cerritos College were excluded from the analysis. Additionally, students below the age of 17 were dropped from the analysis.

A total of 21,165 grade records were examined. Of those included in the study, 3,360 grade records were for students enrolled in a compressed basic skills course and 17,805 were for students enrolled in regular session courses. For the purpose of this study, compressed courses are defined as those courses offered for the same amount of units in less than 15 weeks. Typically these courses are offered in six and eight week formats. For this study, regular session courses are defined as those courses offered in the standard 15 or 18 week format. Table one presents the distribution of enrollment records by course and session length.

It should be noted that the majority of students entering Cerritos College require remediation in more than one subject area. Approximately 90% of entering students require some form of math remediation and approximately 65% of entering students require remediation in English. Although the exact representation of students with multiple deficiencies in the study database is not known, the study database is assumed to be an accurate representation of these students because the study database examines enrollment records for the entire population of students between Spring 1998 and Fall 2001. Students with multiple deficiencies comprise a significant proportion of the overall student population at Cerritos College; corresponding representation in compressed and regular length session classes is assumed but unknown.

Comparable representation of remediation severity was observed for all courses except English 20 and Math 40. Students with severe English deficiencies were over represented in the compressed English 20 course compared to their overall representation in the study database. Students with relatively severe math deficiencies were slightly under represented in the compressed Math 40 course compared to their overall representation in the study database (see table one).

Unit of Analysis

The unit of analysis for this study is the student enrollment record. To the extent that students enroll in multiple courses they will be represented multiple times in the dataset. Comparisons to the overall student population are not valid because the unit of analysis in the student population is the student with each student only represented once, while in enrollment records students are represented as many times as they enrolled and received a grade for a course.

Success Rate

Success rates were computed by taking the number of students who received a grade of A, B, C, or CR and dividing by the total number of students receiving a grade, including withdrawals.

Results

Course Enrollment Trends

An examination of basic skills enrollments from Spring 1998 to Fall 2001, reveals that nearly 54% of the total enrollments during the period were for mathematics courses. Math 40, commanded the highest number of enrollments, followed by Math 20, English 20 and Reading 43. Table one presents the percent distribution of enrollment records by course and session length.

Table One. Distribution of Student Enrollment Records in Basic Skills Courses Spring 1998 to Fall 2001.

Course	6 Week	8 Week	Compressed Totals	15-18 Week	Overall
English 20	28.7% (n=619)	32.4% (n=389)	30.0% (n=1,008)	20.4% (n=3,628)	21.9% (n=4,636)
Math 20	35.4% (n=765)	6.6% (n=79)	25.1% (n=844)	25.6% (n=4,566)	25.6% (n=5,410)
Math 40	0% (n=0)	60.7% (n=729)	21.7% (n=729)	29.6% (n=5,271)	28.3% (n=6,000)
Reading 42	6.0% (n=129)	0% (n=0)	3.8% (n=129)	4.5% (n=797)	4.4% (n=926)
Reading 43	19.8% (n=428)	.2% (n=3)	12.8% (n=431)	13.9% (n=2,476)	13.7% (n=2,907)
Reading 54	10.1% (n=218)	.1% (n=1)	6.5% (n=219)	6.0% (n=1,067)	6.1% (n=1,286)
Total	100.0% (n=2,159)	100.0% (n=1,201)	100.0% (n=3,360)	100.0% (n=17,805)	100.0% (n=21,165)

Profile of Students Enrolling in Compressed Basic Skills Courses

The following section examines enrollment records by session length and department. Table two presents the distribution of enrollment records for students enrolled in basic skills courses by selected demographic characteristics and session length (compressed versus regular session) while table three presents the distribution of enrollment records for students enrolled in basic skills courses by selected demographic characteristics and department. An analysis of enrollment records for specific demographic groups is also presented in table four.

Demographic Characteristics

Sex. Students enrolling in basic skills English, reading, and math courses offered both in the compressed and regular sessions are more likely to be female than male. Nearly 66% of the total basic skills enrollments during the period were for female students¹. There was almost no difference between female and male representation in compressed versus regular session courses. For compressed courses, females made up approximately 67% of the enrollment records compared to 33% for males (see table two).

Although female enrollment records make up about 66% of the total basic skills enrollments during the period, they comprise a slightly higher percentage of the math enrollments (68.8%) and a slightly lower percentage of English enrollments (58.4%). Male enrollment records are over represented in English (41.6%) and slightly under represented in math (31.25%) compared to their overall representation (34.25%) in basic skills enrollments (see table three).

Math remediation appears to be a significant problem for both female and male students, although a higher percentage of females enroll in basic skills math courses. When examining basic skills enrollment records for females only, the largest percentage were in math (56.3%), followed by reading (24.2%), and then English (19.5%). Male enrollment records show that English is more of a problem for them than it is for women. For males, the highest percentage of basic skills enrollments were in math (49.2%), followed by English (26.6%), and then reading (24.2%). Refer to table for details.

Age. The majority of enrollment records for basic skills courses were for traditional students, those students between the ages of 17 and 24. Approximately 72% of the total basic skills enrollments were for students in this age group compared to 28% for students aged 25 years and above. However, students enrolling in compressed sessions were slightly older than their counterparts enrolled during the regular session. The average age for students enrolling in the compressed basic skills courses was 24.40 compared to 23.71 for those enrolling in regular sessions.

Math is also significant problem for both traditional and nontraditional age students, although nontraditional students were more likely than traditional students to enroll in basic skills math courses. When looking at enrollment records for students between the ages of 17 and 24, approximately 52% of the enrollments were in math, compared to 25% in reading, and 23% in English. For nontraditional students, those aged 25 years and above, nearly 59% of their enrollments were in math, followed by reading at nearly 22% and English at almost 20%.

¹ This finding is consistent with female representation in the overall student population. Female students have outnumbered male students at Cerritos College for several years. Because female students comprise the majority of students, it is expected that they would comprise more of the enrollment records. In fall 2001, female students comprised the majority (55%) of the student population.

Ethnicity. Overall, the highest percentage of basic skills enrollment records was for Latino students². Fifty-six percent of the total basic skills enrollments were for Latino students, followed by students identified as “other/unknown” (19.6%), African American students (9.1%), Caucasian students (6.6%), Asian students (6.2%), and Filipino students (2.35). In terms of ethnic background, Asian and Pacific Islanders (12.4%) and African American students (10.5%) were slightly over represented in the compressed courses compared to their total enrollment in basic skills courses for the time period under consideration. Latinos (51.0%) and Caucasian students (4.2%) were slightly under represented in compressed courses.

Examining enrollment records by specific ethnic group yields some interesting findings. Math appears to be a significant remediation issue for all groups except Asian students. Nearly 67% of the enrollment records for Caucasian students were in basic skills math courses, followed by African American enrollments at nearly 59%, Latinos at 55%, “other/unknown origin” at 54%, and Filipinos at 49%. Only 24.1% of the Asian Pacific Islander enrollment records were in basic skills math courses. The highest percentage of Asian enrollments were in English (45.3%) followed by reading (30.6%). Participation rates in English and reading were highest for Asian students and the lowest for Caucasian students (15.7% and 17.8% respectively).

Student Achievement

In general, the students enrolled in compressed courses were slightly better students than their counterparts enrolled in the regular length session. The average cumulative grade point average for students enrolled in the regular session was 2.27 compared to 2.35 for students enrolled in six week compressed session courses and 2.50 for students enrolled in 8 week compressed session courses. The mean grade point average for all basic skills enrollments was 2.29.

Approximately 19% of the total basic skills enrollments during the period were for students with cumulative grade point averages of 3.00 to 3.49. Among this group of students, approximately 54% of the enrollment records were in basic skills math courses, 23% were in reading, and another 23% were in English.

Reading is more of a problem for students with grade point averages below 2.0. Nearly 28% of the enrollment records for students in this group were in basic skills reading courses compared to 23% for students with grade point averages of 2.0 and above. Math was also a problem for both groups of students with grade point average below and above 2.0. Nearly 56% of the enrollment records for students with gpa's of 2.0 and above were in math compared to 49% for students with gpa's below 2.0.

² This finding is consistent with Latino representation in the overall student population. Because Latino students comprise the largest ethnic group at Cerritos College, it is expected that they would comprise more of the enrollment records. In fall 2001, Latino students comprised approximately 47% of the student population.

Table Two. Distribution of Enrollment by Selected Demographic Characteristics and Session Length.

	Compressed Session	Regular Session	Overall
Sex			
Male	33.1% (n=1,112)	34.4% (n=6,130)	34.0% (n=7,242)
Female	66.9% (n=2,248)	65.6% (n=11,675)	65.8% (n=13,923)
Total	100% (n=3,360)	100% (n=1,7805)	100% (n=21,165)
Ethnicity			
Asian/Pacific Islander	12.4% (n=418)	4.9% (n=888)	6.2% n=1,306)
African American	10.5% (n=354)	8.8% (n=1,571)	9.1% (n=1,925)
Filipino	1.7% (n=56)	2.5% (n=440)	2.3% (n=496)
Latino	51.0% (n=1,708)	57.0% (n=10,171)	56.0% (n=11,879)
White	4.2% (n=141)	7.1% (n=1,263)	6.6% (n=1,404)
Other / Unknown	20.3% (n=683)	19.5% (n=3,472)	19.6% (n=4,155)
Total	100% (n=3,360)	100% (n=17,805)	100% (n=21,165)
Age			
Below 25	68.9% (n=2314)	73.1% (n=13,009)	72.4% (n=15,323)
25 & Older	31.1% (n=1,046)	26.9% (n=4,796)	27.6% (n=5,842)
Total	100% (n=3,360)	100% (n=17,805)	100% (n=21,165)
GPA			
Less than 2.0	26.3% (n=883)	31.8% (n=5,516)	30.2% (n=6,399)
2.0 or Higher	73.7% (n=2,477)	69.0% (n=12,289)	69.8% (n=14,766)
Total	100% (n=3,360)	100% (n=17,805)	100% (n=21,165)

Table Three. Distribution of Enrollment by Selected Demographic Characteristics and Department.

	English	Math	Reading	Overall
Sex				
Male	41.6% (n=1,927)	31.2% (n=3,565)	34.2% (n=1,750)	34.2% (n=7,242)
Female	58.4% (n=2,709)	68.8% (n=7,845)	65.8% (n=3,369)	65.8% (n=13,923)
Total	100% (n=4,636)	100% (n=11,410)	100% (n=5,119)	100% (n=21,165)
Ethnicity				
Asian/Pacific Islander	12.7% (n=591)	2.8% (n=315)	7.8% (n=400)	6.2% n=1,306)
African American	7.5% (n=348)	9.9% (n=1,129)	8.8% (n=448)	9.1% (n=1,925)
Filipino	2.4% (n=112)	2.1% (n=243)	2.1% (n=141)	2.3% (n=496)
Latino	52.2% (n=2,422)	57.5% (n=6,559)	56.6% (n=2898)	56.0% (n=11,879)
White	4.7% (n=220)	8.2% (n=934)	4.9% (n=250)	6.6% (n=1,404)
Other / Unknown	20.3% (n=943)	19.5% (n=2,230)	19.2% (n=982)	19.6% (n=4,155)
Total	100% (n=4,636)	100% (n=11,410)	100% (n=5,119)	100% (n=21,165)
Age				
Below 25	75.4% (n=3,494)	70.0% (n=7,985)	75.1% (n=3,844)	72.4% (n=15,323)
25 & Older	24.6% (n=1,142)	30.0% (n=3,425)	24.9% (n=1,275)	27.6% (n=5,842)
Total	100% (n=4,636)	100% (n=11,410)	100% (n=5,119)	100% (n=21,165)
GPA				
Less than 2.0	32.0% (n=1,482)	27.5% (n=3,135)	34.8% (n=1,782)	30.2% (n=6,399)
2.0 or Higher	68.0% (n=3,154)	72.5% (n=8,275)	65.2% (n=3,337)	69.8% (n=14,766)
Total	100% (n=4,636)	100% (n=11,410)	100% (n=5,119)	100% (n=21,165)

Table Four. Distribution of Enrollment Records by Department and Selected Demographic Characteristics.

	Sex		Ethnicity						Age		GPA	
	Male	Female	Asian	African American	Filipino	Latino	White	Other/Unknown	Below 25	25 and Older	Less than 2.0	2.0 and Above
English	26.6% (n=1,927)	19.5% (n=2,709)	45.3% (n=591)	18.1% (n=348)	22.6% (n=112)	20.4% (n=2,422)	15.7% (n=220)	22.7% (n=943)	22.8% (n=3,494)	19.5% (n=1,142)	23.2% (n=1,482)	21.4% (n=3,154)
Math	49.2% (n=3,565)	56.3% (n=7,845)	24.1% (n=315)	58.6% (n=1,129)	49.0% (n=243)	55.2% (n=6,559)	66.5% (n=934)	53.7% (n=2,230)	52.1% (n=7,985)	58.6% (n=3,425)	49.0% (n=3,135)	56.0% (n=8,275)
Reading	24.2% (n=1,750)	24.2% (n=3,369)	30.6% (n=400)	23.3% (n=448)	28.4% (n=141)	24.4% (n=2,898)	17.8% (n=250)	23.6% (n=982)	25.1% (n=3,844)	21.8% (n=1,275)	27.8% (n=1,782)	22.6% (n=3,337)
Overall	100% (n=7,242)	100% (n=13,923)	100% (n=1,306)	100% (n=1,925)	100% (n=496)	100% (n=11,879)	100% (n=1,404)	100% (n=4,155)	100% (n=15,323)	100% (n=5,842)	100% (n=6,399)	100% (n=14,766)

Success Rates of Compressed versus Regular Length Courses

Success rates by Department

Table five presents the overall success rates by department for continuing students enrolled in compressed basic skills courses compared to regular length courses. Overall, students enrolled in compressed basic skills courses have higher successful course completion rates than students enrolled in regular length courses. Approximately 70% of students in six week courses successfully completed those courses compared to 72% for eight week courses and 56% for regular length courses.

The pattern of higher successful course completion rates for compressed basic skills courses was consistent across departments. Of the three departments studied, the highest successful course completion rates occurred in courses offered in the eight week format. Among eight week format courses, English had the highest successful completion rate at approximately 87%³. In examining success rates for the six week format, reading had the highest success rate. Nearly 78% of students attempting a compressed reading course successfully completed that course compared to approximately 76% for English and 58% for math.

Table Five. Basic Skills Success Rates by Department and Session Length Spring 1998 to Fall 2001.

DEPARTMENT	SUCCESS RATE			
	6 Week	8 Week	15 – 18 Week	Overall
ENGLISH	75.8% (n=619)	86.9% (n=389)	56.7% (n=,3628)	61.8% (n=4,636)
MATH	57.9% (n=765)	65.3% (n=808)	51.2% (n=9,837)	52.6% (n=11,410)
READING	77.7% (n=775)	100.0% (n=4)	64.3% (n=4,340)	66.3% (n=5,119)
OVERALL	70.0% (n=2159)	72.4% (n=1201)	55.5% (n=17,805)	57.9% (n=21,165)

Success Rates by Course

Examination of success rates by course for all areas, English, reading, and math, reveal that students enrolling in compressed format courses are more likely to successfully complete those courses than students enrolled in the regular length session courses. Table six presents the success rates by course of students enrolled in compressed format sessions compared to those enrolled in regular sessions.

Among the compressed math courses, Math 40, Survey of Mathematics, had a higher successful course completion rate than Math 20, Basic Math. The success rate for Math 40 offered in the eight week compressed format was 67% compared to 49% for Math 20

³ Successful completion rates were higher in Reading, however, only four students took a reading course offered in the eight week format.

offered in the eight week compressed format⁴. Reading 54, Developmental Reading, and Reading 42, had the highest successful course completion rates among the three basic skills reading courses offered in the compressed form. The successful course completion rates for compressed reading courses offered in the six week format were approximately 81% for Reading 54 and Reading 42 compared to 75% for Reading 43, Basic Reading Skills.

Table Six. Basic Skills Success Rates by Course and Session Length Spring 1998 to Fall 2001.

COURSE NUMBER	COURSE NAME	SUCCESS RATE			
		6 Week	8 Week	15 – 18 Week	Overall
ENGL 20 (50.1)#	BASIC WRITING	75.8% (n=619)	86.9% (n=389)	56.7% (n=3,628)	61.8% (n=4,636)
MATH 20 (50)	BASIC MATHEMATICS	57.9% (n=765)	49.4% (n=79)	48.4% (n=4,566)	49.7% (n=5,410)
MATH 40	SURVEY OF MATHEMATICS	0.0% (n=0)	67.1% (n=729)	53.6% (n=5,271)	55.2% (n=6,000)
READ 42 (52)	READ ACCESS COLLEGE STUDENT	80.6% (n=129)	0.0% (n=0)	63.1% (n=797)	65.6% (n=926)
READ 43 (53)	BASIC READING SKILLS	75.0% (n=428)	100.0% (n=3)	63.5% (n=2,476)	65.3% (n=2,907)
READ (54)	DEVELOPMENTAL READING	81.2% (n=218)	100.0% (n=1)	66.8% (n=1,067)	69.3% (n=1,286)
OVERALL		70.1% (n=2,159)	72.4% (n=1,201)	55.5% (n=17,805)	57.9% (n=21,165)

#The course number in parentheses is the old number associated with the course prior to the course renumbering that took place for the Fall 2000 semester.

Success Rates by Selected Student Characteristics

The pattern of higher success rates in compressed format courses was consistent across demographic characteristics. Students enrolled in compressed format courses were more likely than their regular session counterparts to successfully complete basic skills courses. This pattern was observed for students of all ethnic backgrounds, for males and females, for traditional age students and nontraditional age students, as well as for students with cumulative grade point averages above and below 2.0. Table seven presents the distribution of success rates by selected demographic characteristics for students enrolled in basic skills courses.

Sex

Success rates for women and men enrolled in compressed format courses also exceeded corresponding rates for the regular session; however, women were more likely to be successful in compressed sessions than men. For women enrolled in compressed basic skills courses the success rate was about 73% compared to a success rate of 67% for men enrolled in compressed basic skills courses.

⁴ Math 20 was not offered in the six week format during the period under study.

Ethnicity

Higher success rates in compressed basic skills courses were observed for all of the major ethnic groups at the college. Asian and Pacific Islander students enrolled in compressed basic skills courses had the highest successful course completion rates (83.3%), followed by Filipino students (73.2%), Latino students (71.0%), white students (68.8%) and African American students (55.6%).

Age

Students of all age groups did better in compressed basic skills courses than students enrolled in regular sessions. Students aged 25 years and above had a success rate of 77.2% in compressed session compared to 62.8% for their counterparts enrolled in regular length sessions. Traditional students followed the same pattern. The success rate for traditional students in compressed courses was 68.2% compared to 52.8% for their counterparts enrolled in the regular session. However, nontraditional age students (those aged 25 and older) were more likely to succeed than traditional students (those ages 17 to 24 years) in compressed format courses. The success rate for nontraditional students (those ages 25 years and above) was 77.2% compared to 68.2% for traditional students (those students ages 17 to 24 years).

Grade Point Average

Students with cumulative grade point averages below 2.00 performed better in compressed format courses than their counterparts enrolled in regular session courses. Among students with cumulative grade point averages below 2.00, approximately 54% successfully completed compressed courses compared to approximately 38% successfully completing regular length session courses.

Students with grade point averages above 2.00 also fared better in compressed courses. The success rate for students with grade point averages above 2.00 enrolled in compressed basic skills courses was nearly 77% compared to 63% for their counterparts enrolled in the equivalent courses offered during the regular session

Table Seven. Distribution of Basic Skills Success Rates by Selected Demographic Characteristics.

	SUCCESS RATES		
	Compressed Session ⁵	Regular Session	Overall
Sex			
Male	67.4% (n=1,112)	51.9% (n=6,130)	54.3% (n=7,242)
Female	72.7% (n=2,248)	57.3% (n=11,675)	59.8% (n=13,923)
Ethnicity			
Asian/Pacific Islander	83.3% (n=41)	62.0% (n=888)	68.8% (n=1,306)
African American	55.6% (n=354)	42.8% (n=1,571)	45.1% (n=1,925)
Filipino	73.2% (n=56)	62.5% (n=440)	63.7% (n=496)
Latino	71.0% (n=1,708)	55.8% (n=10,171)	58.0% (n=11,879)
White	68.8% (n=141)	61.1% (n=1,263)	61.9% (n=1,404)
Age			
Below 25	68.2% (n=2,314)	52.8% (n=13,009)	55.1% (n=15,323)
25 & Older	77.2% (n=1,046)	62.8% (n=4,796)	65.4% (n=5,842)
GPA			
Less than 2.0	53.7% (n=883)	38.1% (n=5,516)	40.2% (N=6,399)
2.0 or Higher	77.1% (N=2,477)	63.3% (N=12,289)	65.6% (N=14,766)

⁵ Combines six and eight week format courses.

Conclusion

This study demonstrates that Cerritos College students enrolled in compressed basic skills courses achieve higher successful course completion rates than their counterparts enrolled in regular length session courses. The pattern of higher success rates was true for males and females, every ethnic and age group, as well as for marginal students. Contrary to the Santa Monica findings, Cerritos College basic skills students had the highest success rates in eight week compressed courses, followed by six week, and then regular session basic skills courses.

Previous research suggests that intensive, accelerated courses may be a feasible alternative to traditional approaches designed to improve course success rates and student persistence. Although no extensive research related to the use of compressed scheduling in the developmental education arena is currently available, there is evidence that compressed scheduling is related to higher successful course completion rates for community college students in general and initial evidence that compressed scheduling benefits developmental education students specifically.

Intensive, accelerated programs have a long history among institutions focusing on adult learners, however, courses offered in a series of accelerated, compressed blocks over the course of the regular semester has not received widespread attention within the community colleges. In general, community colleges offer the majority of their intensive, accelerated courses during the summer session rather than during the regular semester. Intensive, compressed scheduling may directly benefit seriously deficient students by moving them through the remediation process more quickly, thus making the goal of transfer or degree completion seem more proximate.

In open access institutions, exogenous factors play a significant role in the success of students. The higher success rates observed in compressed basic skills courses may be the result of a combination of factors. Students enrolled in intensive, accelerated courses need only focus their attention on one course for five or six weeks at a time rather than on multiple courses for a longer period of time throughout the regular semester. Additionally, better success rates may simply be the result of less time available for life circumstances to interfere with the educational process. Institutions should leverage endogenous factors, such as the format in which learning programs are offered, to maximize student success. More extensive research regarding the performance and persistence of developmental education students in accelerated programs should be pursued. Particular attention should be devoted to success in subsequent courses.