An overview is provided of the enrollment patterns and academic progress of the fall 1986 new student cohort at St. Louis Community College (SLCC), the first cohort included in the college's longitudinal tracking system. The report highlights the following findings about the 5,993 students who were tracked through spring 1991: (1) 57.6% of the cohort returned for the spring 1987 semester, and 9.7% were enrolled at the end of the 5-year tracking period; (2) 49.6% of the cohort attended only one or two semesters during the 5-year period, and 30.6% attended one semester only; (3) 32.6% of the cohort had stopped-out once, 7.5% twice, and 1.1% three times during the 5-year period; (4) 48.6% of the cohort had completed 12 or more cumulative hours earning grades of A through D by the end of the tracking period, and 11.5% had completed 60 or more hours earning grades of A through D; (5) 30.2% completed less than half of the hours attempted over the 5-year period, while 28% completed all hours attempted; (6) 40.2% had a cumulative grade point average (GPA) of less than 2.00 when they left the college, while 22.9% had a cumulative GPA below 1.00, and 28.5% had a final cumulative GPA of 3.00 or higher; (7) 13% of those who entered with an educational goal of obtaining a degree or certificate had graduated by the end of the 5-year period, with 2.2% graduating within the first 2 years; and (8) a total of 18.6% of those who entered as full-time students with a goal of obtaining a degree or certificate had graduated by the end of the 5-year period, with 3.6% obtaining their degree or certificate within the first 2 years. (JMC)
ENROLLMENT & ACADEMIC PROGRESS
OF FALL 1986 NEW STUDENTS
FALL 1986 - SPRING 1991

Prepared by:

Richard Tichenor
Management Information Analyst

John Cosgrove
Director

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All Inquiries Regarding This Document Should Be Addressed To:

Office of Institutional Research and Planning
St. Louis Community College
300 S. Broadway
St. Louis, Missouri 63102
EXECUTIVE SUMMARY

This report presents an overview of the enrollment and academic progress of the fall 1986 new student cohort at St. Louis Community College. Their movement through SLCC was tracked for the five-year period from fall 1986 through spring 1991. Some of the key findings are summarized below.

Only 57.6% of the cohort returned for the spring 1987 semester, and enrollment declined throughout the period, but 9.7% were enrolled at the end of the five-year tracking period.

Roughly one-half (49.6%) of the cohort attended only one or two semesters during the five-year period. Close to one-third (30.6%) attended only one semester.

Only about one-third (32.6%) of the cohort stopped-out, i.e. left and returned within the five-year period. Less than 1 in 10 (7.5%) stopped-out a second time. Slightly less than 1 in 100 (1.1%) stopped-out a third time.

Most of those who stopped-out were gone for only one or two semesters. Most attended only one semester when they returned.

Slightly less than one-half (48.6%) of the cohort had completed 12 or more cumulative hours of grades A - D by the end of the tracking period, with a little over one-third (35.4%) completing less than 6. Only about 1 in 10 (11.5%) had completed 60 or more hours of grades A - D.

Close to one-third (30.2%) completed less than one-half of the hours attempted over the five year period. A slightly smaller percentage (28.0%) completed all hours attempted.

Four out of 10 (40.2%) had a cumulative GPA of less than 2.00 when they left the college. Two out of 10 (22.9%) had a cumulative GPA below 1.00. A final cumulative GPA of 3.00 or higher was achieved by 3 out of 10 (28.5%).

A total of 13.0% of those who entered with an educational goal of obtaining a degree or certificate had graduated by the end of the five-year period. Only 2.2% graduated within the first two years.

A total of 18.6% of those who entered as full-time students with a goal of obtaining a degree or certificate had graduated by the end of the five-year period. Only 3.6% obtained their degree or certificate within the first two years.
INTRODUCTION

Internal student tracking is one component of the Institutional Research and Planning Office's work regarding institutional effectiveness and student outcomes. Obviously, much research in these areas requires external data collection, but there is also a wealth of relevant data that already exists in the institutional data files. By extracting, matching, and merging selected data from various files, a longitudinal system has been designed to track the enrollment behavior and academic progress of cohorts of students as they move through our institution.

The hybrid file and associated computer programs that make up the tracking system have been and will continue to be used to answer a variety of specific information requests. In a more general vein, tracking information can reveal how our past experience compares with various retention and outcomes targets which may be adopted internally or imposed by external agencies. Comparisons between more recent cohorts and earlier cohorts at corresponding points in the tracking cycle can indicate whether performance is improving or declining with respect to selected measures. The tracking information can also be used to identify "success" tracks, and warn us when significant proportions of a cohort are "off-track". As with most research, the findings may at times raise important new questions, and help focus and direct needed additional research.

The purpose of this report is even more general, however. It provides an overview of key findings for the first new student cohort tracked by the system; the 5,993 SLCC students who entered college for the first time in fall 1986.* This cohort was selected because it was felt that students should be tracked for a period of five years, and this was the most recent cohort for which a full five years had elapsed when work on the system began.**

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* The student data tape for fall 1986 indicates an entry status of "new" for a total of 5,999 students, but editing of cumulative hour data for the tracking file revealed that 6 of these students had attended college prior to that semester.

** Work on a file for the fall 1987 cohort will be begin in the summer of 1992.
ENROLLMENT STATUS, MAJOR SEMESTERS

Only 57.6% of the fall 1986 new students returned for the spring 1987 semester, yet 9.7% were enrolled in spring 1991, the last semester of the five year tracking period. The fall and spring enrollment picture for the entire period is shown by the bottom sections of the bars in the stacked-bar graph presented on the opposite page.*

Sharp declines in the enrollment percentage in the first two years were followed by smaller, but continuous declines throughout the remainder of the period. By spring 1988, the last semester of the second year, slightly less than one-third, 31.0%, of the fall 1986 new students were enrolled. In the remaining three years, the enrollment percentage dropped from 24.7% enrolled in fall 1988 to the 9.7% enrolled in the final semester.

The enrollment percentage for any given semester does not, of course, capture all students who continued to pursue their educational goals at the community college during the tracking period. It is well known that many community college students are inadvertently adept at becoming temporarily "invisible" to head counters, as they pursue their education through intermittent attendance. However, when these phantoms reappear as enrolled students, they can be quantified as stop-outs. The middle section of the stacked bars of the enrollment status graph shows the stop-out percentage for each semester; i.e., the percentage who were not enrolled that semester, but were enrolled in at least one subsequent semester of the tracking period.

In spring 1987, 11.8% of the fall 1986 new students were already in a stop-out mode. This percentage increased to 15.7% in fall 1987, and then to a high of 17.5% in spring 1988, before beginning a gradual decline.

When viewed as a percentage of all those who either were enrolled or would re-enroll during the tracking period (the bottom two sections of each bar), stop-outs are found to have comprised 17.0% of "persisters" (defined to include stop-outs) in spring 1987. They were close to one-third (29.0%) of the persisters in fall 1987, and well above one-third (36.1%, 38.1%, 41.2%, 39.7%, and 38.8%) for the next five semesters hitting a high of 41.2% in spring 1989. In very general terms, it can be said that for most of the tracking period there was approximately one temporarily "invisible" student for every two actively enrolled students.

* The percentages enrolled in the summers of 1987, 1988, 1989, and 1990, not shown in the graph, were 11.4%, 9.5%, 6.2%, and 5.3%, respectively.
When viewed as a percentage of all of those not enrolled (the top two sections of each bar), stop-outs are found to account for 27.9% of those who did not enroll for the spring 1987 semester. This percentage declined throughout the tracking period, but remained above twenty-five percent through the first two years.

After accounting for stop-outs, one finds that almost one third (30.6%) of the fall 1986 new students cohort did not return at all during the tracking period. By spring 1988, a little over one-half (51.5%) were gone, not to return for the remainder of the period. That category grew to include approximately two-thirds (65.2%) of the cohort in spring 1989 and over three-fourths (78.2%) in spring 1990. As noted above, 9.7% were enrolled at the end of the tracking period in spring 1991.
TOTAL NUMBER OF SEMESTERS ATTENDED AND STOPPED-OUT

The first bar in the graph on the opposite page depicts the distribution of fall 1986 new students with respect to total number of semesters attended during the tracking period. As was evident in the enrollment status graph, 30.6% attended only one semester during the entire period. The addition of those enrolled for a total of two semesters, 19.0%, accounts for roughly one-half of the cohort. The percentages enrolling three, four, and five semesters were 10.6%, 9.0%, and 7.4%, respectively.

The percentage enrolled for six or more semesters, illustrated by the top section of the bar, was 23.4%. Those enrolling for either six, 7.2%, or seven semesters, 5.3%, account for over one-half of that percentage, but there were some students enrolled for every possible number of semesters, including 30 enrolled for the maximum of 14 semesters.*

The second bar of the graph presents the distribution with respect to the total number of semesters stopped-out during the entire period. As indicated by the height of that bar, roughly one-third, 32.6%, of the cohort interrupted their enrollment at least once. About one-half of these stop-outs interrupted their enrollment for only one or two semesters, with 8.9% of the total cohort stopping out for only one semester and 7.4% stopping-out a total of two semesters. The percentages stopping-out for three through seven semesters were 5.4%, 4.2%, 3.0%, 2.1%, and 1.4%, respectively. Sixteen students stopped-out for eight semesters.

ENROLLMENT AND STOP-OUT PERIODS, NUMBER AND LENGTH*

As the graph title suggests, the remaining bars of the graph on the opposite page represent individual periods of enrollment and stop-out. The number of bars shows that some students spread their total attendance over four distinct enrollment periods, stopping-out three times during the tracking period. Even a quick glance at the height of the bars reveals, however, that fewer than 1 in 10, only 7.5% to be exact, stopped-out a second time. Only slightly more than 1 in 100, 1.1%, stopped-out a third time.

The third bar illustrates the distribution of fall 1986 new students with respect to the length of their first period of continuous enrollment. The first period of enrollment lasted only one semester for 42.4% of the cohort. The addition of those who attended only two semesters before leaving

* Summers enrollments are included in the counts for number of semesters attended.
or stopping-out, 21.6%, accounts for close to two-thirds of the total cohort. The percentages initially enrolling for three, four, and five consecutive semesters were 9.0%, 7.6%, and 5.4%, respectively. As illustrated by the top section of the bar, a total of 14% enrolled for six or more consecutive semesters before leaving or stopping-out for the first time. A little over one-half of this total is accounted for by those who enrolled for six, 4.7%, or seven, 2.9%.

The first enrollment period was also the last for roughly two-thirds of the total cohort. Most of the 32.6% who stopped-out and returned for a second enrollment period, stopped-out for only one semester (13.2% of the total cohort) or two semesters (7.2%) before returning. When they returned, most (19.7% of the total cohort) attended only one semester before leaving or stopping-out again. The fourth and fifth bars, respectively, present complete distributions with respect to the lengths of the first stop-out and second enrollment periods. The sixth through ninth bars present the distributions for subsequent stop-out and enrollment periods for the small percentages who stopped-out three and four times. In each case most of those stopping-out were gone for only one or two semesters, and attended only one or two consecutive semesters when they returned.
CUMULATIVE HOUR MILESTONES

The next two graphs provide a transition from the question of enrollment to the question of how much the students accomplished during their enrollment at St. Louis Community College. These graphs show the percentages reaching selected levels of cumulative hours by the end of each year of the five-year tracking period (i.e., as of the end of each spring semester). The top graph includes all hours in which the student received grades of A through D. The bottom graph provides the same information with developmental hours excluded. In both graphs, hour milestones are presented in twelve hour increments from 12 or more hours to 60 or more hours.

Slightly less than one-half of the total cohort, 48.6%, had reached the lowest milestone on the graph by the end of the tracking period. A large majority of those who did complete 12 or more hours, 42.6% of the total cohort, had done so by the end of the second year. About one-third of the cohort, 34.4%, had reached this lowest milestone by the end of the first year. When developmental hours are excluded, the percentage completing 12 or more hours by the end of the period drops to 44.4%. The percentages at the end of the first and second years drop to 27.3% and 37.7%.

Most of those who completed 12 or more hours also reached the second milestone, 24 or more hours, by the end of the tracking period. Close to one-third of the total cohort reached this second level in terms of both total hours (33.0%) and non-developmental hours (29.9%). One-fourth (25.0%) had completed 24 or more total hours by the end of the second year, while one-fifth (20.7%) had reached that level in terms of non-developmental hours.

By the end of the tracking period, 36 or more total hours were completed by 23.7% of the total cohort, with 21.0% completing 36 or more non-developmental hours. The corresponding percentages at the end of the first two years were 14.3% and 11.3%, respectively.

Forty-eight or more total hours were completed by 17.1% of the cohort as of the end of the tracking period. Only 6.6% had done so by the end of the second year of the period. The percentages reaching this milestone in terms of non-developmental hours by the end of the fifth and second years were 14.9% and 4.7%, respectively.

Only about 1 in 10 (11.5% in terms of total hours and 8.9% in terms of non-developmental hours) had completed 60 or more hours by the end of the fifth year. Only about 1 in 100 (1.3% in terms of total hours and 1.0% in terms of non-developmental hours) reached this milestone by the end of the second year.
MORE DETAIL REGARDING TOTAL CUMULATIVE HOURS, A-D

In addition to providing the information suggested by its title, and discussed in the next section, the graph on the opposite page provides a further breakdown of total cumulative hours of grades A through D as of the end of the tracking period. The height of each bar reveals the percentage with total hours within the indicated intervals whereas bars in the previous graph depicted the percentages with totals equal to or greater than the selected milestones. This graph also provides cumulative hour information for the (approximately) one-half of the cohort who completed less than 12 hours. That information is presented in 6-hour ranges.

A little over one-third (35.4%) of the fall 1986 new students had completed less than 6 hours as of the end of the tracking period. The percentage with 6-11 hours (16.0%) was slightly larger than the percentage with 12-23 hours (15.5%). Progressively smaller percentages are found in the higher ranges up through 48-59 hours. The 11.5% completing 60 or more hours is the largest percentage in any of the four highest ranges.

RATIO OF HOURS COMPLETED TO HOURS ATTEMPTED*

The differently hatched sections of the bars in the graph represent different intervals for the ratio of hours completed to hours attempted. Close to one-third (30.2%) of the fall 1986 new students completed less than one-half of the hours attempted as of the end of the tracking period. A slightly smaller percentage (28.0%) completed all hours attempted. One-half (50.5%) completed at least three-fourths of their attempted hours.

The 0-5 cumulative hour range is comprised primarily of students who were at one of the extremes in terms of the ratio of hours completed to hours attempted. Approximately 3 out of 10 of the students completing less than 6 hours completed all hours attempted, while about 6 out of 10 completed less than one-half of the hours they attempted.

* As used here, hours completed is defined as cumulative hours of A - D, and hours attempted is defined as the sum of hours enrolled for credit as of census date of each semester.
Most of the students completing 6-11 hours were also at one of the extremes with respect to their completion to attempted ratio, but about 4 out of 10 of the students in this range completed all hours attempted, while 3 out of 10 completed fewer than one-half of their attempted hours. Slightly less than one-half of the students in this range had a ratio of .75 or larger.

As would be expected the lower ratios were progressively less common in the higher cumulative hour ranges. The proportion with a ratio of .75 or larger increased in each successively higher range, rising from 5 out of 10 in the 12-23 hour range to almost 9 out of 10 in the 60 and over range.
The graph on the opposite page differs from the previous graph in that the differently hatched sections represent cumulative grade point averages as of the end of the tracking period, instead of the ratio of completed to attempted hours. As indicated by the first bar, 40.2% of the cohort were not in good academic standing, i.e., did not have a GPA of 2.0 or greater, when they left SLCC, and 22.9% had a GPA of less than 1.00. At the other extreme, 28.5% had a cumulative GPA of 3.00 or higher.

As would be expected, most of those with a GPA below 1.00 completed very few hours. The vast majority are in the 0-5 hour range, where a little over one-half of all students in the range had a GPA less than 1.00. Roughly 1 in 5 (19.6%) of all fall 1986 new students left with less than 6 hours and a GPA less than 1.00.

Almost two-thirds of the students with less than 6 hours had a GPA of less than 2.00. The proportion failing to maintain at least a C average was smaller in each successively higher range, but there were some students in each range who fell short of that level of academic achievement. The proportion was still notable upon through the 36-47 hour range, where about one-fourth of the students had a GPA below 2.00.

Grade point averages of 3.0 or greater were achieved by a notable proportion of the students in all cumulative hour ranges. The proportion was also relatively stable across ranges varying from about one-fourth to about one-third.
GRADUATION RATES

Forty-three percent of fall 1986 new students initially indicated an intent to obtain a degree or certificate. The graphs on the opposite page present graduation rates for those students whose initial educational goal was a degree or certificate. The top graph presents the rates for all such students, while the bottom graph presents rates for those who had an initial degree or certificate goal and initially enrolled as full-time students (enrolled for 12 or more hours).

The first bar of each graph shows the overall graduation rate for all award goal students combined. The subsequent bars present the graduation rates within each individual award goal category. The total height of the bars depict the percentage graduating by the end of the five-year tracking period. The differently hatched sections show the percentage graduating within each year of the five year period.

A total of 13.0% of the fall 1986 new students entering with an educational goal of obtaining a degree of certificate from St. Louis Community College had graduated by the end of the period. Only 2.2% graduated within the first two years. The corresponding rates for those entering as full-time students with an award goal were 18.6% and 3.6%.

The graduation rate for students entering with an AA degree goal was 12.9% for the period as a whole, with only 1.2% graduating with the first two years. The corresponding rates for those entering as full-time students with an AA goal were 16.6% and 2.0%.

Over the five-year period, 14.4% of those entering with an AAS goal graduated, with 2.8% graduating within the first two years. The full period and first two year rates for those entering as full-time students with an AAS goal were 22.6% and 5.4%.

Graduation rates were the lowest for students entering with an intent to receive a certificate, the award requiring the fewest hours. About 1 in 10, 9.8%, of these students had graduated by the end of the tracking period. Although certificate programs are commonly referred to as one-year programs only 1 in 200, 0.5%, graduated within one year. Even those certificate seekers who initially enrolled as full-time students had relatively low rates: 13.3% for the entire period and 1.8% for the first year.

Interestingly, pre-entry students had the highest graduation rates for the entire period: 15.6% overall, and 22.7% for those entering as full-time students. None graduated within the first two years, but this not surprising since pre-entry students are students who were not initially admitted to their desired award program.
IMPLICATIONS

One of the major implications of the findings is that the College appears to have a more serious retention problem with respect to new students than was anticipated. The magnitude of the problem is suggested by the following:

(1) Low Short-Term and Long-Term Return Rates.

Forty-two percent of the fall 1986 new students did not return for the spring 1987 semester, and thirty-one percent did not return at all during the five-year period.

(2) Stop-out Behavior Does Not Account For Most Departures.

Only one-third of the cohort stopped-out, i.e., left and returned within the five-year period. The findings also run counter to the contention that students stop-out numerous times. Only eight percent stopped-out out twice and only one percent stopped-out three times.

(3) Most Students Gone For More Than One Year Do Not Return.

Most of the students who can be categorized as stop-outs, i.e. those that left and returned, were gone for only one or two semesters before returning.

(4) Low Graduation Rates.

Only thirteen percent of those who entered with an intent to achieve a degree or certificate graduated within five years. Only two percent graduated within two years. The five-year graduation rates for those entering with AA, AAS, and certificate goals were thirteen percent, fourteen percent, and ten percent, respectively.

(5) Low Cumulative Hours.

Graduation is only one type of goal achievement, of course, but the fact that a substantial percentage of the cohort completed a relatively small number of hours suggests that non-degree goal achievement may have also been low. Fifty-one of the cohort completed less than 12 hours during the five-year period, and thirty-five percent completed less than six hours. It seems unlikely that such large numbers of students had goals which were accomplished in such few hours.
(6) Low Completed to Attempted Hour Ratios and Low Grade Point Averages.

The academic performance measures provide further evidence that substantial numbers of students cannot be regarded as success stories. Three out of ten completed less than one-half of the hours attempted, and four out of ten left with less than a C grade average.

(7) Large Percentage of Cohort Not Accounted for by Continued Enrollment, Graduation and "Probable" Non-Degree Goal Achievement.

A total of 584 students from the 5,993 student cohort were enrolled at the end of the five-year period. Another 534 had graduated, leaving a total of 4,875 non-enrolled, non-graduates. Some unknown number of these students achieved non-degree goals. Previous research has found that approximately twenty-five percent of non-enrolled non-graduates have achieved a non-degree goal. If one assumes that proportion of non-degree success stories the number of unaccounted for students drops to 3,656 students, sixty-one percent of the cohort. This suggests that the best five-year success/retention rate that can be claimed is thirty-nine percent.

RECOMMENDATIONS

In our view the key to improving the retention and ultimately the success rate is intervention when students miss a semester to help insure that stop-outs do not become drop-outs. We suggest the following plan.

(1) Contact all new fall 1992 students who do not enroll for the spring 1993 semester (projected to be 2,400 to 2,500 students) encouraging them to return and expressing the College's continued interest in helping them achieve their educational goals. Letters to students with a low first semester GPA would also encourage them to take advantage of our excellent academic support services

(2) Evaluate the return rate of the contacted cohort in comparison to return rates of previous cohorts who were not contacted by the College.

Earlier research with random samples of students found a statistically significant (.05 level) higher return rate for students contacted by the College. We believe this will also hold true with an entire non-returning population.