

San Diego Community College District

RETENTION REPORT

FALL 2000

Retention Research Project

Office of Institutional Research
San Diego Community College District

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INTRODUCTION

BACKGROUND

Student retention in the San Diego Community College District (SDCCD) has been identified as a major issue. Recent data shows that a large number of students leave SDCCD each semester. For instance, 7,481 students (18% of total census enrollment) dropped or withdrew from SDCCD during the Fall semester 2000.

Student data gathered by means of an integrated program of institutional research will serve as the foundation for any efforts to improve retention and success. Therefore, the Office of Institutional Research will play an important role in designing and conducting various retention studies. Furthermore, research results may be used as a guide to create efficient and effective retention initiatives and, ultimately, to retain a higher proportion of students in the District.

This report is the first in a series documenting recent retention studies conducted by the Office of Institutional Research. Annual analysis will be conducted and results will be shared.

RESEARCH POPULATIONS

The Office of Institutional Research identified the following three groups as the focus for this report. Table 1 shows the number of students in each group compared to the total population.

Group 1: Students who applied but did not enroll – These are students who submitted an application for admission but did not enroll in any classes.

Group 2: Students who dropped before census – These are students who dropped all of their classes before census (the 4th week of the semester).

Group 3: Students who withdrew after census – These are students who withdrew from all classes after census (week 4) but before the withdrawal deadline (week 10 for primary term classes).

Table 1: Research Populations

College	Group 1: Applied but did not enroll	Group 2: Dropped all classes before census	Group 3: Withdrew from all classes after census	Enrollment as of census Fall 2000
City	2,247	932	1,483	13,268
Mesa	2,292	1,478	2,224	20,204
Miramar	812	566	653	6,971
ECC	144	56	89	716
District	5,495	3,032	4,449	41,159

RESEARCH STUDIES

The report is divided by the three groups described above. Three types of analysis were conducted for each group: demographic analysis, prediction study and survey analysis. The fourth section is a comparison of survey responses by the three groups and by demographics. The analyses are described below in terms of the approaches used. The results are summarized by group.

Demographic Analysis

The purpose of the demographic analysis is to describe demographic characteristics of the three groups and the extent to which they differ from the general population. Data used is the demographic download for each group of students for Fall 2000.

Prediction Study

The purpose of this study is to determine which factors, if any, can predict whether or not students will apply but not enroll (Group 1), drop all classes before census (Group 2), or withdraw from all classes after census (Group 3).

Logistic regression was used to produce a model that can be used to predict which students will apply but not enroll, drop or withdraw from all classes by comparing certain characteristics of both groups. It determined which factors increase the risk and which will decrease the risk by evaluating the odds ratio and probability of each significant variable (Table 2).

Table 2: Outcome of Logistic Regression

	Increase Risk of Behavior	Decrease Risk of Behavior
Odds Ratio	>1	<1
Probability = Odds Ratio/(1+ Odds Ratio)	> 50%	< 50%

Survey Analysis

The purpose of this analysis is to identify major reasons students perceive as affecting their decision to leave. A sample of each research group was surveyed via mail for their input with response rates varying from 9.6% to 13.8%.

Survey Comparisons

The purpose of this comparison is to identify differences between three survey groups. Bar charts are produced to compare the three groups regarding their reasons for leaving, and what SDCCD can do to retain these students. Data on comparison of reasons for leaving by major demographics are presented in the tables following this section.

Group 1

Analysis of Students Who Applied but Did Not Enroll

Demographic Analysis

The following differences in demographics were found among students who applied but did not enroll when compared to the general population. All demographics can be found in Appendix A by college and district total.

- More males applied but did not enroll compared to the district population. This is particularly evident at Miramar (56.2% males applied and did not enroll compared to 52.9% males enrolled at Miramar Fall 2000).
- There were a greater number of students that did not graduate from high school who applied but did not enroll (5.8% versus 2.6%). 13.2% of students at ECC who applied and did not enroll were not high school graduates versus 5.9% of ECC total populations.
- Of the students who were identified as either first generation or non-first generation, there were more first generation students who applied but did not enroll compared to the general population (28.6% versus 23.2%). This is evident at all colleges except ECC, and especially at Miramar (25.1% versus 20.7%).
- More of the students in the district who applied but did not enroll (14.9%) were African American compared to the general district population (10.0%). This difference is particularly apparent at City (22.9% versus 16.5%).
- 17.2% of the students who applied but did not enroll at Mesa were 18 years old compared to 8.0% of total enrollment Fall 2000.
- At Miramar and ECC, there were more students working 40 or more hours per week that applied but did not enroll compared to the population.

Prediction Study

A logistic regression analysis was performed to compare students who applied but did not enroll Fall 2000 (N=5,495) with a random sample of 5,000 students who were enrolled during Fall 2000.

The following variables were significant ($p < .05$) in the logistic regression model:

- a) Age
- b) Enrollment Status
- c) Educational Objective
- d) First Generation
- e) High school GPA

- f) High school Equivalency
- g) Income

The factors in the model used to predict if students would apply but did not enroll accounts for 36% of the total variance. Since this is low, this model must be used with caution. Using this model, 77.3% of the overall predictions were correct. The following table shows the significant variables and the odds ratios for each variable.

Factors that increase risk of applying and not enrolling	Odds Ratio	Probability
First Generation = Yes	1.213	55%
Income = \$0 – 3,000	1.517	60%
High school GPA = Unknown	1.259	58%
High School GPA = 2.0 – 2.5	1.370	58%

Factors that decrease risk of applying and not enrolling	Odds Ratio	Probability
Age = Under 17	.436	30%
Age = 18	.530	35%
Educational Objective = Undecided	.505	34%
Educational Objective = BA without AA	.544	35%
Educational Objective = Discover career interests	.569	36%
Educational Objective = Educational development	.531	35%
Educational Objective = Advance in Career	.514	34%
High school equivalency = Received high school diploma	.706	41%

Key Findings

- A first generation student has a greater probability of applying and not enrolling than non-first generation students.
- A student with an income from \$0 – \$3,000 is more likely to apply and not enroll.
- Students age 18 and under are less likely to apply and not enroll.
- The probability that a student who received a high school diploma will apply and not enroll is 41%. This means that students who did not receive a high school diploma are more likely to apply and not enroll.
- Students who reported their high school GPA as unknown or as 2.0 – 2.5 are more likely to apply and not enroll.

- Students who have the following educational objectives are less likely to apply and not enroll than all other students: undecided, transfer with no AA, discover career interests, educational development, and advance in career.

Exit Survey Analysis

Surveys were sent out to a sample of 2,004 students who applied but did not enroll and 193 of those students responded (9.6% response rate). Following are some key results from the survey; the full results can be found in Appendix B1.

- Students indicated that their top reasons for applying and not enrolling were: financial difficulties, conflicts with work schedule, or they enrolled at another school. The top responses at City and Mesa were financial difficulties and enrolled at another school, whereas the top response for students at Miramar was conflicts with work schedule.
- Students at all colleges stated that the best way to encourage enrollment was to offer online registration and application.
- Students were interested in more evening, weekend and short-term classes.
- Particularly at Mesa, students indicated that increasing parking capacity would encourage enrollment.
- 21.8% of students stated they did not enroll because they enrolled in another institution. The top institutions were Southwestern College, Cuyamaca College and Grossmont College.
- Students who enrolled in another college stated, “it was closer to home or work” as the most common reason.
- About 50% of the students who responded to the survey indicated that they intended to enroll Spring 2001. 59.4% of the students from City intended to enroll in Spring 2001.
- Students thought that more computer and liberal arts classes should be offered.
- Additional comments were made regarding counseling and staff issues.

Group 2

Analysis of Students Who Dropped All Classes Before Census

Demographic Analysis

The following differences in demographics were found among students who dropped all classes prior to census and the general population as of census. All demographics can be found in Appendix A by college and district total.

- More females dropped all courses before census compared to the district population. This is particularly evident at Miramar (54.9% females dropped all courses compared to 46.6% females enrolled at Miramar Fall 2000).
- There were more students who dropped all courses that work 40 or more hours per week compared to the population. At Mesa, 34.2% of students who dropped were working 40 or more hours per week, compared to 29.6% of the population.
- Students who dropped were generally older than the population. 62.9% of those students were over the age of 25, compared to 49.4% of the population. At City College, 56% of the population is over 25 compared to 69% of the students who dropped all courses.
- The majority of students who dropped (50.4%), attempted less than 5 units during Fall 2000 compared to 30.9% of the population that attempted less than 5 units.
- At Mesa, 65.1% of the students who dropped all courses were transfer level writing students compared to 61.6% of the population. At City, 29% of the students who dropped were transfer level math students, compared to 25.2% of the total population.
- Miramar had more students who completed 0 cumulative units than the population (30.7% compared to 36.0%). This was not true for the entire district.
- There were more students who dropped all classes at ECC (17.9%) who were there to obtain an Associates degree without transferring than the population (8.9%).

Prediction Study

A logistic regression analysis was performed to compare students who dropped all courses Fall 2000 (N=3,032) with a random sample of 5,000 students who did not drop or withdraw all classes during Fall 2000.

From the logistic regression, the following variables were statistically significant ($p < .05$) in the model:

- a) Age
- b) Gender
- c) DSPS Status
- d) Units Attempted
- e) Cumulative GPA

The factors used in the model accounts for 15.9% of the total variance. Since this is low, this model must be used with caution. Using this model, 65.7% of the overall predictions were correct. The following table shows the significant variables and the odds ratios for each variable.

Factors that increase risk of drop	Odds Ratio	Probability of Drop
Gender = Female	1.341	57%
DSPS = No	3.393	77%

Factors that decrease risk of drop	Odds Ratio	Probability of Drop
Age = Under 17	.142	12%
Age = 18	.212	17%
Age = 19	.343	24%
Age = 20	.415	29%
Age = 21	.449	31%
Age = 23	.572	36%
Age = 24	.526	34%
Age = 25 – 29	.579	37%
Age = 30 – 34	.749	43%
Units Attempted	.967	49%
Cumulative GPA	.640	39%

Key Findings

- Students with a higher cumulative GPA are less likely to drop out than students with a lower cumulative GPA.
- Students who are under the age of 34 are less likely to drop out. In particular students under 17 are the least likely to drop out.
- Female students are more likely to drop out than male students.
- Any student who has not used any DSPS services has a greater probability of dropping out than students who have used the services.

Exit Survey Analysis

Surveys were sent out to a sample of 1,501 students who dropped all classes before census in Fall 2000 and 207 students responded (13.8% response rate). Following are some key findings; the results can be found in Appendix B2.

- All three colleges indicated that the top reason for dropping all classes was conflict with work schedule. The second most common response at City was personal reasons, at Mesa was parking problems and at Miramar was course schedule was not flexible.
- Students commented that there were other reasons why they dropped out such as transportation problems, course availability, and unhelpful staff or faculty.
- 47.2% of Mesa students responded that increasing the parking capacity would help them stay in school and 37% said more flexible class schedule would help. At City, students responded that more counseling services would be helpful along with more flexible class schedule and increasing parking capacity. Students at Miramar thought more flexible class schedule and more career-oriented programs would help them stay in school.
- 11.6% of students who responded dropped because they transferred to another institution. The top institutions were San Diego State University, Southwestern College, and Grossmont College.
- The majority of respondents at all colleges agreed with the following statements:
 - Staff was helpful.
 - I felt comfortable in the college environment.
 - Students were friendly.
 - I felt safe on campus.
 - Community college is the best way to obtain my educational objective.
- Of all the students who dropped out, 82.1% indicated they are planning to return to SDCCD.
- There were additional comments made regarding parking, offering more information technology and distance education courses, and improving teaching standards and accessibility.

Group 3

Analysis of Students Who Withdrew from All Classes After Census

Demographic Analysis

The following differences in demographics were found among students who withdrew from all classes after census and the general population as of census. Of the three groups, students who withdrew from all courses after census have fewer differences from the population. All demographics can be found in Appendix A by college and district total.

- More returning students withdrew from all courses after census than the general population (10.3% versus 6.6%). This can be seen at Mesa, where 8.4% of student who withdrew were returning students compared to 5.2% of the population.
- 29.6% of students who withdrew work more than 40 hours a week compared to 34.0% of the total population that works more than 40 hours a week.
- Students who withdrew had 0 cumulative units (35.2%) more often than the total population (31.0%).
- More students who withdrew were enrolled in less than 5 units Fall 2000. This is particularly evident at Mesa where 42.8% of the students who withdrew from all classes were enrolled in less than 5 units Fall 2000, compared to 27.0% of the population.
- At City College, 34.6% of students who withdrew were working 40 or more hours per week compared to 30.8% of the population. Similarly, at Mesa 30.8% of the students who withdrew were working more than 40 hours a week compared to 24.8% of the population.

Prediction Study

A logistic regression analysis was performed to compare students who withdrew from all classes Fall 2000 (N=4,449) with a random sample of 5,000 students who did not withdraw from all classes during Fall 2000.

The following variables were significant in the logistic regression model:

- a) Units attempted
- b) DSPS status
- c) Age
- d) Enrollment status
- e) Cumulative GPA

- f) High school equivalency
- g) Income
- h) Units attempted
- i) Educational Objective

The factors used in the model used to predict if students would withdraw from all classes accounts for 18.4% of the total variance. Since this is low, the model must be used with caution. Using this model, 64.6% of the overall predictions were correct. The following table shows the significant variables and the odds ratios for each variable.

Factors that increase risk of withdraw	Odds Ratio	Probability
DSPS = No	2.77	73%
Passed GED	1.36	58%
Income = \$3,000 – 5,900	1.48	60%
Income = \$9,901 – 14,999	1.32	57%
Income = \$15,000 – 20,000	1.18	54%
Returning Transfer	2.09	68%
Returning Student	1.82	65%

Factors that decrease risk of withdraw	Odds Ratio	Probability
Age = Under 17	.244	20%
Age = 18	.337	25%
Age = 19	.551	36%
Age = 20	.563	36%
Units Attempted	.976	49%
Educational Objective = Maintain certificate or license	.328	25%
Cumulative GPA	.578	37%

Key Findings

- A student who has not received DSPS services is more likely to withdraw than other students who have received services.
- Students under the age of 20 are less likely to withdraw from all classes than all other students.
- If a student has a higher cumulative GPA, he or she is less likely to withdraw than a student with a lower cumulative GPA.
- Returning and returning transfer students have a higher probability of withdrawing than other students.

- Students who enroll to maintain their certificate or license are less likely to withdraw than other students.
- Students who passed the GED are more likely to withdraw.
- Students who earn between \$3,000 and \$5,900 are more likely to withdraw. This also applies to students earning between \$9,901 and \$20,000.

Exit Survey Analysis

A survey was sent out to a sample of 2,000 students who withdrew from all classes after census and 206 students responded (10.3% response rate). The results are listed in Appendix B3; following are some key results.

- The top reason students withdrew from all classes was conflict with work schedule. Students at City indicated personal reasons, and financial concerns as other top reasons for withdrawing, while students at Mesa indicated personal reasons and students at Miramar indicated personal reasons and family obligations as top reasons.
- Students stated that increasing parking capacity, and more flexible class schedule would help them stay in school. 44.7% of respondents at Mesa indicated increasing parking would help them succeed. At City, 25.6% of students stated more financial aid would be helpful and at Miramar respondents stated that more on-line courses would be helpful.
- The majority of students at all colleges agreed or strongly agreed with the following statements:
 - College staff were helpful.
 - I felt comfortable in the college environment.
 - I felt safe on campus.
 - Community college is the best way to obtain my educational objective.
- Most students at all colleges disagreed, or strongly disagreed with the following statements:
 - Class sizes were so large that I felt like a number.
 - Going to college is not a priority in my life right now.
- Although these students withdrew from all classes, 85.4% of the respondents stated that they plan to return Spring 2001. At Mesa, 88.3% of the respondents indicated they plan to return.
- Students made additional comments regarding quality of teaching, parking and financial difficulties.

Survey Response Comparison

Introduction

The purpose of this comparison is to identify differences of survey responses between three groups, by ethnicity, by gender and to determine reasons why students transferred to another institution. The results can be found in Appendix C. Following are some key findings.

Three Group Comparison

- Students who stayed in college longer were more likely to feel the conflict with work schedule, parking problems on campus, and family obligations that caused them leaving.
- The most common reasons for students to apply and not enroll were they could not get first choice of classes, and transportation problems (when compared to students who dropped and withdrew).
- The longer the students stayed in college, the less likely they would transfer/enroll at another school.
- More students who applied but did not enroll perceived financial difficulties as their reason for not enrolling compared to students who dropped or withdrew from all classes.
- Students who dropped reported that they wanted more career-oriented program/classes, and more counseling services (when compared with students who applied but did not enroll, and students who withdrew).

Transferred to/Enrolled at Another School

- Students who applied to SDCCD but enrolled at another school reported that their reason for not enrolling was that the desired course or program was not offered.
- Students who transferred to another school after dropping or withdrawing from all classes stated that their reasons for leaving were: class schedule was not flexible and conflicts with work schedule.
- Students indicated that if they did transfer, they transferred to Southwestern College, Cuyamaca College, Grossmont College and San Diego State University.

Gender Comparison

- Of those who applied but did not enroll, females tended to express financial difficulties as their number one reason for not enrolling while males claimed conflicts with work schedule as their reason.
- Both male and female students who dropped before census stated that conflicts with work schedule was their number one reason for leaving.
- Female students who withdrew indicated that personal reasons and conflict with work schedule were the top reasons for withdrawing. Male

students claimed that conflict with work schedule was their primary reason for leaving.

Age Group Comparison

- For the group of students who applied but did not enroll, students under 20 tended to report enrollment at another school or college as the reason why they did not enroll in SDCCD colleges. Reasons for not enrolling cited by other age groups were: (ages 21-30) – financial difficulties, (ages 31-40 and over 40) – conflicts with work schedule. For the dropped and withdrew groups, students under 20 tended to mention that they dropped because of personal reasons. While students in other age groups (21-30, 31-40, over 40) selected conflicts with work schedule as their number one reason for leaving.

Ethnic Group Comparison

- For the group of students who applied but did not enroll, Asian students tended to report most frequently that they did not enroll because their desired classes were closed when they tried to register. African American and Hispanic students were more likely to express that financial difficulties prevented them from enrolling. White students stated that they chose to enroll at another college instead of SDCCD.
- All students who dropped (Asian, African American, White, Hispanic) expressed that their main reason was conflict with work schedule. Hispanic students reported personal reasons as the reason they dropped all classes more than any other ethnic group.
- Asian students who withdrew stated that financial concerns and conflict with work schedule were important reasons for withdrawing. African American students who withdrew tended to perceive conflict with work schedule and family obligations as reasons for withdrawing from all classes. White students who withdrew felt conflict with work schedule was most important reason for leaving while Hispanic students who withdrew reported personal reasons.