

An Analyses of CRC Student Persistence for the 2013-14 Academic Year

CRC Research Office

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Co-authors

Paul Meinz, Research Analyst

Sabrina Sencil, Research Analyst

Background/Methodology

During Spring 2015, the CRC Research Office analyzed the persistence of CRC students who attended the College during Fall 2013. Students who enrolled in the subsequent semester, Spring 2014 (the *Persist* group), were compared to those who did not (the *Did Not Persist* group). In particular, the enrollment for students who attended CRC during Fall 2013 was cross-referenced against the Spring 2014 enrollment files to determine if a particular student enrolled during the subsequent spring semester. If a student did not enroll for the Spring 2014 semester, the student was classified as “Did Not Persist.” If a student’s ID was found in the enrollment files for the subsequent spring semester (accounting for pre-census drops), the student was classified as “Persist.” In Fall 2013, 14,117 students were enrolled of which 9,182 enrolled in the subsequent spring term (65.0% Persistence Rate).

The comparison between these groups proceeded in two steps. First, statistical analyses were performed to determine if the persistence rate of students differed based on demographic characteristics (age group, gender, ethnicity, educational goal, and full-time status). Second, statistical analyses were performed to determine if the Persist and Did Not Persist student groups differed in terms of academic performance (GPA and course success rate).

Overview of Findings

CRC students who attended the College during Fall 2013 persisted at differing rates, based on age, gender, ethnicity, educational goal, and full-time status. Those who were over the age of 20 (particularly between 25 and 29 years of age), female, African American, enrolled in fewer than 15 units, attended CRC for job skills development, or concurrently attended a University were less likely to persist compared to their subgroup peers. Additionally, students who did not persist had lower GPA’s and success rates in the Fall 2013 term. It is interesting to note that these differences were due in large part to differences in the percentage of F’s earned by the two groups.

Implication of Findings

The findings presented here provide information to strengthen the Enrollment Management’s committee’s dialogue with regard to “in-reaching” with students who are already at CRC - potentially identifying students that are most at risk for not persisting. In conjunction with other evidence, these data may be used to design targeted interventions to help students succeed and persist at CRC.

Limitations of Study

This study was limited to the 2013-2014 academic year and should be replicated across multiple years. Moreover, although this report highlights differences between various demographics, we cannot say *why* the persistence of the demographic groups differ. These differences might reflect environmental factors of the college and/or the students. In addition, statistical analyses did not account for the potential impact of other variables (including various student services and special programs). Future analyses may reveal that differences in persistence are moderated by demographic variables. For example, differences between males and females might only be observable in one ethnic group and not another.

Analysis

The findings presented in this report reveal differences in fall to spring persistence based on age group, gender, ethnic group, educational goal, full-time status, GPA, and course success (a demographic breakdown of the Fall 2013 students can be found in Table 1). Analysis of Variance (ANOVA) and Chi-Square tests were used to determine if the Persist and Did Not Persist groups were significantly different. These analyses demonstrated that the demographic profile of students in the Persist group was significantly different from the demographic profile of students in the Did Not Persist group. Moreover, these two groups were different in academic performance, particularly in the area of course success rate.

Table 1. *Student Demographic Breakdown for the Fall 2013 Semester*

Student Characteristics	% of Fall 2013 Students	% of Fall 2013 Students Enrolled in Spring 2014
Gender		
Female	55.1%	54.3%
Male	43.8%	44.6%
Unknown	1.0%	1.1%
Age Range		
20 or Younger	33.4%	39.3%
21 – 24	27.7%	27.0%
25-29	13.9%	11.6%
30-39	12.2%	10.3%
40 or over	12.8%	11.7%
Ethnic Group		
African American	15.5%	14.1%
American Indian	1.7%	1.8%
Asian/Pacific Islander	31.8%	33.4%
Hispanic	23.1%	24.1%
Unknown	2.4%	2.3%
Other	0.9%	0.9%
White	24.5%	23.4%
Educational Goal		
Degree/Certificate Attainment	23.9%	22.4%
Job Skills Development	2.9%	1.7%
Personal/Basic Skills Development	2.9%	2.0%
Transfer	64.7%	70.0%
Undecided/Unknown	4.4%	3.3%
University Student Taking CC Classes	1.2%	0.6%
Unit Load Status		
Full-time (15 or more units)	8.4%	10.4%
Part-Time (Fewer than 15 units)	91.6%	89.6%
Total Headcount	14,117	9,182
Overall Persistence Rate	65.0%	

Age and Persistence

Students who were 25 to 29 years of age had the lowest persistence rate (54.5%), and students who were 20 years of age or under had the highest persistence rate (76.6%). A Chi-Square statistical test was performed to determine if age and persistence were associated. This test was significant ($\chi^2 = 479.92$, $p < .001$), suggesting that persistence rate is associated with age group.

Table 2. *Persistence by Age Group*

Age Group	Number of Students Enrolled in Fall 2013	Number of Fall 2013 Students Enrolled in Spring 2014	Persistence rate
20 or under	4,710	3,609	76.6%
21 – 24	3,914	2,481	63.4%
25 – 29	1,959	1,068	54.5%
30 – 39	1,729	950	54.9%
40 or over	1,805	1,074	59.5%
All Students	14,117	9,182	65.0%

Gender and Persistence

Female students comprise approximately 55% of the total student population – a proportion that has remained relatively constant over time. They have a slightly lower persistence rate compared to men (64.0% vs. 66.3%, respectively). A Chi-Square test for the association between gender and persistence was significant ($\chi^2 = 8.01$, $p < .05$). However, note that the overall difference in persistence between males and females was 2.2%. Thus, although the Chi-Square test was significant, the difference between males and females was small.

Table 3. *Persistence by Gender*

Gender	Number of Students Enrolled in Fall 2013	Number of Fall 2013 Students Enrolled in Spring 2014	Persistence rate
Female	7,785	4,984	64.0%
Male	6,185	4,099	66.3%
Unknown	147	99	67.3%
All Students	14,117	9,182	65.0%

Ethnic Group and Persistence

Students who are African American have the lowest persistence rate at 58.5%, and Filipinos and Asians have the highest persistence rates (69.0% vs. 68.8%, respectively; See Table 4). A Chi-Square test for the association between ethnic group and persistence was significant ($\chi^2 = 96.66$, $p < .001$), suggesting that persistence and ethnicity are associated.

Table 4. *Persistence by Ethnic Group*

Ethnic Group	Number of Students Enrolled in Fall 2013	Number of Fall 2013 Students Enrolled in Spring 2014	Persistence rate
African American	1983	1159	58.5%
Asian	3332	2292	68.8%
Filipino	642	443	69.0%
Hispanic/Latino	3260	2211	67.8%
Multi-Race	792	527	66.5%
Native American	82	44	53.7%
Other Non-White	126	83	65.9%
Pacific Islander	271	180	66.4%
Unknown	219	132	60.2%
White	3410	2111	61.9%
Overall	14117	9182	65.0%

Educational Goal and Persistence

Students who indicate on their college application that they intend to transfer had the highest persistence rate (70.4%) compared to students with other educational goals. Understandably, university students taking CC classes had the lowest persistence rate (31.8%). Students who had the goal of job skills development also had a lower persistence rate compared to their peers (38.1%). A Chi-Square testing the association between goal and persistence was significant ($\chi^2 = 501.94, p < .001$).

Table 5. *Persistence by Educational Goal*

Educational Goal	Number of Students Enrolled in Fall 2013	Number of Fall 2013 Students Enrolled in Spring 2014	Persistence rate
Degree/Cert Attain.	3,373	2,059	61.0%
Job Skills Dev.	404	154	38.1%
Personal Dev.	415	181	43.6%
Transfer	9,137	6,430	70.4%
Undecided	615	303	49.3%
Reverse transfer	173	55	31.8%
All Students	14,117	9,182	65.0%

Full-Time Status and Persistence

As indicated in Table 6 on the next page, a larger proportion of Fall 2013 full-time students persisted through to the spring semester (80.4%) compared to part-time students (63.6%). A Chi-Square test for the association between full-time status and persistence was significant ($\chi^2 = 134.66, p < .001$). It is interesting to note, however that only 8.4% of the Fall 2013 student population was enrolled full-time.

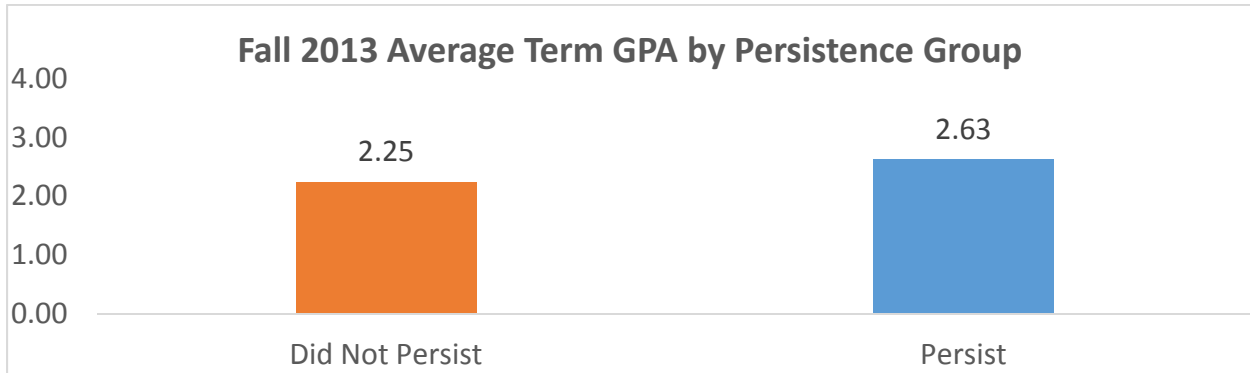
Table 6. *Persistence by Full-Time Status*

Unit Load Status	Number of Students Enrolled in Fall 2013	Number of Fall 2013 Students Enrolled in Spring 2014	Persistence rate
Full-Time	1,187	955	80.5%
Part-Time	12,930	8,227	63.6%

All Students	14,117	9,182	65.0%
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Student Success and Persistence

For the purposes of the present analysis, GPA and course success rates were used as indicators of student success. On average, students who persisted had slightly higher fall term GPAs as compared to students who did not persist (2.63 and 2.25, respectively). An Analysis of Variance (ANOVA) test was performed to see if the Persist/Did Not Persist groups differed in terms of GPA. This test was significant ($F = 262.00, p < .001$).



Course success rates for a given semester are calculated based on the percentage of courses students successfully passed (earning a grade of A, B, C, or P) out of the total number of courses in which they were enrolled. On average, students who persisted had much higher course success rates than students who did not persist in the spring term. An ANOVA revealed that the Persist/Did Not Persist groups differed in terms of course success rate ($F = 1229.00, p < .05$). This difference in course success rate can largely be attributed to the percentage of F's earned (9.15% vs. 21.43% for the Persist and Did Not Persist groups, respectively).

