

Cohort Report

Background

The District Research Council asked the Research Offices at the Colleges, as well as the District Office, to design and develop a multi-cohort, multi-year tracking system to support the college's Accreditation Self-evaluation process. Three cohorts were developed and the selection criteria for inclusion in each of these cohorts were developed by the District Research Council. It was the intention of the District Research Council (DRC) to develop a common reporting metric that would identify and track for 5 academic years the following three cohorts:

- 1) Career/Technical Education
- 2) Basic Skills
- 3) Transfer Intent

Each of the three cohorts were “behavior based”, meaning that a student had to exhibit particular enrollment behavior(s) in certain courses, namely enrolling in selected courses or have completed a certain threshold number of units in a particular educational area in order to be included in the cohort. Once identified, the students were tracked over 5 academic years, (allowing for non-contiguous enrollment) and their academic performance (namely average course success rates and cumulative GPA) were computed during the tracking window. During the analysis, an individual student could be a member of one or more of these cohorts and the system allowed for such an eventuality, cognizant of the disparate enrollment behavior of many community college students.

This report also analyzes the “attrition rate” of each of the cohorts over the 5-year window of analysis. Using the term “attrition” is problematic as many Community College student exhibit non-contiguous enrollment behavior – meaning that student may or may drop out of the college for a time, to return in the future to continue their educational career. The system allowed for such enrollment behavior, but one must use caution in interpreting the attrition rates of each cohort, for what may be interpreted as a “dropout”, may in actuality, be a student who has completed their educational objective(s) and has moved on to other pursuits or may return in the future.

The definitions for the cohorts, and an overview of their success metrics over time are in the following tables.

Cohort Definitions, Size and Overall Success

Basic Skills Cohort

Behavioral Cohort Selection Criteria – “Students who enrolled in a "Basic Skills" Math, Writing, Reading or ESL class within three years of the specified enrollment year. "Basic Skills" courses in this report are defined as being one or more levels below current graduation competency - paralleling the updated ARCC definition.

Table 1: Overview of the Basic Skills Cohort

Basic Skills Cohort (08-09)	2008-09	2009-10	2010-11	2011-12	2012-13
Number of students	6845	3822	2473	1646	1183
Avg. Course Success Rate	70.2%	71.5%	71.6%	71.5%	71.1%
Avg. Cum. GPA	2.70	2.73	2.82	2.74	2.79
Basic Skills Cohort (09-10)	2009-10	2010-11	2011-12	2012-13	2013-14
Number of students	7601	4097	2633	1822	1222
Avg. Course Success Rate	70.1%	71.8%	72.4%	71.5%	70.7%
Avg. Cum. GPA	2.70	2.74	2.67	2.77	2.75

Career/Technical Education Cohort

Behavioral Cohort Selection Criteria – “Students who successfully complete 8 or more units (districtwide) of ‘CTE’ coursework (as defined by SAM/TOP codes). The 8-plus units completed must be in the same 2-digit TOP code and 1 of the CTE courses (within the 8 units) the student completes must be a “B” or “C”-level SAM Code.

Table 2: Overview of the Career/Technical Education Cohort

CTE Cohort (08-09)	2008-09	2009-10	2010-11	2011-12	2012-13
Number of students	2469	1207	726	494	355
Avg. Course Success Rate	77.7%	77.4%	76.5%	77.3%	77.5%
Avg. Cum. GPA	3.00	2.99	3.00	3.01	3.07
CTE Cohort (09-10)	2009-10	2010-11	2011-12	2012-13	2013-14
Number of students	2739	1266	784	514	351
Avg. Course Success Rate	77.7%	77.4%	77.8%	77.6%	76.8%
Avg. Cum. GPA	3.00	3.01	3.01	3.07	3.05

Transfer Intent Cohort

Behavioral Cohort Selection Criteria: Students enrolled who have completed 12 units of transfer-level courses and have attempted to enroll in a Mathematics or English course (TOP Codes 17*, 1501*, 1503*, 1504*, 1507*, 15620*) and CB04 Code = "D" (degree applicable) within three years of the specified enrollment year.

Table 3: Overview of the Transfer Intent Cohort

Transfer Intent Cohort (08-09)	2008-09	2009-10	2010-11	2011-12	2012-13
Number of students	5603	2941	1776	1121	814
Avg. Course Success Rate	75.1%	74.5%	73.8%	73.2%	72.9%
Avg. Cum. GPA	2.86	2.85	2.84	2.84	2.88
Transfer Intent Cohort (09-10)	2009-10	2010-11	2011-12	2012-13	2013-14
Number of students	6383	3259	2040	1318	890
Avg. Course Success Rate	75.1%	75.4%	74.5%	73.9%	72.3%
Avg. Cum. GPA	2.86	2.86	2.84	2.87	2.84

A review of the previous tables indicates the following:

- The cumulative GPA and average course success rate of the cohorts are relatively stable over time (for both the 2008-09 as well as the 2009-10 groups). This may indicate that students who leave the college are not doing so because they are struggling academically.
- The average course success rates for each of the cohorts (for both the 2008-09 as well as the 2009-10 groups) exceeded the average course success rates for the college which have ranged between 63% and 68% during the same time period.
- The cumulative GPA and average course success rates for the CTE cohort were greater than the GPA and course success rates for the other two groups, a trend that continued for the 2009-10 Cohort.
- The cumulative GPA and average course success rates of the Basic Skills cohort were less than the GPA and course success rates of the other two groups. This was also reflected in the 2009-10 cohort.

Success Trend within the Cohorts

Disaggregating the data provides other information about differences and similarities between the cohorts and college-wide data. These differences and similarities are highlighted in the table below.

Table 4: Groups with Highest Success Rates

Highest Performing Group	College-wide	Basic Skills	CTE	Transfer Intent
Gender	Females	Females	Females	Females
Ethnicity	Asian Pacific Islanders	Whites	Whites	Whites
Age	30 years of age and older	30 years of age and older	30 years of age and older	30 years of age and older
First Generation Status	Not First Generation	First Generation	First Generation	First Generation
Income	Middle and above	Middle and above	Middle and above	Middle and above
Enrollment Status	Students working less than full-time or not seeking employment	Students working less than full time	Full time students	Students working less than half-time or not-seeking employment

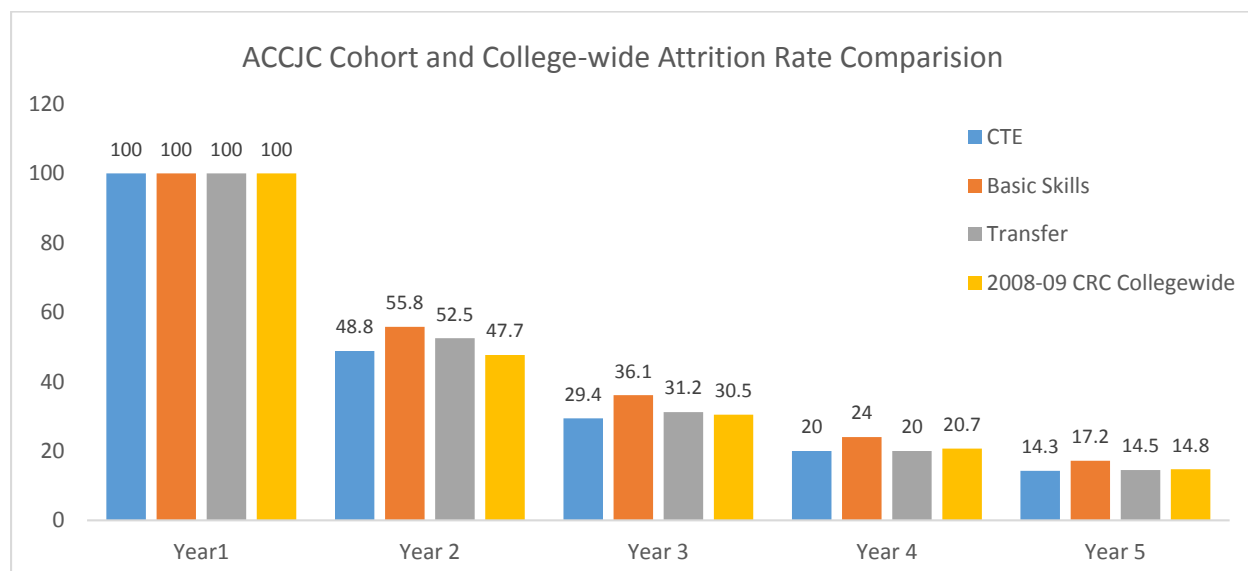
It is also interesting to note that

- Students in the basic skills and transfer intent cohort who are concurrently enrolled in a four year college had greater cumulative GPA's and average course success rates compared to "native" students.

- Although the GPAs of the cohorts are relatively stable, the cumulative GPA and overall course success rates of individual students improved over time.

Analyzing and Tracking Students over Time

One of the purposes of longitudinal tracking of a selected cohort is to investigate how many students continue their education over a span of years. The following graphic show the relative attrition rate of each group of students analyzed.



In terms of cohort size as well as subsequent retention of these students over the 5-year span, the group of students who were identified as being a “Basic Skills” student (for purposes of this study) had the most students as well as the greatest proportion of students still pursuing their educational goals after five years (17.2% compared to the CTE and Transfer Intent Cohorts of 14.3% and 14.5% respectively). This result is not surprising, given the fact that students in the Basic Skills Cohort need to complete more courses in order complete their educational goals. In addition, the units required to complete educational goals in the Career-Technical Area are in general less than the number of units required to transfer.

Analyzing Goal Completion over Time

Each of the three cohorts (CTE, Basic Skills, Transfer Intent) were tracked over five academic years and a subsequent analysis of their attendance and goal attainment (primarily Degrees and/or Certificates) was done to see how these students fared over time. The analyses show that regardless of cohort:

- there were no statistically significant differences between the cohort’s attrition rate compared to the college-wide attrition rate;
- approximately 25% of the original population was still attending the college (though not necessarily in a contiguous fashion) after five years;
- approximately 5% of the students from any academic year analyzed earned at least one Award (Degree and/or Certificate) through this period;

- slightly less than 1% of the students in each cohort earned a degree or certificate each academic year but were not enrolled at the college. This most likely means that either fulfilled their requirements while attending another college or were motivated to apply for a degree/certificate subsequent to enrollment for some reason.

Analyzing Ethnic Proportion over Time

Another purpose of longitudinal and cohort tracking is to investigate differences between the cohorts and whether a particular cohort’s characteristics change over time. The following table show the cohort’s ethnic profile in year one with the college-wide totals for the 2008-09 academic year with the 2008-09 college-wide students, as well as comparing the 2009-10 cohort of students with the 2009-10 college-wide students to see if there were differences. It is interesting to note that the demographics of the cohorts differ from each other and the college-wide data in the following ways:

- The greatest proportion of White students appeared in the **CTE Cohort**, but not at levels that are statistically significant.
- The greatest proportion of Hispanic students appeared in the **Basic Skills Cohort**, but not at levels that are statistically significant.
- African American students were in lower proportions in the **Transfer Intent Cohort**, but not low enough to be statistically significant.

CTE Cohort	2008-09 Beginning Cohort Size	2008-2009 CRC College-wide
African Am.	11.5%	16.0%
Asian/Pacific Isl.	33.6%	34.0%
Hispanic	13.7%	18.0%
Native Am.	0.7%	1.0%
White	32.7%	32.0%

Basic Skills Cohort	2008-09 Beginning Cohort Size	2008-2009 CRC College-wide
African Am.	14.4%	16.0%
Asian/Pacific Isl.	36.0%	34.0%
Hispanic	18.2%	18.0%
Native Am.	0.8%	1.0%
White	23.8%	32.0%

Transfer Intent Cohort	2008-09 Beginning Cohort Size	2008-2009 CRC College-wide
African Am.	10.5%	16.0%
Asian/Pacific Isl.	36.6%	34.0%
Hispanic	15.2%	18.0%
Native Am.	0.7%	1.0%
White	29.1%	32.0%

In addition, an analysis of the ethnic composition of the 2008-09 and the 2009-10 cohorts in the three areas (CTE, Basic Skills, and Transfer Intent) indicated that the differences in ethnicity between the two cohort years were not statistically significant.

CTE/Basic Skills/Transfer Intent Cohort Comparison

Comparing the three cohorts over two separate time periods for longitudinal analysis reveals very little differences among the proportion of ethnic groups between the cohorts or within the cohorts over time. The CTE cohort had a greater proportion of Filipino students from “Year 1” to “Year 5”. However, caution should be used as the number of Filipino students in the cohorts is relatively small and small changes in numbers can reflect significant differences in terms of percentages.

		African American	Asian	Filipino	Hispanic	Native American	Pacific Islander	White	Other
CTE Cohort	Year 1	11.5%	26.5%	0.5%	13.7%	0.7%	1.4%	32.7%	8.1%
	Year 5	10.4%	29.3%	5.6%	15.2%	1.2%	1.6%	28.1%	8.4%
Basic Skills Cohort	Year 1	14.4%	28.1%	5.4%	18.2%	0.8%	2.4%	23.8%	6.9%
	Year 5	14.0%	30.9%	5.3%	20.9%	0.5%	3.0%	18.4%	6.8%
Transfer Intent Cohort	Year 1	10.5%	28.2%	6.7%	15.2%	0.7%	1.7%	29.1%	7.9%
	Year 5	11.1%	32.9%	6.4%	17.2%	0.4%	1.8%	22.5%	7.7%

Data for this report is available from LRCCD computers on the Los Rios Institutional Research Website at <http://irweb.losrios.edu/accjc/accjc.aspx>