



## Analysis of Student Success By Instructional Delivery System Method and Course Level

### **Background**

During Fall 2007, the CRC Research Office investigated course success rates for different instructional delivery systems (i.e. Distance Education, Independent Study, Directed study as well as the “traditional” methods of lecture and lab modes of instruction) and different course levels (i.e. Basic Skills, College-level, and Transfer-level). The Research Office also analyzed key demographic and application data items (i.e. Age group, Ethnicity, Educational Goal and First Generation student status) to investigate whether course success rates varied by these factors.

The Research Office analyzed course enrollment records at the college for the 2004-05, 2005-06, and 2006-07 Academic years. Students who enrolled in a particular class who dropped before the drop deadline were excluded from the analyses. Students who dropped after the drop deadline were retained in the study. The CRC research Office analyzed over 205,000 student enrollment records for the study and the highlights of the study appear below.

For further information about the study, please contact Kathy McLain, Dean of Planning and Research at extension 7144 or Brad Brazil, Research Analyst at extension 7385.

### Summary of Course Enrollment by Course Level

- ✿ CRC enrollments in “Basic Skills” courses (below 100-level) comprised 8.8% of the total enrollments; enrollments in “College-level” (100 to 299-level) comprised 14.7% of the enrollments and enrollments in “Transfer-level” (300-level or above) comprised 76.4% of the total enrollments.

### Average Course Success Rate By Course Type

- ✿ The overall course success rate at the college was 64.3%. Course success rates by course level (i.e. “Basic Skills”, “College-level” or “Transfer”) indicated that students enrolling in transfer-level courses had higher course success rates compared with students enrolling in “college-level” or “Basic Skills” courses. The course success rate for the individual course levels were:
  - 64.3% for Basic Skills-level courses (N=18,155 enrollments)
  - 61.9% for College-level courses (N=30,207 enrollments)
  - 65.3% for Transfer-level courses (N=156,970 enrollments)

### Average Course Success Rate By Instructional Mode

- ✿ The overall course success rates by instructional delivery systems varied greatly and are as follows:
  - 90.9% for “Directed study” courses (N=510 enrollments)
  - 83.9% for “Independent study” courses (N=118 enrollments)
  - 65.0% for traditional “Lecture” courses (N=171,196 enrollments)
  - 64.7% for “Hybrid” courses (N=249 enrollments)
  - 63.7% for traditional “Lab” courses (N=12,129 enrollments)
  - 59.9% for “2-Way ITFS” (N=3,525 enrollments)
  - 56.5% for “Internet Instruction - Exclusive” courses (N=15,617 enrollments)

### Average Course Success Rate By Age Group

- ✿ With the exception of students under the age of 18, average course success rates of older students were higher than younger students. The course success rates by age group are below:
  - 76.0% for students under the age of 18 (N=3,382 enrollments)
  - 60.6% for students 18-20 (N=84,735 enrollments)
  - 62.6% for students 21-24 (N=49,961 enrollments)
  - 64.8% for students 25-29 (N=20,933 enrollments)
  - 70.0% for students 30-39 (N=22,841 enrolments)
  - 73.8% for students 40 or older (N=23,480 enrolments)

### Average Course Success Rate By “First Generation Student” Status

- ✿ Students who were First-Generation college students (students coming from a household where neither the father nor mother attended college) had a slightly higher course success rate compared with students where one or both of their parents had attended college. In addition, First-Generation students took fewer units per semester compared with their peers (as indicated by course enrollment ratios that do not match student enrollment ratios). The average course success rates by First-generation status are below:
  - 64.7% for “First-generation” students (N=51,293 enrollments)
  - 64.2% for non “First-generation” students (N=154,039 enrollments)

## Average Course Success Rate By Ethnic Group

Students from different ethnic groups had differing levels of average course success rates. The average course success rates by ethnic group are below:

- 49.6% for African American students (N=29,933 enrollments)
- 58.6% for American Indian students (N=1,889 enrollments)
- 67.0% for Asian/Pacific Islander students (N=65,424 enrollments)
- 62.7% for Hispanic students (N=14,036 enrollments)
- 69.3% for White students (N=62,013 enrollments)

## Average Course Success Rate By Educational Goal

Depending on the student's declared educational goal, average course success rates differed significantly.

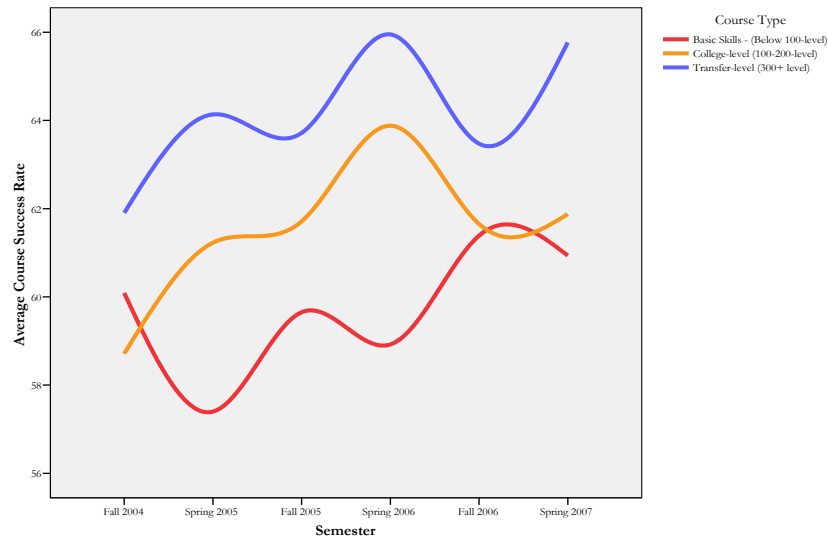
- Students without clearly defined goals, or who had goals that indicated they were not academically ready for college level work, had lower course success rates as compared with other students. Course success rates for these students are below:
  - 56.7% for students declaring that their educational goal was to "Complete High School/GED" (N=1,219 enrollments)
  - 62.5% for students declaring that their educational goal was "Undecided on goal" (N=18,861 enrollments)
  - 63.2% for students declaring that their educational goal was "Improve basic skills" (N=2,159 enrollments)
  - 63.7% for students declaring that their educational goal was to "Discover career interests" (N=4,454 enrollments)
- Students who declared goals in the career technical area had variable success rates depending on their goal within that area. Course success rates for these students are below:
  - 64.2% for students declaring that their educational goal was "Earn a vocational degree without transferring" (N=5,287 enrollments)
  - 65.9% for students declaring that their educational goal was "Earn a vocational certificate" (N=7,880 enrollments)
  - 66.1% for students declaring that their educational goal was to "Acquire Job Skills only" (N=5,289 enrollments)

## Average Course Success Rate By Educational Goal (continued)

- Students who indicated an interest in earning an AA/AS degree also experienced variable success rates depending on whether they viewed this as a terminal or initial degree. Course success rates for these students are below:
  - 62.6% for students declaring that their educational goal was “Transfer after obtaining AA/AS Degree” (N=95,971 enrollments)
  - 66.8% for students declaring that their educational goal was “Earn a AA/AS degree without transferring” (N=19,822 enrollments)
- Students who had a goal of transferring without an intermediate degree or who were taking courses for personal enrichment generally had the highest course success rates. Course success rates for these students are below:
  - 66.9% for students declaring that their educational goal was “Transfer – without obtaining AA/AS Degree” (N=33,884 enrollments)
  - 72.5% for students declaring that their educational goal was “Upgrade job skills only” (N=3,172 enrollments)
  - 74.2% for students declaring that their educational goal was “Educational development” (N=3,722 enrollments)

## Longitudinal Analyses of Average Course Success Rates

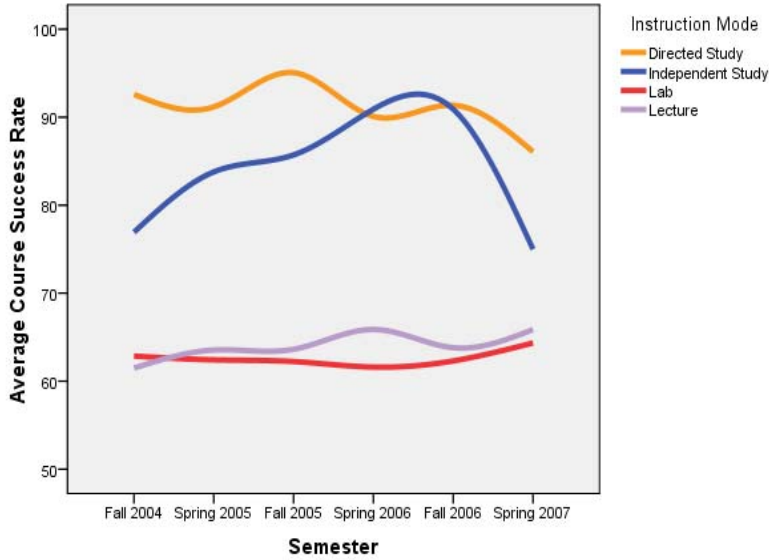
CRC Average Course Success rates By Course Type (2004/05 through 2006/07)



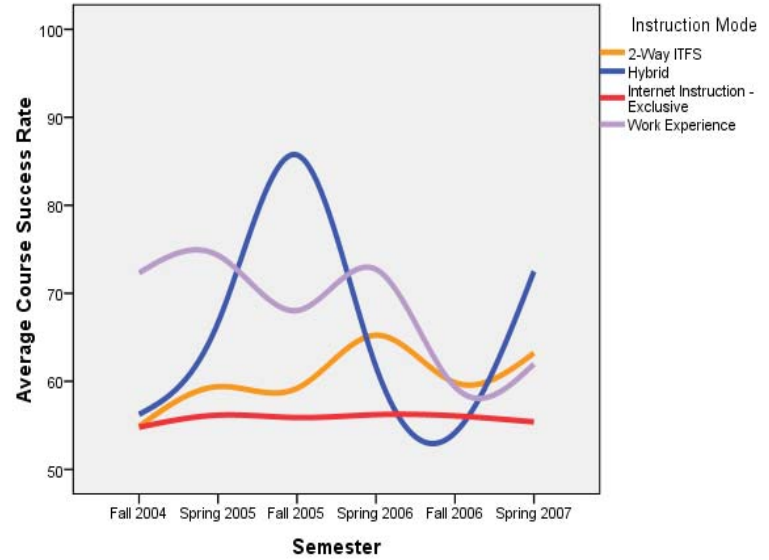
Average success rates in transfer level courses were consistently higher than in the other course levels, although average success rates for all course levels improved over the course of the study, with the exception of the downward trend for basic skills and college level courses last spring. It is interesting that average course success rates for basic skills courses are lower in spring as compared with fall, but the reverse trend is true for college and transfer level courses.

## Longitudinal Analyses of Average Course Success Rates (continued)

CRC Average Course Success rates By Instruction Mode (2004/05 through 2006/07)



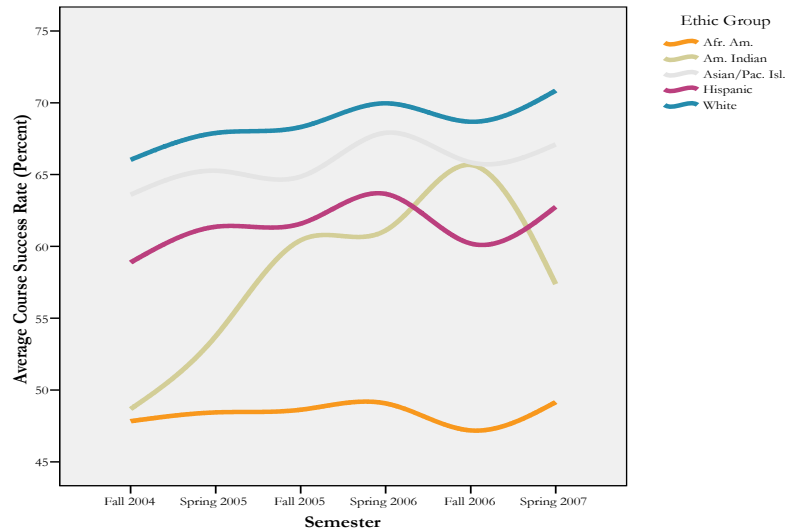
CRC Average Course Success rates By Instruction Mode (2004/05 through 2006/07)



These graphs indicate that course success rates in Internet-based courses were the consistently lower and relatively unchanged over the course of the study. In addition, course success rates in hybrid courses had the most extreme variability. There was also a significant drop in overall course success rate in the last semester for Independent study, Directed study, and Work Experience classes.

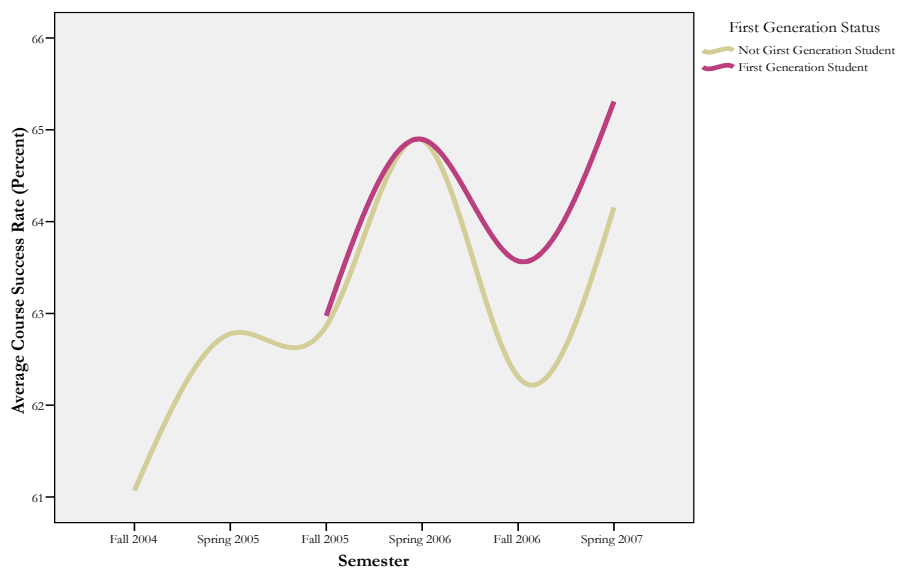
## Longitudinal Analyses of Average Course Success Rates (continued)

**CRC Average Course Success Rate By Ethnic Group (2004/05 through 2006/07)**



This graph shows that most of the ethnic groups are making increases in the average course success rates, although at different rates. American Indian student course success rates took a noticeable drop in the last semester, however much of that variation was due to relative small numbers of American Indian students attending CRC (approx 1% of the total student population).

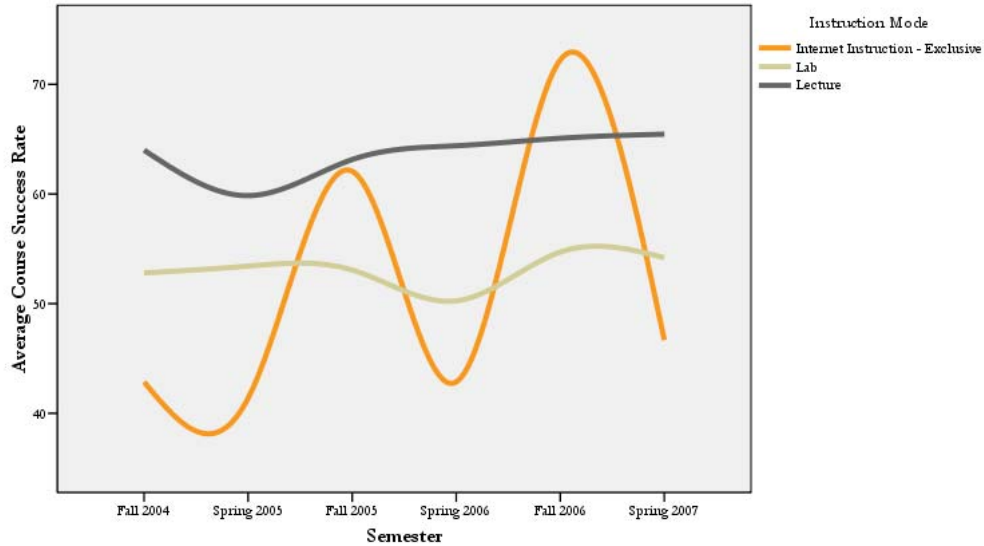
**CRC Average Course Success Rate By First Generation Status (2004/05 through 2006/07)**



Average course success rates over time for “first generation” student status indicate that during the past academic year “first generation” students had a slightly greater course success rates and less variation in their success compared with the rest of the student population at CRC.

## Longitudinal Analyses of Average Course Success Ratse (continued)

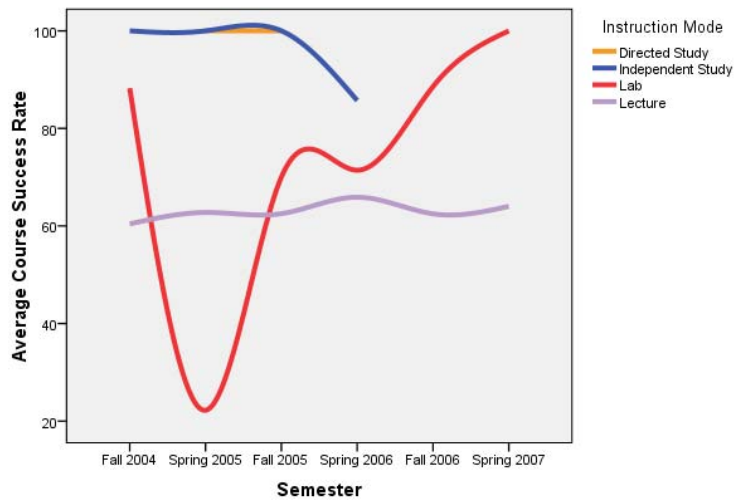
CRC Average Course Success rates By Instruction Mode (2004/05 through 2006/07) - Basic Skills



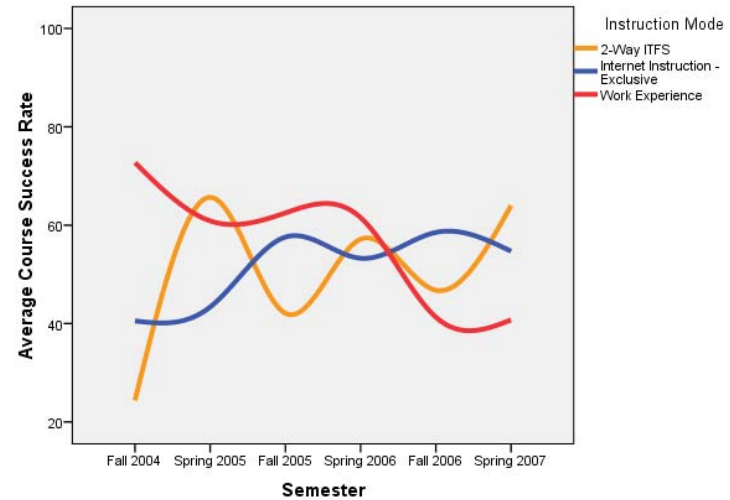
This graph indicates that Basic Skills courses taught using the internet generally had lower and more variable average course success rates, although the trend in average course success was increasing. This variation may be caused in part by the relatively low percentage of internet-based courses in Basic Skills compared to the traditional Lab and lecture courses.

## Longitudinal Analyses of Average Course Success Rate (continued)

**CRC Average Course Success rates By Course Type (2004/05 through 2006/07) - College Level**



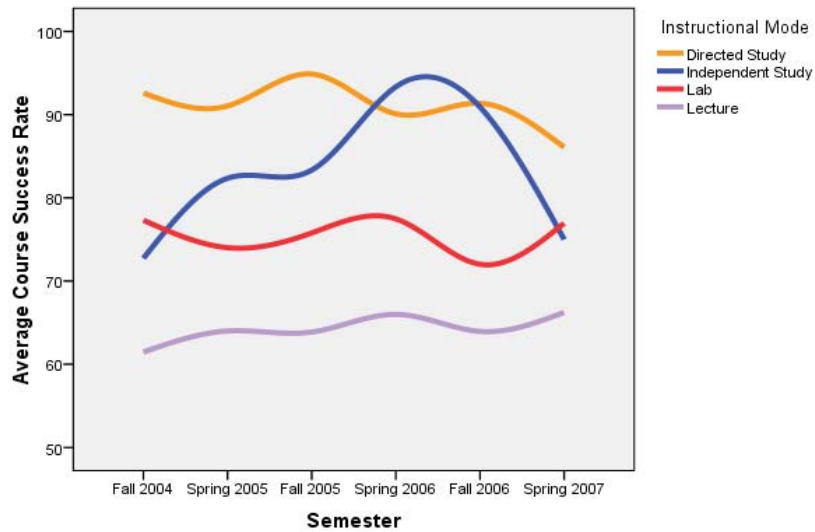
**CRC Average Course Success rates By Instruction Mode (2004/05 through 2006/07) - College Level**



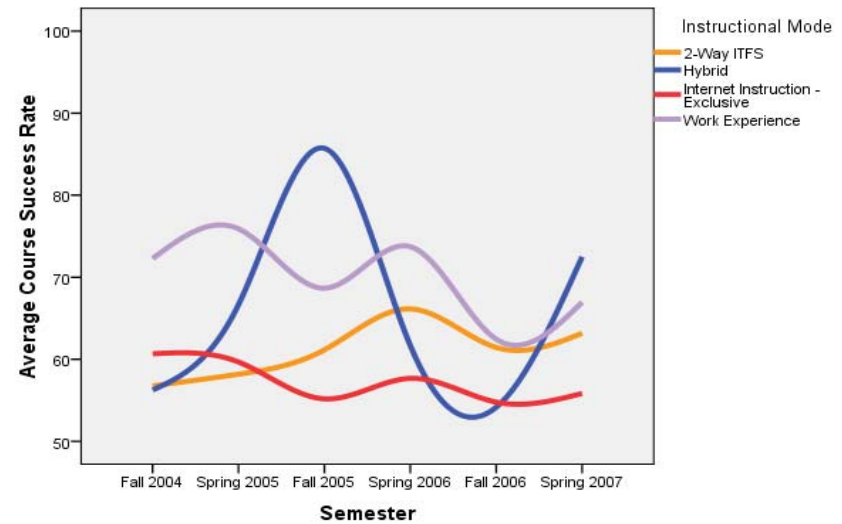
Course success rates in College Level courses showed a slightly upward trend (accounting for the variations by semesters). Average success rates in College Level Lab courses, after showing a precipitous drop in the 2004/05 year, have recovered. In addition College Level Directed Study and Independent Study showed decreases before no longer appearing for 2006/07.

## Longitudinal Analyses of Average Course Success Rates (continued)

**CRC Average Course Success rates By Course Type (2004/05 through 2006/07) - Transfer-Level, "Brick and Mortar"**



**CRC Average Course Success rates By Course Type (2004/05 through 2006/07) - Transfer-Level, "Other Instructional Modes"**



Average course success rates by instructional mode for Transfer Level courses showed differing trends. Average success rates in Transfer Level Independent Study courses showed a significant downward trend during the 2006-07 academic year and average course success rates in Transfer Level Directed Study, Work Experience and Internet Instruction showed moderated downward trends. 2-Way ITFS as well as Lecture Transfer Level course success rates showed increasing average course success rates over the duration of the study.