FIRST YEAR LEARNING COMMUNITIES

Impact on Retention to Sophomore Year by Social Identity Groups, Fall 2006 and 2007

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Overview

First Year Learning Communities (FYLC) offer an innovative approach for engaging undergraduate students in the classroom by purposefully designing clusters of courses to foster small group peer learning and faculty connections. Groups of twenty or more students take the same cluster of courses together, form relationships with each other and create a small community within a large university setting. UCR offers various learning community models that have been tailored to meet the needs of each of the academic Colleges. FYLC have grown significantly from serving nearly 200 students in 2002 to serving over 1,800 students in fall 2009, which accounts for over forty percent of the freshman population.

Previous evaluations have found positive impacts of FYLC at UCR. An analysis of FYLC in 2006 showed that FYLC participants had more contact with faculty during office hours, reported higher levels of effort and engagement with their coursework, were more aware of and more likely to use academic resources, and were more likely to be engaged with campus activities outside of class (Hanneman, 2007). Also, separate evaluations of FYLC in fall 2006 and in fall 2007 compared first-year retention among entering freshmen who participated in a learning community to non-participants in the same cohort. This quasi-experimental analysis shows that participation in a learning community increases first year retention rate by four percentage points on average when compared to students who did not participate (Fairris, Peeples, & Beleche, 2007). Full reports can be retrieved at http://irue.ucr.edu/reports.html.

Modeling Success
Several learning communities embed peer mentors to help first year students transition and succeed at UCR.

The present analysis builds upon evaluations from previous years that seek to understand the impact of learning communities on retention, but differs by examining whether this impact on retention varies across social identity groups defined as gender and racial/ethnic categories. UCR is noted as the fourth most racially diverse university across the United States (U.S. News and World Report, 2010). As a result, this question is increasingly important at UCR as it hones in on understanding the experiences of diverse populations in order to foster academic success.

Sample and Data Source

This analysis uses the UCR official third-week census course enrollment data file. Data were gathered for the treatment (students who participated in a FYLC) and the control (non-participants) groups of students from the 2006 and 2007 freshman classes. The two cohorts are analyzed separately. The total sample size is as follows:
• Treatment Group (students who participated in a FYLC): 1,190 in 2006 and 1,393 in 2007, and

- Comparison Group (non-participants): 2,336 in 2006 and 2,404 in 2007.

Table 1 gives the definition of variables. Table 2.1 and 2.2 give descriptive statistics broken out by social identity groups.

Methodology

This quasi-experimental analysis compares the impact of participating in a FYLC on retention by social identity groups for the entering freshman classes of 2006 and 2007. The analysis begins with a comparison of means for the treatment (students who participated in a FYLC) and comparison (non-participants) groups, and then uses a multiple regression model to control for a host of characteristics such as SAT scores, high school grade point average, and first generation to attend college. The 2006 and 2007 cohorts are analyzed separately.

Results

Previous findings from the 2006 and 2007 evaluations revealed that participation in a learning community significantly impacts a student's likelihood of being retained by four percentage points, which translates into a one and a half percentage point increase in campus-wide retention rate, given the extent of population in FYLC. Table 3 and Figure 1 report the impact on retention for FYLC participants by social identity groups.

- **Impact of FYLC on Women:** Retention is statistically significantly greater for female FYLC participants than for the comparison group (men) by five percentage points in 2006 and six percentage points in 2007.
- **Impact of FYLC on Hispanics:** Retention is statistically significantly greater for

Hispanic FYLC participants than for the comparison group (all others) by ten percentage points in 2006 and eight percentage points in 2007.

Discussion

FYLC at UCR have a positive and statistically significant influence on retention for all students, but this analysis points to the substantial impact that participation in learning communities has on women and Hispanic students. It has been noted that Hispanic students are at the greatest risk of school failure, when compared to all ethnic groups (Gándara, 2000). The "Latina/o student dropout rate at U.S. four-year institutions and universities has exceeded 50% of the past few years" (National Center for Education Statistics, 2002; Castellanos & Jones, 2003). Because UCR is a Hispanic Serving Institution with 29.1% of undergraduate students from Hispanic heritage (2009), the findings from this analysis point to the significant role that learning communities play in helping retain Hispanic undergraduate students.

A Community of Scholars
Student in first year learning communities form study groups, make friends, and learn about campus resources.

References

Castellanos, J., and, & Jones, L. (2003). Latina/o undergraduate experiences in American higher education. In a. J. Castellanos & L. Jones (Eds.), *The majority in the minority: Expanding representation of Latina/o faculty, administrators and students in higher education*. Sterling: Stylus.

Hanneman, R. (2007). *UCR freshman academic experience survey, 2006-2007: First year learning communities*. UCR Survey Research Center. Retrieved from http://irue.ucr.edu/reports.html

Fairris, D., Peeples, J., & Beleche, T. (2007). *Evaluation of the impact of participation in first year learning communities on persistence to the sophomore year, University of California Riverside, Fall 2006*. Retrieved from http://irue.ucr.edu/Fall2006LearningCommunitiesEvaluation.pdf

Fairris, D. & Peeples, J. (2008). *Evaluation of the impact of participation in first year learning communities on persistence to the sophomore year, University of California Riverside, Fall 2007*. Retrieved from http://irue.ucr.edu/Fall2007LearningCommunitiesEvaluation.pdf

US News and World Report. (2010). *America's best colleges 2011.*

Table 1: Variable Definitions

First Year Learning Community (FYLC)	1 if participated; 0 otherwise
Retention	1 if retained the subsequent fall term (1-year); 0 otherwise
Gender	1 if female; 0 if male
African American	1 if African American; 0 else
Native American	1 if Native American; 0 else
Hispanic	1 if Hispanic; 0 else
Asian/P.I.	1 if Asian/P.I.; 0 else
Caucasian	1 if Caucasian; 0 else
Other	1 if Other; 0 else
CHASS	1 if CHASS; 0 otherwise
CNAS	1 if CNAS; 0 otherwise
BCOE	1 if BCOE; 0 otherwise
First Generation Status	1 if either Parent Education LE no 4-yr degree received; 0 GE 4-yr degree or higher
Low Income Status	1 if Parental Income LE 30K; 0 otherwise
High School GPA	GPA score
SAT Verbal	SAT Verbal score
SAT Math	SAT Math score
On Campus	1 if living in residence halls or university owned apartments; 0 otherwise
Needmet	1 if student's financial need was met; 0 otherwise

Table 2.1: First Year Learning Community by Social Identity Groups Descriptive Statistics

Fall 2006	Women Mean (Std. Dev.)	Men Mean (Std. Dev.)	African American Mean (Std. Dev.)	Native American Mean (Std. Dev.)	Hispanic Mean (Std. Dev.)	Asian Mean (Std. Dev.)	Caucasian Mean (Std. Dev.)
Retention	0.85 (0.36)	0.81 (0.39)	0.85 (0.36)	0.71 (0.49)	0.77 (0.42)	0.87 (0.34)	0.85 (0.36)
Learning Community	0.30 (0.46)	0.37 (0.48)	0.35 (0.48)	0.14 (0.38)	0.35 (0.48)	0.33 (0.47)	0.31 (0.46)
Gender			0.65 (0.48)	0.71 (0.49)	0.64 (0.48)	0.46 (0.50)	0.46 (0.50)
African American	0.10 (0.30)	0.06 (0.24)					
Native American	0.00 (0.05)	0.00 (0.04)					
Hispanic	0.35 (0.48)	0.23 (0.42)					
Asian/P.I.	0.37 (0.48)	0.49 (0.50)					
Caucasian	0.15 (0.35)	0.19 (0.40)					
CHASS	0.61 (0.49)	0.47 (0.50)	0.63 (0.48)	0.71 (0.49)	0.60 (0.49)	0.49 (0.50)	0.55 (0.50)
CNAS	0.36 (0.48)	0.33 (0.47)	0.29 (0.46)	0.29 (0.49)	0.30 (0.46)	0.40 (0.49)	0.31 (0.46)
BCOE	0.03 (0.16)	0.20 (0.40)	0.08 (0.27)	0.00 (0.00)	0.10 (0.30)	0.11 (0.32)	0.14 (0.35)
First Generation Status	0.58 (0.49)	0.43 (0.50)	0.46 (0.50)	0.57 (0.54)	0.79 (0.41)	0.40 (0.49)	0.31 (0.46)
Low Income Status	0.48 (0.50)	0.38 (0.48)	0.45 (0.50)	0.29 (0.49)	0.62 (0.49)	0.40 (0.49)	0.17 (0.38)
High School GPA	3.47 (0.36)	3.38 (0.38)	3.41 (0.33)	3.63 (0.41)	3.44 (0.35)	3.39 (0.37)	3.53 (0.43)
SAT Verbal	490 (85)	516 (90)	496 (69)	527 (86)	476 (81)	503 (87)	553 (89)
SAT Math	508 (88)	574 (93)	495 (78)	506 (86)	483 (81)	575 (90)	570 (89)
On Campus	0.71 (0.45)	0.74 (0.44)	0.80 (0.40)	0.29 (0.49)	0.62 (0.49)	0.80 (0.40)	0.70 (0.46)
Needmet	0.64 (0.48)	0.69 (0.46)	0.72 (0.45)	0.71 (0.49)	0.58 (0.49)	0.67 (0.47)	0.81 (0.39)

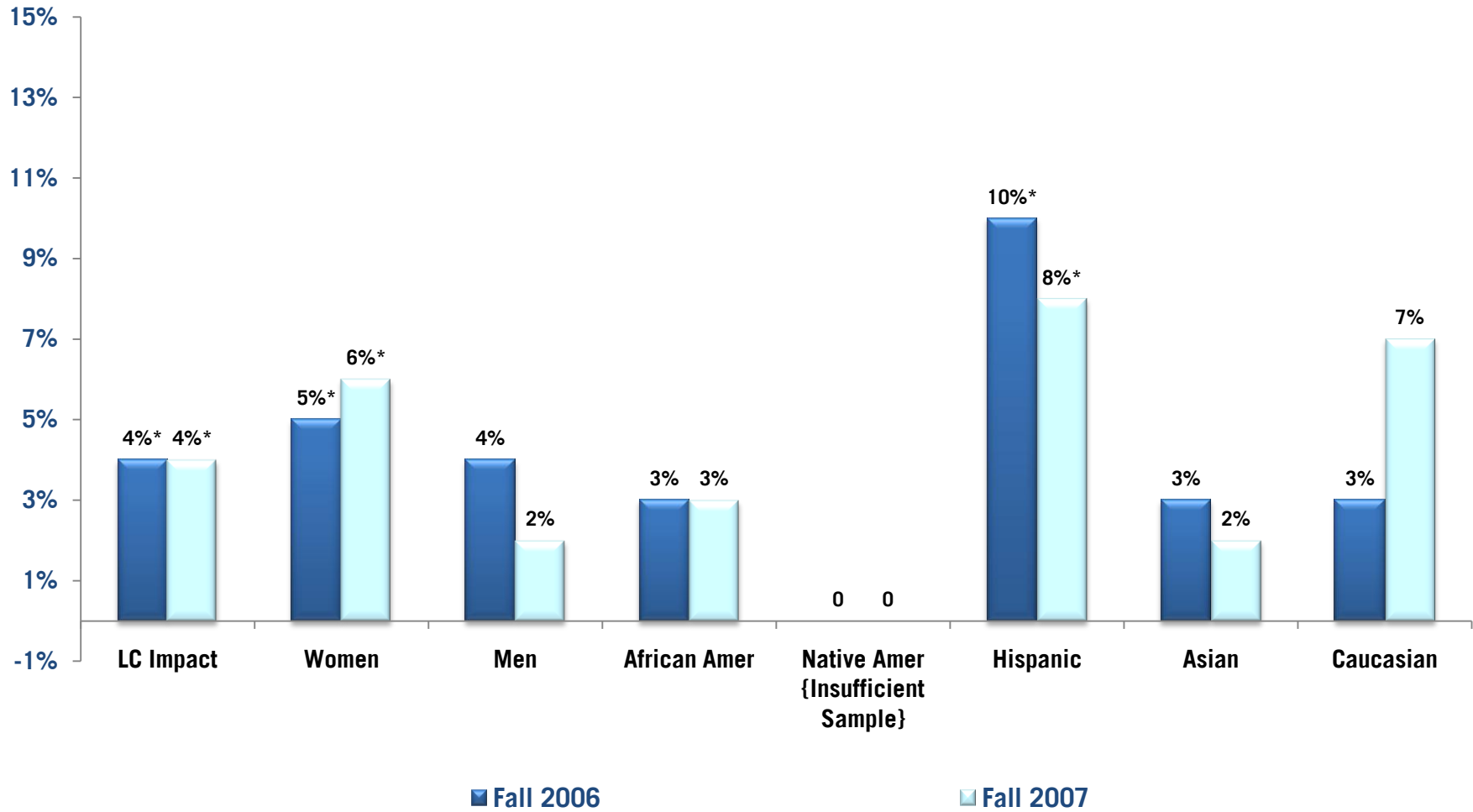## Table 2.2: First Year Learning Community by Social Identity Groups Descriptive Statistics

Fall 2007	Women Mean (Std. Dev.)	Men Mean (Std. Dev.)	African American Mean (Std. Dev.)	Native American Mean (Std. Dev.)	Hispanic Mean (Std. Dev.)	Asian Mean (Std. Dev.)	Caucasian Mean (Std. Dev.)
Retention	0.85 (0.36)	0.83 (0.37)	0.86 (0.34)	0.78 (0.43)	0.79 (0.41)	0.88 (0.33)	0.84 (0.37)
Learning Community	0.36 (0.48)	0.41 (0.49)	0.37 (0.48)	0.22 (0.43)	0.41 (0.49)	0.38 (0.49)	0.40 (0.49)
Gender			0.65 (0.48)	0.78 (0.43)	0.60 (0.49)	0.47 (0.50)	0.49 (0.50)
African American	0.10 (0.30)	0.06 (0.24)					
Native American	0.01 (0.09)	0.00 (0.05)					
Hispanic	0.32 (0.47)	0.24 (0.42)					
Asian/P.I.	0.42 (0.49)	0.52 (0.50)					
Caucasian	0.14 (0.35)	0.16 (0.37)					
CHASS	0.61 (0.49)	0.47 (0.50)	0.64 (0.48)	0.56 (0.51)	0.58 (0.49)	0.50 (0.50)	0.55 (0.50)
CNAS	0.36 (0.48)	0.34 (0.47)	0.26 (0.44)	0.44 (0.51)	0.31 (0.46)	0.40 (0.49)	0.32 (0.47)
BCOE	0.03 (0.16)	0.19 (0.40)	0.11 (0.31)	0.00 (0.00)	0.10 (0.31)	0.10 (0.30)	0.13 (0.34)
First Generation Status	0.56 (0.50)	0.44 (0.50)	0.52 (0.50)	0.50 (0.51)	0.78 (0.42)	0.39 (0.49)	0.36 (0.48)
Low Income Status	0.45 (0.50)	0.35 (0.48)	0.41 (0.49)	0.17 (0.38)	0.60 (0.49)	0.36 (0.48)	0.19 (0.39)
High School GPA	3.44 (0.36)	3.37 (0.35)	3.35 (0.35)	3.56 (0.38)	3.43 (0.36)	3.36 (0.32)	3.53 (0.43)
SAT Verbal	493 (82)	515 (85)	494 (68)	512 (69)	478 (77)	508 (86)	544 (81)
SAT Math	514 (88)	572 (91)	491 (81)	547 (82)	489 (82)	576 (89)	561 (84)
On Campus	0.70 (0.46)	0.69 (0.46)	0.78 (0.41)	0.50 (0.51)	0.56 (0.50)	0.79 (0.40)	0.60 (0.49)
Needmet	0.68 (0.47)	0.74 (0.44)	0.72 (0.45)	0.72 (0.46)	0.63 (0.48)	0.73 (0.44)	0.79 (0.41)

Table 3: First Year Learning Community Impact on Retention by Social Identity Group

	Fall 2006		Fall 2007	
	Mean (Std. Dev.)	^ **B** (Std. Error)	**Mean** (Std. Dev.)	^ **B** (Std. Error)
FYLC Impact	0.33 (0.47)	0.04* (0.01)	0.39 (0.49)	0.04* (0.01)
Women	0.30 (0.46)	0.05* (0.02)	0.36 (0.48)	0.06* (0.02)
Men	0.37 (0.48)	0.04 (0.02)	0.41 (0.49)	0.02 (0.02)
African American	0.35 (0.48)	0.03 (0.05)	0.37 (0.48)	0.03 (0.05)
Native American	0.14 (0.38)	Insufficient Sample Size	0.22 (0.43)	Insufficient Sample Size
Hispanic	0.35 (0.48)	0.10* (0.03)	0.41 (0.49)	0.08* (0.03)
Asian/P.I.	0.33 (0.47)	0.03 (0.05)	0.38 (0.49)	0.02 (0.02)
Caucasian	0.31 (0.46)	0.03 (0.04)	0.40 (0.49)	0.07 (0.04)

* Indicates statistically significant at the 0.05 level (two-tailed).

Figure 1: Campus-Wide Learning Community Impact on Retention by Social Identity Groups

Legend: ■ Fall 2006   ■ Fall 2007

* Statistically Significant