

HISPANIC STUDENT SUCCESS:  
FACTORS INFLUENCING THE PERSISTENCE  
AND TRANSFER DECISIONS OF LATINO  
COMMUNITY COLLEGE STUDENTS  
ENROLLED IN DEVELOPMENTAL EDUCATION

2009AIR Forum Presentation

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# Introduction



- ❑ It is estimated that nearly 30 percent of the US population will be Hispanic by 2050
- ❑ The majority of these students will begin their college education at a community college
- ❑ Hispanic students are less likely than White community college students to complete an associate's degree, transfer, or earn a bachelor's degree
- ❑ Research is needed to track Hispanic students who enroll in developmental coursework and then persist and/or transfer to a four-year institution

# Purpose and Research Questions



- Examine the demographic, pre-college, socio-cultural, environmental, and academic experiences that impact the success of Hispanic students in the second and third years of college
  - ▣ What factors are significantly related to persistence and/or transfer to the second and third years of college among Hispanic community college students?
  - ▣ How do the variables that are related to student success vary among developmental and non-developmental students?

# Theoretical Framework



- Drew from several theories including Tinto's (1993) Model of Student Integration, Nora's (2003) Student/Institution Engagement Model, as well as conceptual models specific to Latino students
- Framework: The persistence and transfer decisions of Hispanic students attending community colleges were thought to be related to demographic and pre-college variables, socio/cultural capital, environmental pull-factors, and academic experiences

# Theoretical Framework (cont.)



- **Demographic Variables** (gender, type of Hispanic origin, English as primary language, one or both parents born in US)
- **Pre-College Variables** (high school math courses taken, high school grade point average, delayed enrollment in college)
- **Socio-Cultural Variables** (parental education, importance of being a community leader, importance of influencing political structure, community service participation)

# Theoretical Framework (cont.)



- **Environmental Pull Factors** (amount of financial aid received, number of hours worked per week, enrollment intensity)
- **Academic Experiences** (attended a HSI, time with a faculty member, time with academic advisor, GPA, developmental course enrollment)
- **Outcome Variables**
  - ▣ Student success in second year of college
  - ▣ Student success in third year of college

# Method



- Database and Sample
  - ▣ Beginning Postsecondary Students Longitudinal Study (BPS 04:06)
  - ▣ Hispanic students who first enrolled at a public community college in 2003-04 and who planned to transfer to a four-year institution (n = 567)
- Data Analysis
  - ▣ Block sequential modeling – logistic regressions
    - Student success in years 2 and 3
    - Run for developmental and non-developmental students in years 2 and 3

# Results: *Student Sample*



## □ **Student Profile:**

- 567 Hispanic students
- Initially enrolled in a community college in 2003-2004
- Stated intent to transfer to four-year institution
- 57% female; 43% male
- 48% Mexican or Chicano descent; 12% Puerto Rican; 3% Cuban

# Results: *Sample Characteristics*

## □ **Background Characteristics:**

- 48% enrolled in Algebra 2 as highest math course; 15% in trigonometry; 12% in calculus
- 54% graduated with <3.0 gpa
- 42% delayed entering college after graduation
- < 50% enrolled full-time in college
- 52% enrolled in one or more developmental courses during first year in college
- 41% attended an HSI community college
- 35% did not persist or transfer at the end of second year and 41% in the third year

# Results: *Logistic Regression Analysis*

- Predicting Success in the Second and Third Years of College:
  - **Persist/Transfer** = demographic + pre-collegiate + socio-cultural capital + environmental pull factors + academic experiences
  - Overall fit of second-year model:
    - $\chi^2 (19, n = 570) = 98.55$  ( $p < .001$ ); PCP = 72.5%
  - Overall fit of third-year model:
    - $\chi^2 = (19, n = 570) = 72.88$  ( $p < .001$ ); PCP = 66.1%

## Results: *Parameter Estimates and Model Evaluation – Analysis Split by Developmental Status*

	Developmental Students	Non-Developmental Students
Second Year	$\chi^2 = 34.59$ PCP = 71.9%	$\chi^2 = 51.61$ PCP = 70.5%
Third Year	$\chi^2 = 16.62$ PCP = 65.1%	$\chi^2 = 53.33$ PCP = 67.6%

# Student Success: Year 2 versus Year 3

<i>Factor Impacting Student Success</i>	<i>Same for Year 2 and Year 3</i>	<i>Differences for Year 2 and Year 3</i>
<b>High school math courses taken</b>	+	
<b>Delayed enrollment in college</b>	-	
<b>Parental education</b>	+	
<b>Number of hours worked per week</b>	-	
<b>Enrollment intensity (attending full-time)</b>	+	
<b>Amount of financial aid received</b>		+ for year 2
<b>Developmental course enrollment</b>		+ for year 2
<b>Attended a Hispanic Serving Institution (HSI)</b>		+ for year 3
<b>Structural academic involvement (GPA)</b>		+ for year 3

## Student Success: Developmental versus Non-developmental (Year 2)

<i>Factor Impacting Student Success</i>	<i>Same for Both Groups</i>	<i>Different between Groups</i>
<b>Number of hours worked per week</b>	-	
<b>Amount of financial aid received</b>	+	
<b>Enrollment intensity (attending full-time)</b>	+	
<b>High school math courses taken</b>		<b>+ for non-developmental students</b>
<b>Parental education</b>		<b>+ for developmental students</b>

## Student Success: Developmental versus Non-developmental (Year 3)

<i>Factor Impacting Student Success</i>	<i>Same for Both Groups</i>	<i>Different between Groups</i>
<b>Number of hours worked per week</b>		<b>- for non-developmental students</b>
<b>Enrollment intensity (attending full-time)</b>		<b>+ for non-developmental students</b>
<b>High school math courses taken</b>		<b>+ for non-developmental students</b>
<b>Parental education</b>		<b>+ for non-developmental students</b>

## Developmental (Year 2) versus Developmental (Year 3)

<i>Factor Impacting Student Success</i>	<i>Year 2</i>	<i>Year 3</i>
<b>Number of hours worked per week</b>	-	<i>ns</i>
<b>Amount of financial aid received</b>	+	<i>ns</i>
<b>Enrollment intensity</b>	+	<i>ns</i>
<b>Parental education</b>	+	<i>ns</i>

# Non-Developmental (Year 2) versus Non-Developmental (Year 3)

<i>Factor Impacting Student Success</i>	<i>Year 2</i>	<i>Year 3</i>
<b>High school math courses taken</b>	+	+
<b>Parental education</b>	<i>ns</i>	+
<b>Number of hours worked per week</b>	-	-
<b>Enrollment intensity</b>	+	+
<b>Financial aid received</b>	+	<i>ns</i>

# Three Major Conclusions



## □ *First Conclusion*

- There are a common set of factors that previously have been found to impact measures of success for students enrolled at four-year institutions that are substantiated for Hispanic developmental and non-developmental community college students.
- Validation of a theoretical/conceptual model of student success for Hispanic students.

# Three Major Conclusions



## □ Second Conclusion

- Findings support the influence of environmental pull-factors as important for both developmental and non-developmental students.
  - The influences of the educational attainment of parents
  - A strong financial support so that students can attend college full-time without having to work
  - Advantages of a strong high school academic curriculum

# Three Major Conclusions



## □ Third Conclusion

- A common set of factors were more influential early on for developmental students while they were felt by non-developmental students throughout their enrollment in college
- Practices and interventions focused early on for remedial students will payoff even if those factors are lacking in later years
- Benefits provided in earlier semesters will still motivate and encourage developmental students to remain enrolled in college until their educational aspirations are reached

QUESTIONS?





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