Persistence to the Baccalaureate Degree for Vertical Transfer Students

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Background

It begins with a story…
A story of two cousins

Both:
- First generation
- Similar age
- Attended the same sub-baccalaureate institution
- Finished an associate’s degree in the same program
- Transferred to the same four-year institution

One:
- Finished the baccalaureate degree
WHY?
Why do we care?
Difference in median income based on educational attainment 2005

- High School Diploma: $32,200
- Associate's Degree: $41,200
- Bachelor's Degree: $54,800

College Board, 2006a
Spiraling Tuition

- Overall increase from 1981-82 to 2006-07 was 190% (constant dollars)
- Increase from 2001-02 to 2006-07 was 35% (constant dollars)
  - The highest increase than in any other five-year interval since the mid 1970s

College Board, 2006b
Critical Educational Challenges

- Need for some form of higher education to succeed in today’s knowledge-based economy
- Increase in two-year college enrollments
  - Today 44% of students in public colleges attend two-year institutions
- Transfer as a focus of access to the baccalaureate degree
Why the difference in outcomes?
Literature

- Persistence
  - Four-year, traditional student focused
- Persistence in the community college
- Transfer function
- Persistence to the baccalaureate for transfer students
- Characteristics relevant to this research
Important point with regard to the literature & this study:

- Many community college students report baccalaureate intentions (25-42%)
  - (Coley, 2000; Berkner, He, & Cataldi, 2002; & Horn, 2003).
Purpose of the Study

- How do certain individual characteristics influence baccalaureate attainment of transfer students?
  - Level of urbanicity of high school
  - Level of urbanicity of first institution attended
  - Age
  - Gender
  - Risk factor index
Research Questions

- What are selected characteristics (level of urbanicity, age, gender, and risk factor index) of first-time beginning students who
  - first attended a sub-baccalaureate institution?
  - transferred from a sub-baccalaureate institution to a four-year institution?
  - first attended a sub-baccalaureate institution and attained a baccalaureate degree by 2001?
Research Questions

- Are selected characteristics (level of urbanicity, age, gender, and risk factor index) related to baccalaureate attainment among
  - all students who first begin in a sub-baccalaureate institution?
  - women who first begin in a sub-baccalaureate institution?
  - men who first begin in a sub-baccalaureate institution?
Methodology

- Data were drawn from
  - BPS:96/01
  - Integrated Postsecondary Education Data System (IPEDS)
  - Common Core of Data (CCD)
Methodology

Combination of descriptive statistics and logistic regression

1. DAS
   - Percent distributions, means, descriptive analysis

2. Data subset
   - Included only variables identified

3. IPEDS & CCD
   - Variable imputation for missing data
   - New variable construction “Stay Rural”
Methodology

4. Computed unweighted frequency distributions & univariate statistics (means)
   - Categorical & continuous level variables
5. Conducted logistic regression analysis

\[
\log \frac{P_i}{1 - P_i} = \alpha + BX_i
\]
Methodology

Population of Interest/Unit of Analysis
- All students who began in a sub-baccalaureate institution and transferred to a four-year institution

Dependent Variable
- Dichotomous indicator of whether or not the student attained a baccalaureate degree
Methodology

- Independent Variables
  - Level of urbanicity (rural vs. non-rural) of the high school attended
  - Level of urbanicity (rural vs. non-rural) of the first institution attended
  - “Stay Rural” attended both a rural high school and a rural sub-baccalaureate institution
Methodology

- Independent Variables
  - Age
  - Gender
  - Risk factor index
    - Delayed enrollment
    - No high school diploma
    - Part-time attendance
    - Financial independence
    - Dependent other than spouse
    - Single parent
    - Full-time work
Descriptive Results

- What are the selected characteristics (level of urbanicity, age, gender, and risk factor index) of first-time beginning students who
  - First attended a sub-baccalaureate institution
  - Transferred from a sub-baccalaureate institution to a four-year institution
  - First attended a sub-baccalaureate institution and attained a baccalaureate degree by 2001?
Results—Question 1

First attended a sub-baccalaureate institution

- Of all first-time beginners in 1995, 59% began in a sub-baccalaureate institution
- Of all nontraditional-aged students, 80% attended a sub-baccalaureate institution
- Of those who reported no risk factors, 70% attended a four-year institution.
- As students experienced risk, they more often began in a sub-baccalaureate
  - e.g., of those with one risk factor, 66% attended a sub-baccalaureate institution
Results—Question 1
First attended a sub-baccalaureate institution

- More women than men began in a sub-baccalaureate (55%)
- Of those beginning in a four-year institution, 79% were traditional-aged and 75% had no risk factors
- Of those beginning in a sub-baccalaureate institution, 60% were nontraditional-aged and 21% had no risk factors
Results—Question 2
Vertically Transferred

- Only 12% vertically transferred
- If a student had any number of risk factors, there was a decreased likelihood of vertical transfer
  - 1 risk factor = 80% did not transfer
  - 2 risk factors = 85% did not transfer
  - 3 risk factors = 91% did not transfer
  - etc
Results—Question 2
Vertically Transferred

Of the 12% who transferred:

- 70% attended a non-rural sub-baccalaureate institution
- 61% attended a non-rural high school
- 67% were traditional-aged
- 57% were male
- 70% had either one or no risk factors
Results—Question 3
Vertically Transferred & Attained

- 63% did not attain a baccalaureate degree
- 81% of nontraditional-aged students did not attain a baccalaureate degree
- There were not enough cases to report on students who attended a rural high school—indicating low persistence/attainment rates
Results—Question 3
Vertically Transferred & Attained

- 54% reporting no risk factors attained
- 64% reporting one risk factor attained
- No other number of risk factors could be reported due to low cases.
Multivariate Results

Are selected characteristics (level of urbanicity, age, gender, and risk factor index) related to baccalaureate attainment among

- *All students* who first begin in a sub-baccalaureate institution
- *Women* who first begin in a sub-baccalaureate institution
- *Men* who first begin in a sub-baccalaureate institution
Results—Question 4

Looking at the old locale codes for *all students*

- Women were 2.29 times more likely to attain than men.  $p = .0002$
- Traditional-aged students were significantly (2.4 times) more likely than nontraditional-aged students to attain.  $p = .02$
Results—Question 4

Looking at the new locale codes for all students

- Women were 2.34 times more likely to attain than men.  $p = .0006$
- Traditional-aged students were significantly (2.61 times) more likely than nontraditional-aged students to attain.  $p = .01$
Results—Question 5

Looking at old and new locale codes for women only in the model:

- NO STATISTICAL SIGNIFICANCE
Results—Question 6

Looking at the old locale codes for men only

- Traditional-aged men were 2.65 times more likely to attain than nontraditional-aged men.  
  \[ p = .03 \]
- Men who had more risk factors had odds of attaining a baccalaureate degree that were 1.61 times greater than men who had fewer risk factors.  
  \[ p = .08 \]
Results—Question 6

Looking at the new locale codes for men only

- Traditional-aged men were 3.15 times more likely to attain than nontraditional-aged men.  
  \[ p = .009 \]

- Men with more risk factors had odds of attaining that were 1.66 times greater than men who had fewer risk factors.  
  \[ p = .06 \]

- Men who attended a non-rural high school had odds of attaining that were 16.66 times greater than men who attended a rural high school.  
  \[ p = .004 \]
Discussion

- Two important points
  - Transfer appears to act as a barrier to baccalaureate completion for students who begin in a sub-baccalaureate institution
  - For those who do manage the process of transfer they *persist* they don’t *attain* within six years
Discussion

Dissertation results indicated

- No statistical significance for those who were *persisting* to the baccalaureate degree (either attained or still enrolled as of 2001)
  - Slightly different dependent variable
Discussion

- Difference in the outcome depending upon how dependent variable is operationalized and how success is defined. Is it persisting or is it attainment?
- Need better ways in which to define, operationalize, and study geographic access, including issues related to urbanicity and proximity.
Future Research

- Better understanding as to why transfer appears to act as a barrier
- The lens of persistence
- Better data collection on geography and proximity
- Risk factor index
  - Risk factors are not weighted
  - Look at which risk factors pose the greatest threat
  - Perhaps other characteristics should be considered risk (e.g., first generation)
Concluding Thoughts

- Collaboration among various stakeholders
- Increased importance of a higher education and a baccalaureate degree in particular
- Spiraling tuition
- State policies emphasizing the 2+2 model
- Ensure success of vertical transfer students
Thank You

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