Thinking Longitudinally while Focusing on Education Policy

Eric Lichtenberger
Illinois Education Research Council
Southern Illinois University Edwardsville

IBHE Faculty Advisory Council
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Illinois Education Research Council

• Founded in 2000
• Housed within the Graduate School at Southern Illinois University Edwardsville
• Research arm of the Illinois P-20 Council
• Advisory Board with wide representation
• Bringing research to both policy and practice
• Annual research symposium
Overview of Presentation

• Describe longitudinal data sources
  – Present
  – Future (ILDS)

• Synopsis of recent IERC studies
  – Transfer/enrollment patterns leading to positive outcomes
  – Transfer/enrollment patterns that often lead to less than ideal outcomes

• Policy Implications
Issues with Current Reporting Requirements

• Centered on institutions reporting information in isolation

• Does not take into consideration the outcomes of transfer students, nor does it treat transferring as an outcome

• Cohort approach-first-time/full-time

• IERC longitudinal studies are student centered

  – Allow for higher education to be viewed more systematically, rather than in isolation
Enrollment at 4yr and 2yr Institutions
Enrollment Trends for Four-Year Starters

- **4yr Only**
- **2yr & 4yr**
- **2yr Only**
- **Not Enrolled**

Cumulative Rate of Enrollment at Two-Year Institutions
Current Sources of Data for IERC Enrollment/Transfer Studies

- **ACT-PSAE and the Student Interest Profiler**
- **National Student Clearinghouse** - covers 92% of all postsecondary enrollment
- **Illinois Interactive High School Report Card** - institutional characteristics of the high schools
- **IPEDS and IBHE** - sector of the postsecondary institutions
- **IDES** - earnings and employment
- **Institutional Sources**
Future Data Sources

• Once ILDS comes on line may be able to get course-level information:
  – high school math ladder
  – # of high school courses
  – honors/AP/IB track
  – high school GPA
Potentially Problematic Enrollment/Transfer Patterns

- For four-year college students
  - Reverse transferring, undermatching

- For community college students
  - Transferring early, enrolling part-time, transferring without a degree
Reverse Transferring

- Pertains to students who start at a four-year college and later transfer to a community college.
- The term has been used in educational research for the past 20 years.
- The definition usually excludes concurrent enrollment and summer school enrollment.
- A transfer takes place.
Reverse transfer students tend to initially enroll closer to home.
## Reverse Transfer and End of Study Status

<table>
<thead>
<tr>
<th></th>
<th>Bachelor’s Degree or Higher</th>
<th>Non-Completers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Row %</td>
<td>Column %</td>
<td></td>
</tr>
<tr>
<td>Reverse Transfer Students</td>
<td>24.9%</td>
<td>7.2%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>12.1%</td>
<td>54.9%</td>
<td>50.2%</td>
</tr>
<tr>
<td></td>
<td>12.4%</td>
<td>100.0%</td>
<td>20.7%</td>
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<tr>
<td>Other Four-Year Starters</td>
<td>84.3%</td>
<td>92.8%</td>
<td>100.0%</td>
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<tr>
<td></td>
<td>2.6%</td>
<td>45.1%</td>
<td>49.8%</td>
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<td></td>
<td>0.0%</td>
<td>0.0%</td>
<td>13.1%</td>
</tr>
<tr>
<td>Total</td>
<td>72.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
Highest Degree and End of Study Status for Reverse Transfer Students

Bachelor’s
- 24.9%

Associate’s
- 10.4%
- 2.6%

Certificate
- 9.1%
- 10.2%

No Degree
- 62.1%

Still Enrolled at 4-Year
- Still Enrolled at 2-Year
- No Longer Enrolled
- 42.9%
Model Adjusted Time to Return

Highest Community College Degree

Number of Semesters to Return

One Minus Cum Survival

- Certificate
- Associate’s
- No Degree
Model Adjusted Time to Bachelor’s Completion

Highest Community College Degree

Number of Semesters to Bachelor's Completion

One Minus Cum Survival

Certificate
Associate’s
No Degree
Students meeting two of four benchmarks from the most competitive institutions had similar rates of bachelor’s completion as students meeting all four benchmarks enrolling at very competitive institutions.

The least prepared students enrolling at the most competitive institutions outperformed the best prepared students at less competitive institutions.
Transfer and Enrollment Patterns Related to Positive Outcomes

• Four-year college students
  – Enrolling at more selective institutions, taking summer courses, having participated in dual-credit

• Community college students
  – Consistent full-time enrollment, transferring with an associate degree, having participated in dual-credit
The Interaction of Institutional Selectivity & Race and Bachelor’s Completion

- For the most-ready Hispanic students, there was only a moderate difference between those enrolling at competitive or better institutions.
- However, among the most-ready Hispanic students there was a sharp decline in BA completion at non-competitive institutions.
- Enrolling at a highly selective institution narrows the racial gap for African-American students.
Community College Penalty and Bachelor’s Degree Completion?

• Penalty-Community college students are less likely to earn a bachelor’s degree than direct entrants to four-year colleges.

• Penalty seems to be related to the point at which the given study commences tracking outcomes
  – At initial community college enrollment
  – After vertical transfer

• Wide variation in college readiness among community college enrollees

• Observationally equivalent groups

• One cannot earn a bachelor’s degree at a community college

• Parallel point of entry and time allotted for degree completion
Framework for the Propensity Score Matching Model

Environmental Factors

Geography
Locale
Comparing the Matched Pairs

For each community college transfer student we found a rising four-year college junior:

• With a similar profile based on key demographic, academic, and environmental factors

• Graduated from the same high school

• Enrolled at a similarly selective four-year college (in many cases it was the same college)
Bachelor’s Completion Rates Prior to Matching

Community College Transfers (n=2,154)
- 84%

Four-Year Rising Juniors (n=21,522)
- 90%

* Statistically significant based on Pearson’s Chi Square
Bachelor’s Completion Rates after Propensity Score Matching and Post-Treatment Adjustment

- After matching on key factors, no community college penalty was evident.
Dual Credit Dual Enrollment


- DCDE for students that graduated high school in 2003
- 16% of students participated
- Wide variation depending on geographical region
### Dual Credit and Enrollment*

<table>
<thead>
<tr>
<th></th>
<th>High Income Model</th>
<th>Mid-High Income Model</th>
<th>Mid-Low Income Model</th>
<th>Low Income Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Four-Year Odds</td>
<td>Two-Year Odds</td>
<td>Four-Year Odds</td>
<td>Two-Year Odds</td>
</tr>
<tr>
<td>Semesters Dually</td>
<td>4.1</td>
<td>3.3</td>
<td>3.0</td>
<td>2.5</td>
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<tr>
<td>Enrolled 2-yr</td>
<td>5.3</td>
<td>4.0</td>
<td>3.6</td>
<td>3.0</td>
</tr>
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<td></td>
<td>9.1</td>
<td>10.9</td>
<td>13.8</td>
<td>5.8</td>
</tr>
<tr>
<td>Semesters Dually</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrolled 4-yr</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*shaded cells indicate statistical significance at the p≤.001 level.

- Students dually enrolled at community colleges had increased odds of college enrollment across income brackets.
- Students dually enrolled at 4-year institutions had increased odds of college enrollment mainly for low and mid-low income brackets.
**Dual Credit and Bachelor’s Degree Completion**

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<th>Mid-High Income</th>
<th>Mid-Low Income</th>
<th>Low Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semesters Dually Enrolled 2-yr</td>
<td>1.034</td>
<td>1.014</td>
<td>1.046</td>
<td>1.098</td>
</tr>
<tr>
<td>Semesters Dually Enrolled 4-yr</td>
<td>1.027</td>
<td>1.046</td>
<td>1.123</td>
<td>1.173</td>
</tr>
</tbody>
</table>

*Shaded cells indicate statistical significance at the $p \leq .001$ level.

- In terms of predicting an increased likelihood of bachelor’s degree completion, dual credit was only significant for low income students.
Policy Implications

• Continue to develop baseline information about statewide enrollment/transfer performance.

• Set goals for institutional performance related to vertical transfer.

• Importance of tracking transfer patterns, ILDS will be beneficial for this

• Expanding articulation initiatives to give credit to student after transferring
Policy Implications (cont.)

• Providing academic & financial advisement regarding attending appropriate-level institution

• Help students face their financial aid future by developing information and incentives spanning undergraduate enrollment.

• Preliminary evidence (supported elsewhere) suggests the importance of FT, continuous enrollment toward degree completion
References


Questions