AN EXAMINATION OF INSTITUTIONAL PRACTICES SURROUNDING STUDENT RETENTION

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Grappling With Questions

The limits of current theories and research on student persistence provide the backdrop.

- How and to what extent do institutions organize themselves to promote student persistence?

- What institutional policies and practices are associated with improved student persistence outcomes?
Focal Points of Our Inquiry: Actionable Implications

- Understanding the role of campus policies and practices in improving student success outcomes
- Identifying actionable practices and policies
- Providing useful comparative data on policies and practices
- Beginning to explore whether and how policies and practices are associated with improved student outcomes
Many have pointed to the importance of this question:

(But克斯ton, 1999; Hossler, 2005; Perna & Thomas, 2006; Tinto & Pusser, 2006)

Policy levers

- Work identifying pivotal practices
  (Braxton, Hirschy, McClendon, 2004; Pascarella & Terenzini, 1991; Stage & Hossler, 2000)

- Directions identified through theory and research
  (Braxton & McClendon, 2001-2002; Peterson, 1993)

- Empirical record remains uneven
  (Patton, Morelon, Whitehead, & Hossler, 2006)
National persistence rates for independent-status students are dramatically lower (51%) than for dependent students (85%) (Ryu, 2008).

- National persistence rates show notable gaps for independent-status students, students of color and low-income students.

- Correlational studies of graduation rates risk reflecting broader inequalities without contributing to our understanding of institutional practice.

- New approaches, new outcomes needed.
Utility of New Data

- The empirical base is still developing.
- In addition, comparative data are an important resource for institutions.
  - Recommendations from institutional policy-makers
- Outcomes need to be understood in context with inequities on a national scale
- This study contributes to explorations in these directions.
Survey of Institutional Retention Practices

2009: Survey of 4-year institutions nation wide

- Web-based administration
  - 1484 institutions surveyed
  - Response rate of 30% (ca. 441 responding institutions)

- Findings focus on:
  - Coordination of Retention Efforts
  - Actionable Institutional Policies/Practices
    - Orientation
    - Academic Advising
    - Early Warning
    - Faculty-Student Interaction
    - Research and Assessment
Institutional Characteristics

- Mean scores on select variables
  - Fall-to-fall retention rate for first time 1st year students 75.73% (national mean = 72.65%)
  - 40% of the institutions have a requirement for full-time, first-time degree/certificate-seeking students to live on campus

- Median revenue figures
  - Instructional expenses per FTE $5,802
  - Tuition and fee revenues $4,846/per FTE
  - Total revenue $49,588,399

- Mean SAT (Critical Reading & Math) scores:
  - 978 (25th percentile)
  - 1196 (75th percentile)
Coordination of Retention Efforts: Structures in Place

- 75% reported having a retention coordinator
  - Based on two definitions
    - “an administrator charged with coordinating efforts”
    - “an administrator acting as a central resource”
    - Most reported that the position entails both functions
  - Mean FTE reported for the position was .35

- 62% reported having a retention committee
- 27% reported coordinating retention program to “a great extent”
Percentage of an FTE Devoted to the “Retention Coordinator” Role

Research  Master  Baccalaureate  Total
Policies for Early Warning

- 60% report they collect **mid-term grade** information for first-year students
- 58% report they ask faculty to complete **Early Alert** forms for first-year students
- 45% report they regularly flag specific courses with high percentages of **Ds, Fs, or Withdrawals**
- 39% report they offer voluntary weekly sessions to deepen student learning in courses with traditionally high D, F, & W rates.
Proportion of 1st Year Students Advised by Full-Time Faculty in the 2007–2008
Institutions are, in fact, organizing for retention. However,…

Resources (e.g. FTE, funding and programming authority) devoted to the enterprise may not be equal to the task.

- Differences in structures across institutional type:
  - Research institutions rely on professional advisors more than faculty for advising first-year students
  - Research institutions show a lower FTE for retention coordinator positions, and emphasize committee efforts vs stronger coordination
Calculating Predicted Retention Rate

- An institution's retention rate may be a “misleading indicator of its capacity to retain students” (Astin, 1997, p. 648)

- More than half of the variance-explained in regression analyses of institutional retention rates is associated with differences in student background characteristics rather than by institutional practices (Astin, 1997)
Solution:

- Calculate an predicted retention rate for each institution in the sample based on the characteristics of an institution's entering students.
- Compare the predicted retention rate with the actual retention rate (Astin, 1997; Engle & O’Brien, 2007; Muraskin & Lee, 2004).
Placing results in context: Method

- OLS model variables:
  - Institution Type (bacc., master’s, research)
  - % minority students
  - SAT 75th percentile score
  - % receiving federal grant aid
  - % of students 25 and older

- Building on analyses conducted by the Pell Institute (Muraskin & Lee, 2004; Engle & O’Brien, 2007)
- Calculated predicted 1st-to-2nd-year retention rates, using OLS regression and controlling for institutional and student characteristics
- Identified institutions that had higher-than-predicted retention rates.
Calculating Predicted Retention Rate (continued)

Equation 1:

Institution’s retention rate = \( \alpha + \beta_1 \) (research) + \( \beta_2 \) (master’s) + \( \beta_3 \) (% minority students) + \( \beta_4 \) (% receiving federal grant aid) + \( \beta_5 \) (% students 25 and older) + \( \varepsilon \).
Logistic regression model

Dependent variable:
Institution's actual retention rate is higher than its predicted retention rate

- An administrator coordinating efforts to improve student success
- Authority of the retention coordinator
- Availability of a formal, written plan at the institutional level
- Availability of full-semester length credit-bearing college adjustment course
- Institution flags courses with high % of Ds, Fs, or withdrawals
- Availability of academic support programs
- Extensiveness of structures to improve retention of students of color
## Logistic Regression Results

<table>
<thead>
<tr>
<th>Variables</th>
<th>Odds ratio</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>An administrator charged with coordinating efforts to improve student success</td>
<td>.197</td>
<td>**</td>
</tr>
<tr>
<td>Authority of the retention coordinator</td>
<td>1.505</td>
<td>*</td>
</tr>
<tr>
<td>Availability of a formal, written plan at the institutional level</td>
<td>.794</td>
<td></td>
</tr>
<tr>
<td>Availability of an orientation program that extends through the first semester of classes</td>
<td>.347</td>
<td>***</td>
</tr>
<tr>
<td>Institution flags courses with high % of Ds, Fs, or withdrawals</td>
<td>.615</td>
<td></td>
</tr>
<tr>
<td>Availability of academic support programs</td>
<td>1.139</td>
<td></td>
</tr>
<tr>
<td>Extensiveness of structures to improve retention of students of color</td>
<td>1.510</td>
<td>**</td>
</tr>
</tbody>
</table>

Nagelkerke = .133

N = 188

***p<0.01, **p<0.05, *p<.10
Implications for future research

- Multiple imputation of missing values
- Multinomial regression
- Two-stage modeling using IV (e.g. Alon, 2005)

Analyses highlight issues for further exploration:

- Missing data limiting the analyses
- Conflating lower than predicted and those that are at or near predicted rates
- Need for further exploration of climate and disaggregated outcomes (e.g. rates, MSI’s)
- May illuminate the range (and limits) of what institutional practices currently influence
Concluding Remarks

- Results may reflect the early stages of coordination and/or of institutional recognition that organization is needed.
  - Federal and State agencies are increasingly focused on outcomes, so we may see a trend emerge for institutions organizing further.
  - Economic factors causing families to consider value may also contribute to the continuation of a trend.

- The need to continue analyses that contextualize student outcomes and look carefully at the role of institutional policy and practice in student retention.

- The need for longitudinal research.
Reports

- **Pilot Survey 2006**
  - Pilot Report available at [www.collegeboard.com/retention](http://www.collegeboard.com/retention)

- **Survey 2009**
  - Report to be released at the College Board website in coming weeks

- **SCCESS 2-year to be administered early 2011**
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