

METHODS AND MODELS FOR PROMOTING STUDENT PERSISTENCE:

THE EMERGING NATIONAL PICTURE

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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 policies and practices do institutions enact to try to enhance student persistence?



Focal Points of Our Inquiry: Actionable Implications

- Understanding the role of campus policies and practices
- Identifying actionable practices and policies
- Providing useful benchmarks of normative and effective policies and practices



Utility of Benchmarking



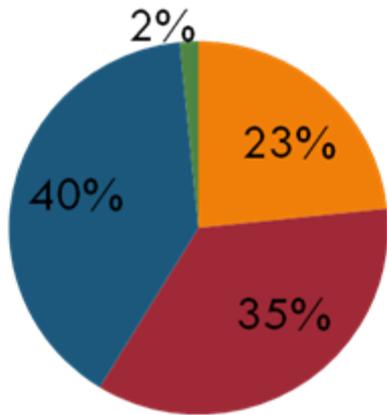
- The empirical base for understanding how practices and policies affect student persistence is still developing.
- In the meantime, comparative data are an important resource for institutions
 - ▣ Recommendations from institutional policy-makers

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



■ Research ■ Masters ■ Baccalaureate ■ Other

□ Mean SAT (Critical Reading & Math) scores:

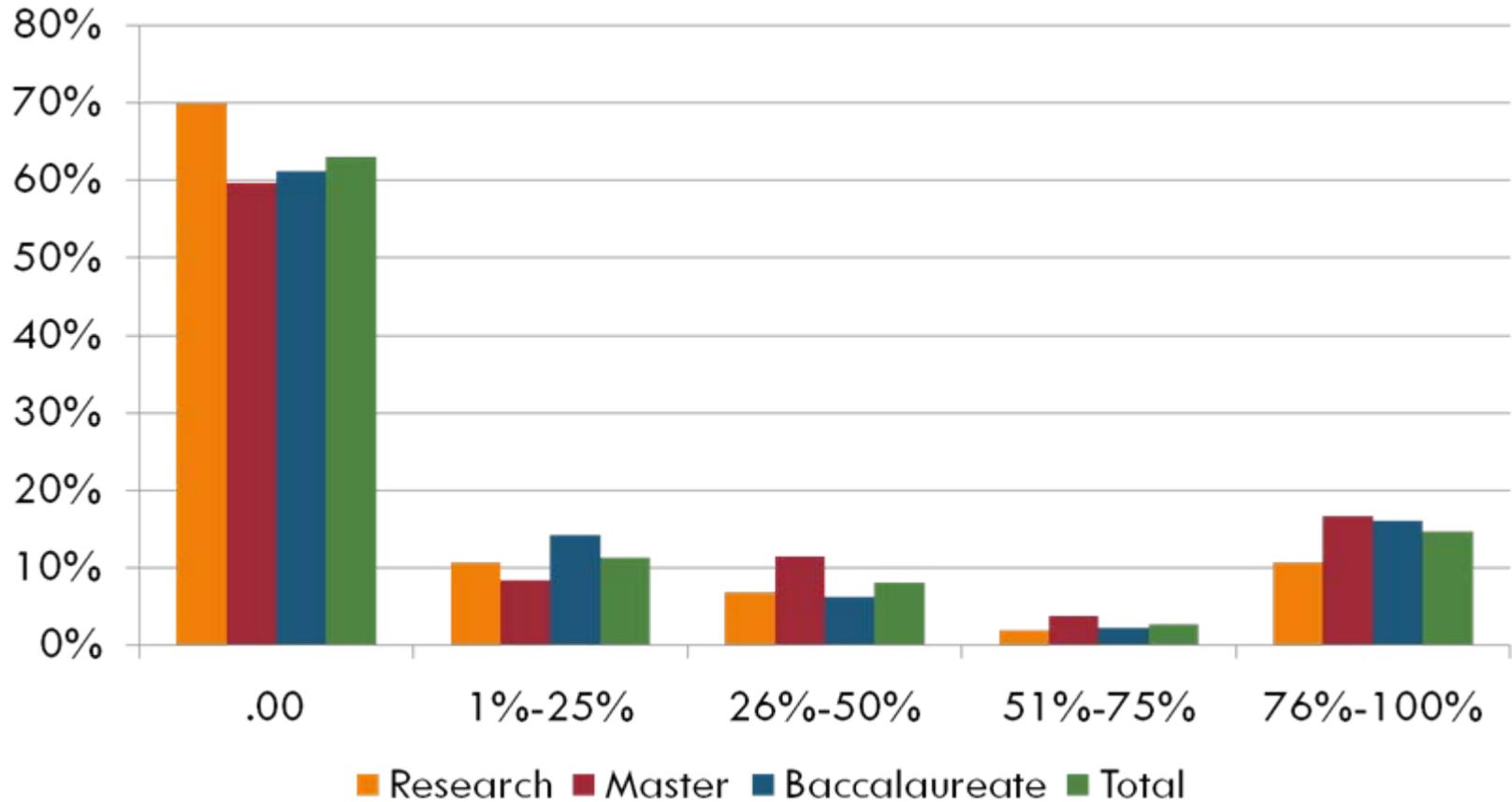
- 978 (25th percentile)
- 1196 (75th percentile)

- 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

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



Orientation

- 65% reported that more than three quarters of first-year students participated in entire orientation program.
 - 76% reported that more than half participated in entire orientation program.
- 40% reported that their general orientation programs for entering first-year students last 2 days or less.

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.

Policies for Faculty Interaction

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- 56% report that more than half of 100-level classes were taught by full-time faculty
- 54% report average class size for courses primarily taken by 1st year students is between **1-30 students**

However...

- 70% report that incentives for full-time faculty to teach first-year classes were **non-existent or small**

Academic Advising

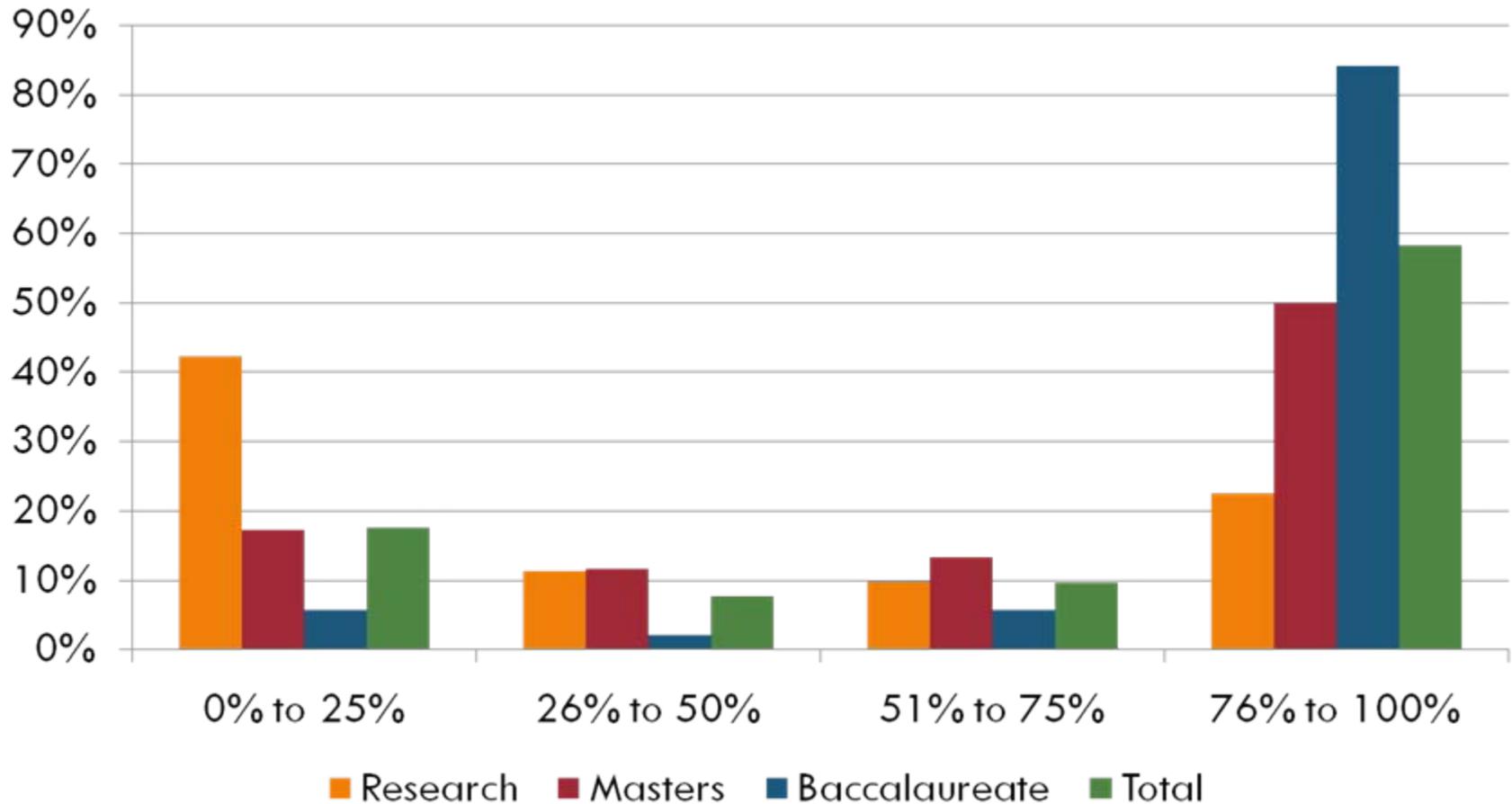
Advising Practices

- 69% require first-year students to meet with an academic advisor at least once per term
- 78% report that full-time faculty act as academic advisors to undergraduates

Advising Roles

- 52% estimate that more than three-quarters of their first-year students were **advised by full-time faculty**
- 28% estimate that more than three-quarters of first-year students were **advised by professional advisors**

Proportion of 1st Year Students Advised by Full-Time Faculty in the 2007-2008



Summary of Descriptive Findings

- 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

Inferential analysis: Part I Calculating Predicted Retention Rate

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- 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 in institutional retention rates can be explained by differences in student background characteristics rather than by institutional practices (Astin, 1997)

Inferential analysis: Part I Calculating Predicted Retention Rate (continued)

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□ Solution:

- Calculate an expected retention rate for each institution in the sample based on the characteristics of an institution's entering students
- Compare the expected 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.

Inferential analysis: Part I Calculating Predicted Retention Rate (continued)

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Equation 1:

Institution's retention rate = $\alpha + \beta_1$ (research) + β_2 (master's) + β_3 (% minority students) + β_4 (% receiving federal grant aid) + β_5 (% students 25 and older) + ε .

Inferential analysis: Part II Logistic regression

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

- ❑ Availability of an administrator coordinating efforts to improve student success
- ❑ Authority of the retention coordinator
- ❑ Availability of credit-bearing courses specifically designed to help students adjust to college
- ❑ Communications with families
- ❑ Institution collects midterm grade information
- ❑ Institution collects attendance information at institutional level
- ❑ Requirement for first-year students to meet with an academic advisor
- ❑ Extensiveness of structures to improve retention of students of color

Logistic Regression Results

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Variables

Odds ratio Sig

An administrator charged with coordinating efforts to improve student success .786

Authority of the retention coordinator  1.624 **

Availability of credit-bearing courses specifically designed to help students adjust to college 1.432

Communications with families 1.005

Institution collects midterm grade information 1.422

Institution collects attendance information at institutional level .587

Requirement for first-year students to meet with an academic advisor .851

Extensiveness of structures to improve retention of students of color  1.381 *

Nagelkerke =.136

N=189

**p<0.01, *p<0.05

Discussion and Future Research

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Implications for future research

→ Multiple imputation of missing values

→ Multinomial regression

→ Two-stage modeling

- Preliminary analyses highlight issues for further exploration:
 - May illuminate the range (and limits) of what institutional practices currently influence
 - Missing data limiting the preliminary analyses
 - Conflating lower than predicted and those that are at or near predicted rates

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 the organizing trend is likely to continue.
 - ▣ Economic factors causing families to consider "value" may also contribute to the continuance of the 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

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□ Pilot Survey 2006

- Pilot Report available at www.collegeboard.com/retention

□ Survey 2009

- Report to be released at the College Board website in Summer 2010

□ SCESS 2-year to be administered 2010-2011

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Presentation available via download:

<http://pas.indiana.edu/cb/resources.cfm>

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