

# 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



# Literature on Institutional Role in Student Persistence

- Many have pointed to the importance of this question

*(Braxton, 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)*

# Educational Inequalities and Institutional Practice

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



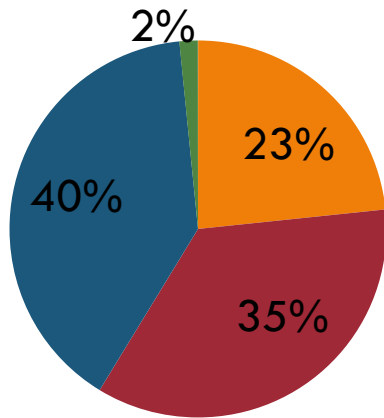
- The empirical base is still developing.
- In addition, comparative data are an important resource for institutions.
  - ▣ Recommendations from institutional policy-makers
- Outcomes need to be understood in context with inequities on a national scale
- This study contributes to explorations in these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



■ Research ■ Masters ■ Baccalaureate ■ Other

## □ Mean SAT (Critical Reading & Math) scores:

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

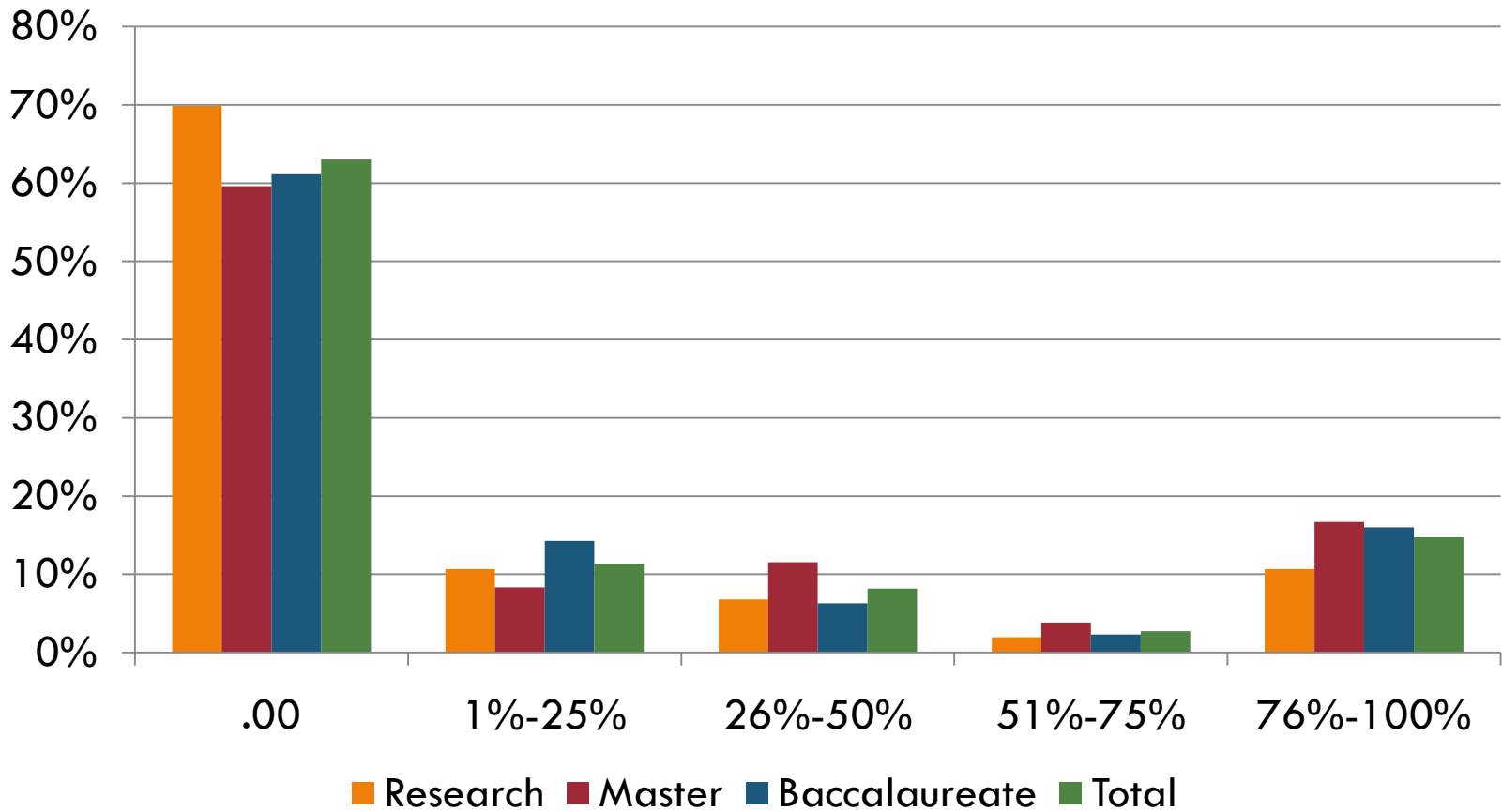
- Mean scores on select variables
  - Fall-to-fall retention rate for first time 1<sup>st</sup> year students 75.73% (national mean =72.65%)
  - 40% of the institutions have a requirement for full-time, first-time degree/certificate-seeking students to live on campus
- Median revenue figures
  - Instructional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

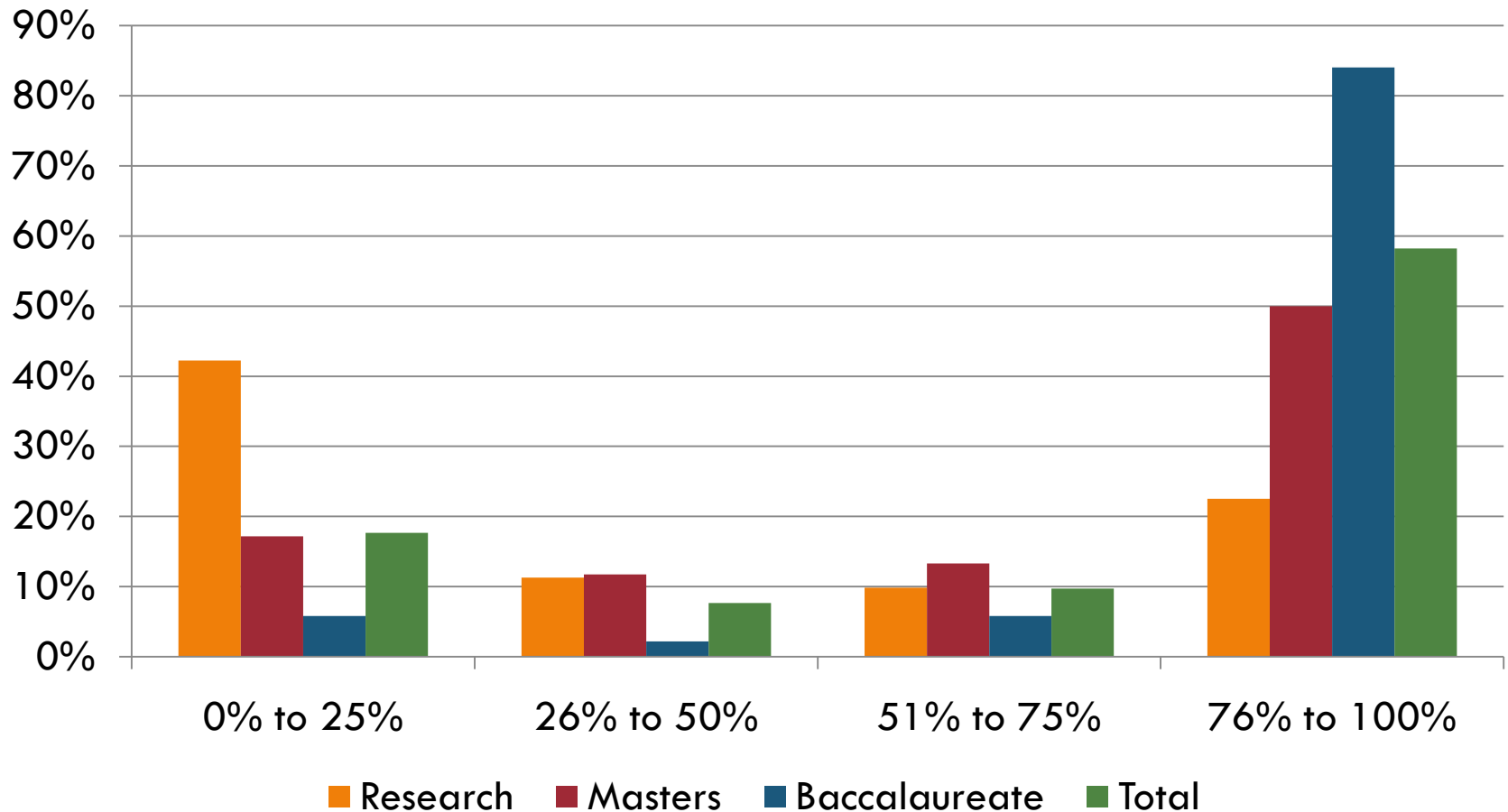
# Percentage of an FTE Devoted to the “Retention Coordinator” Role



# 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 1<sup>st</sup> 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

# 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)

# Calculating Predicted Retention Rate (continued)

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## □ 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 1<sup>st</sup>-to-2<sup>nd</sup>-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)

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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

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Variables		Odds ratio	Sig
An administrator charged with coordinating efforts to improve student success	↓	.197	**
Authority of the retention coordinator	↑	1.505	*
Availability of a formal, written plan at the institutional level		.794	
Availability of an orientation program that extends through the first semester of classes	↓	.347	***
Institution flags courses with high % of Ds, Fs, or withdrawals		.615	
Availability of academic support programs		1.139	
Extensiveness of structures to improve retention of students of color	↑	1.510	**
Nagelkerke =.133			
N=188			
***p<0.01, **p<0.05, *p<.10			

# Discussion and Future Research

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## 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

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## □ 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

## □ SCESS 2-year to be administered early 2011

# Contact Us

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