The Evolution of Research on Doctoral Student Success at UM

Higher Education Applied Research (HEAR) seminar
November 28, 2017

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Perspective Matters
Case Study 1: Descriptive Metrics

- More than 5300 PhD students (and over 8500 total graduate students) are enrolled in Rackham across 18 schools and colleges.
- Rackham spends more than $60 million annually supporting graduate students and programs.
- Completion rates continue to improve (~75% of PhD students graduate) but disparities remain.
- Questions remain unanswered about many aspects of the graduate experience and Rackham’s impact in that experience.
Case Study 1: Descriptive Metrics

- Descriptive metrics derived from institutional data; often broken down by standard demographics
- Part of standard reporting but often lacking context
- Uncontrolled for unobserved/exogenous factors
Case Study 2: Post Hoc Analysis

• We combine institutional data with data collected from surveys

• Post-hoc, we examine relationship between particular outcomes and certain hypothesized indicators
Ph.D. Experience Study (2009-2012)
Goals of the Study
• To monitor the impact of the change in registration policy implemented in Fall, 2010
• Provide detailed information about the experiences of doctoral students.
• Topics include: satisfaction with graduate experience; funding; relationship with primary advisor, relationship to other faculty members and peers; professional preparation activities; time use; work-life balance; suspension of work on doctoral program; individual life situations
• Samples of Rackham doctoral students who were beyond their first year of doctoral study

Case Study 2: Post Hoc Analysis
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Exploratory Analysis of Discontinuation

Using survey data from 2009, a logistic regression was run to see what factors predict whether a student later discontinued from their doctoral program. There were three variables, in addition to candidacy status, that significantly affected the likelihood of discontinuing.

**Factors that reduced the likelihood of discontinuing**
- Having a more constructive and supportive relationship with their primary advisor
- Receiving constructive feedback from other faculty

**Factors that increased the likelihood of discontinuing**
- Students who have suspended work on their doctoral program previously
Case Study 2: Post Hoc Analysis

Limitations

• Post-hoc analyses are narrowly-targeted given the design of the available data

• Existing data are inadequate for holistically understanding the doctoral student experience
  – Operationalization of success is binary
  – Data is mostly cross-sectional
  – Analytic window is too narrow
Case Study 3: Rackham Research Agenda

Research Agenda Qualities

• **Broad**, so it is informative about many aspects of the doctoral experience
• **Longitudinal**, so we can study the *process* of doctoral education
• **Theory-driven**, which allows us to understand the mechanisms behind student success
Michigan Doctoral Experience Study [MDES]
• Five year longitudinal survey of 5 doctoral cohorts at UM
• Wave 1 fielded in September 2017
• Response rate: 77% (n=792)
• Measures:
  – Pre-socialization experiences and expectations
  – Identification with social groups and roles
  – Baseline disciplinary identity and motivation
## Case Study 3: Rackham Research Agenda

Please indicate how true the following statements are at this stage in your program:

<table>
<thead>
<tr>
<th></th>
<th>Not at all true</th>
<th>Slightly true</th>
<th>Moderately true</th>
<th>Very true</th>
<th>Extremely true</th>
</tr>
</thead>
<tbody>
<tr>
<td>The work I plan to do after leaving U-M will advance scholarship in my discipline</td>
<td>○</td>
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<td>I feel like I'm part of an intellectual community composed of faculty and professionals in my discipline</td>
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<td>Being a scholar in my discipline is more than just what I do and what I know, it is who I am</td>
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Please indicate whether you had the following experiences prior to the start of the Fall 2017 term:
Which of the following best describes your family's financial situation most of the time when you were growing up?