

Proving the Value of an Honors Education: New Models of Assessment Using Multivariate Techniques

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Honors Education at Research Universities Biennial Conference

Corvallis, Oregon ~ May 18 – 19, 2015



Honors Programs: Motivation and Context

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Why offer an Honors Program?

Given the history and mission of many of our universities (land grant, public, etc.), our guiding principals charge us with offering positive educational experiences to a large and diverse population. Honors programs provide an avenue to address the needs of our highest achieving students.

Institutional Benefits

- Recruit and retain top students
 - Honors allows institutions to attract top students away from more prestigious universities
 - Components of Honors programs (small classes, enrichment opportunities, faculty interactions, etc.) contribute to student success and retention

Institutional Benefits

- Faculty enjoy working with engaged, motivated undergraduates
 - Teaching small Honors courses tend to be attractive options for faculty
 - Faculty can identify potential student researchers

Institutional Benefits

- Development of Honors enrichment opportunities positively impacts a variety of programs across campus
 - Honors programs as incubators
 - Elevation of the quality of programming campus-wide

Institutional Benefits

- Outreach and involvement on the local, state, national, and international level
 - Honors students tend to be engaged and make a name for themselves in the community
 - Honors offers a place of encouragement for applicants for national fellowships, competitive graduate programs, and other prestigious opportunities

Student Benefits

- Community in the context of a research institution
 - Small classes, research opportunities, faculty engagement, and special programming
 - Resources of a large university



Student Benefits

- Enrichment opportunities that may not be available outside Honors
 - Courses and research
 - Housing and programming
 - Advising and mentoring

Student Benefits

- Access and affordability
 - In many cases, students choose an Honors program as a cost-effective alternative to an ivy league institution
 - Scholarships or other funding opportunities may accompany enrollment in Honors

Context: The Age of Accountability

- Overall mood towards Honors is very positive on campus
 - Prestige factor
 - Honors students are great ambassadors
 - General acknowledgement that typical components of Honors (small classes, faculty engagement, etc.) are good for students

Context: The Age of Accountability

- Positive mood frequently conflicts with the reality of the constraints that our institutional leaders confront
 - Decreased funding and subsequent budget cuts
 - Increased student needs and expectations
 - Honors programs are resource-intensive



Context: The Age of Accountability

Even on campuses in which Honors is highly regarded, we find ourselves needing to justify our value to the institution and our students.



Scope of Issues

Serge Rudaz, Ph.D.

Professor of Physics

Morse-Alumni University Distinguished Teaching Professor

Founding Director, University Honors Program and

Associate Dean of Undergraduate Education

University of Minnesota

The added value of an Honors education at a public research university

- Common elements within different models
 - Broad engagement of students
- Independent work on capstone projects

Employers assess the potential value of emerging educational practices

% saying each would help a lot/fair amount to prepare college students for success

- **84%** Expecting students to complete a significant project before graduation that demonstrates their depth of knowledge in their major AND their acquisition of analytical, problem-solving, and communication skills (62% help a lot)
- **81%** Expecting students to complete an internship or community-based field project to connect classroom learning with real-world experiences (66%)
- **81%** Ensuring that students develop the skills to research questions in their field and develop evidence-based analyses (57%)
- **73%** Expecting students to work through ethical issues and debates to form their own judgments about the issues at stake (48%)

Employers assess the potential value of emerging educational practices

% saying each would help a lot/fair amount to prepare college students for success

- **65%** Expecting students to acquire hands-on or direct experience with the methods of science so they will understand how scientific judgments are reached (40%)
- **60%** Expecting students to learn about cultural and ethnic diversity in the context of the United States (34%)
- **58%** Expecting students to learn about the point of view of societies other than those of Western Europe or North America (35%)
- **50%** Expecting students to take courses that explore big challenges facing society, such as environmental sustainability, public health, or human rights (28%)

Percentage of employers who want colleges to “place more emphasis” on essential learning outcomes

Knowledge of Human Cultures and the Physical and Natural World

- Science and technology 70%
- Global issues 67%*
- The role of the United States in the world 57%
- Cultural diversity in the United States & other countries 57%
- Civic knowledge, participation, and engagement 52%*

Personal and Social Responsibility

- Ethical decision making 75%
- Intercultural competence (teamwork in diverse groups) 71%*
- Intercultural knowledge (global issues) 67%*
- Civic knowledge, participation, and engagement 52%*

**Starred items are shown in multiple learning outcome categories because they apply to more than one.*

Percentage of employers who want colleges to “place more emphasis” on essential learning outcomes

Intellectual and Practical Skills

- Written and oral communication 89%
- Critical thinking and analytic reasoning 81%
- Complex problem solving 75%
- Teamwork skills in diverse groups 71%*
- Creativity and innovation 70%
- Information literacy 68%
- Quantitative reasoning 63%

Integrative and Applied Learning

- Applied knowledge in real-world settings 79%

**Starred items are shown in multiple learning outcome categories because they apply to more than one.*



Case Study: The University of Illinois at Chicago Honors College

Bette L. Bottoms, Ph.D.
Dean of the Honors College and Professor of Psychology
University of Illinois at Chicago

Q: How do we prove our worth?

A: With the right data, and the right communication – clear, simple messages.

Example #1:

What's the recruitment value of the Honors College to UIC?

Evidence: 65% of freshmen said they “would not have come to UIC had it not been for the UIC Honors College.”

Example #2:

Q: Are Honors students more successful than non-honors students (e.g., more likely to graduate)?

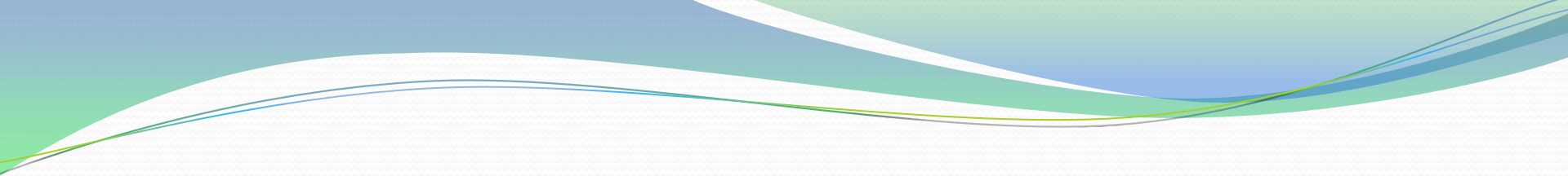
A: Answer: YES. (Duh.)

6-year grad rates at UIC:

Honors = 88% Non-Honors = 57%

But the real Q is: *Why?* Why are Honors students more successful?

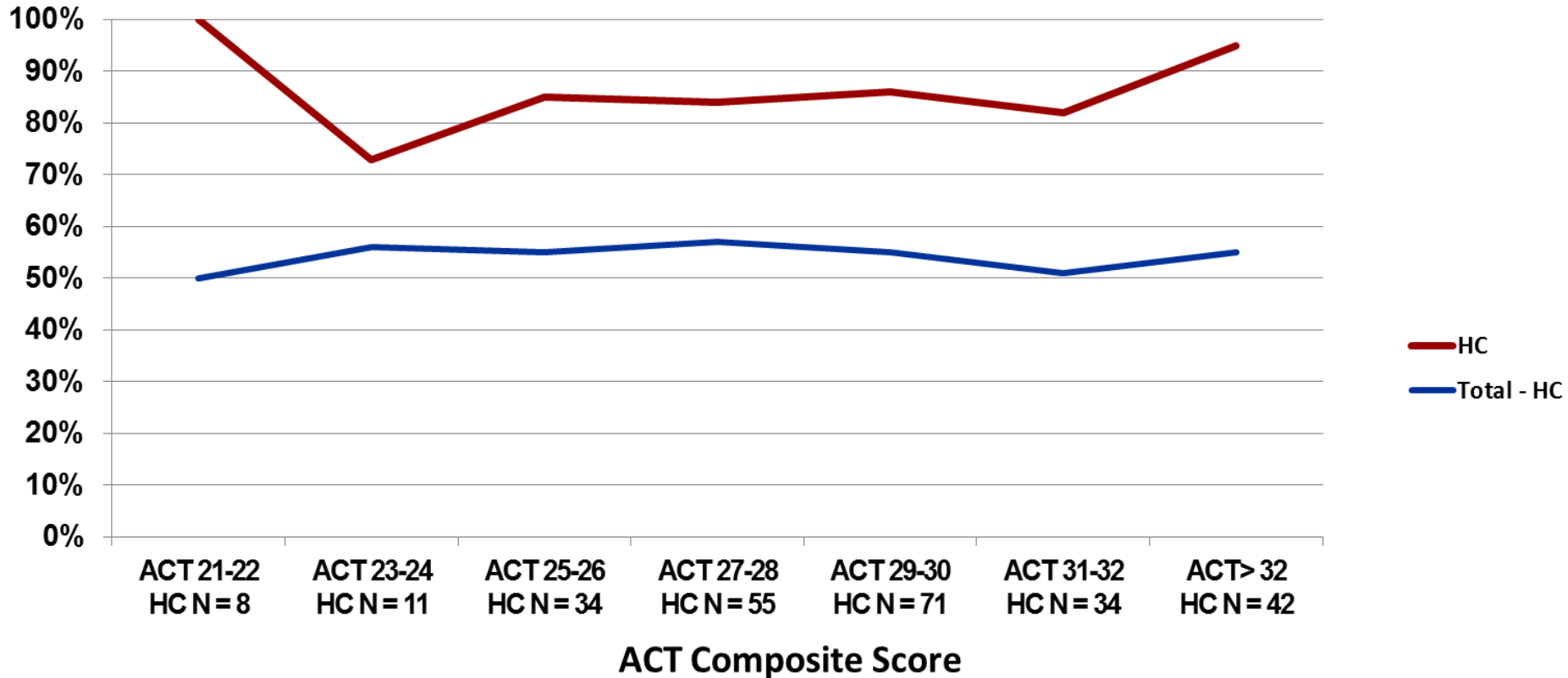
A: It's not what people think...it's not just what students bring with them, it's what Honors education does for them. . . ***and it's your job to prove that.***



You should be able to show that Honors education has an effect *above and beyond* various student factors such as entering ACT, AP credits, financial background, etc.

Here are two ways of illustrating this:

Five-Year Graduation Rate as a Function of ACT: UIC Honors vs. Non-Honors Students



Data for line colleges excludes Honors College students.



A more sophisticated approach to the same issue...

Multivariate Prediction of Student Success:
Controlling for many variables at once to see the true effect of the Honors experience.

Summary of UIC study:
Farruggia, Diaz, Wellman, & Bottoms (in preparation)

Participants:

21,723 UIC students (2006 - 2012 cohorts)

- 55% women, *M* age = 18 years
- 37% first-generation college students
- 45% Pell-eligible
- 35% White, 24% Asian, 10% African American, 21% Latino, 10% mixed/other
- 14% were in the Honors College for at least one term

10 Predictor/Control Variables:

- Gender
- Age
- Ethnicity
- First generation status
- Combined parent income
- Unweighted high school GPA
- AP credits earned
- ACT composite score
- Writing course placement score
- Honors college membership

5 Outcome Measures:

- First-term GPA
- First-year # credits
- 1st to 2nd year retention
- 4-year graduation
- 6-year graduation

Analyses

- Separate models for the 5 different outcomes:
 - Hierarchical Linear Regression (first-term GPA, credits earned)
 - Logistic Regression (retention, 4-year and 6-year graduation)
- Predictors were entered into six blocks:
 - Block 1 – age and gender
 - Block 2 – ethnic background
 - Block 3 – parent income, 1st generation status
 - Block 4 – high school GPA, AP credits, ACT, writing placement
 - Block 5 – Honors College participation

Results

Compared to non-Honors students, Honors College students:

- had higher first-term GPA,
- earned more credits their first year,
- were more likely to be retained from first-to-second year, and
- had higher graduation rates at 4 and 6 years.

***...after controlling for all
pre-matriculation factors measured***



Results (cont'd.)

- Benefits increased with the amount of time spent in the Honors College.
- African American and Latino students benefited *more than others* in terms of first-term GPA and first-year credits earned.

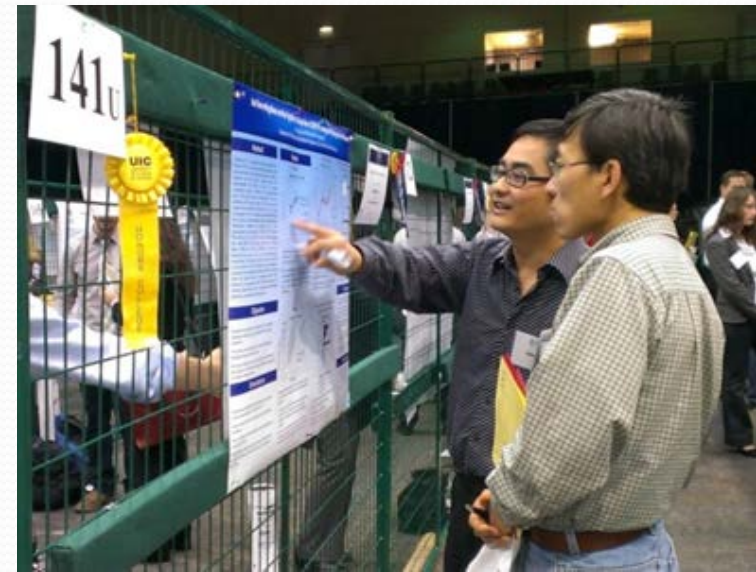
Next steps

- Investigate alternative hypotheses (e.g., motivation)
- Explore which of the many high-impact Honors practices produce these effects, e.g.:
 - specialized professional, peer, and faculty advising
 - engaged living communities
 - financial assistance
 - special academic work (Honors classes, theses, research)
 - leadership and civic engagement experiences
 - ETC.



It's not only what they come to you with, it's what you do with them once you get them.

Honors education is the ***model*** for undergraduate recruitment and success ...Don't let anyone forget it!



Proving the Value of an Honors Education: Next Steps

Cynthia Jackson-Elmoore, Ph.D.
Dean, Honors College and Professor
Michigan State University

Honors Assessment Framework

❖ ***Cognitive***

- Academics

❖ ***Non-cognitive:***

- Developmental, Professional, Etc.

❖ ***Contextual:***

- All things surrounding students – unchangeable, demographics and environment

Challenges / Pitfalls Tied to Data

- ✓ Accessing institutional data
- ✓ Cleaning institutional data
- ✓ Using the same/similar constructs
- ✓ Obtaining IRB approval
- ✓ Dealing with differences across programs / colleges

Sample Logic Model

Input	<u>Intervention</u>	Outputs Phase I	Outputs Phase II	Outputs Phase III
Race Ethnicity Gender HS GPA ACT SAT SES Family college	Honors experience	Graduation Persistence <ul style="list-style-type: none"> •TTD (yr 4 & 6) •persistence Year 1 → 2 •GPA: 1st term •GPA: grad •GRE, MCAT, LSAT 	Developmental <ul style="list-style-type: none"> •Critical thinking •Psychosocial •Cultural sensitivity •Self-efficacy 	Alumni <ul style="list-style-type: none"> •Satisfaction •Placement •Clear choice of career / life purpose •Impact on society

The Honors Experience

Examples: Individualized

- ✓ Campus Engagement / Leadership Posts
- ✓ Completion of Capstone Experiences
- ✓ Research/Creative Activity Engagement
- ✓ Publications / Presentations / Exhibitions
- ✓ International Engagement / Study Abroad
- ✓ Community Engagement / Service Learning
- ✓ Internships

Pilot Studies

- **Baseline (statistics) [Cognitive]**
 - Match variables across institutions
 - Tailor to unique aspects
- **Non-cognitive**

Session Topics

- **Motivation/Context** **Anne Krabacher**
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- **Scope of Issues** **Serge Rudaz**
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