



Learning Analytics Fellows Program

Introduction

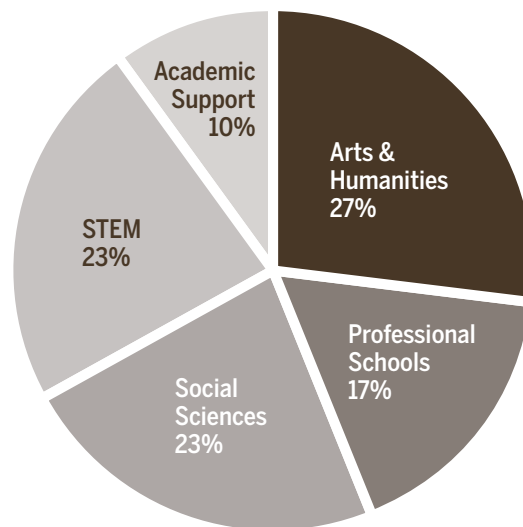
In 2015, the Office of the Vice Provost for Undergraduate Education initiated the Learning Analytics Fellows Program (Fellows), a multidisciplinary Community of Transformation¹ made up of faculty from across the Bloomington Campus.

Faculty engage in scholarly research that uses learning analytics to analyze student success in their courses, curriculum, and programs to advance IUB's strategic plan and its commitment to improved student success. Participating faculty gain the knowledge and skills necessary to use learning analytics to make data-driven decisions about student success at the course, program, and university levels.

QUICK FACTS

Since 2015, twenty-eight faculty members:

- participated from **11** different programs
- conducted **29** unique research projects
- studied **150,000** individual students
- analyzed **3.2 million** student records



Distribution of fellows by academic field

Ten faculty fellows returned for second and third years to continue researching student success.

¹Kezar, A., & Gehrke, S. (2015). *Communities of transformation and their work scaling STEM reform*. Pullias Center for Higher Education Ross School of Education. University of Southern California.



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Research Interests

In general, faculty research focused on four broad categories of factors that influence student success. For this initial analysis of the Fellows program, the factors were categorized in the following way:

Student Demographics includes characteristics such as ethnicity, race, and class standing

Student Preparation such as transfer credits, prerequisites, curriculum requirements, pre-college courses, and remedial educational programs

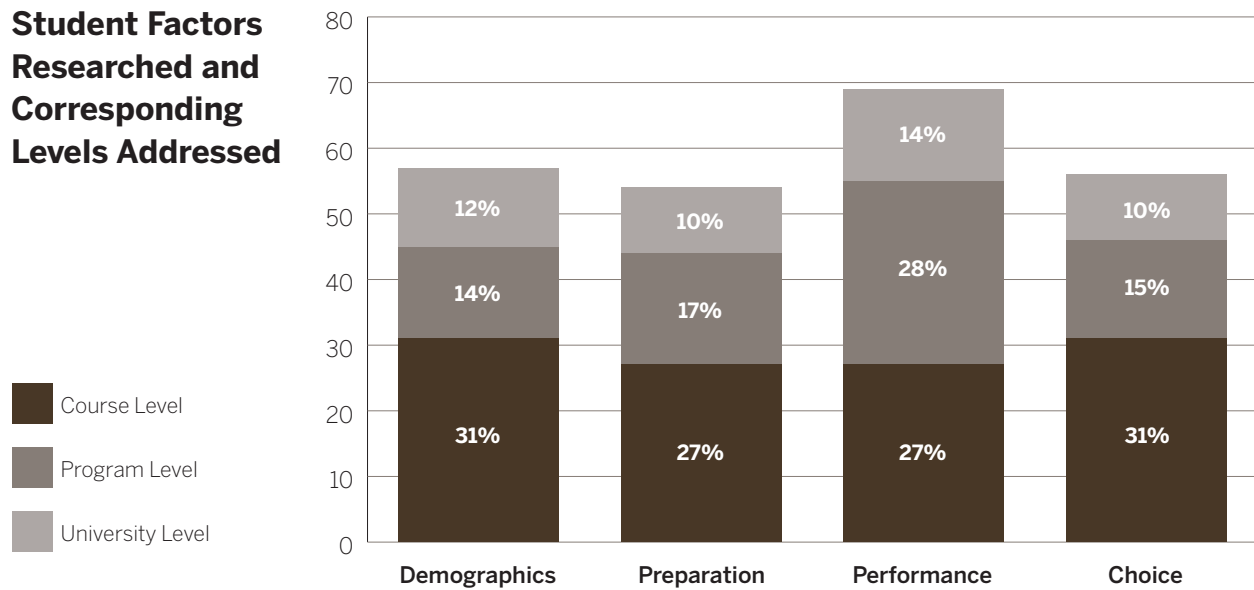
Student Performance as understood by GPA, persistence, retention, engagement indicators, and graduation rate

Student Choice as understood by major selection, inflection points, and pathways toward graduation

“My participation in the Fellows program completely transformed me and turned me into a bit of a zealot for **student success.**”

—IUB Faculty Fellow, 2015

Student Factors Researched and Corresponding Levels Addressed



Data-Driven Culture

Early adoption by Fellows to use analytical data, and their ongoing research about student success, will continue to contribute to institutional efforts to create a culture at IUB that values data-driven decision making, with the ultimate goal of improving success for all students.²

Contact: George Rehrey at grehrey@iu.edu 812-856-4231

²Rehrey, G., Groth, D., Hostetter, C., & Shepard, L. (2018). The scholarship of teaching, learning, and student success: Big data and the landscape of new opportunities. In J. Friber & K. McKinney (Eds.), *Conducting and applying the scholarship of teaching and learning beyond the individual classroom level*. Bloomington, IN: IU Press.



Learning Analytics Fellows Program

Student Learning Analytics Projects

Project abstracts, full proposals and completion reports are available at <https://citl.indiana.edu/programs/learning-analytics-fellows/>

2015

Beyond Surveys and Data Mining: Searching for New and Potentially More Useful Indicators of Student Engagement Principal Investigator: Daniel Hickey (Education Counseling & Psychology)

Do general or specific characteristics of E201 and E202 affect the number of Economics majors? Principal Investigator: Paul Graf (Economics)

Finding the Keys to Success Proposal for Learning Analytics Fellowship for Business X201 Principal Investigator: Kari Johnson (Business)

The HumAn Learning Project: Humanities, Analytics, & Learning in a Multi-Section General-Education Course Principal Investigator: Jennifer Robinson (Anthropology)

An Inquiry into Student Purpose and Motivation as Catalysts for Retention Principal Investigator: Molly Burke (The Student Academic Center)

An Investigation of Factors Related to Student Choice of Academic Major at IUB Principal Investigator: Adam Maltese (Education—Curriculum & Instruction)

Learning Analytics in RPTS: The Impact of Two Courses on Student Performance, Major Selection, and Degree Completion Principal Investigator: Jared Allsop Co-Investigators: Julia Knapp, Rasul Mowatt, Sarah Young (Recreation, Park, and Tourism Studies)

MOOC Visual Analytics Tools Principal Investigator: Katy Börner (Information & Library Science)

Undergraduate Legal System Courses and Where They Fit in the Curriculum for Best Learning Outcomes Principal Investigator: Shannon Martin (The Media School—Journalism)

2016

Analyzing the Transition from Developmental to Supplemental Education Principal Investigator: Daniel Hickey (Education Counseling & Psychology)

Determinants of Students' Choices of Undergraduate Majors and the Program Strategies Principal Investigator: Michael Kaganovich (Economics)

Ethical Innovations: Exploring How Moral Reflection Benefits Learning Analytics Development Principal Investigators: James Willis, III & Joshua Quick (Education Counseling & Psychology)

Evaluating the Effect of Course-Specific Library Instruction on Student Success Principal Investigator: Andrew Asher (Anthropology & Library Academic Services)

The HumAn Learning Project Phase II Principal Investigator: Jennifer Robinson (Anthropology)



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Student Learning Analytics Projects

2016 (continued)

<i>Impact of the “Becoming the Best Student” and “You@IU” Courses</i>	Principal Investigator: Anthony Guest-Scott (Academic Center)
<i>Inflection Points of Economics Majors: A Closer Look at Enrollments in Intermediate Microeconomics (E321)</i>	Principal Investigator: Paul Graf (Economics)
<i>Role of Peer Networks in Student Choice of Academic Major at IUB</i>	Principal Investigator: Adam Maltese (Education—Curriculum & Instruction)
<i>S&H Fulfillment Patterns and Their Effect on Student Retention</i>	Principal Investigator: Kalani Craig (History)
<i>Using Analytics to Compare Student Demographics for Different Delivery Methods (Face to Face, Hybrid, Online) of AMST-A 100 What is America?</i>	Principal Investigator: Vivian Nun Halloran (English & American Studies)

2017

<i>Evaluating and Optimizing Homework and Quizzes to Increase Learning Outcomes in the Information Visualization MOOC</i>	Principal Investigator: Katy Börner (Information & Library Science)
<i>Evaluating the Impact of the Intensive English Program on Student Success at IU</i>	Principal Investigator: Leslie Gabriele (Second Language Studies)
<i>Evaluating the Teaching Effectiveness of Principles of Microeconomics Instruction at the IU Bloomington Campus Relative to Other Institutions</i>	Principal Investigator: Paul Graf, Co-Investigator: Gerhard Glomm (Economics)
<i>Exploring relationships Between the New Indiana Academic English Test (IAET) and External Measures</i>	Principal Investigator: Sun-Young Shin (Second Language Studies)
<i>The Factors of Differential Grading Standards Across Academic Units</i>	Principal Investigator: Michael Kaganovich (Economics)
<i>The Factors to and Impact of K303 Success</i>	Principal Investigator: Jie Li (Business)
<i>Human Expertise, Analytics, & Student Learning in Multi-Section General-Education Courses at Indiana University</i>	Principal Investigators: Jennifer Meta Robinson (Anthropology), Co-Investigators: John Arthos (English), and Jill K. Robinson (Chemistry)
<i>Learning Analytics for Students Majoring in Healthcare Management and Policy</i>	Principal Investigator: Terri Renner (SPEA)
<i>Measuring the Impact of Information Literacy Instruction on Assignment-Level Learning Outcomes</i>	Principal Investigator: Andrew Asher (Anthropology and Library Academic Services)
<i>Using Analytics to Evaluate Influences on Student Learning Outcomes in a GenEdScience Course</i>	Principal Investigator: Simon Brassell (Geology)