

How a Department Used Learning Analytics to Improve Student Enrollment and Success

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Learning Analytics Fellows Program

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Since joining CLASS:

Five other Economics faculty members have joined CLASS.

A 2020 graduate student's job market paper based on her CLASS project.

Economics Department administrators have asked about specific student data such as transfer data, AP credit and student performance by major.

Provided data for a faculty meeting on findings on grade distributions of introductory economics courses.

Found similar “grade surprise” results from introductory economics courses to other introductory STEM ([SEISMIC](#) and IU's Jennifer Meta Robinson)



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CLASS Projects:

2014: Do general or specific characteristics of E201 and E202 affect the number of Economics majors?

2015: Inflection Points of Economics Majors: A closer look at enrollments in Intermediate Microeconomics (E321)

2016: Evaluating the Teaching Effectiveness of Principles of Microeconomics Instruction at the IU Bloomington Campus Relative to Other Institutions

2017: A More Rigorous Evaluation on the Teaching Effectiveness of Principles of Microeconomics Instruction at the IU Bloomington Campus Relative to Other Institutions

2018: Checking the Box: A closer look on declared intentions to study Economics

2019: Grade Expectations in Introductory Courses and the Effects on the Corresponding Majors.



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CLASS Projects:

2016: Evaluating the Teaching Effectiveness of Principles of Microeconomics Instruction at the IU Bloomington Campus Relative to Other Institutions

- **Data:** 3,451 E321 students enrolled at IUB between fall 2006 and fall 2015 (28 semesters: including summer).
- **Results:** Consistent grade distributions among all E321 classes.
- Over 20% DWF by the end of the semester.
- Transferring E201 performed worse in E321.

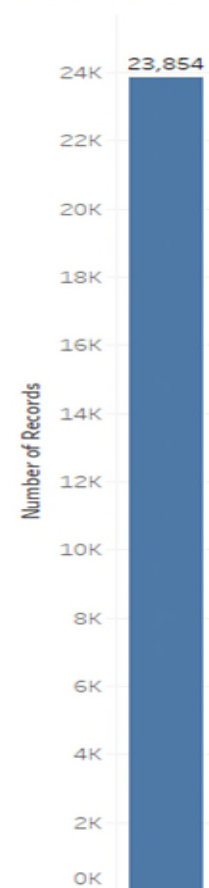
2017: A More Rigorous Evaluation on the Teaching Effectiveness of Principles of Microeconomics Instruction at the IU Bloomington Campus Relative to Other Institutions

- **Data:** 23,854 IUB students received E201 credit with 4,703 (19.7%) IUB students transferring this course from another two-year or four-year institution between the fall semester of 2010 to spring semester of 2017 (14 semesters)
- **Results:** Students who transferred their E201 grade into IUB on average received a higher grade compared to students who took E201 at IUB.
- We found student who transfer E201 from other institutions performed worse in E321.

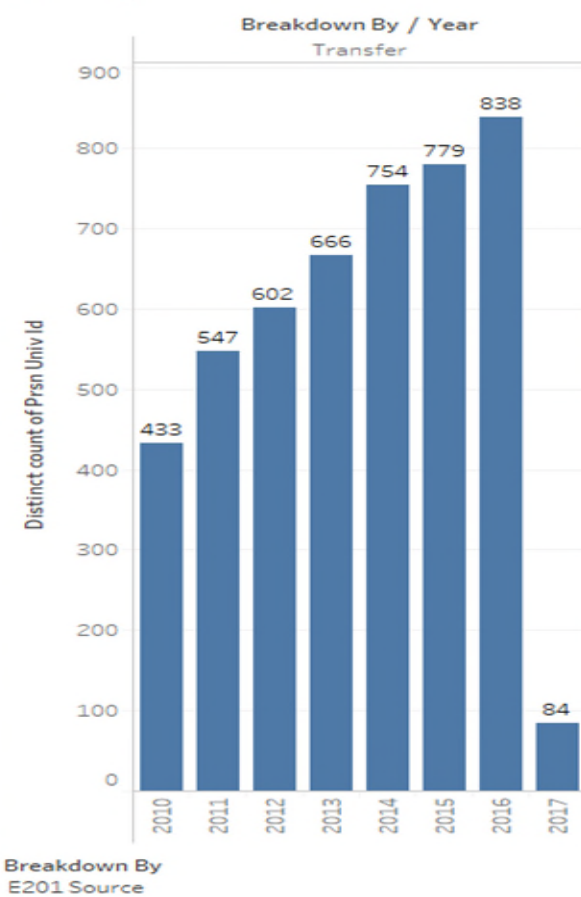


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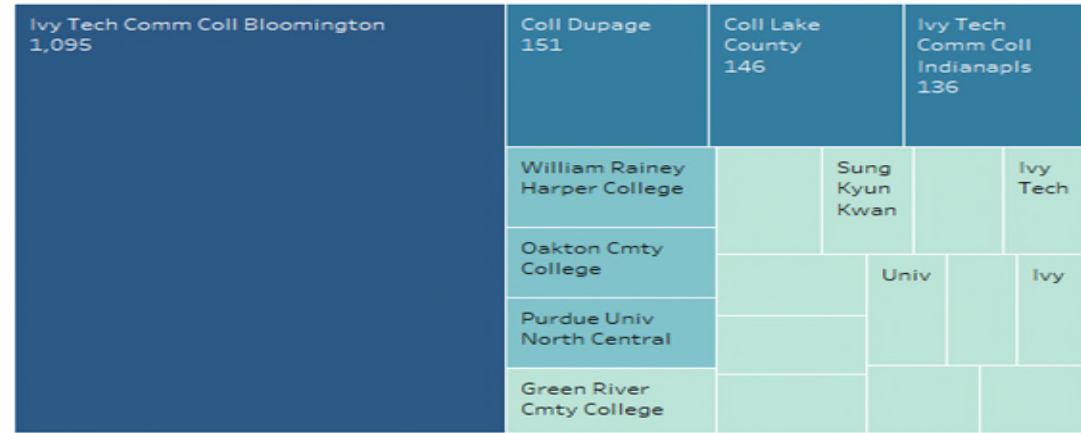
Total Number of Students



E201 Transfer Trend (Fall + Spring)



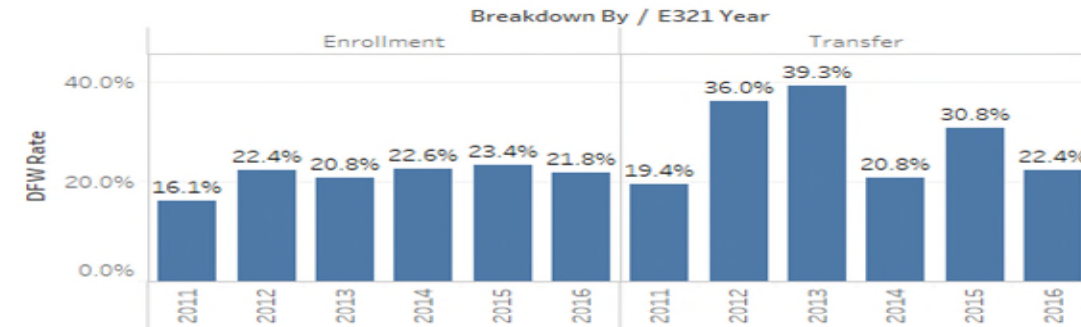
Top 20 Transfer Institutions



Number of Records



E321 DFW Rates



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E321 Grade Distribution

IUB and Other							Junior/Community College						
10% E321	25% E321	Avg. E321	Median E321	75% E321	90% E321	Std. Dev. E321	10% E321	25% E321	Avg. E321	Median E321	75% E321	90% E321	Std. Dev. E321
1.300	2.000	2.597	2.700	3.300	4.000	1.032	0.000	1.700	2.198	2.300	3.000	3.700	1.157

- Residency
- Nonresident Student
 - Resident Student

E201 Grade Distribution

IUB and Other							Junior/Community College						
10% E201	25% E201	Avg. E201	Median E201	75% E201	90% E201	Std. Dev. E201	10% E201	25% E201	Avg. E201	Median E201	75% E201	90% E201	Std. Dev. E201
1.300	2.000	2.685	2.700	3.300	4.000	0.977	2.000	3.000	3.318	3.700	4.000	4.000	0.725

- Gender
- Female
 - Male

HS GPA Distribution

IUB and Other							Junior/Community College						
10% HSGPA	25% HSGPA	Avg. HSGPA	Median HSGPA	75% HSGPA	90% HSGPA	Std. Dev. HSGPA	10% HSGPA	25% HSGPA	Avg. HSGPA	Median HSGPA	75% HSGPA	90% HSGPA	Std. Dev. HSGPA
3.060	3.280	3.526	3.530	3.810	4.000	0.339	2.846	3.130	3.446	3.475	3.835	4.000	0.436

- Ethnic Group
- Asian
 - Black
 - Hispanic
 - International
 - Native American
 - Not Available
 - Two or More Races
 - White

SAT Score Distribution

IUB and Other							Junior/Community College						
10% SAT	25% SAT	Avg. SAT	Median SAT	75% SAT	90% SAT	Std. Dev. SAT	10% SAT	25% SAT	Avg. SAT	Median SAT	75% SAT	90% SAT	Std. Dev. SAT
1,140	1,210	1,282	1,280	1,353	1,430	106	1,064	1,140	1,243	1,260	1,310	1,442	142

- Pell Eligibility
- N
 - Y

Gender

IUB and Other		Junior/Community College	
Female	Male	Female	Male
385	1,081	42	88

Ethnic Group

IUB and Other									Junior/Community College					
Asian	Black	Hispanic	International	Native American	Not Available	Two or More Races	White	Asian	Black	Hispanic	International	Two or More Races	White	
63	9	31	769	2	6	8	578	9	3	1	83	1	33	

- First Generation
- N
 - Y

Residency

IUB and Other	
Nonresident Student	Resident Student
1,057	409

Pell Eligibility

IUB and Other		Junior/Community College	
N	Y	N	Y
1,366	100	121	9

First Generation

IUB and Other		Junior/Community College	
N	Y	N	Y
1,172	294	87	43



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Improving Student Success:

August 2019, the Economics Department developed a plan to improve student success by addressing transfer of E201 and E202 credits.

August 2019, with suggestions from the Kelley School, the Economics Department started redesigning Introductory Microeconomics (E201) and Introductory Macroeconomics (E202).

- New and revised content
- Economic applications
- Consistency

August 2020, the Economics Department launched Fundamentals of Economics for Business I.

January 2021, the Economics Department launched Fundamentals of Economics for Business II.



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Improving Student Success:

Since the launch of these courses, student performance has increased with course averages increasing and DFW rates decreasing.

Recent feedback from Kelley stated student satisfaction with both courses has increased.

Enrollments have increased back to enrollment numbers from the mid-2010s.

Economic majors remain below the mid-2010s. But majors are projected to increase in fall 2023.



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Improving Instructor Success:

May 2021, The College of Arts and Sciences' Chairs and Directors meeting recognized the increase in the B251 enrollments.

August 2021, Kelley admitted its largest class ever.

May 2022, enrollments in B251 and B252 continue to increase.

The Economics Department is now a victim of its success thanks to the learning analytics.

