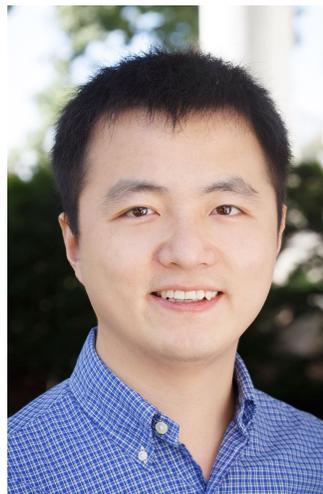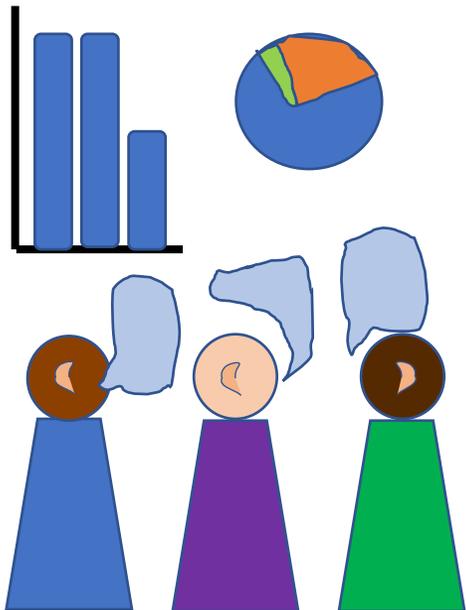# Diversity in Academic Faculty

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Learning Outcome

- To be able to discuss the evidence of inequalities in academia in the STEM fields.

Learning Objectives

- To be able to cite and discuss the status of faculty diversity in STEM (science, technology, engineering, math) fields in relation to U.S. population.

Diyi Li, PhD

Cory Koedel, PhD

Representation and Salary Gaps by Race-Ethnicity and Gender at Selective Public Universities

Diyi Li[1] and Cory Koedel[1]

Figure 1, Li & Koedel (2017) *Educational Researcher*

- Question: Are STEM faculty representing the racial diversity present in the U.S. population?

- Hypothesis: STEM faculty do not proportionally represent the U.S. population.

Variable	U.S Population
Racial-ethnic shares	
Asian	4.7
Black	12.2
Hispanic	16.3
White	63.7
Other/unknown	3.1
Gender shares	
Female	50.8
Male	49.2
Unknown	0.0
N, faculty	—
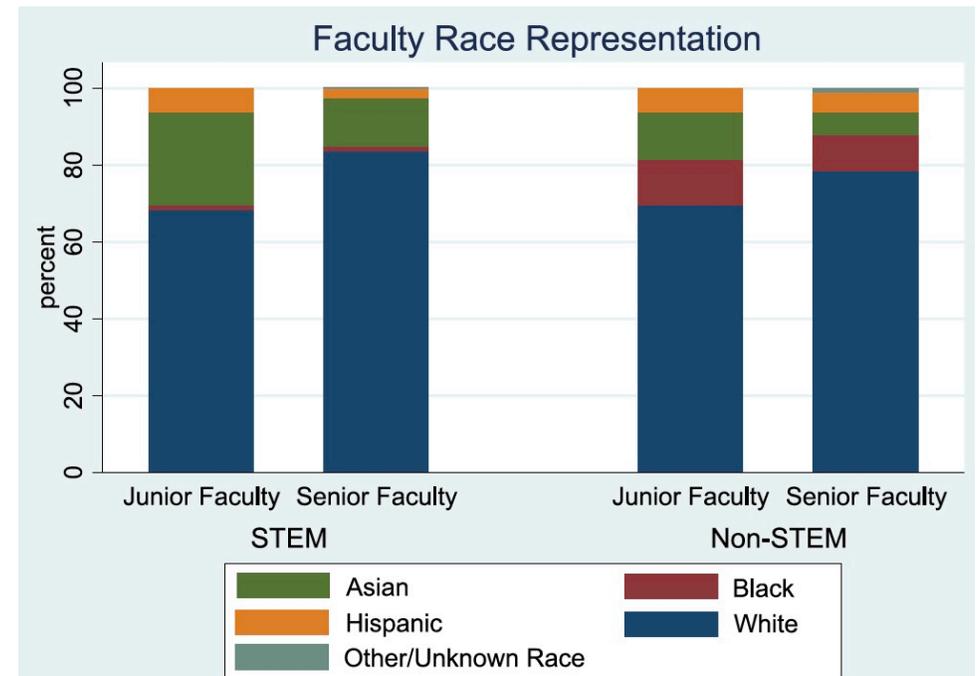
Methods

Data

Our sample consists of faculty from 40 selective public universities ranked highly by the 2016 *U.S. News & World Report*, as listed in Appendix A.[4] We collected data from faculty rosters as published on department websites at the sampled universities during the 2015–2016 academic year. The data were collected manually, and as such, it was not feasible to include all faculty at all 40 universities. Instead, we used a sampling strategy focusing on faculty in the six above-described academic departments. We selected three of the six departments at random at each university, and for each selected department, we collected data from every faculty member listed on the department website whose position involved at least some teaching.[5] We focus our primary analysis on tenure-track faculty but show results that include non-tenure-track teaching faculty in Appendix B (available on the journal website). Appendix A documents the departments at

approach to collecting race-ethnicity and gender designations in some detail. One notable point is that unlike data sets that rely on respondents' own input, our designations are best described as race-ethnicity and gender "appearance measures." This approach has both benefits and costs given our research objectives. Rather than delving into an extended conceptual discussion, we evalu-

Appendix Table A1
Sample of Universities and Departments

University	Biology	Chemistry	Economics	Education (Leadership/Policy)	English	Sociology
University of California–Berkeley				X	X	X
University of California–Los Angeles		X	X	X		
University of Virginia			X	X	X	
University of Michigan–Ann Arbor			X	X		X
University of North Carolina–Chapel Hill		X	X			X
College of William and Mary		X	X		X	
Georgia Institute of Technology	X		X			X
University of California–Santa Barbara	X				X	X
University of California–Irvine	X	X	X			
University of California–San Diego	X				X	X
University of Illinois–Urbana-Champaign	X				X	X
University of Wisconsin–Madison		X		X		X
University of Florida	X		X		X	
Ohio State University–Columbus			X	X	X	
University of Texas–Austin		X		X		X
University of Washington	X		X	X		
University of Connecticut	X	X	X			
University of Maryland–College Park	X	X				X
Clemson University	X			X		X
Purdue University–West Lafayette	X		X	X		
University of Georgia		X		X	X	
University of Minnesota–Twin Cities	X		X	X		
Texas A&M University–College Station		X		X	X	
Virginia Tech	X			X	X	
Rutgers University–New Brunswick	X			X		X
Indiana University–Bloomington			X	X	X	
Michigan State University	X	X	X			
University of Massachusetts–Amherst	X		X		X	
Miami University–Oxford	X		X			X
University of Iowa		X	X		X	
Binghamton University–State University of New York	X	X	X			
North Carolina State University–Raleigh	X		X		X	
Stony Brook University–State University of New York	X				X	X
University of Vermont	X		X			X
Florida State University				X	X	X
University at Buffalo–State University of New York		X		X	X	
University of Missouri		X		X	X	
University of Nebraska–Lincoln	X	X				X
University of Oregon			X	X	X	
Iowa State University	X	X				X
Total departments	23	17	22	20	20	18

Note. Our sampling design is such that we would expect to collect data from 20 departments in each field. The small deviations from the expected number by field are the result of sampling variability.

Results: Li & Koedel (2017) Figure 1 and Table 3

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Li & Koedel (2017) *Educational Researcher*
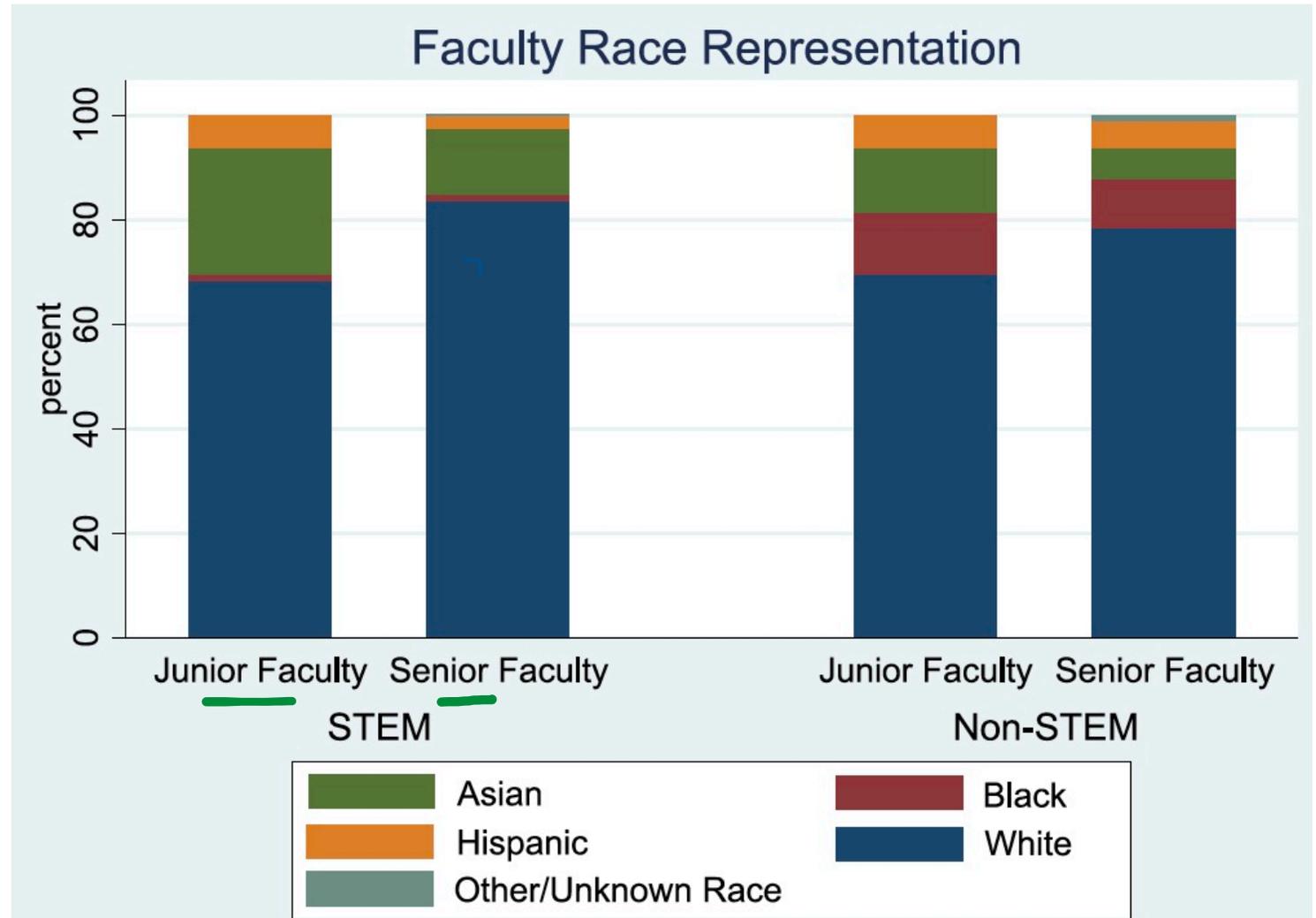
Conclusion?

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