Zhengren Zhu

Address: Department of Economics

Yale University

New Haven, CT 06520-8268

Telephone: (845) 233-8326

E-mail: zhengren.zhu@yale.edu

Web page: https://sites.google.com/yale.edu/zhengrenzhu/home

Citizenship: China (F1 Visa)

Fields of Concentration:

Primary Fields: Labor Economics, Economics of Education

Secondary Fields: Development Economics

Desired Teaching:

Labor Economics, Economics of Education, Econometrics, (Undergraduate)
Microeconomics

Comprehensive Examinations Completed:

2017 (Oral): Labor Economics, Development Economics 2016 (Written): Microeconomics, Macroeconomics

Dissertation Title: Essays on US Community Colleges

Committee:

Professor Joseph Altonji (Chair) Professor Costas Meghir Professor Cormac O'Dea

Degrees:

Ph.D., Economics, Yale University, 2021 M.Phil., Economics, Yale University, 2019 M.A., Economics, Yale University, 2018 B.A., Economics and Mathematics, Vassar College, 2015

Fellowships, Honors and Awards:

University Dissertation Fellowship, Yale University, 2020 Cowles Foundation Fellowship for Graduate Students, 2015-2019 Emilie Louise Wells Fellowship, Vassar College, 2015 Agnes Reynolds Jackson Prize for Best Senior Thesis, Vassar College, 2015 Departmental Honor and General Honor, Vassar College, 2015

Research Grants:

Yale Institution for Social and Policy Studies Research Grant, 2019 Cowles Foundation Structural Microeconomics Research Grant, 2018

Teaching Experience:

Spring 2020, Teaching Assistant to Prof. Edward Vytlacil, Intermediate Data Analysis & Econometrics (Undergraduate), Yale College

Spring 2018, Spring 2019, and Fall 2019, Teaching Assistant to Prof. Evangelia Chalioti, Intermediate Microeconomics (Undergraduate), Yale College

Fall 2018, Teaching Assistant to Prof. Jack Fanning, Microeconomics Theory (Undergraduate), Yale College

Fall 2017, Teaching Assistant to Prof. Edward Vytlacil, Introduction to Data Analysis & Econometrics (Undergraduate), Yale College

Published / Accepted Papers:

"Improving Graduation Rates in the Two-to-Four College Transfer Pathway", *Education Finance and Policy* 17(3) (2022) 432-453

Working Papers:

"Free Community College: Promise or Trap? A Study of College Transfer in the US", (November 2020), *Job Market Paper*

"Returns to Specific Graduate Degrees --- Estimates Using Texas Administrative Records" (November 2020), with Joseph Altonji

"Stigma Against Community College Graduates --- Evidence from a Labor Market Audit Study" (August 2020), Revise and Resubmit at *Economics of Education Review*

Referee Service:

Economics Letters

Languages:

Chinese (native), English (fluent)

References:

Prof. Joseph Altonji Yale University Department of Economics New Haven, CT 06520 PO Box

PO Box Phone:

joseph.altonji@yale.edu

Prof. Costas Meghir Yale University Department of Economics New Haven, CT 06520

PO Box Phone:

c.meghir@yale.edu

Prof. Cormac O'Dea Yale University

Department of Economics New Haven, CT 06520

PO Box Phone:

cormac.odea@yale.edu

Dissertation Abstract

Free Community College: Promise or Trap? A Study of College Transfer in the US [Job Market Paper]

More than 40% of US college students enroll in community colleges for their two-year associate degree programs, low tuition, and the possibility to transfer into bachelor's degree programs. In recent years, state and national policy proposals for free community college have gathered steam despite the large cost of implementation and the lack of evidence on their impacts. This paper examines whether free community college could fulfill its promise to boost upward mobility or create a trap that promotes associate degrees over the more lucrative bachelor's degrees. In addition, I account for the transfer options between two-year and four-year colleges, which enables me to address two key questions. First, how important are the options to transfer between community colleges and four-year colleges for student outcomes? Second, can better cooperation between community colleges and four-year colleges improve the efficiency of transfer pathways? I find that accounting for the tight interconnection between community colleges and four-year colleges is crucial in understanding the potential impact of free community colleges. The diversion effect of free community colleges would divert students from four-year colleges to two-year programs. Combined with the existence of imperfect information in the community college to four-year college transfer pathway, the diversion effect creates significant negative effect on students' life-time earnings.

Leveraging rich administrative data from Texas and utilizing quasi-experimental variation on tuition from Community College Taxing District borders, I build and estimate a model of college choice, educational attainment, and earnings. After high school, individuals choose between work, two-year college, and four-year college. I model students' accumulation of credits, learning about ability through GPA, and the accumulation of *coherence*, which is a novel measure I introduce to measure the completion rate of degree requirements. I also model transfers between two-year and four-year colleges, accounting for the fact that not all credits transfer and that students may be imperfectly informed about the transfer rules. I find that free community college increases associate degree attainment by 7 percentage points. However, it decreases bachelor's degree attainment by 7 percentage points and leads to a drop in discounted

life-time income of \$6,000 (>1% decrease). Two reasons underly the negative effects. First, free community college increases the utility of enrolling in two-year programs and diverts students away from four-year programs that are more lucrative in the long run. Second, I find that students transferring from two-year to four-year colleges underestimate the number of credits they will lose during transfer. Free community college induces more bachelor's degree aspirants to initially enroll in community colleges, subjecting more students to this friction in the transfer pathway.

I propose a cost-equivalent proportional tuition reduction for <u>both</u> two-year and four-year colleges that creates significantly larger welfare and income improvements than free community college. In addition, I find that eliminating credit lost during transfer and fixing the imperfect information on credit transfer can both significantly improve transfer student outcomes. Finally, I find that the existence of transfer options is crucial for overall bachelor's degree attainment and has modest impact on students' overall welfare.

Improving Graduation Rates in the Two-to-Four Pathway to Bachelor's Degrees, [2nd Round Revise and Resubmit at *Education Finance and Policy*]

In the US, transferring from a two-year program to a four-year program has become an increasingly important route towards a bachelor's degree. However, the pathway has a very high attrition rate. Utilizing two recent institutional reforms in the University System of Georgia, I identify policies that improve bachelor's degree obtainment rate in the two-to-four transfer pathway. I show that allowing community colleges to offer bachelor's degrees and consolidating institutions increase two-year students' bachelor's degree obtainment by as much as 23%. Both reforms increased two-to-four transfer rate, and institutional consolidations also increased bachelor's degree attainment, conditional on transferring. Moreover, I find evidence that reduced credit lost during transfer is the driving force of the improvements. In particular, the reforms reduced credits lost during transfer by around 40%.

Discrimination Against Community College Graduates --- Evidence from a Labor Market Audit Study

While community colleges educate more than 40% of US undergraduates, anecdotal evidence suggests widespread discrimination against community college graduates. I use a national labor market audit study to examine the existence and nature of such discrimination. I send out more than 3600 artificial job applications through one of the largest online job platforms in the US. All applicants have four-year bachelor's degrees, and a randomly selected subset of the applicants attended community colleges for their first two years of college. I find that the callback rate from accounting firms is 50% lower for applicants with community college experience. This is equivalent to the effect of a drop in college GPA from 3.6 to 3.2. In comparison, sales and marketing positions' callback rate do not exhibit such discrepancy. Furthermore, I find

suggestive evidence that the discrimination is due to irrational bias on community college students' ability. I also find that this bias significantly reduces employers' valuation of the candidates' other qualifications, such as college selectivity.