

GRANT W. GANNAWAY
sites.google.com/site/grantgannaway/
gwg@uchicago.edu
(208) 881-7878

Office Contact Information

1126 E. 59th Street – Saieh Hall for Economics
Chicago, IL 60637

Education

The University of Chicago, 2013 - 2020 (expected) P.h.D. in Economics
Brigham Young University, 2010-2013 B.S. in Math, B.S in Economics

Faculty Placement Director: Professor Ufuk Akcigit ukcgit@uchicago.edu (773) 702-2417

Placement Administrator: Robert Herbst rherbst@uchicago.edu (773) 834-1972

References

Professor Neale Mahoney (Chair)	Professor Jens Ludwig
Univ. of Chicago Booth School of Business	Univ. of Chicago Harris School of Public Policy
Neale.Mahoney@chicagobooth.edu	jludwig@uchicago.edu
Professor David Meltzer	Professor Michael Greenstone
Univ. of Chicago Harris School of Public Policy	University of Chicago
dmeltzer@medicine.bsd.uchicago.edu	mgreenst@uchicago.edu

Teaching and Research Fields

Primary fields: Health Economics, Public Economics
Secondary fields: Applied Microeconomics, Machine Learning

Conferences and Presentations

Jun 2018	Agency for Healthcare Research and Quality NRSA Trainees Research Conference (“Occupational Licensing and Specialization in Healthcare: A Machine Learning Approach” and “Pharmacy Deserts and Medication Adherence”)
Mar 2018	University of Chicago Applied Micro Lunch (“Occupational Licensing and Specialization in Healthcare: A Machine Learning Approach”)

Feb 2018	University of Chicago Health Economics Workshop (“Occupational Licensing and Specialization in Healthcare: A Machine Learning Approach”)
Jan 2018	University of Chicago-Northwestern Health Research Workshop (“Occupational Licensing and Specialization in Healthcare: A Machine Learning Approach”)
July 2017	Western Economic Association International (“Pharmacy Deserts and Medication Adherence”)
Apr 2017	Association for Public Policy Analysis and Management Regional Student Conference - DC (“Pharmacy Deserts and Medication Adherence”)
Apr 2017	Population Association for America Annual Meeting (Poster: “Pharmacy Deserts and Medication Adherence”)
Mar 2017	University of Chicago Applied Micro Lunch (“Pharmacy Deserts and Medication Adherence”)

Teaching Experience

Win. 2019	Applications of Machine Learning to the Empirical Sciences, TA for Sendhil Mullainathan
Spr. 2018	Health Economics for Public Policy, TA for David Meltzer
Spr. 2016	Urban Economics, Univ. of Chicago, TA for Kathryn Ierulli and George Tolley
Win. 2016	Intermediate Micro, Univ. of Chicago, Lecturer
Fall 2015	Economics of Education, Univ. of Chicago, TA for Derek Neal
Win. 2015	Intermediate Micro, Univ. of Chicago, TA for Mohammed Moravvej
Win. 2012	Introductory Econometrics, Brigham Young University, TA for Richard Butler

Research Experience

Fall 2016 - Win. 2018	University of Chicago, Research Assistant for Professor Jens Ludwig
Sum. 2013 - Sum. 2014	University of Chicago, Research Assistant for Professors John List and Mike Price
Fall 2011 - Sum. 2013	Brigham Young University, Research Assistant for Professor Joe Price
Fall 2012 - Spr. 2013	Brigham Young University, Research Assistant for Professor Richard Butler

Honors, Scholarships, and Fellowships

2017-2020	Predocctoral Fellow, (AHRQ T32 Trainee) The University of Chicago Health Services Research Training Program for the Center for Health and the Social Sciences
-----------	---

2016-2017 Becker Friedman Institute, Health Economics Initiative Pre-doctoral Fellowship (\$25,000)
2013-2018 University of Chicago Social Sciences Fellowship

Working Papers

“Comparative Advantage in Health Care Delivery:
Machine Learning Approach”
(Job Market Paper)

Abstract

Growing health care spending has led to the popular policy proposal of capitalizing on health professional comparative advantages to reduce costs. An example of such a proposal is the increased reliance on non-doctor medical providers (NDs). The quality-cost tradeoff with this strategy is an open empirical question, with answers that may vary across specific types of medical encounters. I examine this question using changes in state Scope-of-Practice (SOP) laws which specify the level of independence allowed to NDs. The methodological challenge that arises is that the “first stage” effect of these laws on the prevalence of ND utilization is small on average. To overcome this challenge, I adapt a recently developed machine learning method designed to estimate heterogeneous treatment effects in randomized experiments for use in the first stage of my natural experiment research design. I apply this method to a large private health insurance claims database to estimate the encounter-type-specific changes in the probability of treatment by an ND resulting from relaxing the SOP laws. Then, I estimate encounter-type-specific changes in health outcomes and spending for subgroups of encounters with high first stage reallocation probabilities. I find that encounters reallocated away from NDs improve outcomes, while those reallocated towards NDs do not worsen overall and improve in the long run. This suggests SOP laws are preventing optimal allocation of encounters between provider types, and gives an estimate for encounter-type-specific differences in provider-type quality, which is critical to the policy debates surrounding the use of NDs.

“Pharmacy Deserts and Medication Adherence”
[Submitted]

Abstract

Poor medication adherence is responsible for large health care costs. In this paper, I examine the extent to which medication adherence is influenced by pharmacy access. I use straightforward intent-to-treat measures of adherence in an event-study approach around two types of events: local pharmacy openings and closings, and network status variation of a major pharmacy chain in and out of the network of a major pharmacy benefits management (PBM) insurance company. I find that pharmacy openings cause roughly a 2 percent increase in local patients’ measures of adherence, while removing local pharmacies from the PBM network causes a roughly 5 percent decrease.

“Crowding Out and Crowding In: Evidence from a Large Organization”
(with Garth Heutel and Michael Price)

[Submitted]

Abstract

Using a unique and proprietary dataset that includes every private donation made to a large public university from 1938 to 2012 and demographic information on all alumni, we examine the effects of large public and private funding on individual donations. Our dataset allows us to examine crowding effects on a small time scale and to control for extensive donor characteristics. We estimate effects on the total number of donations (extensive margin) and on the average size of a donation (intensive margin). Large private gifts have a positive (crowd-in) effect on the extensive margin, while large public grants have a negative (crowd-out) effect on the intensive margin. Alumni, previous donors, and in-state residents exhibit a larger extensive margin crowding-in effect, and there is evidence that the crowding-in and crowding-out effects extend to between-unit comparisons within the university.

Works in Progress

“Medical Decision Making: Are there Practitioner-type Differences?”

Abstract

In this paper I examine practitioner-type differences in medical procedures performed. Mid-level practitioners (such as nurse practitioners) are often viewed as choosing procedures in different ways than physicians. This perceived difference contributes to the debate about quality differences between practitioner types. I use machine learning and a large scale claims database to study the frequency of differences in procedure choice and the consequences of those differences, within narrowly defined groups of medical encounters. First, I use a machine learning approach to predict the health outcomes from medical procedures given information available prior to the procedure. This partitions the data into similar groups based on extensive characteristics about the encounter. I require the partitions to be based on similar diagnoses, but to include variation in procedure performed. I document the accuracy of the prediction method. Then I estimate counterfactual predictions for performing different procedures within each partition by measuring the outcomes for each procedure within each partition. Next, I compare the rates at which different types of practitioners perform the procedure with the best predicted outcome in the partition and the rates at which they perform other procedures. Finally, I compare realized outcomes between types of practitioners given the practitioner chose a procedure other than the procedure with the best predicted outcomes. This gives an estimate for practitioner-specific “deviation” rates and differences in outcomes. I test the hypotheses that mid-level providers deviate more frequently than physicians and that deviations by mid-levels are more costly than deviations by physicians.

Publication

Gannaway, Grant, Craig Palsson, Joseph Price, and David Sims. "Technological Change, Relative Worker Productivity, and Firm-Level Substitution: Evidence From the NBA." *Journal of Sports Economics* 15, no. 5 (2014): 478-496.