

## DANIEL P. MILLER

Cell: (612) 804-9505

E-mail:dmiller.econ.umn@gmail.com

### **Education**

<i>Degree</i>	<i>Field</i>	<i>Institution</i>	<i>Year</i>
Ph.D.	Economics	University of Minnesota	2009
M.A.	Economics	University of Minnesota	2008
B.A.	Economics (Honors)	Stanford University	2003

### **Industry Experience**

Amazon (Seattle, WA) (2016 to present) 3-years

<i>Position</i>	<i>Department</i>	<i>Year</i>
Principal Economist	CoreAI	2018-
Senior Economist	CoreAI/Central Econ	2017
Economist	Central Econ	2016

I work with an interdisciplinary group of world class scientists and engineers on CoreAI to solve the toughest, most high impact business problems at Amazon. My science is focused on customers with the aim to deliver solutions that will have tangible impact. I partner with product teams and engineers to implement models into production systems, making thousands or millions of automated decisions per day. I also prototype models for ad hoc business problems, advise business teams on the economic fundamentals of their problems, mentor and review work of junior scientists, and provide guidance and analysis used by executive leadership for strategic decision making. My area of expertise is in industrial organization, a field focused on markets and competition. I apply a wide tool box of techniques lying at the intersection of econometrics, game theory & market design, and machine learning. Examples of my work include pricing, customer engagement, search, supply chain, and policy.

### **Academic Experience**

Clemson University (Clemson, SC) (2009-2016) 7-years

<i>Position</i>	<i>Department</i>	<i>Year</i>
Assistant Professor	Economics	2009-2016
Adjunct Professor	Economics	2019-

I conducted research in the fields of industrial organization and health economics where my work has been published in top journals including the Rand Journal of Economics and International Economic Review, and presented at major academic conferences including the Econometric Society and National Bureau of Economics. I taught courses in Industrial Organization and Health Economics at the Undergraduate, Masters, and PhD level and advised a dozen PhD students who have placed in top academic, consulting, and government jobs. At Amazon I continue academic activities through University recruiting, conference participation, invited lectures at University of Washington, and an industry-academic student program with MIT-Sloan. I hold a courtesy Adjunct Professor appointment at Clemson where I am invited to serve on an advisory board developing curriculum for an interdisciplinary data science Master's program. I studied under Professor Pat Bajari as both an undergraduate at Stanford and graduate student at Minnesota.

See google scholar profile for complete list of papers and link to academic homepage that has full CV, papers, and teaching material. <https://scholar.google.com/citations?hl=en&user=42CYpUkAAAAJ>

## Major Fields of Concentration

Empirical Industrial Organization, Health Economics

## Publications

- “A Dynamic Model of Housing Demand: Estimation and Policy Implications,” (2013)  
with Patrick Bajari: University of Minnesota, Phoebe Chan: Wheaton College, and Dirk Krueger: University of Pennsylvania  
*International Economic Review*, Volume 54, No. 2 pp 409-442 (lead article)
- “Subcontracting and Competitive Bidding on Incomplete Procurement Contracts,” (2014)  
*RAND Journal of Economics*, Volume 45, No. 4 pp 705-746
- “Estimating Switching Costs with Market Share Data: An Application to Medicare Part D” (2018)  
with Jungwon Yeo: Singapore Management University  
*International Journal of Industrial Organization*, Volume 61, pp. 459-501
- “The Consequences of a Public Health Insurance Option: Evidence from Medicare Part D” (2019)  
with Jungwon Yeo: Singapore Management University  
*American Journal of Health Economics*, Volume 5, No. 2 pp 191-226
- “Mergers in Medicare Part D: Assessing Market Power, Cost Efficiencies, and Bargaining Power”  
(2020)  
with Anna Chorniy: Northwestern University and Tilan Tang: Temple University  
*International Journal of Industrial Organization*, Volume 68, pp 102548

## Articles Under Review

- “Competition to Increase Quality and Lower Costs: Estimating the Effects of Readmissions on Hospital Marginal Costs and the Medicare Penalty”  
with Sriram Venkataraman: University of South Carolina, Aleda Roth, and Lawrence Fredendall: Clemson University  
(Submitted)

## Other Papers

- “Risk Adjustment and Low Income Subsidy Distortions in Medicare Part D”  
(2015-2016 Job Market Paper)
- “Market Distortions in Medicare Part D: A Policy Perspective”
- “Prescription Drug Usage of Medicare Part D Low Income Subsidy Beneficiaries: Random Versus Targeted Plan Assignment”  
(NIH RO3 grant submission)

## Grants

- 2014-2015 U.S. Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation: Patient-Centered Outcomes Research (\$40,000)  
“Part D Low Income Subsidy Research Program”
- 2014 Mercatus Center (\$4,000)  
“Market Distortions in Medicare Part D: A Policy Perspective”
- 2012 University Research Grant (\$9,200), Clemson University.  
“The Impact of Mergers on Competition in Health Insurance Markets,” with Tilan Tang: Clemson University Department of Finance and Accounting.

**Invited and Conference Presentations**

- 2016 Risk Adjustment and Low Income Subsidies in Medicare Part D  
*US Department of Health and Human Services, IIOC (Philadelphia), Purdue University, Temple University, Bates White*  
Mergers in Medicare Part D  
*NBER Insurance Conference (Chicago), IIOC (Philadelphia)*
- 2015 Risk Adjustment and Low Income Subsidies in Medicare Part D  
*NBER Summer Institute Healthcare, Econometric Society World Congress (Montreal)*  
*INFORMS (Philadelphia) Southern Economic Association (New Orleans)*  
*American Health Econometrics Workshop (Honolulu/discussant)*
- 2014 Risk Adjustment and Low Income Subsidies in Medicare Part D  
*University of South Carolina, Clemson University, Florida State University*  
A Dynamic Discrete Choice Model of Switching Costs in Medicare Part D  
*American Economic Association/Econometric Society (Philadelphia)*  
Anti-Trust Economics (discussant)  
*Industrial Organization Society/SEA (Atlanta)*
- 2013 Risk Adjustment and Low Income Subsidies in Medicare Part D  
*IIOC (Boston)*  
A Dynamic Discrete Choice Model of Switching Costs in Medicare Part D  
*Southern Economic Association (Tampa)*  
Healthcare in America  
*Tomsk State University, Tomsk Polytechnic University (Russia)*
- 2012 The Consequences of a Public Health Insurance Option  
*National University of Singapore, Australasian Econometric Society (Melbourne), Southern Economics Association (New Orleans)*
- 2011 The Consequences of a Public Health Insurance Option  
*IIOC (Boston), Econometric Society (WUSTL)*  
Subcontracting and Competitive Bidding  
*EARIE (Stockholm), Public Procurement and Sustainable Growth Conference (CEPR, Univ of Padova)*
- 2010 The Consequences of a Public Health Insurance Option  
*University of South Carolina, University of Georgia*  
A Dynamic Structural Model of Housing Demand  
*Cleveland Federal Reserve Bank, Singapore Management University*
- 2009 Subcontracting and Competitive Bidding  
*IIOC (Northeastern Univ) job market: Australian National University, Bates White, Carnegie Mellon Tepper, Clemson, Korean Advanced Institute of Sc/Tech (KAIST), FTC, CNA, Singapore Management University*

**Honors and Awards**

- 2008 - 2009 Graduate School Dissertation Fellowship, University of Minnesota
- 2009 Industrial Organization Society "Rising Star in IO"
- 2008 Graduate School Summer Research Fellowship, University of Minnesota
- 1998 Caltech Signature Award—dedication from Professor Kip Thorne

**Professional Service**

Referee for *Economica*, *International Economic Review*, *International Journal of Health Care Finance and Economics*, *International Journal of Industrial Organization*, *Journal of Applied Econometrics*, *Journal of the European Economic Association*, *Journal of Industrial Economics*, *Journal of Law and Economics*, *Journal of Law Economics and Organization*, *Journal of Political Economy*, *Southern Economics Journal*

**University Service**

2014 - 2016 Clemson University Computer Advisory Team (CU-CAT). Representative for business and behavioral science disciplines on faculty committee advising super-computing policy and strategy.  
2019- Advisory board for data science curriculum development

**Research Experience**

2006 - 2008 Research Assistant to Professor Patrick Bajari, University of Minnesota  
2002 Research Assistant to Professor Patrick Bajari, Stanford University

**Industry Experience**

1999 - 2000 Internship in Securities Research, A. G. Edwards & Sons, St. Louis, Missouri.

**Teaching Experience**

2018-2020 Guest Lecturer, Department of Economics, University of Washington  
Taught a guest PhD class on empirical methods for estimating dynamic demand

2016-2017 Amazon Project Sponsor, MIT-Sloan Analytics Lab  
Advised MBA students on a data science project about Amazon Search.

2010 - 2016 Professor, Department of Economics, Clemson University  
Taught *Empirical Industrial Organization (Ph.D. level)*; 4.84/5 student evaluation  
*Masters Thesis Research (Masters level)*;  
*Health Economics (Undergraduate and Masters level)*; 4.89/5  
*Industrial Organization (Undergraduate and Masters level)*. 4.61/5

2009 Professor, Department of Economics, Clemson University  
Taught *Principles of Microeconomics*.

2007 - 2008 Teaching Assistant, Department of Economics, University of Minnesota  
Led recitation sections for *Econometrics sequence (Ph.D. level)*

2004 - 2006 Instructor, Department of Economics, University of Minnesota  
Taught *Principles of Microeconomics* and *Principles of Macroeconomics (Honors Section for Carlson School of Management Students)*

2003 - 2004 Teaching Assistant, Department of Economics, University of Minnesota  
Led recitation sections for *Principles of Macroeconomics*.

**Advising (Ph.D.)**

- 2016 *Jacob Burgdorf Ph.D.*  
Placement : Visiting Assistant Professor, University of Louisville  
*Alex Fiore Ph.D.*  
Placement : Analysis Group, Dallas TX  
*Andrew Swanson Ph.D.*  
Placement : University of Wisconsin, Eau Claire
- 2015 *Anna Chorniy Ph.D. (Chair)*  
Initial Placement : Post-Doc, Princeton University  
Current Position : Assistant Professor, Northwestern University Medical School (tenure track)  
*Meng Liu Ph.D. (Chair)*  
Placement : Post-Doc, MIT-Sloan & Harvard University  
Current Position : Assistant Professor, Washington University Olin School of Business Marketing Department (tenure track)  
*Di Wu Ph.D. (Co-Chair)*  
Placement : Economist, Freddie Mac, Washington DC  
*Anne Anders Ph.D.*  
Placement : Assistant Professor, Univ. of Houston-Clear Lake (tenure track)
- 2014 *Lyudmyla Sonchak Ph.D.*  
Placement : Assistant Professor, SUNY Oswego (tenure track)  
*Richard Gearhart III Ph.D.*  
Placement: Assistant Professor, Cal State Bakersfield (tenure track)  
*Joseph Ewing Ph.D.*  
Placement: Biostatistician, Greenville Health System, Greenville, South Carolina.
- 2013 *Sriram Venkataraman Ph.D.*  
Placement : Assistant Professor of Management, Univ. of South Carolina (tenure track)  
*Laura Lamontagne Ph.D.*  
Placement : Assistant Professor, Christopher Newport University (tenure track)  
*Janet Gemill-Peckham Ph.D.*  
Placement: Economist, Food and Drug Administration, Washington, DC
- 2012 *Nancy Huff Ph.D.*  
Placement : Economist, Institute for Defense Analyses, Washington, DC

**Advising (Masters and Undergraduate)**

- 2015 *Blake Workman M.A. (Chair)*
- 2014 *Dongqi He M.A. (Chair)*  
*Jing Xue M.A.*
- 2013 *Julianna Carattini M.A. (Chair)*  
*Justin Knutter M.A. Haley Motl M.S. Zhuang Zheqi M.A.*  
*Blake Workman B.A. (honors thesis)*
- 2012 *Andrew Roehl M.A.*
- 2011 *Kevin Payne M.A.*  
Placement: Economics Ph.D program, University of Maryland, College Park

## References

Professor **Patrick Bajari**  
Chief Economist and Vice President  
Amazon.com  
Department Economics  
University of Washington  
bajari@amazon.com  
206-543-8172

Professor **Robert Town**  
Department of Economics  
University of Texas Austin  
Robert.town@austin.utexas.edu

Professor **Gautam Gowrisankaran**  
Department of Economics  
Eller College of Management  
University of Arizona  
gowrisankaran@eller.arizona.edu  
520-621-2529

Professor **Aleda Roth**  
Department of Management  
Clemson University  
aroth@clemson.edu  
919-454-4707

Professor **Tom Mroz**  
Department of Economics  
Georgia State University  
tmroz@gsu.edu  
404-413-0163

Professor **Scott Baier**  
Department of Economics  
Clemson University  
sbaier@clemson.edu