

## Matthew Grennan

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### Employment

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*University of California, Berkeley, Haas School*

Associate Professor of Economic Analysis & Policy (w/ tenure) July 2021 –

*University of Pennsylvania, Wharton School*

Assistant Professor of Health Care Management July 2013 – June 2021

*University of Toronto, Rotman School of Management*

Assistant Professor of Strategic Management July 2010 – June 2013

### Other Appointments

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*Robinson Life Science, Business, & Entrepreneurship Program, UC Berkeley*

Faculty Co-Director July 2021 –

*National Bureau of Economic Research*

Faculty Research Fellow (HC, IO) May 2015 –

*Leonard Davis Institute of Health Economics*

Senior Fellow July 2013 -

### Education

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Ph.D., Strategy/Economics, *New York University, Stern School of Business*, September 2010  
(Committee: John Asker, Adam Brandenburger, Allan Collard-Wexler, Michael Katz, Bernie Yeung)

M.S., Applied Economics, *University of Minnesota*, May 2005

B.S., Industrial Engineering, *Iowa State University*, May 2002

### Research Areas

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empirical industrial organization, health care, innovation, competitive strategy

### Published and Forthcoming in refereed journals

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(\* denotes journal convention is to list authors alphabetically)

[1] Grennan, Matthew (2013). “[Price Discrimination and Bargaining: Empirical Evidence from Medical Devices](#)” *American Economic Review*, 103(1):145-177.

[2] Grennan, Matthew (2014). “[Bargaining Ability and Competitive Advantage: Empirical Evidence from Medical Devices](#)” *Management Science*, 60(12):3011-3025.

[3] Grennan, Matthew and Robert J. Town (2020)\*. “[Regulating Innovation with Uncertain](#)

[Quality: Information, Risk, and Access in Medical Devices](#)” *American Economic Review*, 110(1):120-161.

- Prior version available as NBER Working Paper 20981 (2015)
- PURC Prize for Best Paper in Regulatory Economics (2018)
- [Wharton PPI](#), [Knowledge@Wharton](#), [LSE Business Review](#), [AEA Research Blog](#), [LDI Blog](#)

[4] Grennan, Matthew and Ashley Swanson (2020)\*. [“Transparency and Negotiated Prices: The Value of Information in Hospital-Supplier Bargaining”](#) *Journal of Political Economy*, 128(4):1234-1268.

- Prior version available as NBER Working Paper 22039 (2016)
- [NYTimes](#), [LDI](#), [Knowledge@Wharton](#)

[5] Craig, Stuart, Matthew Grennan, and Ashley Swanson (2021)\*. [“Mergers and Marginal Costs: New Evidence on Hospital Buyer Power”](#) *RAND Journal of Economics*, 52(1):151-178.

- Prior version available as NBER Working Paper 24926 (2018)
- [NBER](#), [Advisory Board](#), [Modern Healthcare](#), [Daily Caller](#), [HealthLeaders](#), [HealthcareDive](#)

[6] Bergman, Alon, Matthew Grennan, and Ashley Swanson (2021)\*. [“Medical Device Firm Payments To Physicians Exceed What Drug Companies Pay Physicians And Target Surgical Specialists”](#) *Health Affairs*, 40(4):603-612.

- [Stat](#)

#### **Other articles (book chapters, etc.)**

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[7] Grennan, Matthew and Ashley Swanson (2020)\*. [“Bargaining in Healthcare Markets: Applications of Nash-in-Nash and Extensions”](#) in [Bargaining: Current Research and Future Directions](#), *Palgrave MacMillan*, forthcoming.

#### **Working Papers with completed manuscripts**

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[8] Grennan, Matthew, Charu Gupta, and Mara Lederman (2020)\*. [“Spillovers Across Product Categories in the Medical Device Industry”](#)

*R&R @ Journal of Economics & Management Strategy*.

- Prior version available as NBER Working Paper 25183 (2018)

[9] Grennan, Matthew, Kyle Myers, Ashley Swanson, and Aaron Chatterji (2021)\*. [“No Free Lunch? Welfare Analysis of Firms Selling Through Expert Intermediaries”](#)

*R&R @ Review of Economic Studies*.

- Subsumes previous working paper “Physician Industry Interactions: Persuasion and Welfare” available as NBER Working Paper 24864 (2018)
- [Penn LDI](#), [The Fix](#), [MarketWatch](#)

[10] Grennan, Matthew, Gi Heung Kim, John McConnell, and Ashley Swanson (2021). [“Hospital Management Practices and Medical Device Costs”](#)

*R&R @ Health Services Research*

[11] Groenveldt, Peter, Joseph Martinez, Stuart Craig, Lin Yang, Andrea Segal, Matthew Grennan, Pinar Karaca-Mandic, Ashley Swanson, and Genevieve Kanter (2020). [“Association of Cardiology Practice Vertical Integration and the Use of Cardiovascular Imaging”](#)

[12] Grennan, Matthew, Gi Heung Kim, and Ashley Swanson (2020)\*. “Diagnosing Price Dispersion: Demand, Bargaining, and Search in Hospital-Supplier Contracting”

[13] Bergman, Alon, Matthew Grennan, and Ashley Swanson (2020)\*. “Lobbying Physicians: Payments from Industry and Hospital Spending on Medical Devices”

[14] Craig, Stuart, Matthew Grennan, Joseph Martinez, and Ashley Swanson (2020)\*. “Using Machine Learning Methods to Predict Physician-Hospital Integration”

### **Selected Projects in progress**

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“Do We Need an FDA for That? Public vs. Private Incentives for Product Testing”  
(with Allan Collard-Wexler, Andrew Steck, and Bob Town)

“Public and Private Funding of R&D: Evidence at the Scientist Level”  
(with Maryaline Catillon and Kyle Myers)

“Vertical Integration and Control: Evidence from Medical Technology”  
(with Stuart Craig, Joseph Martinez, and Ashley Swanson)

“Decomposing the Effects of Hospital Acquisitions of Physician Practices on Health Care Spending”  
(with Zack Cooper, Stuart Craig, Joseph Martinez, Fiona Scott Morton, and Ashley Swanson)

“M&A in Innovative Industries: Evidence from Medical Technology”  
(with Ashley Swanson and Thomas Wollman)

### **Teaching Experience**

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Health Care Entrepreneurship (UG, Wharton 2013-2020) (*mean rating: 4.4/5*)

- *Wharton Excellence in Teaching Award 2017*
- *Poets and Quants Top 50 Undergraduate Professor 2018*

Management & Strategy in Medical Devices and Technology (MBA, Wharton 2016-2020)  
(*mean rating: 4.0/5*)

Health Care Data & Analytics (MBA, Wharton 2018, 2020) (*mean rating: 3.9/5*)

Health Care Marketing (MBA, Wharton 2013-15) (*mean rating: 3.9/5*)

Health Care Economics (MBA, Indian School of Business 2012-14) (*mean rating: 6.5/7*)

Entrepreneurship (UG, Toronto Rotman 2011-13) (*mean rating: 6.6/7*)

- *Excellence in Teaching 2011-13*

Models and Methods (PhD, Toronto Rotman 2012-13) (*no ratings collected*)

TA, NYU Stern 2008-10: Implementing Strategy (MBA), Managerial Economics (MBA), IO (PhD)

## Honors

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### Professional:

*NIHCM Grant* for “Physician Industry Ties and Medical Device Usage and Pricing” (2019, with Ashley Swanson)

*NSF Grant* for “Empirical Analysis of Business-to-Business Bargaining: Evidence from Hospital Input Markets” (2016-19, with Ashley Swanson)

*PURC Prize for Best Paper in Regulatory Economics (IIOC 2018)* for “Regulating Innovation with Uncertain Quality: Information, Risk, and Access in Medical Devices” (with Bob Town)

*Poets & Quants Top 50 Undergraduate Business Professors (2018)*

*Excellence in Teaching Award: Wharton (2017); Toronto Rotman (2011, 2012, 2013)*

**Graduate:** C.W. Nichols Fellowship (2009-10); Willensky Dissertation Fellowship (2009-10)

**UG:** Cardinal Key (Pres. 2001); Order of Omega (Pres. 2001); National Merit Scholar (1997-2001)

## Professional Activities

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### Invited Seminar and Conference Presentations:

(c = conference invitation, presented by coauthor; d = conference discussant)

**2021 (including scheduled):** ASSA Annual Meetings (c,d), Emory Economics, ASHEcon (d), Berkeley Economics;

**2020:** ASSA Annual Meetings (d), Berkeley Haas, Stanford GSB Marketing, Georgetown McDonough, Medtronic HE&O Research, Ohio State;

**2019:** Federal Trade Commission, Utah Eccles, Utah Winter Business Economics Conference, London School of Economics, Analysis Group, IIOC, Wharton Technology & Innovation Conference (c), Strategy Science Conference (c), NYC Health Economics Day, Organizational Theory in Healthcare Conference, Rochester Simon, QME Conference;

**2018:** ASSA Annual Meetings, Yale IO, Toulouse, IIOC, Bates White Life Sciences Conference (c), IFS Vertical Markets Conference, Kellogg Conference on Healthcare Markets (c), Columbia Bargaining Conference (c), NBER Summer IO (c), NYU IO Day (d), AHEC, FTC Micro Conference, Wharton Corporate Strategy and Innovation Conference (c);

**2017:** Bates White Life Sciences Conference (c), Universidad de Chile, Stanford IO, McGill Economics, AHEC (c);

**2016:** ASSA Annual Meetings (c), Tulane Health Care Conference, UCLA Anderson, Strategy Research Forum (d), Bates White Life Sciences Conference, ASHEcon (d), US Department of Justice, Maryland Economics, Wash U Olin, UNC Kenan-Flagler;

**2015:** ASSA Annual Meetings, Dartmouth Winter IO Conference, Johns Hopkins Economics, Queens, Cornell Economics, NBER Winter Health Care (c), Penn Medicine, Bates White, Queens Innovation Conference, US Food & Drug Administration, HEC Montreal Summer IO Conference (d), NBER Summer IO, Harvard Strategy, Georgia Tech Strategy;

**2014:** Houston/Rice Economics, Minnesota Carlson & Economics, NUS Strategy, Yale Economics, Federal Trade Commission, Kellogg Conference on Healthcare Markets, iHEA, HEC Montreal

Summer IO Conference, NBER Summer IO, NBER Summer Health Care, Bureau of Economic Analysis, Triangle Health Economics Workshop, Penn State Economics, Chicago Economics, UC Berkeley Economics, Indian School of Business;

**2013:** Utah WBEC (d), HEC Health Care IO Conference (d), Strategy Research Forum, NYU Stern Economics of Strategy Conference, CELS (d), UCLA Anderson & Economics;

**2012:** Strategy Research Forum (d), Queens Innovation Conference (d), FTC Micro Conference (d);

**2011:** IIOC, CRES Foundations of Strategy Conference (d), Atlanta Competitive Advantage Conference, Northwestern Kellogg, Rochester Simon, FTC Micro Conference, UPenn Wharton Management;

**2010:** Yale SOM Economics, Analysis Group Boston, Georgia Terry Economics, Toronto Rotman Strategy, Columbia Economics, LSE Economics, Arizona Eller Economics, CRES Foundations of Strategy Conference, Cowles Structural Micro Conference, Harvard Strategy Conference (d), HEC Montreal;

**2009:** BPS Doctoral Consortium, Consortium for Cooperation and Competition

**Peer Reviewer:**

American Economic Review, AEJ: Applied, AEJ: Micro, AEJ: Policy, American Journal of Healthcare Economics, Austrian Science Fund, Econometrica, Economic Journal, Economics Letters, Health Affairs, Health Care: The Journal of Delivery Science and Innovation, International Economic Review, International Journal of Health Care Finance and Economics, International Journal of Industrial Organization, Journal of Health Economics, Journal of Industrial Economics, Journal of Political Economy, Journal of Public Economics, Management Science, National Science Foundation, Quarterly Journal of Economics, RAND Journal of Economics, Review of Economic Studies, Review of Economics and Statistics, Strategic Management Journal, Strategy Science

**Professional Affiliations:**

American Economic Association, Econometric Society, National Bureau of Economic Research (HC and IO), American Society of Health Economists, International Health Economics Association, Academy of Management (BPS and TIM), Strategy Research Forum

**Professional Service:**

International Industrial Organization Conference (IIOC) Program Committee for “Health Services and Pharmaceuticals” 2019-21;

ASHEcon Program Chair for “Competition in Health Care and Health Insurance Markets” 2020;

FTC Panel on “Estimating Markups (in High Fixed Cost Industries)” 2018;

EDEN Doctoral Seminar on Competitive Strategy 2014,16

**University Service:**

Wharton IT Committee 2019-21;

Wharton MBA Executive Committee 2016-18;

Wharton HCMG Recruitment 2015-17, 2020;

Wharton HCMG PhD Admissions 2013-20;

Wharton HCMG Preliminary Exam Writer 2013-18;

Toronto Rotman Recruiting Committee 2011-12;

Toronto Rotman Strategy Seminar Coordinator 2010-11;  
Toronto Rotman Strategy Preliminary Exam Writer 2011-13;

Panel Facilitator: Penn M&T Summit 2018;  
Panel Speaker: Mack Institute 2016,17

**Doctoral Student Advising:**

Octavio Martinez, Toronto 2015 (committee) – Asst. Prof. INCAE  
Kyle Myers, Wharton 2017 (co-chair) – Asst. Prof. HBS (TOM); NBER Innovation Post-Doc  
Stuart Craig, Wharton 2021 (chair) – Yale Economics Post-Doc  
Charu Gupta, Wharton 2021 (chair) – UCLA Anderson (Strategy) Post-Doc  
Joseph Martinez, Wharton 2021 expected (committee) – finishing dual MD at Penn Medicine

**Post-Docs:**

Alon Bergman, Wharton 2019-2022 expected

**Pre-Docs:**

Gi Heung Kim, Wharton 2017-2019 – PhD program at Wharton, BEPP

**MBA Student Advising:**

Ani Vemprala, Penn 2014 (HIX);  
Hee-Won Kang, Penn 2014 (mHealth);  
Jinyong Lee, Penn 2017 (molecular diagnostics);  
Animesh Agarwal, Penn 2017 (medtech investing);  
Cyrus Perovian 2019 (prior authorization automation);  
Pat Shikani, Penn 2020 (The Airway Company);  
Jon Thierer, Penn 2021 (AI for PBMs)  
Nima Akhavein, Penn 2021 (bi-specific antibodies)

**Undergraduate Student Advising:**

Aaron Goldstein and William Duckworth, Penn 2014-16 (*Fever Smart – Winner, President’s Innovation Prize 2016*);  
Shriya Mantry, Penn 2017 (senior project);  
Ikshita Singh, Penn 2017 (senior project);  
Shawn Srolovitz, Penn 2018 (senior project);  
Grace Nie, Penn 2020 (senior thesis)

**Personal**

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Born 1979. Dixon, IL, United States (US citizen)  
Married to [Jillian \(Popadak\) Grennan](#). Children Jorie (2015); Grant (2017); Franklin (2019)  
Hobbies: basketball, cooking (and eating), football (a.k.a. soccer), reading, travel