

## Christopher M. Snyder

### Curriculum Vitae

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**Home Address:**

39 E. Wheelock Street  
Hanover, NH 03755

**Email Address:** [chris.snyder@dartmouth.edu](mailto:chris.snyder@dartmouth.edu)

**Website:** <https://sites.dartmouth.edu/csnyder>

**Work Address:**

Department of Economics  
301 Rockefeller Hall  
Dartmouth College  
Hanover, NH 03755  
Phone: (603) 646-0642  
Fax: (603) 646-2122  
Office: 312A Silsby Hall

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### Permanent Positions

Department of Economics, Dartmouth College. Joel Z. and Susan Hyatt Professor, 2011 to present. Full Professor (with tenure), 2005 to present. Department Chair, 2016–2018. Undergraduate courses: competition and strategy, game theory, law and economics, intermediate microeconomics, advanced microeconomic theory.

Research Associate, National Bureau of Economic Research, Law and Economics and Health Care programs, 2011 to present.

Department of Economics, George Washington University. Full Professor, 2003–2005. Associate Professor (with tenure), 1999–2003. Assistant Professor, 1994–1999. Graduate courses: two-course industrial organization sequence, two-course microeconomic theory sequence, contract theory. Undergraduate courses: industrial organization, intermediate microeconomics, honors intermediate microeconomics, law and economics.

### Education

Ph.D., Economics, Massachusetts Institute of Technology, 1994. Fields: Industrial Organization, Econometrics, Microeconomic Theory, Public Finance. Thesis committee: Jean Tirole (advisor), Oliver Hart, Richard Schmalensee. Thesis title: “Buyers, Suppliers, Competitors: The Interaction Between a Firm’s Horizontal and Vertical Relationships.”

B.A., Fordham University, 1989. Majors: Economics and Mathematics. Summa cum laude, with honors. Thesis advisor: Robert Lewis. Thesis title: “The Search for Three-Dimensional Nilpotent Complexes of Finite Abelian Fundamental Group: An Algorithm.”

## Articles

- “Optimal Vaccine Subsidies for Epidemic Diseases” (with Matthew Goodkin-Gold, Michael Kremer, and Heidi Williams), *Review of Economics and Statistics*, forthcoming.
- “Optimal Vaccine Subsidies for Endemic Diseases” (with Matthew Goodkin-Gold, Michael Kremer, and Heidi Williams), *International Journal of Industrial Organization*, forthcoming.
- “Designing Advance Market Commitments for New Vaccines” (with Michael Kremer and Jonathan Levin), *Management Science*, forthcoming.
- “Expanding Capacity for Vaccines Against Covid-19 and Future Pandemics: A Review of Economic Issues” (with Susan Athey, Juan Camilo Castillo, Esha Chaudhuri, Michael Kremer, and Alexandre Simoes Gomes), *Oxford Review of Economics and Policy*, forthcoming, Winter 2022, 34 (4).
- “Testing Fractional Doses of COVID-19 Vaccines,” (with Witold Wiecek, Amrita Ahuja, Esha Chaudhuri, Michael Kremer, Alexandre Simoes Gomes, Alex Tabarrok, and Brandon Joel Tan), *Proceedings of the National Academy of Sciences*, February 2022, 119 (8): 1–8 (e2116932119).
- “Cite Unseen: Theory and Evidence on the Effect of Open Access on Cites to Academic Articles Across the Quality Spectrum” (with Mark McCabe), *Managerial and Decision Economics*, December 2021, 42 (8): 1960–1979.
- “A Simple Method for Bounding the Elasticity of Growing Demand with Applications to the Analysis of Historic Antitrust Cases” (with Wallace Mullin), *American Economic Journal: Microeconomics*, November 2021, 13 (4): 172–217.
- “Preparing for a Pandemic: Accelerating Vaccine Availability” (with Amrita Ahuja, Susan Athey, Arthur Baker, Eric Budish, Juan Camilo Castillo, Rachel Glennerster, Scott Duke Kominers, Michael Kremer, Jean Lee, Canice Prendergast, Alex Tabarrok, Brandon Joel Tan, and Witold Wiecek), *American Economic Association Papers and Proceedings*, May 2021, 111: 331–335.
- “Market Design to Accelerate COVID-19 Vaccine Supply” (with Juan Camilo Castillo, Amrita Ahuja, Susan Athey, Arthur Baker, Eric Budish, Tasneem Chipty, Rachel Glennerster, Scott Duke Kominers, Michael Kremer, Greg Larson, Jean Lee, Canice Prendergast, Alex Tabarrok, Brandon Joel Tan, and Witold Wiecek), *Science*, March 2021, 371 (6534): 1107–1019.
- “Estimates of ACO Savings in the Presence of Provider and Beneficiary Selection” (with Marietou Ouayogode, Ellen Meara, Katherine Ho, and Carrie Colla), *Healthcare*, March 2021, 9 (1): 1–9 (article 100460).
- “Designing Pull Funding for a COVID-19 Vaccine” (with Kendall Hoyt, Dimitrios Gouglas, Thomas Johnston, and James Robinson), *Health Affairs*, September 2020, 39 (9): 1633–1642.
- “Advance Market Commitments: Insights from Theory and Experience” (with Michael Kremer and Jonathan Levin), *American Economic Association Papers and Proceedings*, May 2020, 110: 269–273.
- “Preventives versus Treatments Redux: Tighter Bounds on Distortions in Innovation Incentives with an Application to the Global Demand for HIV Pharmaceuticals” (with Michael Kremer), *Review of Industrial Organization*, August 2018, 53 (1): 235–273.

- “Open Access as a Crude Solution to a Hold-up Problem in the Two-Sided Market for Academic Journals” (with Mark McCabe), *Journal of Industrial Economics*, June 2018, 66 (2): 301–349.
- “What Is Economics?” chapter 10 in *What Are the Arts and Sciences? A Guide for the Curious*, Dan Rockmore, ed., University Press of New England, 2017, pp. 120–135.
- “Communication in a Vertical Market Structure: Experimental Evidence” (with Claudia Moellers and Hans-Theo Normann), *International Journal of Industrial Organization*, January 2017, 50 (1): 214–258.
- “Preventives Versus Treatments” (with Michael Kremer), *Quarterly Journal of Economics*, August 2015, 130 (3): 1167–1239.
- “Does Online Availability Increase Citations? Theory and Evidence from a Panel of Economics and Business Journals” (with Mark McCabe), *Review of Economics and Statistics*, March 2015, 97 (1): 144–165.
- “Identifying the Effect of Open Access on Citations Using a Panel of Science Journals” (with Mark McCabe), *Economic Inquiry*, October 2014, 53 (4): 1284–1300.
- “Open Access Versus Traditional Journal Pricing: Using a Simple ‘Platform Market’ Model to Understand Which Will Win (and Which Should)” (with Mark McCabe and Anna Fagin), *Journal of Academic Librarianship*, January 2013, 39 (1): 11–19.
- “Spending Differences Associated with the Medicare Physician Group Practice Demonstration” (with Carrie Colla, et al.), *Journal of the American Medical Association*, September 12, 2012, 308 (10): 1015–1023.
- “Economic Perspectives on the Advance Market Commitment for Pneumococcal Vaccines” (with Wills Begor and Ernst R. Berndt), *Health Affairs*, August 2011, 30 (8): 1508–1517.
- “Should Firms Be Allowed to Indemnify Their Employees for Sanctions?” (with Wallace Mullin), *Journal of Law, Economics, & Organization*, April 2010, 26 (1): 30–53.
- “Countervailing Power in Wholesale Pharmaceuticals” (with Sara Fisher Ellison), *Journal of Industrial Economics*, March 2010, 58 (1): 32–53.
- “Corporate Crime” (with Wallace Mullin), chapter 9 in *Encyclopedia of Law and Economics (Second Edition)*, Volume III: *Criminal Law and Economics*, Nuno Garoupa (ed.), Edward Elgar, 2009.
- “Countervailing Power,” in *The New Palgrave Dictionary of Economics*, second edition, Steven N. Durlauf and Lawrence E. Blume, eds., Palgrave Macmillan, 2008. *The New Palgrave Dictionary of Economics Online*, Palgrave Macmillan, 2008.
- “Do Buyer-Size Discounts Depend on the Curvature of the Surplus Function? Experimental Tests of Bargaining Models” (with Bradley Ruffle and Hans-Theo Normann), *Rand Journal of Economics*, Autumn 2007, 38 (3): 747–767.
- “The Generator in the Problem of Social Cost,” (with Rohan Pitchford), *Journal of Environmental Economics and Management*, July 2007, 54 (1): 49–67.
- “Academic Journal Pricing in a Digital Age: A Two-Sided-Market Model” (with Mark McCabe), *The B.E. Journal of Economic Analysis & Policy (Contributions)*, January 2007, 7 (1): article 2.

- “Bounding the Relative Profitability of Price Discrimination” (with David Malueg), *International Journal of Industrial Organization*, September 2006, 24 (2): 995–1011.
- “Bundling Negotiations: An Efficiency Rationale for Multiproject Contact in Research Joint Ventures” (with Nicholas Vonortas), *Journal of Economic Behavior and Organization*, December 2005, 58 (4): 459–486.
- “A Model of Academic Journal Quality, with Applications to Open-Access Journals” (with Mark McCabe), *American Economic Review Papers and Proceedings*, May 2005, 95 (2): 453–458.
- “The Influence of Expert Reviews on Consumer Demand for Experience Goods: A Case Study of Movie Critics” (with David Reinstein), *Journal of Industrial Economics*, March 2005, 53 (1): 27–51.
- “Dynamic Adjustment in the U.S. Higher Education Industry, 1955–1997” (with John Kwoka), *Review of Industrial Organization*, June 2004, 24 (4): 355–378.
- “A Solution to the Hold-Up Problem Involving Gradual Investment” (with Rohan Pitchford), *Journal of Economic Theory*, January 2004, 114 (1): 88–103.
- “Coming to the Nuisance: An Economic Analysis from an Incomplete Contracts Perspective” (with Rohan Pitchford), *Journal of Law, Economics, & Organization*, October 2003, 19 (2): 491–516.
- “Collusion with Secret Price Cuts: An Experimental Investigation” (with Robert Feinberg), *Economic Bulletin*, March 2002, 3 (6): 1–11.
- “Vertical Foreclosure in Experimental Markets” (with Stephen Martin and Hans-Theo Normann), *Rand Journal of Economics*, Autumn 2001, 32 (3): 466–496.
- “Reducing Government Spending Through Privatization Competitions: A Study of the Department of Defense Experience” (with Robert Trost and R. Derek Trunkey), *Review of Economics and Statistics*, February 2001, 83 (1): 108–117.
- “Bidding Behavior in the Department of Defense’s Commercial Activities Competitions” (with Robert Trost and R. Derek Trunkey), *Journal of Policy Analysis and Management*, Winter 2001, 20 (1): 21–42.
- “Information Sharing and Competition in the Motor Vehicle Industry” (with Maura Doyle), *Journal of Political Economy*, December 1999, 107 (6): 1326–1364.
- “Bounding the Benefits of Stochastic Auditing: The Case of Risk-Neutral Agents,” *Economic Theory*, July 1999, 14 (1): 247–253.
- “The Role of Buyer Size in Bilateral Bargaining: A Study of the Cable Television Industry” (with Tasneem Chipty), *Review of Economics and Statistics*, May 1999, 81 (2): 326–340.
- “Loan Commitments and the Debt Overhang Problem,” *Journal of Financial and Quantitative Analysis*, March 1998, 33(1): 87–116.
- “Why Do Larger Buyers Pay Lower Prices? Intense Supplier Competition,” *Economics Letters*, February 1998, 58 (2): 205–209.
- “Is No News Bad News? Information Transmission and the Role of Early Warning in the Principal Agent Model” (with Steven Levitt), *Rand Journal of Economics*, Winter 1997, 28 (4): pp. 641–661.

“A Dynamic Theory of Countervailing Power,” *Rand Journal of Economics*, Winter 1996, 27 (4): 747–769.

“Negotiation and Renegotiation of Optimal Financial Contracts under the Threat of Predation,” *Journal of Industrial Economics*, September 1996, 44 (3): 325–343.

## Books

*Intermediate Microeconomics and its Application* (with Walter Nicholson), 13th edition, South-Western (Cengage Learning), 2021, 630 pages.

*Instructor’s Manual for Intermediate Microeconomics and its Application* (with Walter Nicholson), 13th edition, South-Western (Cengage Learning), 2021.

*Microeconomic Theory: Basic Principles and Extensions* (with Walter Nicholson), 12th edition, South-Western (Cengage Learning), 2017, 761 pages.

*Instructor’s Resources for Microeconomic Theory: Basic Principles and Extensions* (with Walter Nicholson), 12th edition, South-Western (Cengage Learning), 2017.

## Edited Volumes

*Review of Industrial Organization* special issue on “The Intersection Between Industrial Organization and Healthcare Economics” (with Victor Tremblay), August 2018, vol. 53, no. 1, 273 pages.

*Review of Industrial Organization* special issue for the 2005 International Industrial Organization Conference, February 2006, vol. 28, no. 1, 80 pages.

*Review of Industrial Organization* special issue for the 2004 International Industrial Organization Conference, March 2005, vol. 26, no. 2, 98 pages.

*Review of Industrial Organization* special double issue for the 2003 International Industrial Organization Conference, December 2003, vol. 23, no. 3–4, 140 pages.

## Other Publications

“Advance Market Commitments Worked for Vaccines. They Could Work for Carbon Removal, Too,” (with Susan Athey, Rachel Glennerster, and Nan Ransohoff), op-ed, *Politico*, December 22, 2021.

“Bigger is Better When it Comes to Vaccine Production,” (with Eric Budish), op-ed, *Wall Street Journal*, March 17, 2020.

“Strengthening Incentives for Vaccine Development” (with Michael Kremer), *National Bureau of Economic Research Reporter*, December 2020.

“In the Race for a Coronavirus Vaccine, We Must Go Big. Really, Really Big” (with Susan Athey, Michael Kremer, and Alex Tabarrok), op-ed, *New York Times*, May 4, 2020.

- “Using Global Demand Calibrations to Evaluate Policy: Case Study of HIV Pharmaceuticals” (with Michael Kremer and Fanele Mashwama), *VoxEU*, May 1, 2019.
- “Worst-Case Deadweight Loss: Theory and Disturbing Real-World Implications” (with Michael Kremer and Albert Chen), *VoxEU*, March 27, 2019.
- “Introduction to the Special Issue on the Intersection Between Industrial Organization and Healthcare Economics” (with Victor J. Tremblay), *Review of Industrial Organization*, August 2018, vol. 53, no. 1, pp. 1–6.
- “What Economists Study: A Guide for the Curious,” *VoxEU*, August 11, 2017.
- “Vaccines, Drugs, and Zipf Distributions” (with Michael Kremer and Natalia Drozdoff), *VoxEU*, January 29, 2016.
- “Introduction to the 2005 International Industrial Organization Conference Special Issue,” *Review of Industrial Organization*, February 2006, vol 28, no. 1, pp. 1–2.
- “Introduction to the 2004 International Industrial Organization Conference Special Issue,” *Review of Industrial Organization*, March 2005, vol. 26, no. 2, pp. 145–146.
- “The Best Business Model for Scholarly Journals: An Economist’s Perspective,” *Nature*, Web Focus: Access to the Literature, July 16, 2004. Available online at <http://www.nature.com/nature/focus/accessdebate/archive.html>.
- “Introduction to the 2003 International Industrial Organization Conference Special Issue,” *Review of Industrial Organization*, December 2003, vol. 23, no. 3–4, pp. 175–177.
- “Empirical Studies of Vertical Foreclosure,” *Industry Economics Conference Papers and Proceedings* (University of Melbourne and Bureau of Industry Economics), November 1995, vol. 95/23, pp. 98–127.

## Working Papers

- “Sniff Tests as a Screen in the Publication Process: Throwing out the Wheat with the Chaff” (with Ran Zhuo), NBER working paper no. 25058, under revision at *Review of Economics and Statistics*.
- “Calculating the Costs and Benefits of Advance Preparations for the Next Pandemic” (with Rachel Glennerster and Brandon Tan), working paper, under revision at the *IMF Economic Review*.
- “Costs of Managerial Attention and Activity as a Source of Sticky Prices: Structural Estimates from an Online Market” (with Sara Fisher Ellison and Hongkai Zhang), NBER working paper no. 24680, under revision at *Quantitative Economics*.
- “Vaccine Supply Chain Resilience and International Cooperation” (with Chad Bown and Robert Staiger).
- “An Optimal Mechanism to Fund the Development of Vaccines Against Epidemics” (with Kendall Hoyt and Dimitrios Gouglas).
- “Worst-Case Bounds on R&D and Pricing Distortions: Theory and Disturbing Conclusions if Consumer Values Follow the World Income Distribution” (with Michael Kremer), NBER working paper no. 25119.

“Deterring Nuisance Suits through Employee Indemnification” (with Wallace Mullin).

“Resume Padding Among Economists” (with Owen Zidar).

“The Rise of Securitization in Mortgage Markets: A Theoretical Analysis” (with Rohan Pitchford).

### **Visiting/Temporary Positions**

Expert Advisor, Frontier public benefit LLC, April 2022 to present. Administers advance market commitment for carbon removal.

Visiting Scholar, Duesseldorf Institute for Competition Economics (DICE), University of Duesseldorf, August 2010, June 2017, November 2021.

Visiting Scholar, Becker-Friedman Institute, University of Chicago, December 2015.

Visiting Professor, Department of Economics, University of Queensland, Summer 2009.

John M. Olin Visiting Professor, Stigler Center for Study of Economy and State, University of Chicago Graduate School of Business, 2003–2004.

Consultant, World Bank, Summer 2002. Assessed prospects for coordination among developing countries in the procurement of pharmaceuticals.

Visiting Professor, Department of Economics, Massachusetts Institute of Technology, 2000–2001.  
Courses: undergraduate principles of microeconomics, law and economics.

Visiting Fellow, Research School of Social Sciences, Australian National University, Summer 1995 and Summer 2000.

Expert Witness, U.S. Department of Justice, Fall 2000.

Consultant, Center for Naval Analyses, October 1996 to October 1998. Analyzed Commercial Activities outsourcing program.

Instructor, Department of Economics, Massachusetts Institute of Technology, Spring 1994. Course: undergraduate intermediate microeconomics.

Teaching Assistant, Department of Economics, Massachusetts Institute of Technology, September 1992 to January 1994. Course: graduate industrial organization.

### **Honors, Fellowships, Grants**

Distinguished Service Award, Industrial Organization Society, 2022.

National Institutes of Health, R21 grant for “Learning from Medicare Payment Reform: Economic Effects of ACO Incentives,” (Carrie Colla, Principal Investigator), 2013–2017, \$308,000.

Sloan Foundation grant for “Econometric Studies of Open Access to the Scholarly Literature.” Principal Investigator, 2012–2013, \$133,000.

National Institutes of Health, R21 grant for “Learning from Medicare Payment Reform: Economic Effects of ACO Incentives,” (Carrie Colla, Principal Investigator), 2012–2013, \$2,300,000.

Sloan Foundation subaward for “Economics of Open-Access Journals,” 2012, \$20,000.

The Dartmouth Institute Dartmouth Institute for Health Policy and Clinical Practice grant for “Toward a Structural Model of Accountable Care Organization Benchmarking,” July 2010, \$8,000.

Mellon Foundation grant for “Measuring the Impact of Digitization and Online availability on Journal Citations,” Co-Principal Investigator (with Mark McCabe and Roger Schonfeld), 2006–09, \$280,000.

Center for Global Development grant for “The Optimal Design of Advanced Market Commitments for Vaccines,” Principal Investigator, 2008, \$18,000.

NET Institute grant for “The Economics of Open Access Journals,” Co-Principal Investigator (with Mark McCabe), 2004, \$7,500.

Open Society Institute grant for “Access to Science: Exploring New Markets for Digital Journals,” Co-Principal Investigator (with Mark McCabe), 2004, \$113,000.

John M. Olin Fellowship for year of leave at the Stigler Center for Study of Economy and State, University of Chicago Graduate School of Business, 2003–2004.

George Washington University Facilitating Fund Grant, 2002–2003.

George Washington University Public Policy Research Scholar, 2002–2004.

Exemplary Conference Paper Award, Social Sciences Division, George Washington University, December 1998.

National Science Foundation Graduate Fellowship, 1989–1992.

## **Journal Editing**

*Journal of Law and Economics*. Editor, 2018 to present.

*Review of Industrial Organization*. Associate Editor, 2004 to present. Co-Editor, 2003–2004. Editor for the International Industrial Organization Conference Special Issue, 2003–2005. Associate Editor, 2002–2003.

*International Journal of Industrial Organization*. Associate Editor, 2000–2014.

## **Conference Organization**

International Industrial Organization Conference. Program Committee Co-Chair for 2003 IIOC (Boston). Program Committee Co-Chair and Local Arrangements Co-Chair for 2004 IIOC (Chicago). Program Committee Member, 2005–2016.

Dartmouth Tuck School of Business Winter Industrial Organization Conference. Co-Organizer, 2015–2019.



American Law and Economics Association. Program Committee, 2007–2016.

Economic Perspectives on Scholarly Communication in a Digital Age Workshop. Organizer. University of Michigan School of Information, September 2008.

### **Other Professional Activities**

Industrial Organization Society. Secretary-Treasurer, 2015 to present. Board Member, 2002 to present. President, 2006–2007. Vice President, 2004–2005.

National Academies of Sciences, Engineering, and Medicine. Panel member, expert meeting on Economics of Vaccine Investment, Winter 2021. Panel member, Advancing Pandemic and Seasonal Influenza Vaccine Preparedness and Response: Recommendations for Global Coordination, Partnerships, and Financing Committee, Spring–Summer 2021. Moderator, Financing and Investment in Supply Chain session of International Workshop on COVID-19 Lessons to Inform Pandemic Influenza, May 2021.

COVID-19 Vaccine Global Access (COVAX) Facility. Mechanism Design Working Group, Spring 2020.

World Health Organization. Task Force on Multiple-Disease-Resistant TB Scale-Up, Supply, and Procurement Function of Global Drug Facility, June 2010.

Global Alliance for Vaccines and Immunizations (GAVI). Expert group member, designing advanced market commitment to procure pneumococcus vaccine for developing countries, 2007.

Sloan Industry Studies. Affiliate Member. 2007–2011.

Dartmouth College Mathematical Social Sciences. Affiliated Professor 2006–2014.

Dartmouth College Undergraduate Research. Coordinator, 2014–2017.

George Washington University Research Program in Industry Economics and Policy. Co-Director, 2001–2005. Member, 1999–2001.

George Washington University Institute for Public Policy. Research Affiliate 2004–05. Policy Research Scholar 2002–2004.

Professional Societies. American Economic Association, American Law and Economics Association, Econometric Society, Industrial Organization Society.

University Committees. Committee on Standards Member 2007–2008. Council on Libraries Member 2010. Council on Computing Chair 2010–2013.

### **Advising**

George Washington University Ph.D. Dissertation Advisor. David Osinski, Robert Choi, Günseli Baygan, Mariusz Sumlinski, Anna Ter-Martirosyan, Roger Alexander, Russell Tucker.

George Washington University Dissertation Committee Member. Theresa Alafita, Julie Hay, Kevin Roth, Anthony Aylward (Finance), Hesuk Chun, Abdourahmane Sarr. George Washington University Dissertation Reader: Stephen St. Marie, Dana Stryk, Ali Gungor, Geoffrey Paulin, Katherine Gleason (Finance).

External Reader. Andrew Waite (Australian National University). Andre Boik (University of Toronto).

Dartmouth Undergraduate Thesis Advisor. John Caramichael (June 2020), Anna Fagin (June 2013).

Dartmouth Undergraduate Thesis Committee Member. Max Schindel (May 2022); Elana Doty, Michelle Wu (June 2020); Brian Curren, Alex Magnuson, James Schenck (June 2019); Ran Zhuo (June 2017); Mahnum Shazhad (June 2015), Peter Osorio (June 2012); Brian Murphy and Jacob Robbins (June 2011); Tilman Dette and Vivienne Zhao (June 2010); Yue Ding, Arnold Engel, and Arielle Rodman (June 2007); Mukund Bhaskar (June 2006).

Dartmouth Undergraduate Fellowship Research Supervisor. Christopher Cardillo (2021); Nishi Jain (2021); Sophie Smith (2019); Ran Zhou (2015).

Dartmouth Presidential Scholar Advisor. Hailey Hao (2022–23); Brandon Chen (2021–22); Emily Wang and Andrew White (2020–21); Paul Jeon (2019–20); John Caramichael, Albert Chen, and Olivia Zhao (2018–19); Isabel Hurley and Henry Senkfor (2017–18); Natalia Drozdoff (2015–16); Ran Zhou (2014–15); Barry Chen, Ting Cheng, Jenny Shou (2013–14); Kelsey Anspach, David Bessel, Tobin Paxton, and Rexford Woodbury (2013–14); Christopher Falkner and Stephen Prager (2012–13); Anna Fagin and Paulina Karpis (2011–12); Mark Wills Begor and Glynnis Kearney (2010–11); Lindsey Beckett and Cacey Chang (2009–10); Yilan Hu and James Wang (2008–09); Ella Kim and Scot Parsley (2007–08); Jamie Bergeson-Bradshaw and Owen Zidar (2006–07).

Dartmouth Funded Research Advisor. Yangyang Li (2019).

Dartmouth Independent Study. Andrew White, Law and Economics course, Spring 2021.

## Media

- 2022** Article profiled in National Public Radio *Planet Money* segment and article, “As Carbon Removal Gains Traction, Economists Imagine a New Market to Save the Planet” January 11. Interview on fractional dosing with Mitch Wertlieb, Vermont Public Radio, Morning Edition, March 29.
- 2021** Interview on booster shots KNX Radio In Depth with Mike Simpson and Charles Feldman August 5. Research profiled in The Economist article, “How Can More COVID-19 Vaccines Be Made Available?” May 15. KCBS (San Francisco) interview on Stan Bunger show, March 19. Research profiled in *Market Design* blog post “Congestion in Vaccine Delivery, and Shortage of Overall Supply: Latest News, and a Call for Increased Production,” January 25. Research profiled in *Science* article “A New Mandate Highlights Costs, Benefits of Making All Scientific Articles Free to Read” by Jeffrey Brainard January 1.
- 2020** Quoted in *Fortune* article “Pfizer, Trump, and Biden: A Twisted Triangle That’s Complicating COVID-19 Relief” by Nicole Goodkind December 12. Presentation profiled in Market Design blog post “Susan Athey Wins the CME Group-MSRI Prize in Innovative Quantitative Applications,” December 10. Quoted in *Quartz* article “Should the Trump Administration Really Have Bought More Pfizer Vaccine Doses,” December 9. Quoted in *Quartz* article “How Drug Companies Will Profit from Making Covid-19 Vaccines,” November 30. Quoted in *Quartz* article “What’s Going to Happen to All those other Covid-19 Vaccine Candidates?” November 18. Quoted and research profiled in *Lancet* article “COVID-19 Vaccines for All?” June 13. Research profiled in *Marginal Revolution* blog post “Accelerating HT,” May 30. Research profiled in *Marginal Revolution* blog post “Vaccines: Billions in Costs, Trillions in Benefits,” May 30. *New York Times* op-ed profiled in

*Market Design* blog post “Advanced Market Commitment for a Successful COVID-19 Vaccine,” May 28. Video presentation “BASIC Economics of COVID Vaccines,” London Business School Wheeler Institute. Research profiled in *Vox* article “Experts 7 Best Ideas on How to Beat Covid-19 and Save the Economy,” May 13. Research profiled in *Marginal Revolution* blog post “In the Race for a Coronavirus Vaccine, We Must Go Big,” May 30. Research profiled in *Bloomberg* article “Believe in Vaccine Bets Like Bill Gates’s,” April 28. Quoted in CNBC website article “States are Bidding Against Each Other and the Federal Government for Important Medical Supplies—and it’s Driving up Prices,” April 11. Research profiled in *NBER Digest* article “Price Guarantee Spurred Vaccine Development for Poor Nations.” Research profiled in *Market Design* blog post “The Advance Market Commitment for Pneumonia Vaccine, by Kremer, Levin, and Snyder,” March 16. Research profiled in *Marginal Revolution* blog post “The Advance Market Commitment,” February 27.

## Seminars and Conferences

- 2022** Presented “Worst-Case Bounds on R&D and Pricing Distortions: Theory and Disturbing Conclusions if Consumer Values Follow the World Income Distribution” in MIT Industrial Organization workshop (Cambridge, MA). Guest lecture on “Advance Market Commitments and Incentives for Vaccines” in MIT Data, Economics, and Development Policy (DEDP) Masters Program. Presented “Expanding Capacity for Vaccines Against Covid-19 and Future Pandemics: A Review of Economic Issues” in Oxford Review of Economics and Policy Conference (Oxford University, UK). Presented “What is the Best Way to Maximize Potential for Pooled Procurement Mechanisms” in Global Health Initiative Pandemic Security Project (Hanover, NH). Presented “Optimal Vaccine Subsidies for Epidemic Diseases” in International Industrial Organization Conference (Boston, MA) “Pharmaceutical Supply and Demand” session. Presented “Optimal Vaccine Subsidies for Epidemic Diseases” in University of Chicago Economic Epidemiology and the COVID Pandemic Conference and Webinar.
- 2021** Presented “Advance Market Commitments and Incentives for Vaccines” in Dartmouth Coalition for Global Health meeting (Hanover, NH). Panelist in American Economic Association (virtual) “Private and Social Returns to R&D and Vaccine Development” session, presenting “Investing in Accelerating a COVID-19 Vaccine.” Panelist in Geisel School of Medicine and Dartmouth Graduate School co-sponsored session, “Eye on Equity: COVID-19 Vaccine Distribution in the U.S. and Worldwide” (virtual). Panelist, South Asia Economic Policy Network Conference on “Vaccinating South Asia,” “Vaccine Finance and Fiscal Aspects of Vaccination” session (Washington, DC). Presented “Market Design to Accelerate COVID-19 Vaccine Supply” in University of Southern California Center for Economic and Social Research (CESR) seminar (Los Angeles, CA). Presented “Designing Advance Market Commitments for New Vaccines” in Harvard Business School Strategy Group seminar (Boston, MA). Presented “Stretching Vaccines: Optimal Vaccine Use Under Shortages” in the joint Harvard/M.I.T. Development Economics workshop (Cambridge, MA). Presented “Stretching Vaccines: Optimal Vaccine Use Under Shortages” in the University of Chicago Development Innovation Lab workshop (Chicago, IL). Presented “Stretching Vaccines: Optimal Vaccine Use Under Shortages” in the NBER Entrepreneurship and Innovation Policy and the Economy conference (Washington, DC). Presented “Stretching Vaccines: Optimal Vaccine Use under Shortages” in International Industrial Organization Conference “Health Care R&D” session (virtual). Presented “Economics of COVID-19 Vaccine Supply” in F.H. Gruen Lecture at Research School of Economics, Australian National University (Canberra, Australia). Moderator and panelist

- in International Workshop on COVID-19: Lessons to Inform Pandemic Influenza Response sponsored by the National Academy of Sciences and Medicine (Washington, DC). Panelist in “How Did the Covid-19 Pandemic Change the Drug and Vaccine Business?” special session at the American Society of Health Economists (ASHEcon) Conference (virtual). Guest lecture on the “Economics of Vaccines” in Prof. Wheelan’s PBPL 40: Economics of Public Policymaking class (Hanover, NH). Plenary address at virtual EARIE meetings on “Vaccine Policy” (Oslo, Norway). Presented “Advance Market Commitments and Incentives for Vaccines” in Duesseldorf Institute for Competition Economics Research Seminar, (Duesseldorf, Germany). Presented “Advance Market Commitments and Incentives for Vaccines” in University of Groningen Economics, Econometrics, and Finance seminar (Groningen, Netherlands). Presented “Optimal Vaccine Subsidies for Epidemic and Endemic Diseases” in National Bureau of Economic Research COVID-19 and Health Outcomes Conference (Cambridge, MA).
- 2020** Presented “Accelerating Broad Availability of COVID-19 Vaccines” to Inter-American Development Bank (Washington, DC) working group. Panelist in ceremony presenting CME-MSRI Award to Susan Athey (Chicago, IL), presenting “Advance Market Commitments and Incentives for Vaccines” describing our joint work. Guest speaker in Dartmouth ENGS 13 (Virtual Medicine and Cybercare) class, on “Pull Funding for a COVID-19 Vaccine.” Panelist in Dartmouth College Political Economy Program “Financing Vaccines” panel. Panelist in Rutgers University Center For Population-Level Bioethics meeting on “Covid Vaccine Prioritization.” Presented “Accelerating a Covid-19 Vaccine” in National Bureau of Economic Research Market Design working group meeting (Cambridge, MA). Presented “Incentivizing Innovation: Pull Funding for a COVID-19 Vaccine” in Masters in Healthcare Delivery Science virtual seminar (Hanover, NH). Panelist in “Investing in Accelerating COVID-19 Vaccines” in Utrecht University Centre for Global Challenges lecture. Presented “A New Incentive to Accelerate Vaccines for Epidemics” in International Industrial Organization Conference “Regulation in Healthcare Markets” session (Drexel University, PA) Presented “Advance Market Commitments: Insights From Theory And Experience” in Clemson University (Clemson, SC) Department of Economics workshop. Panelist on “Incentive Design to Accelerate a COVID-19 Vaccine” and “Optimal Subsidies for Prevention of Infectious Disease” presentations in HELP! (Health and Pandemics) Economics Working Group “COVID-19 and Vaccines” session. Presented “Advance Market Commitments: Insights From Theory And Experience” in Radcliffe Institute for Advanced Study (Cambridge, MA) workshop on South-to-South Collaboration on Vaccines and Therapeutics Innovation, “Financing R&D Models for Improved Access” session. Presented “Designing Pull Funding for a COVID-19 Vaccine” in Dartmouth College Dickey Center (Hanover, NH) International Relations and Foreign Policy seminar. Presented “What Is Economics?” in Dartmouth College Dimensions Program (Hanover, NH) Virtual Scholars Who Teach webcast (with video). American Economic Association Annual Meeting (San Diego, CA) “Economics of Health Epidemics” session.
- 2019** International Industrial Organization Conference (Boston, MA) “Demand, Pricing, and Welfare in Health Care Markets” session. NTI Conference on Incentives for Medical Countermeasures keynote (Washington, DC). Rensselaer Polytechnic Institute Romesh Diwan Memorial Lecture in Economics.
- 2018** International Industrial Organization Conference (Indianapolis, IN) “Prices, Quality, and Innovation in Pharmaceuticals” and “Government Regulation of Noncompetitive Markets” sessions, Tufts University Economics Department seminar, Stanford University Market Shaping Conference, Harvard Business School Conference on Development Economics and Market Design, University of Washington Microeconomics seminar, University of Oregon Department of Economics seminar.

- 2017** International Industrial Organization Conference (Boston, MA) “Investment, Sourcing, and Hold-up Problems” session, University of Duesseldorf DICE (Duesseldorf Institute for Competition Economics) seminar.
- 2016** National Bureau of Economic Research Law and Economics Winter Program Meetings, International Industrial Organization Conference (Philadelphia PA) “Innovation” session.
- 2015** Becker-Friedman Institute Advances in Price Theory Conference, International Industrial Organization Conference (Boston) “Information and Pricing” session, National Bureau of Economic Research Price Dynamics Summer Program Meetings.
- 2014** American Economic Association Meetings (Philadelphia) “Academic and Market Power in Scholarly Publishing” session, National Bureau of Economic Research Law and Economics Winter Program Meetings, Vanderbilt University Microeconomics workshop, Cornell University Johnson School of Management Applied Micro seminar, Dartmouth Center for Advanced Learning “Text and Data Mining” workshop, Fordham University Math Club, Fordham University Economics Department seminar, Northeastern University Economics Department seminar.
- 2013** International Industrial Organization Conference (Boston) “Media and Advertising” session, Indiana University Kelley School of Business and Economics Department joint Microeconomics seminar.
- 2012** International Industrial Organization Conference (Washington DC) “Financial Institution Behavior” and “Appropriability and Piracy” sessions, National Bureau of Economic Research Economics of IT and Digitization Summer Institute, University of Toronto Rotman School Economics Seminar, Sloan Foundation workshop on “Economics of Knowledge Contribution and Distribution”.
- 2011** George Washington University Microeconomics seminar, Bates-White Microeconomics seminar, Industrial Organization Society “Empirical Industrial Organization” session at the Allied Social Sciences Association meetings, International Industrial Organization Conference (Boston) “Empirical Models of Oligopoly Pricing” session, *Health Affairs* “Strategies for the Global ‘Decade of Vaccines’ ” (Washington DC), National Bureau of Economic Research Summer Institute on “Economics of Information Technology and Digitization,” Dartmouth Center for the Advancement of Learning panel on “Scientific and Society Publishing,” Dartmouth Social Psychology Research Interest Group workshop.
- 2010** National Bureau of Economic Research Law and Economics Winter Program Meeting, Clemson Economics Department seminar, International Industrial Organization Conference (Vancouver) “Law and Economics” session, University of Duesseldorf DICE (Duesseldorf Institute for Competition Economics) seminar, Ohio State University Microeconomics workshop.
- 2009** American Economic Association “Consumer Choice and Merchant Acceptance of Payment Media” and “Economics of Infectious Disease” sessions, University of Melbourne Economic Theory seminar, Organizational Economics Workshop (held at the University of Sydney; keynote speaker), International Industrial Organization Conference (Boston) “Innovation and Technology Adoption in Healthcare” and “Intra-Firm Informational Issues” sessions, George Washington University Microeconomics seminar.
- 2008** Joint MIT/Harvard Industrial Organization Workshop, International Industrial Organization Conference (Washington DC) “Internet and Agglomeration in Media” session. Sloan Foundation (New York City) “Pricing of Academic Journals in a Digital Age” presentation, Economic Perspectives on Scholarly Communication in a Digital Age workshop at the University of Michigan

School of Information, University of British Columbia Sauder School of Business seminar,  
University of Delaware Economics Department seminar.

- 2007** American Economic Association “Sanctions for Securities Fraud” panel, International Industrial Organization Conference “Law, Economics and Organization” session, Yale Department of Economics and School of Management joint Industrial Organization seminar, RAND Corporation Health seminar, Federal Communications Commission seminar, Mellon Foundation seminar, JSTOR seminar, Discrete Mathematics and Theoretical Computer Science (DIMACS) Game Theoretic Approaches to Epidemiology and Ecology workshop.
- 2006** Industrial Organization Society “Contracts and Organizations” session at the Allied Social Sciences Association meetings, Harvard University Law, Economics, and Organizations Workshop, International Industrial Organization Conference “Buyer and Countervailing Power” session, Santa Clara University Economics Lecture Series, National Bureau of Economic Research Summer Institute on Law and Economics, Southern Economic Association Conference “Buyer Power,” “Drug Pricing I,” and “Drug Pricing II” sessions, Charles River Associates, Dartmouth College Economics Department seminar, Dartmouth College Social Psychology Research Interest Group workshop.
- 2005** American Economic Association “Competition in Academic Journals” session, American University Economics Department seminar, Georgetown University Microeconomic Theory workshop, University of Virginia Industrial Organization seminar, International Industrial Organization Conference “Academic Economics: Journals and Universities” session, NYU Stern Business School Economics seminar, George Washington University Development workshop. National Bureau of Economic Research Summer Institute on Innovation and the Global Economy, National Bureau of Economic Research Summer Institute on Law and Economics, Dartmouth Applied Mathematics workshop, Bridgewater Capital recruit retreat keynote speaker, M.I.T. Industrial Organization workshop.
- 2004** Industrial Organization Society “Theory of Competition and Strategy” session at the Allied Social Sciences Association meetings, UCLA Pharmaceutical Economics and Policy seminar, Tuck School of Business and Dartmouth College Economics Department joint seminar, Northeastern University Economics Department seminar, Stanford University Graduate School of Business Applied Microeconomics workshop, University of Chicago Workshop in Applied Microeconomics, University of Chicago Graduate School of Business Workshop on the Theory of Organizations. International Industrial Organization Conference “Markets for Journals and Other Information Goods” and “Structure of Wholesale Transactions” sessions, Tulane University Economics Department seminar, Dartmouth College seminar, American Enterprise Institute “Sickness of the U.S. Vaccine Market” panel discussion, Michigan State University Economic Theory seminar.
- 2003** American Economic Association “Spatial Competition, Informational Cascades, and Demand Specification: Applications to Motion-Pictures Markets” and “Economics of Competition and Networks” sessions, International Industrial Organization Conference “Price Discrimination Theory” session (organizer and presenter), Econometric Society Summer Meetings “Price Dispersion, Price Discrimination, and Uncertainty” and “Incomplete Contracts and Hold-Up” sessions, National Bureau of Economic Research Summer Institute on Health and Aging, M.I.T. Industrial Organization workshop, Northwestern University Kellogg School of Management seminar, University of Rochester Simon School of Business joint Economics and Management and Industrial Organization seminar, University of Toronto joint Business Economics and Industrial Organization seminar, Princeton University Institute for Advanced Study Economics seminar, IDEI and World Bank

Institute conference on “Markets for Pharmaceuticals and the Health of Developing Nations” in Toulouse.

- 2002** American Economic Association “Contracts and Organizations” session (organizer and presenter), George Mason Interdisciplinary Center for Economic Science seminar, Duke Economics Department/Fuqua School/University of North Carolina joint seminar in Industrial Organization, Washington University Olin School of Business seminar, University of Wisconsin-Madison theory seminar, IAEN Barcelona Symposium on “The Economics of AIDS in Developing Countries,” Johns Hopkins University Microeconomics seminar, Fordham University Economics Department seminar, Fordham University Math Club presentation, Georgia Institute of Technology Department seminar, Southern Economics Association Conference “Industrial Organization Theory” session (organizer and presenter).
- 2001** M.I.T. Labor lunch workshop, Harvard/M.I.T. joint seminar in Industrial Organization, Stanford and Yale Law Junior Faculty Forum, Humboldt University Berlin Economics Department seminar, SUNY Stony Brook Game Theory Conference Contract Theory workshop, U.S. Department of Justice Antitrust Division seminar.
- 2000** American Economic Association “Research Joint Venture” session (organizer and presenter), University of New South Wales Faculty of Commerce and Economics Departmental Seminar, Australian National University Research School of Asian Pacific Studies seminar, Australian National University Research School of Social Sciences seminar, University of Adelaide Economics Department seminar, Economic Society of Australia Economics 2000 Conference keynote speaker, Tufts University departmental seminar, M.I.T. Theory lunch workshop.
- 1999** Industrial Organization Society “Empirical Approaches to Industrial Economics” session at the Allied Social Sciences Association meetings, Yale School of Management Applied Economics seminar, U.S. Department of Justice Antitrust Division seminar, Stanford Institute of Theoretical Economics “Theory of Contracts and Organizations” Workshop, University of Texas at Austin Microeconomics workshop, Texas A&M Industrial Organization workshop, University of Maryland Industrial Organization workshop, Southeastern Economic Theory Conference “Contracts” session, University of Chicago Graduate School of Business Theory of Organizations workshop.
- 1998** Econometric Society Summer Meetings “Property Rights and Incomplete Contracts” and “Empirical Industrial Organization” sessions, Georgetown University Microeconomics seminar, Southern Economics Association Conference Microeconometrics session, University of Chicago Graduate School of Business Applied Microeconomics seminar, Columbia University Graduate School of Business Applied Economics seminar.
- 1997** Econometric Society Winter Meetings “Information Economics” session, American Economic Association “Industrial Organization” session, Harvard Law School Research Seminar in Law and Economics, Eastern Economic Association Meetings “Empirical Investigations in Industrial Organization” session, U.S. Department of Justice Antitrust Division seminar, University of Copenhagen Centre for Industrial Economics seminar, George Washington University Applied Microeconomics seminar, Federal Trade Commission Bureau of Economics seminar, George Washington University Economics Department seminar.
- 1996** Charles River Associates seminar, U. S. Census Bureau Center for Economic Studies seminar, Atlantic Economic Conference “Industry Studies” session, Southern Economic Association Conference “Topics in Microeconomics” and “Mergers and Collusion” sessions.

**1995** University of Melbourne Industry Economics Conference keynote speaker, University of Virginia Economic Theory seminar, Massachusetts Institute of Technology Industrial Organization seminar.

**1994** Georgetown Microeconomics seminar, Ohio State Mathematical Economics seminar.