

Douglas O. Staiger

Curriculum Vitae

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Dartmouth College
Department of Economics
HB 6106, Rockefeller Hall
Hanover, NH 03755

Office: (603) 646-2979
FAX: (603) 646-2122
Email: doug.staiger@dartmouth.edu
Web: www.dartmouth.edu/~dstaiger

EDUCATION

1990 Ph.D., Economics, Massachusetts Institute of Technology.
1984 B.A., Economics and Mathematics, *magna cum laude*, Williams College.

POSITIONS

2017- John Sloan Dickey Third Century Professor, Dartmouth College
2007-2017 John French Professor in Economics, Dartmouth College.
2011- Co-Founder, ArborMetrix, Inc.
2012-2014 Chair, Department of Economics, Dartmouth College
Spring 2010 Visiting Professor of Economics, Harvard University.
2003-2007 Professor, Department of Economics, Dartmouth College.
1998-2003 Associate Professor, Department of Economics, Dartmouth College.
1997-1998 Visiting Associate Professor, Department of Economics, Princeton University.
1997-1998 Associate Professor, Kennedy School of Government, Harvard University.
1993-1997 Assistant Professor, Kennedy School of Government, Harvard University.
1992-1993 Visiting Assistant Professor, Kennedy School of Government, Harvard University.
1990-1993 Assistant Professor, Department of Economics, Stanford University.

PROFESSIONAL ACTIVITIES

2017- Member, Advisory Board, Center for Education Policy Research, Harvard
2014- Affiliate, Abdul Latif Jameel Poverty Action Lab (J-PAL)
2012- Associate Editor, *Review of Economics and Statistics*
1998- Research Associate, National Bureau of Economic Research.
2008 Nominating Committee, American Economic Association
1990-1998 Faculty Research Fellow, National Bureau of Economic Research.
1998-2001 Associate Editor, *Journal of Business and Economic Statistics*.
1995-2000 Associate Editor, *Journal of Health Economics*.

HONORS AND FELLOWSHIPS

2015 Elected Member, National Academy of Medicine
2008 Eugene Garfield Economic Impact of Medical and Health Research Award
2007 Arrow Award for the best paper in health economics
2005 Jeffe Fellowship, Dartmouth College

- 2002 Newcomb Fellowship, Dartmouth College
- 2001 Rockefeller Fellowship, Dartmouth College
- 1994 NIH Postdoctoral Fellowship through the National Bureau of Economic Research.
- 1989 Bradley Foundation Dissertation Fellowship.
- 1986 National Science Foundation Fellowship.

GRANTS

- 2019 U.S. Department of Education, IES (with Thomas Kane and Chris Avery)
- 2018 National Institute of Aging renewal (with Jonathan Skinner and others)
- 2016 Agency for Healthcare Research and Quality (with Eileen Lake and others)
- 2016 Patient Centered Outcomes Research Institute (with James O'Malley and others)
- 2013 Gordon & Betty Moore Foundation (with Peter Buerhaus and David Auerbach)
- 2012 National Institute of Aging renewal (with Jonathan Skinner and others)
- 2010 Gordon & Betty Moore Foundation (with Peter Buerhaus and David Auerbach)
- 2009 Bill & Melinda Gates Foundation (with Dan McCaffrey and others)
- 2009 US Department of Education, IES (with Thomas Kane and Heather Hill)
- 2008 National Institute of Nursing Research (with Jeannette Rogowski and others)
- 2007 Robert Wood Johnson Foundation INQRI (with Eileen Lake and others)
- 2006 Spencer Foundation
- 2006 National Institute of Aging renewal (with Jonathan Skinner and others)
- 2006 National Institute of Health (with John Birkmeyer and Justin Dimick)
- 2005 U.S. Department of Education, IES (with Thomas Kane and Justine Hastings)
- 2003 National Institute Child Health and Development (with Jon Gruber and Phil Levine)
- 2002 Robert Wood Johnson Foundation
- 2002 Agency for Healthcare Research and Quality (with Jeannette Rogowski and Jeffrey Horbar)
- 2002 Spencer Foundation (with Thomas Kane)
- 2002 Mellon Foundation (with Thomas Kane)
- 2001 Hewlett Foundation (with Thomas Kane)
- 2001 National Institute of Aging (with Jonathan Skinner and others).
- 2001 Robert Wood Johnson Foundation (with Peter Buerhaus).
- 1999 Agency for Healthcare Research and Quality (with Jeannette Rogowski and Jeffrey Horbar).
- 1998 Kaiser Family Foundation (with Phil Levine).
- 1997 Robert Wood Johnson Foundation (with Peter Buerhaus).
- 1996 Robert Wood Johnson Foundation (with Peter Buerhaus).
- 1993 Veteran Administration (with Ciaran Phibbs).

TEACHING EXPERIENCE

Undergraduate and Graduate Econometrics
Undergraduate and Graduate Health Economics
Graduate Economics of Education

FIELDS OF SPECIALIZATION

Health Economics, Labor Economics, Economics of Education, and Applied Econometrics.

PUBLICATIONS

Journal Articles

- “An Experimental Evaluation of Three Teacher Quality Measures: Value-Added, Classroom Observations, and Student Surveys,” forthcoming, *Economics of Education Review* (with Andrew Bacher-Hicks, Mark J. Chin, and Thomas J. Kane) (also NBER working paper #23478).
- “Implications of an Aging Rural Physician Workforce,” 2019, *New England Journal of Medicine*, 381(4):299-301 (with Lucy Skinner, David Auerbach and Peter Buerhaus).
- “School District Reform in Newark: Within- and Between-School Changes in Achievement Growth,” 2019, *ILR Review*, 72(2):323-354 (with Mark Chin, Thomas Kane, Whitney Kozakowski and Beth Schueler) (also NBER working paper #23922).
- “An Instrumental Variable Procedure for Estimating Cox Models with Non-Proportional Hazards in the Presence of Unmeasured Confounding,” 2019, *Journal of the Royal Statistical Society, Series C*, 68(4):985-1005 (with Pablo Martinez-Camblor, Todd MacKenzie, Phillip Goodney and James O'Malley).
- “Adjusting for bias introduced by instrumental variable estimation in the Cox proportional hazards model,” 2019, *Biostatistics*, 20(1):80-96 (with Pablo Martínez-Camblor, Todd Mackenzie, Philip P Goodney, and A James O'Malley).
- “Association of Patient Acuity and Missed Nursing Care in US Neonatal Intensive Care Units,” *Medical Care Research and Review*, 2018, Online at <https://doi.org/10.1177/1077558718806743> (with Eileen Lake, Emily Cramer, Linda Hatfield, Jessica Smith, Beatrice Kalisch and Jeannette Rogowski)
- “Comparing Long-Term Mortality After Carotid Endarterectomy vs Carotid Stenting Using a Novel Instrumental Variable Method for Risk Adjustment in Observational Time-to-Event Data,” *JAMA Network Open*, 2018, 1(5):e181676 (with Jesse Columbo, Pablo Martinez-Camblor, Todd MacKenzie, Ravindar King, Philip Goodney, and James O'Malley).
- “Association Between the Growth of Accountable Care Organizations and Physician Work Hours and Self-Employment,” *JAMA Network Open*, 2018, 1(3):e180876 (with Anwita Mahajan, Lucy Skinner, David Auerbach and Peter Buerhaus).
- “Growing Ranks of Advanced Practice Clinicians – Implications for the Physician Workforce,” *New England Journal of Medicine*, 2018, 378(25):2358-2360 (with David Auerbach and Peter Buerhaus).

- “Nursing Care Disparities in Neonatal Intensive Care Units,” *Health Services Research*, 2018, 53(4):3007-3026, (with Eileen Lake, Erika Edwards, Jessica Smith, and Jeannette Rogowski).
- “Improving nursing workforce forecasts: Comparative analysis of the cohort supply model and the health workforce simulation model,” *Nursing Economics*, 2017, 35(6):283-294 (with David Auerbach, Aprita Chattopadhyay, George Zangaro, and Peter Buerhaus).
- “State of the Registered Nurse Workforce as a New Era of Health Reform Emerges,” *Nursing Economics*, 2017, 35(5):229-237 (with David Auerbach, Lucy Skinner, and Peter Buerhaus).
- “Millenials Almost Twice as Likely to be Registered Nurses as Baby Boomers Were,” *Health Affairs*, 2017, 36(10):1804-1807 (with David Auerbach and Peter Buerhaus).
- “Four Challenges Facing the Nursing Workforce in the United States,” *Journal of Nursing Regulation*, 8(2):40-46 (with Peter Buerhaus, Lucy Skinner, and David Auerbach).
- “How fast will the registered nurse workforce grow through 2030? Projections in nine regions of the country,” *Nursing Outlook*, 2017, 65(1):116-122 (with David Auerbach and Peter Buerhaus).
- “Sources of Inefficiency in Healthcare and Education,” *American Economic Review: Papers & Proceedings*, 2016, 106(5):383-387 (with Amitabh Chandra).
- “Association Between Having a Highly Educated Spouse and Physician Practice in Rural Underserved Areas,” *JAMA*, 2016, 315(9):939-941 (with Samuel Marshall, David Goodman, David Auerbach, and Peter Buerhaus).
- “Recent Changes in the Number of Nurses Graduating From Undergraduate and Graduate Programs,” *Nursing Economics*, 2016, 34(1):46-48 (with Peter Buerhaus and David Auerbach).
- “Technology Diffusion and Productivity Growth in Health Care,” *Review of Economics and Statistics*, 2015, 97(5):951-964 (with Jonathan Skinner).
- “Do Associate Degree Registered Nurses Fare Differently in the Nurse Labor Market Compared to Baccalaureate-Prepared RNs?” *Nursing Economics*, 2015, 33(1):8-13,35 (with David Auerbach and Peter Buerhaus).
- “Nurse Staffing in Neonatal Intensive Care Units in the United States,” *Research in Nursing & Health*, 2015, 38(5):333-341 (with Jeannette Rogowski, Thelma Patrick, Jeffrey Horbar, Michael Kenny and Eileen Lake).
- “Will the RN Workforce Weather the Retirement of the Baby Boomers?” *Medical Care*, 2015, 53(10):850-856 (with David Auerbach and Peter Buerhaus).

- “Disparities in Perinatal Quality Outcomes in Very Low Birth Weight Infants in Neonatal Intensive Care,” *Health Services Research*, 2015, 50(2):374-397 (first published online 22 SEP 2014), (with Eileen Lake, Jeffrey Horbar, Michael Kenny, Thelma Patrick and Jeannette Rogowski).
- “Registered nurses are delaying retirement, a shift that has contributed to recent growth in the nurse workforce,” *Health Affairs*, 2014, 33(8):1474-80 (with David Auerbach and Peter Buerhaus).
- “Reliability of Surgical Outcomes for Predicting Future Hospital Performance,” *Medical Care*, 2014, 52(6):565-571 (with Robert Krell and Justin Dimick).
- “Teacher Effects and Teacher-Related Policies,” *Annual Review of Economics*, 2014, Vol. 6: 801-825 (with Kirabo Jackson and Jonah Rockoff).
- “School Choice, School Quality and Postsecondary Attainment,” *American Economic Review*, 2014, 104(3):991-1013 (with Dave Deming, Justine Hastings, and Thomas Kane).
- “The Rapid Growth of Graduates from Associate, Baccalaureate, and Graduate Programs in Nursing,” *Nursing Economics*, 2014, 32(6):290-295,311 (with Peter Buerhaus and David Auerbach).
- “Composite Quality Measures for Common Inpatient Medical Conditions,” *Medical Care*, 2013, 51(9):832-837 (with Lena Chen, John Birkmeyer, Andrew Ryan, Wenying Zhang, and Justin Dimick).
- “Nurse Staffing and NICU Infection Rates,” *JAMA Pediatrics*, 2013, 167(5):444-450, (with Jeannette Rogowski, Thelma Patrick, Jeffrey Horbar, Michael Kenny, and Eileen Lake).
- “The Nursing Workforce in an Era of Health Care Reform,” *New England Journal of Medicine*, 2013, 368(16):1470-1472 (with David Auerbach, Ulrike Muench and Peter Buerhaus).
- “Projections of the Long-Term Growth of the Registered Nurse Workforce: A Regional Analysis,” *Nursing Economics*, 2013, 31(1):13-17 (with Peter Buerhaus, David Auerbach and Ulrike Muench).
- “Composite Measures for Profiling Hospitals on Surgical Morbidity,” *Annals of Surgery*, 2013, 257(1):67-72 (with Justin Dimick, Bruce Hall, Clifford Ko, and John Birkmeyer).
- “Observational intensity bias associated with illness adjustment: cross sectional analysis of insurance claims,” *BMJ*, 346:f549, 2013 (with John Wennberg, Sandra Sharp, Daniel Gottlieb, Gwyn Bevin, Klim McPherson, and Gilbert Welch).
- “Information and Employee Evaluation: Evidence from a Randomized Intervention in Public Schools,” *American Economic Review*, 102(7):3184-3213, 2012 (with Jonah Rockoff, Tom Kane and Eric Taylor).

- “Composite Measures for Rating Hospital Quality with Major Surgery.” *Health Services Research*, 47(5):1861-1879, 2012 (with Justin Dimick, Nicholas Osborne, Lauren Nicholas, and John Birkmeyer).
- “Association Between Hospital Recognition for Nursing Excellence and Outcomes of Very Low-Birth-Weight Infants.” *JAMA*, 307(16):1709-1716, 2012 (with Eileen Lake, Jeffrey Horbar, Robyn Cheung, Michael Kenny, Thelma Patrick, and Jeannette Rogowski).
- “Registered Nurse Labor Supply and the Recession – Are We in a Bubble?” *New England Journal of Medicine*, 366(16):1463-1465, 2012 (with David Auerbach and Peter Buerhaus).
- “Registered Nurse Supply Grows Faster Than Projected Amid Surge in New Entrants Ages 23-26.” *Health Affairs*, December 2011, 30(12):2286-2292 (with David Auerbach and Peter Buerhaus).
- “Health Care Reform and the Health Care Workforce: The Massachusetts Experience,” *New England Journal of Medicine*, 365(e24):1-3, September 22, 2011 (with David Auerbach and Peter Buerhaus).
- “Can You Recognize an Effective Teacher When You Recruit One?” *Education Finance and Policy*, Winter 2011, Vol. 6, No. 1: 43–74 (with Jonah Rockoff, Brian Jacob, and Thomas Kane).
- “Ranking Hospitals on Surgical Mortality: The Importance of Reliability Adjustment,” *Health Services Research*, 45(6), 2010 (with Justin Dimick and John Birkmeyer).
- “Searching for Effective Teachers with Imperfect Information,” *Journal of Economic Perspectives*, 24(3):97-118, 2010 (with Jonah Rockoff).
- "Is There Monopsony in the Labor Market? Evidence from a Natural Experiment," *Journal of Labor Economics*, 28(2):211-236, 2010 (with Joanne Spetz and Ciaran Phibbs.).
- “Trends in the Work Hours of Physicians in the United States,” *JAMA*, 303(8):747-753, 2010 (with David Auerbach and Peter Buerhaus).
- “Looking Back, Moving Forward,” *New England Journal of Medicine*, 362(7):569-574, 2010 (with Jonathan Skinner and Elliott Fisher).
- “Comparison of Physician Workforce Estimates and Supply Projections,” *JAMA*, 302(15):1674-1680, 2009 (with David Auerbach and Peter Buerhaus).
- “The Recent Surge in Nurse Employment: Causes and Implications,” *Health Affairs*, 28(4):w657-w668, 2009 (with Peter Buerhaus and David Auerbach).

- "Composite Measures for Predicting Surgical Mortality In the Hospital," *Health Affairs*, 28(4):1189-1198, 2009 (with Justin Dimick, Onur Baser, and John Birkmeyer).
- "Outlier Payments for Cardiac Surgery and Hospital Quality," *Health Affairs*, 28(4):1154-1160, 2009 (with Onur Baser, Zhaohui Fan, Justin Dimick, and John Birkmeyer).
- "Empirically Derived Composite Measures of Surgical Performance," *Medical Care*, 47(2):226-233, February 2009 (with Justin Dimick, Onur Baser, Zhaohui Fan, and John Birkmeyer).
- "Abortion and Selection," *Review of Economics and Statistics*, 91(1):124-136, February 2009 (with Elizabeth Ananat, Jonathan Gruber and Phillip Levine).
- "What Does Certification Tell Us About Teacher Effectiveness?: Evidence from New York City", *Economics of Education Review*, 27(6):615-631, December 2008 (with Thomas Kane and Jonah Rockoff).
- "The Effect of Randomized School Admissions on Voter Participation," *Journal of Public Economics*, 91:915-937, June 2007 (with Justine Hastings, Thomas Kane and Jeffrey Weinstein).
- "Do Race-Specific Models Explain Disparities in Treatments After Acute Myocardial Infarction?" *American Heart Journal* 153(5):785-791, May 2007 (with Ashish Jha, Amitabh Chandra, and Lee Lucas).
- "Productivity Spillovers in Healthcare: Evidence From the Treatment of Heart Attacks," *Journal of Political Economy*, 115(1):103-140, February 2007 (with Amitabh Chandra).
- "Better Late Than Never: Workforce Supply Implications of Later Entry Into Nursing," *Health Affairs*, 26(1):178-185, January/February 2007 (with David Auerbach and Peter Buerhaus).
- "Creating Accountable Care Organizations: The Extended Hospital Medical Staff," *Health Affairs*, web exclusive, 26(1):w44-w57, December 2006 (with Elliott Fisher, Julie Bynum, and Daniel Gottlieb).
- "School Quality, Neighborhoods and Housing Prices," *American Law and Economics Review*, 9(2):183-212, Summer 2006 (with Thomas Kane and Stephanie Riegg).
- "Gender and Performance: Evidence From School Assignment By Randomized Lottery," *American Economic Review Papers and Proceedings*, 96(2):232-236, May 2006 (with Justine Hastings and Thomas Kane).
- "Are Mortality Rates for Different Operations Related? Implications for Measuring the Quality of Non-Cardiac Surgery," *Medical Care*, 44(8):774-778, August 2006 (with Justin Dimick and John Birkmeyer).

- “Operative Mortality and Procedure Volume as Predictors of Subsequent Hospital Performance,” *Annals of Surgery*, 243(3):411-417, March 2006 (with John Birkmeyer and Justine Dimick).
- “Is Technological Change in Medicine Always Worth It? The Case of Acute Myocardial Infarction,” *Health Affairs*, Web Exclusive, February 7, 2006 (with Jonathan Skinner and Elliott Fisher).
- “Mortality Among Very Low Birthweight Infants in Hospitals Serving Minority Populations,” *American Journal of Public Health*, 95(12):2206-2212, December 2005, (with Leo S Morales, Jeffery D Horbar, Joseph Carpenter, Michael Kenny, Jeffery Geppert, and Jeannette Rogowski).
- “Mortality After Acute Myocardial Infarction in Hospitals That Disproportionately Treat Black Patients,” *Circulation*, 112:2634-2641, October 25, 2005 (with Jonathan Skinner, Amitabh Chandra, Julie Lee, and Mark McClellan).
- “Hospital-level Racial Disparities in Acute Myocardial Infarction Treatment and Outcomes,” *Medical Care*, 43(4):308-319, April 2005 (with Amber Barnato, Lee Lucas, David Wennberg and Amitabh Chandra).
- “Fiscal Shenanigans, Targeted Federal Health Care Funds, and Patient Mortality,” *Quarterly Journal of Economics*, 120(1):345-386, February 2005 (with Katherine Baicker).
- “New Signs of a Strengthening U.S. Nurse Labor Market?” *Health Affairs*, Web Exclusive, November 17th, 2004 (with Peter Buerhaus and David Auerbach).
- “Variations in the quality of care for very low birth weight infants: Implications for policy”, *Health Affairs*, 23(5):88-97, September/October 2004 (with Jeffrey Horbar and Jeannette Rogowski).
- “Abortion Policy and Fertility Outcomes: The Eastern European Experience,” *Journal of Law and Economics*, 47(1):223-243, April 2004 (with Phil Levine).
- “Indirect vs Direct Hospital Quality Indicators for Very Low-Birth-Weight Infants,” *JAMA*, 291(2): 202-209, January 14, 2004 (with Jeannette Rogowski, Jeffrey Horbar, Michael Kenny, Joseph Carpenter, Jeffrey Geppert).
- “Is The Current Shortage of Hospital Nurses Ending?” *Health Affairs*, 22(6):191-198, November/December 2003 (with Peter Buerhaus and David Auerbach)
- “The Promise and Pitfalls of Using Imprecise School Accountability Measures,” *Journal of Economic Perspectives*, 16(4):91-114, fall 2002 (with Thomas Kane).
- "Health Insurance and Female Labor Supply in Taiwan," *The Journal of Health Economics*. 2001;20(2):187-212 (with Y.J. Chou).

- “Implications of an Aging Registered Nurse Workforce,” *JAMA* 2000; 283 (22): 2948-2954 (with Peter Buerhaus and David Auerbach).
- “Why are registered nurse shortages concentrated in hospital specialty care units?” *Nursing Economic\$*. 2000;18(3):111-116 (with Peter Buerhaus and David Auerbach).
- “Associate degree graduates and the rapidly aging registered nurse workforce,” *Nursing Economic\$*. 2000; 18(4):178-184 (with Peter Buerhaus and David Auerbach).
- “Expanding Career Opportunities for Women and the Declining Interest in Nursing as a Career,” *Nursing Economic\$*. 2000; 18(5):230-236 (with Peter Buerhaus and David Auerbach).
- “Policy Responses to an Aging Registered Nurse Workforce,” *Nursing Economic\$*. 2000;18(6):278-284 (with Peter Buerhaus and David Auerbach).
- "Abortion Legalization and Child Living Circumstances: Who is the 'Marginal Child'," *The Quarterly Journal of Economics*, 114(1), 1999, 263-291 (with Jonathan Gruber and Phillip Levine).
- "Roe V. Wade and American Fertility," *American Journal of Public Health*, 89(2), 1999, 199-103 (with Phillip Levine, Thomas Kane, and David Zimmerman).
- “Trouble in the Nurse Labor Market? Recent Trends and Future Outlook for Nurse Earnings and Employment,” *Health Affairs*, January/February, 18(1), 1999, 214-222 (with Peter Buerhaus).
- "Future of the Nurse Labor Market in the View of Health Executives in High Managed Care States," *IMAGE: Journal of Nursing Scholarship*, 29(4), 1997, 313-318 (with Peter Buerhaus).
- "The NAIRU, Unemployment, and Monetary Policy," *Journal of Economic Perspectives*, 11(1), Winter 1997, 33-49 (with James Stock and Mark Watson).
- "Instrumental Variables Regression with Weak Instruments," *Econometrica*, 65(3), May 1997, 557-586 (with James Stock).
- "Managed Care and the Nurse Workforce," *JAMA*, 276(18), November 13, 1996, 1487-1493 (with Peter Buerhaus).
- "Abortion Access and Teen Motherhood," *The Quarterly Journal of Economics*, 111(2), May 1996, 467-506 (with Thomas Kane).
- "How Hospital Ownership Affects Access to Care for the Uninsured," *Rand Journal of Economics*, 25(1), Spring 1994, 171-185 (with Edward Norton).

Books

Buerhaus, Peter I., Douglas O. Staiger and David I. Auerbach, *The Future of the Nursing Workforce in the United States: Data, Trends and Implications*, Jones and Bartlett Publishers, New York, NY, March 2008.

Other Publications

“Learning by the Book: Comparing Math Achievement Growth by Textbook in Six Common Core States,” Research Report, 2019. Cambridge, MA: Center for Education Policy Research, Harvard University (With David Blazer, Blake Heller, Thomas Kane, Morgan Polikoff, Scott Carrell, Dan Goldhaber, Douglas Harris, Rachel Hitch, Kristian Holden, and Michal Kurlaander).

“What Healthcare Teaches Us About Measuring Productivity in Higher Education,” *Productivity in Higher Education*, 2018, University of Chicago Press.

Teaching Higher: Educators’ Perspectives on Common Core Implementation, Center for Education Policy Research, Harvard University, 2016 (with Thomas Kane, Antoniya Owens, William Marinell, and Daniel Thal).

Comment on “Why the Geographic Variation in Health Care Spending Can’t Tell Us Much About the Efficiency or Quality of our Health Care System” by Louise Sheiner, *Brookings Papers on Economic Activity*, Fall 2014, pp. 53-72.

“Making Decisions with Imprecise Performance Measures: The Relationship Between Annual Student Achievement Gains and a Teacher’s Career Value Added,” Chapter 5, pp.144-169, in Kane, T. J., Kerr, K. A. and Pianta, R. C. *Designing teacher evaluation systems: New guidance from the Measures of Effective Teaching project*. San Francisco: Jossey-Bass, 2014 (with Thomas Kane).

“Have We Identified Effective Teachers? Validating Measures of Effective Teaching Using Random Assignment,” MET Project Research Paper, Bill & Melinda Gates Foundation, January 2013 (with Thomas Kane, Daniel McCaffrey, and Trey Miller).

“A Composite Estimator of Effective Teaching,” MET Project Research Paper, Bill & Melinda Gates Foundation, January 2013 (with Kata Mihaly, Daniel McCaffrey, and J.R. Lockwood).

“Gathering Feedback for Teaching: Combining High-Quality Observations with Student Surveys and Achievement Gains.” MET Project Research Paper, Bill & Melinda Gates Foundation, January 2012 (with Thomas J. Kane and others).

“Passing Muster: Evaluating Teacher Evaluation Systems,” report for the Brown Center on Education Policy, the Brookings Institution, Washington, DC, April 26, 2011 (with Steven Glazerman, Dan Goldhaber, Susanna Loeb, Stephen Raudenbush and Grover Whitehurst).

- “Evaluating Teachers: The Important Role of Value Added” report for the Brown Center on Education Policy, the Brookings Institution, Washington, DC, November 17, 2010 (with Steven Glazerman, Dan Goldhaber, Susanna Loeb, Stephen Raudenbush and Grover Whitehurst).
- “Learning About Teaching: Initial Findings from the Measures of Effective Teaching Project,” MET Project Research Paper, Bill & Melinda Gates Foundation, Fall 2010 (with Thomas J. Kane and others).
- “America’s Teacher Corps,” report for the Brown Center on Education Policy, the Brookings Institution, Washington, DC, March 15, 2010 (with Steven Glazerman, Dan Goldhaber, Susanna Loeb, and Grover Whitehurst).
- “Photo Finish: Certification Does Not Guarantee a Winner,” *Education Next*, pp. 60-67, Winter 2007 (with Thomas Kane and Jonah Rockoff).
- “Technology Adoption from Hybrid Corn to Beta Blockers”, in Ernst R. Berndt and Charles R. Hulten, eds., *Hard-to-Measure Goods and Services: Essays in Honor of Zvi Griliches*, University of Chicago Press and NBER, Chicago, IL, 2007 (with Jonathan Skinner).
- “Identifying Effective Teachers Using Performance on the Job,” *The Hamilton Project* white paper 2006-01, the Hamilton Project, Washington, DC, 2006 (with Robert Gordon and Thomas Kane).
- “School Accountability Ratings and Housing Values,” in *Brookings-Wharton Papers on Urban Affairs 2003*, Brookings Institution Press, Washington DC, 2003 (with Thomas Kane and Gavin Samms).
- “Unintended Consequences of Racial Subgroup Rules,” in *No Child Left Behind? The Politics and Practice of School Accountability*, Paul Peterson and Martin West, Eds., Brookings Institution Press, Washington DC, 2003 (with Thomas Kane).
- “Volatility in School Test Scores: Implications for Test-Based Accountability Systems,” in *Brookings Papers on Education Policy, 2002*, Diane Ravitch, Ed., 235-283, Brookings Institution Press, Washington DC (with Thomas Kane).
- “Randomly Accountable,” *Education Next*, Spring 2002, 57-61 (with Thomas Kane and Jeffrey Geppert).
- “Rigid Rules Will Damage Schools,” OP-ED in the *New York Times*, Monday, August 13th, 2001, page A21 (with Thomas Kane).
- “Prices, Wages and the U.S. NAIRU in the 1990s”, in *The Roaring Nineties*, Alan Krueger and Robert Solow, Eds., 3-60, Russell Sage Foundation, New York, 2002 (also NBER working paper #8320) (with James Stock and Mark Watson).

“Comparing the Quality of Health Care Providers,” in Alan Garber (ed.) *Frontiers in Health Policy Research, Volume 3*. 2000, The MIT Press, Cambridge MA, pp. 113-136 (with Mark McClellan).

“Comparing Hospital Quality at For-Profit and Not-for-Profit Hospitals,” in David Cutler (ed.) *The Changing Hospital Industry*. 2000, University of Chicago Press, Chicago IL, pp. 93-112 (with Mark McClellan).

"How Precise are Estimates of the Natural Rate of Unemployment," in Christina Romer and David Romer (ed.) *Reducing Inflation: Motivation and Strategy*, University of Chicago Press, 1997 (with James Stock and Mark Watson).

"The Covariance Structure of Mortality Rates in Hospitals," in David Wise (ed.) *Inquiries in The Economics of Aging*, University of Chicago Press, 1998.

Discussion of Cutler and Richardon's paper in *Brookings Papers on Economic Activity, Microeconomics 1997*, Martin Baily, Peter Reiss and Clifford Winston (eds.), The Brookings Institution, Washington D.C., 1998.

UNPUBLISHED PAPERS

“Identifying Sources of Inefficiency in Health Care,” National Bureau of Economic Research working paper #24035, 2018 (with Amitabh Chandra) (Conditionally accepted, *Quarterly Journal of Economics*).

“Validating Teacher Effect Estimates Using Changes in Teacher Assignments in Los Angeles,” National Bureau of Economic Research working paper #20657, 2014 (with Andrew Bacher-Hicks and Thomas Kane).

“Knowledge, Tests, and Fadeout in Educational Interventions.” National Bureau of Economic Research working paper #18038, 2012 (with Elizabeth Cascio).

"Identifying Provider Prejudice in Healthcare," National Bureau of Economic Research working paper #16382, 2010 (with Amitabh Chandra).

“Heterogeneous Preferences and the Efficacy of Public School Choice,” manuscript, June 2008 (with Justine Hastings and Thomas Kane).

"Estimating Teacher Impacts on Student Achievement: An Experimental Evaluation," National Bureau of Economic Research working paper #14607, December 2008 (with Tom Kane).

"National Board Certification and Teacher Effectiveness: Evidence from a Random Assignment Experiment," National Bureau of Economic Research working paper #14608, December 2008 (with Steven Cantrell, Jon Fullerton, and Tom Kane).

- “Preferences and Heterogeneous Treatment Effects in a Public School Choice Lottery,” National Bureau of Economic Research working paper #12145, March 2006 (with Justine Hastings and Thomas Kane).
- “Parental Preferences and School Competition: Evidence from a Public School Choice Program,” National Bureau of Economic Research working paper #11805, November 2005 (with Justine Hastings and Thomas Kane).
- “Using Imperfect Information to Identify Effective Teachers,” manuscript, April 2005 (with Thomas Kane).
- “Improving Provider Profiles for Assessing Quality of Care in a High Risk Patient Population,” manuscript 2002 (with Jeannette Rogowski, Jeffrey Horbar, Michael Kenny, Joseph Carpenter, Jeffrey Geppert and Mark McClellan).
- “Improving School Accountability Systems,” manuscript, 2002 (with Thomas Kane), earlier draft was NBER working paper #8156.
- “Abortion as Insurance,” National Bureau of Economic Research working paper #8813, 2002 (with Phillip Levine).
- “Assessing the Definition of ‘Adequate Yearly Progress’ in the House and Senate Education Bills,” manuscript, 2001 (with Thomas Kane and Jeffrey Geppert,).
- “An Economic Model of Teen Motherhood: Opportunity Costs, Biological Constraints, and the Timing of First Birth,” manuscript 2001 (with Jonathan Wilwerding,).
- “How Do Good Hospitals Do It? Estimating the Effects of Medical Practice” manuscript, 2000 (with Jeffrey Geppert and Mark McClellan).
- “The Quality of Health Care Providers,” National Bureau of Economic Research working paper #7327, September 1999 (with Mark McClellan).
- “Abortion Policy and the Economics of Fertility,” manuscript, 1999 (with Phillip Levine).
- “Estimating Returns to Schooling when Schooling is Misreported,” National Bureau of Economic Research Working Paper #7235, 1999 (with Thomas Kane and Cecilia E. Rouse).
- "Fertility and the Cost of Having a Child: Can the Government Influence Fertility Through Incentives?" manuscript, 1997 (with Y.J. Chou).
- "Measuring the Value of Medical Progress," manuscript, 1996 (with David Cutler).
- "Economic Evaluation of the 1991 Changes in How the VA Sets Wages for Nurses," Report to the Department of Veterans Affairs, Project IIR 91-148, 1995 (with Cairan Phibbs and Joanne Spetz).

"Price Regulation and Patient Mortality in Hospitals" manuscript, 1995 (with Gary Gaumer).

"Instrumental Variables Regression with Weak Instruments," NBER technical working paper #151, 1994 (with James Stock).

"Tax Policy and Labor Unions," manuscript, 1994.

"Regulation and labor earnings in hospitals," manuscript, 1990.

"Why do union contracts exclude employment?" manuscript, 1990.

"The effect of connections on the wages and mobility of young workers," manuscript, 1990.