

REZWAN HAQUE
<http://scholar.harvard.edu/rhaque>
haque@fas.harvard.edu

HARVARD UNIVERSITY

Placement Director: Gita Gopinath	GOPINATH@HARVARD.EDU	617-495-8161
Placement Director: Nathan Nunn	NNUNN@FAS.HARVARD.EDU	617-496-4958
Graduate Administrator: Brenda Piquet	BPIQUET@FAS.HARVARD.EDU	617-495-8927

Office Contact Information

National Bureau of Economic Research
1050 Massachusetts Avenue, Suite 4
Cambridge, MA 02138
Cell Phone Number: 617-412-6758

Home Contact Information

1105 Massachusetts Avenue Apt 6D
Cambridge, MA 02138

Personal Information: DOB: January 3, 1987. Citizenship: Bangladesh. US Permanent Resident.

Undergraduate Studies:

AB, Economics, Harvard University, *Magna Cum Laude*, Phi Beta Kappa, 2009

Graduate Studies:

Harvard University, 2009 to present
Ph.D. Candidate in Business Economics
Thesis Title: "Organizational Innovation in Health Care"
Expected Completion Date: May 2015

References:

Professor David Cutler
Department of Economics
Harvard University, Littauer Center 230
617-496-5216, dcutler@harvard.edu

Professor Robert Huckman
Technology and Operations Management Unit
Harvard Business School
617-495-6649, rhuckman@hbs.edu

Professor Oliver Hart
Department of Economics
Harvard University, Littauer Center 220
617-496-3461, ohart@harvard.edu

Teaching and Research Fields:

Health Economics, Health Care Strategy and Operations, Organizational Economics, Applied Microeconomics

Teaching Experience:

Fall 2010-	Economics 985a Research in Microeconomics, Harvard College, Teaching Fellow
Spring 2011	for Professor Jeffrey Miron
Fall, 2012-	Economics 985m Research in Labor and Public Finance, Harvard College,
Spring 2013	Teaching Fellow for Professor Jeffrey Miron

Research Experience and Other Employment:

2008	Harvard Business School, Research Assistant to Alvin Roth and Parag Pathak
2008	Harvard University Economics Department, Research Assistant to Susan Athey
2007-2008	Harvard Kennedy School, Research Assistant to Susan Dynarski
2011-2014	Mather House, Harvard College: Non-Resident Tutor and Sophomore Advisor

Professional Activities:

Referee: *Management Science*

Invited Presentations

“Technological Innovation and Productivity in Service Delivery”

WHITE 2014, 5th Annual Workshop on Health IT and Economics, Washington DC, October 2014

“Hospitalists and Hospital Productivity”

ASHEcon 5th Biennial Conference, USC Schaeffer Center, Los Angeles, June 2014

AEA Annual Meeting, Philadelphia, January 2014

Unite for Sight Global Health and Innovation Conference, Yale University, New Haven, April 2014

Posters

“Hospitalists and Hospital Productivity”, Academy Health Annual Meeting, San Diego, June 2014

“Hospitalists and Hospital Productivity”, INFORMS Annual Meeting, San Francisco, November 2014

Participant

RAND Summer Institute Mini-Medical School for Social Scientists/ Demography, Epidemiology and Economics of Aging Conference (July 2013)

Harvard Business School Value-Based Health Care Delivery Intensive Seminar (January 2013)

Affiliations: American Economic Association, ASHEcon, INFORMS, AcademyHealth

Honors, Scholarships, and Fellowships:

2009-2014 Harvard Business School Doctoral Fellowship

2014-2015 Harvard University Dissertation Completion Fellowship

2011 Harvard University Bok Center Certificate of Distinction in Teaching

2014 Best Student Authored Paper - 5th Annual Workshop on Health IT and Economics

Research Papers:

“Technological Innovation and Productivity in Service Delivery: Evidence from the Adoption of Electronic Medical Records” **[Job Market Paper]**

Information technology (IT) can improve productivity by simultaneously affecting operational efficiency for a given worker and the coordination of different workers. I investigate IT adoption in a service setting by considering the impact of electronic medical records (EMRs) on the length of stay and clinical outcomes of patients in US hospitals. To uncover the distinct impacts of EMRs on operational efficiency and care coordination, I present evidence of heterogeneous effects by patient complexity. I find that EMRs have the largest impact for relatively less complex patients. Admission to a hospital with an EMR is associated with a 2% reduction in length of stay and a 9% reduction in thirty-day mortality for such patients. In contrast, there is no statistically significant benefit for complex patients. However, I present three additional results for complex cases. First, patients returning to the same hospital benefit relative to those who previously went to a different hospital, which could be due to easier access to past electronic records. Second, computerized order entry is associated with higher billed charges. Finally, hospitals that have a high share of publicly insured patients, and hence a bigger incentive to curb resource use, achieve a greater reduction in length of stay for complex patients after EMR adoption.

“Process Specialization and the Coordination of Complex Transactions: Evidence from the Management of Hospital Inpatients”
(with Robert Huckman)

Many service transactions consist of complicated tasks, which often span multiple domains and across which coordination is critical. We investigate the role of process specialists in guiding customers through such complex service transactions by considering the management of patients admitted to U.S hospitals. Traditionally, a patient’s primary care physician has been in charge of his or her hospital admission. Over the past decade, however, there has been a steady rise in the use of hospitalists - physicians who spend all their professional time at the hospital – in managing inpatient care. Using data from the American Hospital Association and the Agency for Healthcare Research and Quality’s Nationwide Inpatient Sample (NIS) database, we find that hospitals with hospitalist programs achieve reductions in the risk-adjusted length of stay of inpatients over the time period 2003 to 2010. The effect is strongest for complex patients who have a higher number of comorbidities. Our findings support the view that process specialists such as hospitalists are particularly beneficial for complex transactions that entail a greater degree of coordination.

Research Papers in Progress

“Turnover in Health Insurance, Preventive Care, and the Cost of Dying”
(with David Cutler)

Turnover is frequent in health insurance plans due to job changes or age-based eligibility for Medicare. The traditional view is that such turnover means that insurers under-invest in preventive care because they do not internalize the benefits of improved health over the life cycle. We show that this reasoning omits the high cost of end-of-life care. Since death is very expensive, an insurer that underinvests in prevention risks having people die on its insurance plan, instead of surviving to transition to another plan. We consider the countervailing effects of additional spending on prevention not receiving the long-term benefits of improved health but avoiding the costs of dying. We show theoretically and through simulations that if the cost of dying is sufficiently high, insurers still have an incentive to invest in preventive care, especially with a high turnover rate.

“The Determinants of Physician Organization in the United States”
(with David Cutler and Leemore Dafny)

We investigate whether increasing concentration in the health insurance industry explains the trend in consolidation among health care providers over the last two decades. Our empirical strategy is to consider the impact of national health insurance company mergers in the early 2000s, which led to plausibly exogenous changes in local health insurance markets. We investigate whether these changes in concentration led to physician consolidation. Using data from the restricted-use Community Tracking Study Physician Survey to measure changes in physician organization, we find that merger-induced changes in HHI from 2001 to 2005 lead to an increase in the number of doctors who are in large groups in 2005.

“Information Technology and Hospital-Physician Contracts”

In the United States, doctors and hospitals combine resources to provide care to hospitalized patients under a wide variety of contractual arrangements. Physicians can either be employees or independent contractors, and they can be hospitalists, who spend all their time at the hospital, or primary care physicians (PCPs), who see their patients outside the hospital as well. I develop a multi-tasking model of inpatient care in which doctors invest time in either cost reduction or quality improvement. Using a property rights framework, I investigate how doctors allocate their time when they are employees versus independent contractors. I also show how PCPs and hospitalists spend their time differently conditional on the employment relationship. I explore how technology affects the actions of each type of doctor. In particular, I show that improvements in information technology make the hospitalist model superior by facilitating patient hand-offs across care settings. Given that hospitalists are more likely to be employees, new technology influences organizational form by encouraging physician employment.