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DOCTORAL STUDIES

Massachusetts Institute of Technology (MIT)
PhD, Economics, Expected completion June 2009
DISSERTATION: "*Essays on Decision Making*"

DISSERTATION COMMITTEE AND REFERENCES

Professor Glenn Ellison
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Professor Sendhil Mullainathan
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Littauer Center, Room 208
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Professor Antoinette Schoar
Sloan School of Management
50 Memorial Drive, E52-433
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PRIOR EDUCATION

B.S. Physics Massachusetts Institute of Technology (MIT) 1998

CITIZENSHIP U.S.A.

RESEARCH & TEACHING FIELDS

Primary Fields: Industrial Organization, Behavioral Economics
Secondary Fields: Corporate Finance, Applied Microeconomics

TEACHING EXPERIENCE

Microeconomic Theory and Public Policy (joint graduate and undergraduate, MIT course 14.03/14.003), Teaching Assistant to Professor Panle Jia — Fall 2006

Economic Applications of Game Theory (undergraduate, MIT course 14.12), Teaching Assistant to Professor Muhammed Yildiz — Fall 2006

Industrial Organization and Competitive Strategy (undergraduate, MIT course 14.20), Teaching Assistant to Professor Nancy Rose — Spring 2007

INDUSTRY EXPERIENCE

Eight, Incorporated, Founding Partner — 1998-2003
Co-founder and managing partner for an award-winning boutique software consultancy specializing in database backed knowledge management systems. Clients included AMD, MIT Laboratory for Computer Science, New York City's Administration for Children's Services, NERA, Resolve Technology, TWA, and Ximian.

Consultant to Arnold Worldwide — 2007-present

RESEARCH EXPERIENCE

Research Assistant to Professors Antoinette Schoar and Marianne Bertrand — 2004

Research Assistant to Professors Glenn Ellison and Sara Ellison — 2005, 2006

FELLOWSHIPS, HONORS, AND AWARDS

National Science Foundation Grant (2007-2009), "The Effect of Judicial Bias in Chapter 11 Reorganization" (with Antoinette Schoar)

Ewing Marion Kauffman Foundation Grant (2007-2009), "The Effect of Judicial Bias in Chapter 11 Reorganization and the Creation of a National Repository for Chapter 11 Filings" (with Antoinette Schoar)

George and Obie Schultz Fund (2007), "How Many Pears Would a Pear Packer Pack? An Empirical Evaluation of Intertemporal Labor Supply" (with Tal Gross)

Becker Center Price Theory Summer Camp (2008)

United States Department of Agriculture Grant (2008-2009), "Labels, Location and Price: Environmental Influence on Consumer and Firm Behavior" (with Sendhil Mullainathan)

PROFESSIONAL ACTIVITIES

Referee: *AEJ: Applied Economics*, *Journal of Public Economics*

CONFERENCE PRESENTATIONS

2007:
AEA/ASSA Annual Meeting - Chicago, Il
Conference on Financial Contracting: Theory and Evidence - Mannheim, Germany

2008:
American Law and Economics Association Annual Meeting – New York, NY
Academy Health Annual Research Meeting – Washington D.C.
The Economics of Advertising and Marketing Workshop – Frankfurt, Germany

RESEARCH PAPERS

"Categorical Consideration: Theory, Evidence and Market Implications"
A growing body of evidence demonstrates that consumers often make purchase decisions that are difficult to reconcile with neoclassical models of choice. In addition the large amounts of money and effort expended by firms on non-informative advertising and marketing activities suggests that these behaviors are both economically significant and non-random. In an attempt to reconcile these observations with a tractable model of consumer decision-making, I present a model of boundedly rational choice in which decision makers sequentially apply a single well-behaved preference relation at different levels of aggregation. This model is based on the idea that if evaluation of an alternative is costly, individuals may find it inefficient to compare all available alternatives. Instead, when faced with an unfeasibly large choice set, individuals compare groups of alternatives (i.e. categories) to reduce the choice set into a more manageable set of relevant alternatives. I explore the implications of this model for both individual behavior and equilibrium firm behavior

in market settings. Under certain conditions, the existence of some categorical considerers in the market causes firms to utilize strategies different from what would be optimal in a market of fully rational consumers. This simple model generates predictions about behavior consistent with several new field experiments, and offers possible explanations for several common marketing activities, excess spatial product differentiation, and brand name premiums.

"Judge Specific Difference in Chapter 11 and Firm Outcomes" (with Antoinette Schoar)
An efficient bankruptcy process must strike a delicate balance between delivering ex-post efficient outcomes while preserving ex-ante incentives by penalizing managers and equity holders in the bankruptcy state. Using the information on Chapter 11 filing for almost 5,000 private companies across five district courts, we exploit the within-district random assignment of cases to judges to test the ex-post efficiency of the current US bankruptcy process. We show that some judges appear to rule persistently more favorably towards creditors or debtors and that a pro-debtor bias leads to increased rates of re-filing and firm shutdown as well as lower post-bankruptcy credit ratings and lower annual sales growth up to five years after the original bankruptcy filing. These results show that judges who are more lenient to debtors actually contribute to worse outcomes for the firm; a result that brings into question the basic framework on which economists currently base their understanding of corporate bankruptcy.

"What Do Not-For-Profit Hospitals Maximize? Evidence from California's Seisemic Retrofit Mandate" (with Mireille Jacobson)
Following the Northridge earthquake, California passed a controversial, unfunded mandate requiring all general acute care hospitals to retrofit or rebuild to comply with new seismic safety standards. We exploit the fact that part of the cost of compliance is exogenously predetermined by the underlying geological characteristics of a hospital's location to study the role of ownership on hospital response and to empirically asses competing models of not-for-profit hospital behavior. We find that geological seismic risk is uncorrelated with a host of hospital characteristics, including ownership type, but hospitals with higher seismic risk, and thus compliance costs, are more likely to shut down or merge, irrespective of ownership type. As predicted, for-profit hospitals do not change their service mix in response to this shock. In contrast, not-for-profits increase their mix of profitable services - e.g. neonatal intensive care days and MRI minutes - while government hospitals respond by decreasing their provision of charity care. These results are most consistent with a theory of not-for-profit hospitals as prestige maximizers and allow us to reject two of the leading theories of not-for-profit hospital behavior - "for-profits in disguise" and "pure altruism." These results also suggest that government-owned hospitals have welfare as their maximand.

"A Market for Disaster Preparedness: Using Cap-and-Trade to Regulate Provision of Essential Services" (with Mireille Jacobson)
(Prepared for the NBER Regulation and Litigation Conference)
While traditional command and control approaches dominate health and safety regulation, market-based solutions are used increasingly to address environmental policy problems. We study one particular health policy – California's mandate that all general acute care hospitals retrofit or rebuild to remain operational following a major earthquake – that could benefit from a market-based regulatory approach. We trace out the impact of the mandate on the State's healthcare system, demonstrating some unintended consequences for the availability of hospitals and the provision of

charity care. We provide a back-of-the-envelope cost-benefit analysis and propose a more cost-effective "cap-and-trade" type approach to ensuring hospital operations after a major seismic event.

RESEARCH IN PROGRESS

"Experiments in Choice" (with Sendhil Mullainathan and Eldar Shafir)
Although a large body of experimental evidence demonstrates deviations from full rationality in consumer decision making, it is unclear whether such irrationality generates economically meaningful effects outside of the laboratory. In a series of field experiments conducted in a variety of retail settings, we directly test the fitness of strict rationality as an approximation of real world consumer behavior. Our results indicate systematic and significant departures from strict rationality in consumer purchasing behavior that may lead to misleading estimates of key parameters. These estimation errors do not appear to be driven by unobserved product attributes, consumer characteristics, or functional form assumptions.

"How Many Pears Would a Pear Packer Pack if a Pear Packer Could Pack Pears at Quasi-Exogenously Varying Piece Rates? An Empirical Evaluation of Inter-temporal Labor Supply" (with Tal Gross)
Standard life-cycle models of labor supply predict a positive covariance between effort and temporary changes in wages. In contrast, income targeting models predict a negative relationship, while models of reference-dependent preference predict a negative relationship only when such changes are unanticipated. We exploit a unique dataset collected from a pear packing plant to empirically test the differential predictions of these three models. These data consist of both worker-day level payroll data and data from a field collection effort that generated worker-minute level performance data. We find evidence that is consistent with simple income targeting: workers reduce effort in response to both predicted and unpredicted transitory increases in piece rate pay.

"One Law, One Justice? An Empirical Analysis of the Behavior of U.S. Bankruptcy Judges" (with Antoinette Schoar)
Scholars across disciplines agree the idea that the disposition of a case can be determined by the personality of individual judges is anathema to the rule of law. But whether such arbitrary judicial discretion is exercised is the subject of much debate. Using detailed data for approximately 20,000 bankruptcy cases, we examine the magnitude of the heterogeneity of behavior across bankruptcy judges. We find significant and consistent differences in the likelihood of granting and denying key bankruptcy motions. Instead of idiosyncratic tendencies, we find a strong systematic pattern in which judges tend to rule in favor of or against debtors across all types of motions; a bias that has a large, significant and consistent impact on the long run financial performance of these firms. These findings suggest that the particular judge that a firm draws in Chapter 11 is an important determinant of how the governing law and procedures are applied.

"Leapfrogging Technology: Sequential Technology Adoption in the Case of Broadband Internet"
One of the basic unanswered questions about technology diffusion is the extent to which adoption of an earlier technology impacts the adoption and diffusion of subsequent technologies. In an effort to answer this question I exploit plausibly exogenous variation in the cost of early dial-up internet adoption to examine whether adoption of dial-up internet access predicts the adoption and diffusion of broadband internet services. When NSFNET served as the principal backbone for the internet, the availability and cost of internet access within the United States was directly

related to proximity to the physical backbone. In 1995 the NSFNET Backbone Service was retired and replaced by a network of private, commercial networks, leading to an excess of network capacity in all but the most rural areas. I show that proximity to NSFNET affects early dial-up internet adoption, then trace out the impact of early adoption on the diffusion of broadband based technologies post-1995.

"Golden Pigs and Fire Horses: Birth Cohorts, Capacity Constraints and Health Outcomes" (with Srikanth Kadiyala and Mireille Jacobson)
Despite improvements in recent years, maternal and infant health outcomes in the developing countries of Asia still lag behind those in the developed world. Moreover, significant disparities exist across urban and rural areas within these developing countries. In this study, we take advantage of the fact that fertility in nations and amongst populations that follow the lunar calendar varies considerably according to whether a year is considered astrologically lucky or unlucky. Our work assesses the impact of capacity constraints due to fluctuations in the number of children and mothers seeking medical care, birth frequency, and early teen pregnancy on child and maternal health.