Gautam Gowrisankaran
Research Statement

Introduction:

The central goal of my research is to answer important questions in industrial organization using state-of-the-art empirical and theoretical methods. Much of my research has focused on two broad areas: the industrial organization of healthcare and markets for new high-technology goods. These are both exciting areas in which to work. The healthcare sector is very important to the economy, continues to grow and has a vast governmental involvement, all of which result in difficult but crucial questions. High-technology goods have also been a huge force in the economy in recent decades, and understanding phenomena such as network externalities and consumer preferences for these goods is necessary to evaluate their impact and formulate policies. My work has significantly contributed to both of these fields by developing new and useful methods and by directly answering questions that are of interest.

In the field of the industrial organization of healthcare, my contributions lie in my work on evaluating the quality of hospital care ([I], [E] and [D]),[1] my work on managed care performance and information ([C], [M] and [L]), and my work on high-technology medical services ([J], [F] and [P]). In the field of new high-technology goods, my contributions lie in the following areas: my work on network externalities ([B] and [K]), my work on mergers ([G] and [A]), my work on entry models ([O]) and my work on dynamic estimation of demand for consumer durables ([Q]). In addition, I have researched on the incumbency advantage in senate elections [N] and computational methods [H].

I have three related objectives that I would like to convey through this statement. First, I would like this statement to outline what I see as my contributions that impact economic research. Second, in doing so, I also hope to convey my philosophy of research. Last, I hope that the statement will serve to explain what will guide me in developing my future research topics and questions. Towards these ends, I outline some of my main research topics and explain the contribution of each topic to the literature and to my general research focus. I view this research statement as illustrating the general themes of my research and, as such, serving as a complement to the abstracts of my papers.

Evaluating the quality of hospital care [I], [E] and [D]:

The goal of this research agenda is to find methods to derive accurate measures of hospital quality, using hospital discharge data. These measures are useful in of themselves and are also necessary for a wide range of economic problems, such as understanding the relationships among hospital costs, technology usage and quality, and between competition and quality.

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[1]My attached curriculum vitae references these papers by letter.

The difficulty with inferring hospital quality from mortality is that patients may select hospitals on the basis of their severity of illness. If severity of illness is unobserved in part, then hospital mortality measures would reflect both hospital quality and patient severity of illness, and standard methods could not disentangle these two effects. Previous studies on this topic have proceeded by adding more regressors and hence have been unable to disentangle these effects.

Our initial insight in [I] was to understand that distance could serve as a randomizer, and hence allow us to find the part of hospital mortality that relates to hospital quality rather than patient severity of illness. Under the assumption that there are no unobserved clusters of severity of illness in the population, the distance to a hospital serves as a randomizer (or an exogenous shifter) that is correlated with the choice of hospital but not with the residual severity of illness. We first developed a simple instrumental variables estimation algorithm that used distance as a randomizer. The underlying identification strategy was to infer hospital quality from the risk-adjusted death rate among patients who were likely to be admitted to that hospital based on where they lived, rather than among the actual patients at that hospital.

Although the identification assumptions that we made appeared reasonable and the idea useful, we discovered that simple estimators did not perform well for this problem. This was due to a variety of factors, including the discrete nature of mortality and the low signal-to-noise ratio present in our data, caused by the fact that in-hospital mortality is both a relatively rare event and mostly not due to hospital quality. Thus, in [E] we developed Bayesian statistical methods to accurately infer hospital quality from these data. Although complex, these methods are based on the simple idea above and provide new and useful methods to answer the important question of hospital quality. These methods reveal the extent to which quality for pneumonia care varied based on competition and type of hospital in Los Angeles County.

I believe that this work has provided impact in two dimensions. First, it has resulted in a set of methods to develop ratings that address the problem of selection and low signal-to-noise ratios. These methods are potentially widely applicable, for a variety of settings both in healthcare and outside healthcare, such as education. Second, it has directly answered how the quality of hospital care varies, in [E] and [D]. This is a question that might ultimately bear on a host of important firm and governmental policies.

This work also illustrates my philosophy about what is necessary to perform good research. In addition to the ideas, executing this research agenda requires both a thorough understanding of the complex medical institutions, procedures and data, and also an understanding of econometrics, computation and economic theory.

High-technology medical services [J], [F] and [P]:

The overall goal of this research agenda is to understand the usage and costs for high technology medical services. Other research has found that new and expensive but useful

medical treatments are the cause of the huge increase in healthcare spending over the last 20 years. This research agenda analyzes the use of high technology services from a variety of angles.

One paper in this research agenda [F] examined bypass surgery, using entry data to estimate the financial returns that hospitals receive from different types of patients for performing bypasses. This paper found evidence that financial returns were high for fee-for-service patients and roughly zero for managed care patients, and that Medicare returns were very high in 1984 but declined substantially over the next 10 years and ended up roughly zero.

Another paper [J] estimated a model of dynamic equilibrium in the hospital industry. The idea of this paper was to develop a framework that predicted how hospitals opened and closed and adjusted quality in response to Medicare payment incentives, and then examine how changing payment rates would affect the quality and price of hospital services. Among other results, we found that decreases in Medicare payments would result in substantial exits in small towns, and hence higher prices for other patients.

A third ongoing paper in this research agenda [P] examines learning-by-doing for surgery. This goal of this paper is to separate learning-by-doing from other explanations that can result in a negative relationship between volume and mortality. Preliminary results show substantial learning-by-doing and also rapid forgetting of skills for hospitals that stop performing surgery.

This research agenda has contributed to the literature in several dimensions. First, our conclusions are useful in determining the consequences of important government policies such as antitrust and regionalization policies. Moreover, this agenda has also contributed methods that have influenced work in healthcare and in other sectors. For instance, our methods in [J] have been adapted and extended by Benkard in his paper on the dynamics of the aircraft industry in the *Review of Economic Studies*, while our methods in [P] have influenced Gaynor, Seider and Vogt in their *American Economic Review Papers & Proceedings* article on the volume-outcome effect.

Network externalities in electronic banking [B] and [K]:

The purpose of this work is to understand the extent and causes of network externalities for the ACH electronic banking technology. In my first paper on this topic [B], we used simple methods to robustly test for the presence of network externalities, using data on adoption of the ACH electronic banking technology. One method involved examining small markets with one local bank and one or more small branches of a remote, large bank that made its adoption decisions centrally and hence exogenously. This paper found evidence of the presence of network externalities and some evidence on their magnitudes.

The initial research convinced me that uncovering many of the key questions of interest, such as the magnitudes and sources of the network externalities, would require a more

substantial and realistic model and hence more complicated econometric methods. Thus, for the second paper on this topic [K], we modeled the full equilibrium of decision processes of consumers and banks to adopt electronic payment technologies, and estimated the parameters of these decision processes using newly developed simulated moments methods. This paper combined data on ACH adoption and the number of transactions and used these data to identify the sources of network externalities. The paper found that the cause of the network externality is principally from the fact that consumers have high fixed costs of adoption relative to their benefits. While the methods used in the second paper are complicated, I feel that its value lies in it being the simplest way, to my knowledge, that can answer the questions in which we are interested.

I believe that this research agenda has contributed to the literature in several important ways. First, it has provided a framework for how to test for network externalities and separate them from other similar phenomena. Second, it has provided methods to estimate the presence of network externalities using adoption data. It has also contributed knowledge that is directly useful in guiding Federal Reserve policies towards payments usage and the development of new payment systems.

This research agenda also illustrates my philosophy towards new empirical methods. I believe that one should always find the simplest methods to address any research question. However, if adequate methods to address the relevant question do not exist, then I am willing to develop new methods, as in [K]. Moreover, even when one does develop new methods, it is sometimes best to first start by providing robust answers to questions that can be answered simply, as in [B], as this adds believability to the more structural estimation.

Dynamic endogenous models of mergers [G] and [A]:

Both of my papers on mergers have examined long-run industry evolution in cases in which firms can choose to merge with competitors. The value of these papers is to bring sophisticated computational and theoretical machinery to bear on these very important questions, in order to understand how the different counterbalancing forces of entry, exit, investment and mergers together will affect outcomes in different industries. Both papers contributed to the literature by developing endogenous models of mergers within the context of a dynamic industry model. Endogenizing mergers was an important advance from the literature as it allowed for an evaluation of when mergers would occur and what are the welfare and industry structure implications of different antitrust policies. The second paper [A] expanded on the first paper [G] by providing a clear understanding of how different industry characteristics, such as elasticities of demand and of investment, lead to different long run industry structures.

As with much of my work, these papers develop models that can have a clear impact on potential policies, in this case antitrust policies. These papers differ from much of my other work in that they do not use data, but are rather strictly theoretical. I am excited about the potential of empirical work to answer questions that can contribute to relevant policies, largely because of the explosion in the availability of computational power,

methods and data that has occurred in recent years. For this reason, I envision that most of my work will continue to use data, but that I will continue to write some exclusively theoretical papers.

Moreover, all of my empirical work has a substantial theoretical basis. In general, I believe that good empirical work should be based upon theory because theory is necessary to model agents' incentives. This is particularly true for my work where the agents are often dynamic and often interact with other agents as players in a dynamic game.

Entry and the market for ATMs [O]:

The goal of this work is to understand the impact of ATM surcharges on the prevalence of ATMs, firm profits and consumer welfare. The paper makes use of an appealing source of identification, which is that the state of Iowa banned surcharges while the neighboring state of Minnesota did not. We assume that the policy difference is exogenous in the sense that it does not reflect any difference in economic fundamentals for the border counties of the two states.

Using this idea, we first examine simple data on counts of ATMs in border counties. We find that allowing surcharges had only a modest impact on raising the number of ATMs, resulting in about 15 percent more ATMs. This finding stands in stark contrast to other studies and general opinion. Most other studies are identified based on the variation in ATMs over time, and envision a large positive impact of allowing surcharges on the number of ATMs based on the fact that ATMs have been rapidly diffusing over time, and surcharge bans were mostly eliminated in 1997.

We proceed to structurally estimate the fundamental parameters of this industry, in order to understand the welfare and distributional consequences of different ATM surcharge policies. In particular, we specify a discrete choice model of consumer utility for ATM use, which allows for ATM price and distance to the ATM to affect utility. We also specify an equilibrium model of firms' decisions to open ATMs. We then prove that our model is semiparametrically identified using the exogenous variation in policy regimes between Iowa and Minnesota. Using this variation in policy together with new econometric methods, we estimate the structural parameters underlying consumer utility and ATM entry decisions. We then use the estimated structural parameters to simulate different policy regimes, including the first-best decisions of a social planner. We find that allowing surcharges results in a substantial transfer of welfare from consumers to banks, but leaves total surplus approximately unchanged. We also find that a hypothetical social planner could have increased total surplus by about 20 percent by opening many more ATMs and charging bank customers a fixed fee in exchange for unlimited ATM use.

This paper contributes to the literature on ATMs, and more generally differentiated products entry, by formally specifying and estimating a full equilibrium model of the industry, developing new methods to estimate this model, and examining how the

predictions of the model change with different policy regimes. These results are also crucial in informing the debate about whether governments should regulate surcharges, and cannot be answered by simply examining the difference between ATM counts over the Minnesota and Iowa border region.

This paper also illustrates my philosophy about identification. I believe strongly that it is important to critically examine how parameters are identified. For this reason, I believe that we should search for sources of identification for key parameters. Where possible, we should also search for new and better sources of data. Indeed, the source of identification was what motivated me to work on this research topic. If we had not used the difference between these regions to identify the parameters of interest, we would not have been able to identify the fundamental parameters in any believable fashion, and our conclusions, in turn, would be suspect. Yet, I also believe that once we are confident about a reasonable source of identification, it is also often important for policy reasons to use this source to perform substantial analysis beyond simple observation.

Dynamic estimation of demand for consumer durables [Q]:

This ongoing research agenda develops new methods to estimate the dynamics of demand for differentiated product consumer durable goods that extend the literature on discrete choice estimation. We apply the methods to estimating consumer preferences for the markets for DVD players and digital cameras.

Rapidly falling prices and improving product attributes have been two of the most consistent features of these markets. A rational consumer who contemplated purchasing a DVD player early on would need to form expectations about the future path of price and quality, in order to decide whether to purchase a model then or wait for future models and most likely, lower prices. This suggests the importance of modeling dynamics in estimating consumer preferences. Moreover, people who bought a DVD player early on are likely to be out of the market for some time (because DVD players are durable), implying that the set of potential customers, and in particular the set of high–value potential customers, is shrinking over time. This further suggests the need for a model with heterogeneous consumer types.

This research project estimates a structural dynamic model of consumer preferences for new consumer durable goods that incorporates consumer heterogeneity and the rational expectations of consumers about future price and quality paths. Preliminary results show that consumer expectations are very important in determining the sales path of DVD players, and that modeling these expectations is necessary to obtain reasonable estimates of consumer preferences for this industry.

This research project contributes to the literature in that it develops new methods for estimating dynamic demand systems that are potentially broadly applicable. Moreover, many important decisions depend on the answers that we find. In particular, it is very important to understand the extent to which new consumer goods have contributed to consumer welfare, as a host of government programs depend on accurate price indices. In

my opinion, the only theoretically sound way to understand the welfare contributions of these goods is to model the dynamics of demand for these goods, which our paper is among the first to do. Understanding the nature of consumer preferences for these industries is crucial to evaluating firm decisions about dynamic price discrimination and advising firms on pricing strategies for new consumer durables.

This paper also illustrates my philosophy about what I consider interesting research questions. I am motivated to answer research questions where policymakers might ultimately care about the answers and where I feel that I can contribute to the knowledge of these answers given the existing literature. The key point with respect to this project is not that the government or firms are about to base current policies on our findings. Rather, my goal in this project is to develop methods and insights that might be useful inputs for broader policy decisions of the future.

Ongoing and future research:

Given the different topics on which I have researched, a natural question is the direction that my research will take in the future. Much of what I envision researching will involve the economics of healthcare and markets of new goods. Healthcare is a sector that accounts for 15 percent of U.S. GDP and has been growing. Much of the reason for this growth stems from increases in new high-technology services. Yet, little is known about how much consumers value these services, especially since consumers rarely pay for the cost of healthcare treatments at the margin. Moreover, this is an area where government programs such as Medicare and Medicaid are huge and almost certain to undergo tremendous change.

As an example, one project I am currently researching is on understanding the impact of employee cost-sharing on health outcomes. In recent years, employers have increasingly shifted healthcare costs to employees at the margin. The idea of this research is to understand what happens when employees pay for more of the cost of their healthcare in the form of greater copays for prescription drugs and physician office visits. One possibility is that employees take greater charge of their healthcare, but another is that they instead skimp on necessary prescription drugs and physician care, and end up with more costly and worse outcomes. In order to answer this question, I am in the midst of obtaining panel data from three large St. Louis area employers. The data provide variation in health plan offerings and physician, prescription drug and hospital diagnosis and cost information for each employee. Because some employers changed their benefits structure in January and other employers changed their benefits structure in July, we are able to create a longitudinal panel with a difference-in-difference design, where the different employers can serve as control groups for each other. Much of the value added of this study is that the data are much more detailed (to my knowledge) than data that have been used to answer this type of question before, resulting in much more believable and complete answers to the questions of interest.

I also plan to continue working on issues of mergers and network externalities, and in industries with new, high technology goods and services. These are questions which are

vastly important for a variety of governmental and firm policies, and more generally, for understanding how our changing economy functions.

An example of a new service in which I am interested is market for executive MBA education. I am currently in the midst of obtaining data on prices, quantities and characteristics for executive MBA programs, and plan to use these data to perform an equilibrium of this market. This research provides a unique opportunity to study education for a program where schools are generally free to set prices to maximize profits. This research will allow me to understand key determinants of the profitability of entry and the determinants of demand for these programs.

As with my completed research, my choice of future research topics is motivated by finding questions and data for which I can provide a high impact. I measure the impact in terms of answering questions that might influence policy, and contributing significantly to the answers and methods over the existing literature.

Conclusions:

The research questions that I answer are diverse in topic, but all focus on the broad theme of understanding firm and consumer incentives and evaluating how these incentives translate into equilibrium outcomes. In spite of the diversity of topics, my work has impact in two dimensions. First, I have answered underlying questions about industries that are important in the sense of having a large impact on potential governmental or firm policies. Second, my work has developed new methods that are useful building blocks for other researchers interested in examining related questions. These two principles will continue to guide my choice of future projects.

The impact of my work is also demonstrable in a number of observable dimensions. My work has been widely published, and includes a paper in *Econometrica*, three papers in the *RAND Journal of Economics,* and three papers in the *Journal of Health Economics*. My unpublished work includes two revise and resubmits at *RAND*. My work is widely cited, particularly by research papers that are at the working paper stage by researchers at top schools. I have been invited to give research seminars on my work at virtually every top institution in the U.S. My papers, including [A], [B], [E], [F], [G], [J], [K], have been taught in graduate classes in industrial organization at top institutions such as Boston University, Harvard, Stanford, Yale, and the University of Minnesota, and my methods are being used and extended in research by students at top institutions. Finally, my work is used in a variety of policy settings, including payments policy and antitrust cases.

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RESEARCH INTERESTS:

Industrial Organization, Health Economics, Applied Econometrics

EDUCATION:

Ph.D., Economics, Yale University, 1995
M.Phil., Economics, Yale University, 1993
M.A., Economics, Yale University, 1992
B.A., Economics, Swarthmore College, 1991

RESEARCH AND PROFESSIONAL EXPERIENCE:

Assistant Professor of Economics, John M. Olin School of Business, Washington University in St. Louis, Fall 2003 – present
Faculty Research Fellow, National Bureau of Economic Research, Productivity Group, 2001 – present, Health Care Group, 2004 – present
Consultant, Federal Reserve Bank of New York, 2002 – present
Visiting Assistant Professor, Department of Economics, Yale University, Spring 2003
Visiting Assistant Professor, Department of Economics, Harvard University, Fall 2002
Assistant Professor, Department of Economics, University of Minnesota, 1995 – 2002
Visiting Scholar, Federal Reserve Bank of San Francisco, 2001 – 02
Visiting Assistant Professor, Department of Economics, University of Michigan, 1997 – 98
Consultant, Federal Reserve Bank of Minneapolis, 1998 – 2001

REFEREED PUBLICATIONS:

Published and forthcoming:

[A] Gowrisankaran, Gautam and Thomas J. Holmes (2004). "Mergers and the Evolution of Industry Concentration: Results from the Dominant Firm Model," *RAND Journal of Economics* 35: 561–82. (Also NBER Working Paper 9151.)

[B] Gowrisankaran, Gautam and Joanna Stavins (2004). "Network Externalities and Technology Adoption: Lessons from Electronic Payments." *RAND Journal of Economics* 35: 260–276. (Also NBER Working Paper 8943.)

[C] Chernew, Michael, Gautam Gowrisankaran, Catherine McLaughlin and Teresa Gibson (2004). "Quality and Employers' Choice of Health Plan." *Journal of Health Economics* 23: 471–92. (Also NBER Working Paper 9847.)

[D] Gowrisankaran, Gautam and Robert J. Town (2003). "Competition, Payers and Hospital Quality." *Health Services Research* 38: 1403 – 22. (Also NBER Working Paper 9206.)

[E] Geweke, John, Gautam Gowrisankaran and Robert J. Town (2003). "Bayesian Inference For Hospital Quality in a Selection Model." *Econometrica* 71: 1215 – 1238. (Also NBER Working Paper 8497.)

[F] Chernew, Michael, Gautam Gowrisankaran and A. Mark Fendrick (2002). "Payer Type and the Returns to Bypass Surgery: Evidence from Hospital Entry Behavior," *Journal of Health Economics* 21: 451 – 474. (Also NBER Working Paper 8632.)

[G] Gowrisankaran, Gautam (1999). "A Dynamic Model of Endogenous Horizontal Mergers," *RAND Journal of Economics* 30: 56 – 83.

[H] Gowrisankaran, Gautam (1999). "Efficient Representation of State Spaces for Some Dynamic Models." *Journal of Economic Dynamics and Control* 23: 1077 – 98.

[I] Gowrisankaran, Gautam and Robert J. Town (1999). "Estimating the Quality of Care in Hospitals Using Instrumental Variables," *Journal of Health Economics* 18: 747 – 67.

[J] Gowrisankaran, Gautam and Robert J. Town (1997). "Dynamic Equilibrium in the Hospital Industry." *Journal of Economics and Management Strategy* 6: 45 – 74.

Revisions:

[K] Ackerberg, Daniel A. and Gautam Gowrisankaran (2005). "Quantifying Equilibrium Network Externalities in the ACH Banking Industry." Revised manuscript resubmitted to *RAND Journal of Economics*.

[L] Gowrisankaran, Gautam and Robert J. Town (2005). "Managed Care, Drug Benefits, and Mortality: An Analysis of the Elderly." (Also NBER Working Paper 10204.) Revision requested by *RAND Journal of Economics*.

First submissions:

[M] Chernew, Michael, Gautam Gowrisankaran and Dennis Scanlon (2004). "Learning and the Value of Information: The Case of Health Plan Report Cards." (Also NBER Working Paper 8589.)

[N] Gowrisankaran, Gautam, Matthew F. Mitchell and Andrea Moro (2005). "Why Do Incumbent Senators Win? Evidence from a Dynamic Selection Model." (Also NBER Working Paper 10748.)

[O] Gowrisankaran, Gautam and John Krainer (2005). "The Welfare Consequences of ATM Surcharges: Evidence From a Structural Entry Model."

Working papers:

[P] Gowrisankaran, Gautam, Vivian Ho and Robert J. Town (2005). "Causality and the Volume-Outcome Relationship in Surgery."

[Q] Gowrisankaran, Gautam and Marc Rysman (2005). "Determinants of Price Declines for New Consumer Durable Goods."

GRANTS, AWARDS AND HONORS:

National Science Foundation Grant SES-0318170, "Estimating Models of Firm Entry," 2003 – 06, $207,645

NET Institute Fellowship, 2004, 2003

University of Minnesota, Faculty Summer Research Fellowship, 1999

University of Minnesota Supercomputer Institute, 1998-99

University of Minnesota, Single Quarter Leave, Winter 1998

University of Minnesota Faculty Summer Research Fellowship, 1996

Alfred P. Sloan Foundation Doctoral Dissertation Fellowship, 1994 – 95

Social Sciences and Humanities Research Council of Canada Doctoral Fellowship, 1993 – 95
Master's and Doctoral Fellowship from the Government of Quebec, 1991 – 95
Yale University Fellowship, 1991 – 95

PROFESSIONAL ACTIVITIES:
   Consultant for:
      Federal Trade Commission, 2003 – 04
      Federal Reserve Bank of Cleveland, 1997 – 98
      State of Minnesota, Office of the Attorney General, 2001
      Microeconomic Consulting & Research Associates (MiCRA), Inc., Washington, DC
      Competition Economics, Inc., Washington, DC, 1996
   Ad-hoc Referee for:
      American Economic Review
      B.E. Journals in Economic Analysis & Policy
      Canadian Journal of Economics
      Econometrica
      Economic Journal
      European Economic Review/Journal of the European Economic Association
      Health Economics
      Health Services Research
      Journal of Comparative Economics
      Journal of Econometrics
      Journal of Economic Theory
      Journal of Economics and Management Strategy
      Journal of Health Economics
      Journal of Industrial Economics
      Journal of Law and Economics
      Journal of Law, Economics and Organization
      Journal of Political Economy
      International Economic Review
      International Journal of Industrial Organization
      RAND Journal of Economics
      Review of Economic Dynamics
      Review of Economic Studies
      Review of Economics and Statistics
      Review of Network Economics
      Southern Economic Journal
   Ad-hoc Reviewer for:
      National Science Foundation
      Institute for International Integration Studies at Trinity College Dublin
      W.W. Norton & Company
      University of Venice Doctoral Committee
   Invited seminar presentations since October, 2001:
      Network Externalities and Technology Adoption: Lessons from Electronic Payments
         NYU Stern School of Business, October, 2001

Federal Reserve Bank of New York, December, 2001

Learning and the Value of Information: The Case of Health Plan Report Cards
    UC Berkeley, Agricultural and Resource Economics, October, 2001
    UC Davis, Agricultural and Resource Economics, November, 2001
    Columbia University, December, 2001
    Stanford University GSB, March, 2002
    Brown University, April, 2002
    Dartmouth College, April, 2002
    UC San Diego, April, 2002
    UC Berkeley, April, 2002
    University of Toronto, October, 2002

Bayesian Inference For Hospital Quality in a Selection Model
    Federal Reserve Bank of Chicago, November, 2001
    Yale University, December, 2001
    Duke University, January, 2002
    UC Davis, May, 2002
    Queen's University, October, 2002
    University of Montreal, November, 2002
    Agency for Healthcare Quality and Research, October, 2003

Quantifying Equilibrium Network Externalities in the ACH Banking Industry
    Harvard University, September, 2002
    Washington University in St. Louis, December, 2002
    University of Montreal, January, 2003
    Yale University, March, 2003

Managed Care, Drug Benefits, and Mortality: An Analysis of the Elderly
    Boston University (joint with Harvard and MIT), April, 2003
    Yale University, June, 2003
    Washington University in St. Louis, Work, Family and Public Policy Seminar, April, 2004
    University of North Carolina, Department of Health Policy and Administration, Triangle Health Economics Workshop (long-distance format), September, 2004
    HEC - Montréal (University of Montreal Business School), March, 2005

The Welfare Consequences of ATM Surcharges: Evidence From a Structural Entry Model
    Columbia University, September, 2003
    University of Wisconsin, September, 2003
    Pennsylvania State University, September, 2003
    University of Maryland, October, 2003
    Board of Governors of the Federal Reserve, November, 2003
    Trinity College Dublin, Dublin (Ireland) Economics Workshop, March, 2004
    University of Pennsylvania, March, 2004

University of Chicago Graduate School of Business, Marketing Seminar, April, 2004
University of Minnesota, May, 2004
Competition Bureau of Canada, May, 2004
Federal Reserve Bank of New York, June, 2004

Why Do Incumbent Senators Win? Evidence from a Dynamic Selection Model
Washington University in St. Louis, Political Economy Seminar, May, 2004
American Enterprise Institute, scheduled November, 2005

Causality and the Volume-Outcome Relationship in Surgery
Syracuse University, April, 2005
University of Chicago, Health Economics Seminar, April, 2005

Determinants of Price Declines for New Consumer Durable Goods
Northwestern University Kellogg School of Management, April, 2005
University of Missouri, April, 2005
Federal Reserve Bank of San Francisco, June, 2005
Duke University, September, 2005

Invited or refereed conference presentations since October, 2001:
Quality and Employers' Choice of Health Plan
Allied Social Sciences Association Winter Meetings, Washington, January, 2003

Network Externalities and Technology Adoption: Lessons from Electronic Payments
Center for Economic Policy and Research Conference on Productivity and Technology, Alghero, Italy, March 2002
Federal Reserve Bank of Philadelphia, Conference on Payment Systems, May, 2002

Learning and the Value of Information: The Case of Health Plan Report Cards
Society for Economic Dynamics Annual Meetings, New York, July 2002
National Bureau of Economic Research (NBER) Summer Institute, July, 2002
Allied Social Sciences Association Winter Meetings, Atlanta, January, 2002
Quantitative Marketing and Economics Conference, Chicago, October, 2003

Quantifying Equilibrium Network Externalities in the ACH Banking Industry
Stanford Institute for Theoretical Economics (SITE), July, 2002
International Industrial Organization Society Conference, Boston, April, 2003
University of Iowa Clarence Tow Conference on Industrial Organization, May, 2003
Society for Economic Dynamics Annual Meetings, Paris, June 2003
CEPR Conference on Two-Sided Markets, Toulouse, France, January, 2004
Kiel – Munich Workshop on the Economics of Information and Network Industries, Munich, Germany, August, 2004
NET Institute 2005 Conference, New York, April, 2005

Bayesian Inference For Hospital Quality in a Selection Model

Indiana University – Bloomington Conference on Simulation-Based Econometric Methods, February, 2003

The Welfare Consequences of ATM Surcharges: Evidence From a Structural Entry Model
University of British Columbia Summer Industrial Organization Conference, July 2003
Allied Social Sciences Association Winter Meetings, Philadelphia, January, 2005
National Bureau of Economic Research (NBER) Winter Industrial Organization Meetings, Menlo Park, CA, February, 2005
Recent Developments in Consumer Credit and Payments, Federal Reserve Bank of Philadelphia, September, 2005

Managed Care, Drug Benefits, and Mortality: An Analysis of the Elderly
Annual Health Economics Conference, Birmingham, Alabama, April, 2004
National Bureau of Economic Research (NBER) Summer Institute, August, 2004

Causality and the Volume-Outcome Relationship in Surgery
International Health Economics Association Meetings, Barcelona, Spain, July, 2005
Consumers, Information and the Evolving Healthcare Marketplace Conference, Cornell University, April, 2005

Conference organization:
Co-organizer, 2004 and 2005 CRES Industrial Organization Conference
Co-organizer, 2005 International Industrial Organization Conference, Atlanta, GA