

QING GONG<https://economics.sas.upenn.edu/graduate-program/candidates/qing-gong>

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Personal Information:

Citizenship: China
Gender: Female

Prior Education:

M.A., Economics, Peking University, 2012
B.A., Economics, Peking University, 2010

Graduate Studies:

University of Pennsylvania, 2012 to present
Thesis Title: "Essays on Healthcare Provision"
Expected Completion Date: May 2018

Thesis Committee and References:

Professor Hanming Fang (Primary Advisor)
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Teaching and Research Fields: Public Economics, Health Economics**Teaching Experience:**

Fall 2016	Public Finance, Teaching Assistant for Professor Hanming Fang
Spring 2016	Industrial Organization, Teaching Assistant for Professor Anne Duchene
Fall 2015	Microeconomics, Recitation Instructor for Professor Anne Duchene
Spring 2014	Econometrics, Recitation Instructor for Professor Frank Schorfheide
Fall 2013	Econometrics (graduate), Teaching Assistant for Professors Frank Schorfheide and Xu Cheng

Research Experience and Positions:

2016-present	Associate Fellow, Leonard Davis Institute of Health Economics
2014-2015	Research Assistant for Professor Hanming Fang

Conference Presentations:

- 2017 International Health Economics Association (iHEA) World Congress, Boston
- 2016 American Society of Health Economists (ASHEcon) Biennial Meeting, Philadelphia
Econometric Society North American Summer Meeting, Philadelphia
Beyster Symposium for Employee Ownership and Profit Sharing, San Diego

Honors and Fellowships:

- 2017 Dissertation Completion Fellowship, University of Pennsylvania
Russell Ackoff Doctoral Student Fellowship, Wharton Risk Management Center
- 2016 Corey Rosen Fellowship, Rosen Ownership Opportunity Fund, Rutgers University
- 2012-2016 University Fellowship, University of Pennsylvania

Research Papers:

“Physician Learning and Treatment Choices: Evidence from Brain Aneurysms” (Job Market Paper)

Physicians often choose among alternative treatment options based on their beliefs over the treatment effectiveness and their skills in delivering the treatment. I examine how two kinds of physician learning jointly shape their treatment choices: *Bayesian learning* that updates beliefs about treatment-patient match values and *learning by doing* that improves surgical skills. Using case-level data on the history of brain aneurysm treatments by over 200 physicians, I find that both kinds of learning are present and that physicians are forward-looking. In light of these empirical patterns, I develop and estimate a dynamic structural model of physician learning and treatment choices for heterogeneous patients. I then disentangle the impacts of the two kinds of learning and explore to what extent forward-looking physicians deviate from myopic best choices. Physicians are more than twice as likely to experiment on unhealthy patients than healthier ones, which hurts short-term outcomes but improves overall treatment success rates by 13-17%. I also evaluate the impacts of several alternative payment schedules. Uniform payments across treatments facilitate the adoption of the new treatment while outcome-contingent payments have heterogeneous effects across physicians. The heterogeneity highlights the coexistence of two opposing effects: the incentive to exploit the myopic best option and the incentive to experiment with less familiar options due to the increased return from learning.

“Ex Post Moral Hazard in Automobile Insurance Markets with Experience Rating”

Accounting for unreported accidents due to ex post moral hazard is important for studying asymmetric information in insurance markets. In this paper, I study ex post moral hazard in an automobile insurance market with experience rating. I develop a dynamic model in which policyholders with private information about their risk types choose accident prevention efforts (ex ante moral hazard) and make claim filing decisions when accidents happen (ex post moral hazard). I then estimate the model using a detailed policy-level panel dataset from China. I find that policyholders do not report 24% of all accidents, which account for about 5% of total monetary losses. The degree of ex post moral hazard varies by experience rating: policyholders with the best rating hide 40% of all accidents. Finally, I use counterfactual experiments to evaluate the welfare implications. I find that experience rating improves policyholder welfare, mainly by inducing higher preventive efforts and reducing accidents. When ex post moral hazard is restricted and policyholders are forced to report all accidents, the benefit from increased accident prevention efforts barely outweighs policyholders' loss from increased premiums.

“Retention Effects of Employee Stock Options: Evidence from Bunching at Vesting Dates” (with James Liang, Hong Zhang, and Li-An Zhou)

Whether employee stock options bring the firm enough benefit to justify the cost is at the center of much debate. We study the retention effect of stock options to reconcile their popularity and high granting costs. We use the bunching design to address the endogeneity problem and identify the causal effects of options on retention. Using a novel administrative panel dataset at the individual employee level, we find option owners delay quitting until options vest to minimize the opportunity cost of quitting. The bunching at the vesting dates is significant and sizable: the quitting of option owners more than doubles shortly after options vest. We find the bunching effect is robust to alternative explanations, is stronger when option values are high, and is unique to voluntary quitters but absent among owners who leave involuntarily. We also verify that the retained option owners have superior

performance, and conduct a simple benefit-cost analysis with the baseline estimates. We find that the retention benefits contribute greatly to the total benefit of options, which exceeds the granting cost by 95-275%. Accounting for the retention effects of options can avoid underestimating the benefit-cost ratio, thereby helping to reconcile the popularity of options and the high granting costs.

Publications:

“Detecting Potential Overbilling in Medicare Reimbursement via Hours Worked,”
American Economic Review, 2017, 107(2), pp. 562-591
(with Hanming Fang)

We propose a novel and easy-to-implement approach to detect potential overbilling based on the hours worked implied by the service codes physicians submit to Medicare. Using the Medicare Part B Fee-for-Service (FFS) Physician Utilization and Payment Data in 2012 and 2013, we construct estimates of physicians’ hours spent on Medicare beneficiaries. We find that about 2,300 physicians, representing about 3% of those with 20 or more hours of Medicare Part B FFS services, have billed Medicare over 100 hours per week. We consider these implausibly long hours and find suggestive evidence that the coding patterns of the long-hour physicians respond to financial incentives: within code clusters with different levels of intensity for the same service, they tend to submit more high-intensity codes, especially when the marginal revenue gain from doing so is higher.

“Polluting Thy Neighbor: Unintended Consequences of China’s Pollution Reduction Mandates,”
Journal of Environmental Economics and Management, 2016, 76(3), pp. 86-104
(with Hongbin Cai and Yuyu Chen)

We study how China’s pollution reduction mandates in 2001 triggered unanticipated responses from its provinces. We apply the difference-in-differences-in-differences (DDD) method to a unique dataset on industry-level activities in counties along 24 major rivers in China from 1998 to 2008. We find that the most downstream county of a province has up to 20% more water-polluting activities than otherwise identical counties starting from 2001. Moreover, we find that the enforcement of pollution fee collection is more lenient in the most downstream counties, and that private firms contribute more to the downstream effect of pollution than state-owned and foreign firms. These findings suggest that provinces respond to the pollution reduction mandates by shifting enforcement efforts away from the most downstream county, thereby meeting the mandate requirements but polluting the downstream neighbor province.

Research in Progress:

“Learning by Doing and Endogenous Patient-Physician Matching: Evidence from Cardiac Surgeons in New York State”
(with Hanming Fang)

We examine the dynamic patient allocation problem of hospitals whose goals are to improve patient outcomes while training new physicians. We develop a dynamic model of endogenous patient-physician matching with heterogeneous patient conditions. Hospitals in our model try to strike the optimal balance between the learning by doing of junior physicians and the superior performance by experienced physicians. We conduct the empirical analyses on an administrative panel data of cardiac surgeons in New York State.