# **PHUONG HO**

University of Arizona Department of Economics 1130 E Helen St. Tucson, AZ 85721-0108 Email: phuongho@email.arizona.edu Website: www.u.arizona.edu/~phuongho Phone: +1 (520) 388-0625 CV Last Updated in November 2018

Placement Director: Prof. Price Fishback, fishback@email.arizona.edu, +1 520 621 4421

Assistant Director: Liz Jenkins, ejenkins@email.arizona.edu, +1 520 626 7743

Available for interviews at the EEA Job Market Meeting in Naples and the ASSA 2019 Meeting in Atlanta.

## RESEARCH INTERESTS

Industrial Organization, Environmental & Energy Economics, Applied Econometrics

#### **EDUCATION**

Ph.D. Economics 2014–2019

University of Arizona, United States

M.A. Economics 2014–2015

University of Arizona, United States

B.Com. (Honors), Economics 2009–2013

Victoria University of Wellington, New Zealand First Class Honors

# RESEARCH PAPERS

#### JOB MARKET PAPER

# "Environmental Protection, Interjurisdictional Transport, and the Demographic Distribution of Solid Waste Disposal"

Using data on intercounty waste flows in California and a structural model of haulers' decisions about where to deposit waste from each county, this paper studies the effects of environmental protection policies on the spatial and demographic distribution of solid waste. I find that waste is currently more likely to be hauled to disposal facilities in communities with higher percentages of blacks and Hispanics, even after I control for income, disposal fees, and transport distances, suggesting that unobserved characteristics of facilities and neighborhoods matter in haulers' decisions. I account for these factors by allowing for facility fixed effects in the demand model for waste disposal facilities. The results show that policies that limit waste flows would reduce intercounty waste transport but they generally would not lead to a more equitable distribution of trash. In particular, these policies tend to lead to substitution of waste away from facilities near white residents and toward facilities near Hispanic residents, potentially exacerbating distributional concerns.

#### **PUBLICATION**

T. Daglish, Y. Sağlam, and P. Ho, "Auctioning the Digital Dividend: A Model for Spectrum Auctions", International Journal of Industrial Organization, 53: 63–98, 2017.

We model a spectrum auction where firms purchase units to participate in a constrained, multi-product, downstream market. We use dynamic programming techniques to numerically solve for the optimal bidding strategy in a clock auction. Firms value constraining competitor market power, so incumbents often bid aggressively to shut out entrants. We find that high cost firms may hold up the market, so the auction may be inefficient and generate zero revenue. An auction may be optimal for a regulator maximizing total

surplus. A regulator maximizing auction revenue sets reserve prices high enough to restrict spectra sold, effectively behaving as a monopolist.

#### WORKING PAPER

### "Nonlinear Pricing, Biased Consumers, and Regulatory Policy"

Price schedules with increasing block tariffs have been used by policy makers to regulate important markets such as water and electricity. Although such tariffs are argued to promote equity, resource conservation, and revenue stability, they are usually not argued to promote efficiency. This paper re-examines regulated non-linear pricing in light of recent evidence regarding electricity customers respond to changes in average price rather than to changes in marginal price (Ito, 2014). I find that optimal regulated non-linear pricing under average price response behavior is independent of the consumer type distribution. Fixing consumer preferences and the type distribution, increasing per-unit prices may be optimal when consumers respond to average price, while decreasing per-unit prices are optimal when consumers respond to marginal price. These results suggest that the equity-efficiency trade-off associated with increasing block tariffs may be less severe than previously believed.

#### WORK IN PROGRESS

# "The Effects of Flow Controls and Environmental Regulations in Solid Waste Industry"

This paper complements to the job market paper by adding the supply side to study the equilibrium effect of flow controls and environmental regulations. The supply side assumes disposal facilities are competing in prices. I also distinguish the behavior of public facilities and private facilities to study another class of waste flow control besides interjurisdictional waste control. In 1994 the Supreme Court prohibited flow control that designate where waste must be disposed of, but they have recently revealed a more flexible view by upholding the county ordinances that directed all locally generated trash to local publicly owned processing facilities, citing that the previous court case had presented a privately-owned facility. I, hence, study the effects of such flow controls in the market where private facilities are competing in prices and public facilities are setting prices at average costs.

## "Race, Ethnicity, and the Distribution of Waste Flows"

I revisit questions on environmental justice in solid waste industry. Literature has documented an uneven distribution of environmental hazards among race groups, but they focus on total concentration of hazard at a site. I, on the other hand, distinguish between multiple waste flows from different origins coming to the facility. This gives four benefits. First, I identify the exposure disparities between racial/ethnic minority groups and white within neighborhoods of hazard sites. This contrasts to the literature that has compared communities within facility's buffers and other areas that are far away from hazards, which may be confounded by the initially disproportionate siting of facilities. Second, I separate the exposure disparity from economic characteristics of facilities that affect their receiving waste quantity such as disposal price and transport cost. Third, I identify the disparity that is not related to political capability by controlling for intercounty flows vis-à-vis within-county flows. Fourth, I examine whether the disparity is an urban-rural story by exploiting the variation in waste flows that are sent from the same county to different destinations within a certain distance.

## TEACHING EXPERIENCE

#### Sole Instructor of Record

University of Arizona

BNAD 301: Global and Financial Economics and Strategy BNAD 301: Global and Financial Economics and Strategy BNAD 301: Global and Financial Economics and Strategy ECON/BNAD 276: Statistical Inference in Management ECON/BNAD 276: Statistical Inference in Management Online, Three-week Session, Summer 2018
Online, Five Week I, Summer 2018
Online, Five Week II, Summer 2018
Three-week Session, Summer 2017
Three-week Session, Summer 2016

Teaching Assistant University of Arizona	
ECON 150C1: Energy and Environmental Challenges	Fall 2018
ECON 361: Intermediate Microeconomics	Spring 2018
ECON 300: Microeconomic Analysis for Business Decisions	Spring 2018
ECON 437: Energy Markets & Environmental Economics	Spring 2017
ECON 150C1: An Economic Perspective	Spring 2017, Fall 2017
ECON 330: Macroeconomics & Global Institutions and Policy	Fall 2016, 2018
ECON 332: Intermediate Macroeconomics	Spring 2016
ECON 520: Theory of Quantitative Methods (Ph.D. course)	Fall 2015
ECON 453: Quantitative Methods for Economic Strategy ECON 200: Basic Economic Issues	Spring 2015 Fall 2014, 2015, 2017
ECON 200: Basic Economic issues	Fall 2014, 2015, 2017
Teaching Assistant Victoria University of Wellington	
ECON 130: Principles of Economics & Issues	Trimester 2 (Fall), 2013
QUAN 111: Mathematics for Economics & Finance	Trimester 1 (Spring), 2013
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CONFERENCES & SEMINARS	
Summer School in Energy & Environmental Economics, Cologne, Germany (presented "Nonlinear Pricing, Biased Consumers, and Regulatory Policy")	2017
Berkeley/Sloan Energy & Environmental Economics Summer School, U.C. Berkele	ey 2016
The 54th Annual Conference of the New Zealand Association of Economists (presented "Auctioning the Digital Dividend: A Model for Spectrum Auction")	2013
Communication Policy Research South 7 Workshop and Conference, Mauritius	2012
GRANTS, HONORS, & AWARDS	
GPSC Research Grant (\$1,000), University of Arizona	2017
GPSC Travel Grant (\$1,000), University of Arizona	2017
GPSC Travel Grant (\$750), University of Arizona	2016
Graduate Assistantship, University of Arizona	2014-2019
Business School Excellence Award for Economics, Victoria University of Wellington	n 2014
Graduate Study Award, NZAE Education Trust (Awarded in the 54th New Zealand Association of Economists Conference)	2013
Lady Stout Bursary, Victoria University of Wellington	2013
Victoria Graduate Award, Victoria University of Wellington	2013
Award for Excellence in Accounting, Victoria University of Wellington	2013
Young Scholar Award, CPR South 7 Conference, Mauritius	2012
Dean's List for Academic Excellence, Victoria University of Wellington	2012
Dean's List for Academic Excellence, Victoria University of Wellington	2011

# ADDITIONAL WORK EXPERIENCE

Research Assistant

University of Arizona

Prof. Price Fishback: Building & Loan Associations in 1920s Fall 2016

Travel Grant Judge

 $University\ of\ Arizona$ 

University of Arizona Graduate and Professional Student Council Spring 2017, Fall 2016

Research Assistant

Victoria University of Wellington

Prof. Toby Daglish: Spectrum Auction & misc. Nov 2011–Jun 2014

Mentor

Victoria University of Wellington

Te Pūtahi Atawhai Program (for Māori and Pasifika students)

Jul 2011—Nov 2012

**SOFTWARE SKILLS** 

R, STATA, MATLAB, IATEX, QGIS, Maple (Maplesoft), Microsoft Office

LANGUAGES

English (fluent), Vietnamese (native)

# REFERENCES

Mauricio Varela

Assistant Professor of Economics

University of Arizona

Email: mvarela@email.arizona.edu

+1 520 626 3165

Gautam Gowrisankaran

Arizona Public Service Professor of Economics

University of Arizona

Email: gowrisankaran@eller.arizona.edu

 $+1\ 520\ 621\ 2529$ 

John Drabicki (teaching reference)

Associate Professor of Economics

University of Arizona

Email: drabicki@eller.arizona.edu

+1 520 621 4221

Ashley Langer

Assistant Professor of Economics

University of Arizona

Email: alanger@email.arizona.edu

+1 520 621 0117

Price Fishback

Thomas R. Brown Professor of Economics

University of Arizona

Email: fishback@email.arizona.edu

+1 520 621 4421