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PERSONAL

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MAJOR FIELDS OF CONCENTRATION

Applied Game Theory, Microeconomic Theory, Industrial Organization, Structural Econometrics

EDUCATION

<u>Degree</u>	<u>Field</u>	<u>Institution</u>	<u>Year</u>
Ph.D.	Economics	University of Iowa	July 2010 (expected)
B.A.	Economics (Math Emphasis)	Brigham Young University	May 2005
B.A.	Spanish Translation	Brigham Young University	May 2005

DISSERTATION

Title: Affirmative Action in College Admissions: Theory and Estimation

Dissertation Committee: Srihari Govindan (co-chair), Harry J. Paarsch (co-chair), Dan Kovenock, Ayça Kaya, Elena Pastorino

Completion: July 2010 (expected)

EXPERIENCE

Curriculum Design (see <http://myweb.uiowa.edu/brhickma/teaching.html> for course materials.)

- Introduction to Economic Computation and MATLAB for 1st-Year Ph.D. Students
- Review of Real Analysis for Ph.D. Mathematics Camp (joint with Samvel Atayan)
- Introduction to Probability for Graduate Economic Theory (joint with Yiğit Sağlam)

Graduate Teaching Experience

- Instructor, Introduction to Probability for Graduate Economic Theory, Fall 2008, Fall 2009
- Instructor, Math Camp for New Ph.D. Students, Summer 2007, Summer 2008, Summer 2009
- Teaching Assistant, Dynamic Programming for Economics (Ph.D. Core), Spring 2008
- Teaching Assistant, Real Analysis for Economics (Ph.D. Core), Fall 2006, Fall 2007

Undergraduate Teaching Experience

Teaching Assistant, Game Theory, Spring 2007

Teaching Assistant, Industrial Organization, Spring 2007

Teaching Assistant, Introduction to Econometrics, Spring 2007

Tutor, Game Theory, Linear Algebra, Calculus, Statistics, Fall 2005-Spring 2009

REFEREED PUBLICATIONS

"On the Pricing Rule in Electronic Auctions" (latest version: September 2009), forthcoming in *The International Journal of Industrial Organization*

PAPERS/WORK IN PROGRESS

"Effort, Race Gaps and Affirmative Action: A Game-Theoretic Analysis of College Admissions," October 2009 (Job Market Paper, Part I)

"Effort, Race Gaps and Affirmative Action: A Semiparametric Structural Policy Analysis of US College Admissions," October 2009 (Job Market Paper, Part II)

PROFESSIONAL ACTIVITIES

Conference Presentations

20th Stony Brook Game Theory Festival of the Game Theory Society, International Conference on Game Theory (presenter), SUNY-Stony Brook, July 13-17, 2009.

The Association for Public Economic Theory 10th Annual Conference (presenter), National University of Ireland, Galway, Ireland, June 18-20, 2009.

Midwest Economic Theory Meeting (presenter), University of Iowa, Iowa City, May 1-3, 2009.

Midwest Economics Association 73rd Annual Meeting (presenter, discussant), Cleveland, OH, March 20-22, 2009.

Iowa Economics Alumni Workshop (presenter), University of Iowa, Iowa City, IA, March 2008.

Missouri Valley Economics Association Conference (presenter), jointly sponsored by the Federal Reserve Bank of St. Louis and the University of Missouri-Columbia, Columbia, MO, March 2008.

Washington University Economics Graduate Student Conference (presenter, discussant), Washington University-St. Louis, Saint Louis, MO, October 2007.

Seminar Presentations

"Effort, Race Gaps and Affirmative Action: A Semiparametric Structural Policy Analysis of American College Admissions," University of Northern Iowa, Economics Department Seminar Series, September 23, 2009.

Referee

International Journal of Game Theory

HONORS AND AWARDS

Outstanding Research Paper Award, University of Iowa Department of Economics, 2009.

Second place paper, Social Sciences & Education Division, 11th annual James F. Jakobsen Conference, jointly sponsored by the University of Iowa Graduate College and Graduate Student Senate, March 2009.

Fellow, Institute on Computational Economics, jointly sponsored by The University of Chicago Department of Economics and Argonne National Laboratory, July 2008.

Graduate Presidential Fellow, University of Iowa 2005-2010.

COMPUTER SKILLS

MATLAB, AMPL, Perl

LANGUAGE SKILLS

English (native), Spanish (castellano, fluent)

REFERENCES

Srihari Govindan
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ABSTRACTS OF RESEARCH PAPERS

Effort, Race Gaps and Affirmative Action: A Game-Theoretic Analysis of College Admissions

(Job Market Paper, Part I)

I construct a strategic model of incomplete information where many heterogeneous students compete for seats at colleges and universities of varying prestige. I use the model to characterize the effects of Affirmative Action policies on effort choice, racial academic achievement gaps, and college enrollment gaps. I also compare the performance of two common implementations of Affirmative Action: quotas and admission preferences. These policies have very different implications for effort incentives and race gaps. A simple admission preference (such as the one previously used in undergraduate admissions at the University of Michigan) is unambiguously detrimental to effort choice, and is ineffective as an allocational mechanism. More general admission preference schemes can be designed so as to overcome some of these drawbacks. Quotas perform better than a simple admission preference, with some positive and some negative effects on effort and achievement gaps; by design, a quota eliminates the enrollment gap completely. Both classes of policies widen the achievement gap among the highest performing students.

Effort, Race Gaps and Affirmative Action: A Semiparametric Structural Policy Analysis of US College Admissions

(Job Market Paper, Part II)

Using the college admissions model of Hickman (2009), I perform an empirical policy analysis of Affirmative Action (AA) in US college admissions. I use data on American colleges, freshman admissions and college entrance test scores to recover the AA policy implied by the data. Then I semiparametrically estimate the distributions over student heterogeneity. With estimates of the structural elements of the model in hand, I perform a set of counterfactual experiments to compare the effects of the status quo policy with alternatives not observed in the data: color-blind admissions and quotas. Each is evaluated in terms of (i) academic performance effects, (ii) the academic racial achievement gap, and (iii) the college enrollment gap. The empirical model suggests that a color-blind rule and the status-quo policy cannot be unambiguously ranked without knowledge of a social choice function assigning weights to criteria (i)-(iii). In contrast, a quota system is superior to the other two policies on all 3 criteria. However, quotas are illegal in the US and cannot be implemented as such. Nevertheless, I propose a variation on the AA policy already in place that is outcome-equivalent to a quota system, and can be implemented using only information on grades and race.

On the Pricing Rule in Electronic Auctions

Forthcoming in *The International Journal of Industrial Organization*

Researchers and experts have typically viewed electronic auctions (such as those implemented by eBay, Amazon, and Yahoo!) as either oral, ascending-price (English) auctions or second-price, sealed-bid (Vickrey) auctions. I show that important theoretical differences exist between English and Vickrey pricing rules and those used in electronic auctions, due to the presence of bid increments. I also show, using data on eBay laptop sales, that these differences have practical

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significance. I explore the implications of bid increments for strategic bid selection in a static model within the symmetric independent private values paradigm. I derive the unique symmetric equilibrium bid function, showing that the presence of bid increments can significantly alter bidder behavior. Using numerical methods, I also illustrate that these result in a highly non-linear bid function, in contrast to that predicted under either the English or the Vickrey formats.