Christopher Paul Steiner

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Education:

Ph.D. Economics (2015), University of California, San Diego
Thesis Title: *Three Essays in Applied Microeconomics*
C.Phil. Economics (2013), University of California, San Diego
M.A. Economics (2009), University of California, San Diego
B.S.L.A.S. Mathematics and Economics (2008), *cum laude* and with High Distinction in Mathematics, University of Illinois at Urbana-Champaign

Thesis Committee and References:

Richard Carson, chair
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National Oceanic and Atmospheric Admin.
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TEACHING REFERENCE:
Melissa Famulari
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Desired Teaching and Research:

Primary Field: Environmental Economics
Secondary Field: Public Finance, Economics of Education

Current Position:

Visiting Assistant Professor, The Pennsylvania State University (Aug. 2015-May 2016)

Teaching Experience:

Fall 2015 (Penn State): Econ 443: Economics of Law and Regulation
Econ 471: Growth and Development

Summer 2014 (UCSD): Instructor of Record, Economics 1, Principles of Microeconomics
Summer Graduate Teaching Scholars Program, Including Participation in Instructional Course (Winter 2014)

2008-2015 (UCSD): Teaching Assistant and/or Reader, Department of Economics *or* Teaching Assistant, Culture, Art, and Technology Writing Program
(Different position at different times off and on.)

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Previous Positions Held:

2011-2015:	Intern or STEP Student (different position for different periods), National Oceanic and Atmospheric Administration (La Jolla, CA)
Jan.-Feb. 2011:	Contract Statistician, Surfrider Foundation
Summer 2009:	Summer Graduate Student Researcher for Julie Cullen
Summer 2007:	Research Experience for Undergraduates in Mathematics, Worcester Polytechnic Institute, Worcester, MA
Jan.-Jul. 2006:	Finance Co-op, Johnson & Johnson Vision Care, Inc., Jacksonville, FL

Service:

2015-2016:	Penn State LGBTQ Safe Zone Office Participant
Early 2011:	Representative for Economics Department, Graduate Student Association, UCSD

Honors, Scholarships, and Fellowships:

Summer Graduate Teaching Scholar, 2014
Summer GSR Funding, 2009

Research in Progress:

Job Market Paper I

"Hitting Capacity: Implications for Outdoor Recreation Valuation" (with James Hilger)
Choices are often limited as the most popular alternatives reach capacity and sell out; thereafter, selection is over less preferred choices. In the context of nonmarket goods, willingness to pay (WTP) welfare measures provide an estimate of the value of characteristics – often calculated through the modeling of preferences using a random utility model (RUM) framework. RUM preference parameter estimation is based on the choice attributes and the observed choices consumers make from a set of options. Such models are estimated under the implicit assumption that all options are available to all consumers. If choices can "sell out," the properly specified choice model would drop unavailable alternatives from the set of options; however, actual availability is almost never observed at the individual consumer level. Ignoring capacity constraints can result in biased parameter and WTP estimates. A solution to this problem that can be implemented using only aggregate level data is provided. We provide an empirical application of modeling vessel choice in the recreational overnight fishing trip market in San Diego – where particular boats are often sold out. We find the estimates for WTP for proportion of highly migratory species fish catch on these trips increase when we account for sellouts. Since RUM models are often used in fishery management decisions, not accounting for sellouts may lead to an undervaluation of important fishery resources.

Job Market Paper II

"Pollution Whack-a-Mole: Ambient Acetaldehyde and the Introduction of E-10 Gasoline in the Northeast"
This paper uses a complicated set of phase-ins and phase-outs of oxygenated motor fuel in the Northeast to determine whether E-10 ethanol-enhanced fuel contributes to acetaldehyde air pollution over the pre-ethanol methyl tertiary-buthyl ether (MTBE) fuel. Oil companies phased out MTBE because of groundwater pollution concerns, and now E-10 is the standard fuel in EPA

reformulated gas areas. Using a difference-in-difference approach, I find a large percentage increase in acetaldehyde pollution is associated with the switch from MTBE to E-10. Using EPA carcinogenic estimation techniques, I find that the cost of this increase in acetaldehyde pollution is around $3 million annually for the New York City Metropolitan area. This smaller cost estimate comes from a pollution increase that – while large in percentage terms – is small in level terms.

Education Paper
"An Analysis of the Cost of an Undergraduate Degree and the Incentives of the State, the University, and the Student" (with Richard Carson and Melissa Famulari)

To expand undergraduate enrollments or to make decisions regarding rule changes for degrees, administrators need information on how much expansions and contractions in each department cost. This paper presents several methods of accounting for per-credit hour cost across departments. Using internal data from UCSD, we find that most social sciences are relatively cheap and engineering is relatively expensive.

This paper then simulates the university's allocation of funding to undergraduate departments and the student response. We find that a university with static undergraduate fund-per-student preferences will allocate funds-per-student away from departments with large number of students to discourage them from majoring in those departments and instead majoring in a less-filled field. Using data from UCSD, we show that departments with large numbers of graduates are cheaper per degree, have higher modified student-to-faculty ratios, and graduate sooner than their colleagues in a different program at the university.

Conference Presentations:
"Pollution Whack-a-Mole: Ambient Acetaldehyde and the Introduction of E-10 Gasoline in the Northeast," Agricultural and Applied Economics Association Annual Meeting, July 28, 2014; Minneapolis, MN

"Hitting Capacity: Implications for Outdoor Recreation Valuation," Association of Environmental and Resource Economists Meetings, June 3-5; San Diego, CA

Professional Activities:
Referee: *Foundations and Trends in Microeconomics*, *Marine Resource Economics*
Member: American Economics Association; Agricultural and Applied Economics Association (including Land, Water, and Environmental Section); Center for the Integration of Research, Teaching, and Learning (CIRTL) Associate

Computer Programming:
MATLAB, R, Stata

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<u>Undergraduate Publication</u>:
with James A. Rogers, Jayson Wilbur, Susan Cole, Paul W. Bernhardt, Jaye Lynn Bupp, Morgan J. Lennon, and Nathan Langholz. (2011). Quantifying Uncertainty in Predictions of Hepatic Clearance. *Statistics in Biopharmaceutical Research*, 3(4), 515-25.

Drug companies and others need formulas to scale up estimated drug-body (pharmacokinetic) parameters, from, for instance, a rat to a human. While these formulas are heavily discussed in the pharmacokinetic literature, few studies look to uncertainty in these estimations. This uncertainty may lead to poor dosage decisions when transitioning to in-human studies, possibly increasing side effects and/or eliminating drug efficacy. This study uses Bayesian statistics to build credible intervals for human clearance on twelve drugs, and these credible intervals demonstrate that measurement and scaling uncertainty can lead to approximate instead of actual dosing estimates.