

Chapman University
Argyros School of Business
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ACADEMIC POSITIONS

Chapman University, Argyros School of Business
Assistant Professor, Economics and Management Science 2017-
MIT, Department of Political Science
Visiting Lecturer Fall, 2016
Wellesley College, Department of Economics
Visiting Lecturer Spring, 2015

EDUCATION

Ph.D., Economics, Boston University 2017
M.Sc., Management and Applied Economics, Wharton, University of Pennsylvania 2011
A.B., Economics, University of Chicago 2005

RESEARCH INTERESTS

Development, Applied Econometric Methods, Applied Machine Learning, Economics of Digitization

PUBLICATIONS AND WORKING PAPERS

- (7) Matthew Harding and **Jonathan Hersh**. Big Data in Economics *Forthcoming, IZA World of Labor*
- (6) Ryan Enstrom, **Jonathan Hersh**, and David Newhouse. [Poverty from Space: Using High Resolution Satellite Imagery for Estimating Economic Well-being](#) *Submitted*
- (5) Klaus-Peter Hellwig and **Jonathan Hersh** "Unintended Consequences of the African Growth and Opportunity Act: The Role of Trade Diversion and Structural Change," February 2016. *Available upon request*
- (4) Marium Afzal, **Jonathan Hersh**, and David Newhouse. [Building a Better Model: Variable Selection to Predict Poverty in Pakistan and Sri Lanka](#), *World Bank Research Working Paper*
- (3) Marianne Baxter and **Jonathan Hersh** [Robust Determinants of Trade Flows](#) May 2015.
- (2) Brian Bettenhausen, Eric Hanss, **Jonathan Hersh**, and Carlos Villarreal. [Historical Health Conditions in Major US Cities: The HUE Data Set](#) *Historical Methods*, (2014) 47: 67-80.
- (1) **Jonathan Hersh** and Hans-Joachim Voth. (2011). [Sweet Diversity: Overseas Trade and Gains from Variety after 1492](#)

WORK IN PROGRESS

Predicting Firm Performance with API Flows, with Seth Benzell, Guillermo Lagarda Cuervas, and Marshall Van Alstyne
Cell Phone Coverage and Traffic Accidents: New Evidence Using Cell Phone Towers, with Bree Lang and Matthew Lang

Analyzing Conflict From Space: Identification of Physical Destruction During the Syrian Civil War

How Can Poverty Estimates Derived from Artificial Intelligence and Satellite Imagery Improve Surveys? Evidence from Mexico, with Boris Babenko, David Newhouse, Anusha Ramakrishnan, and Tom Swartz

PEER-REVIEWED CONFERENCE PUBLICATIONS

(2) Boris Babenko, **Jonathan Hersh**, David Newhouse, Anusha Ramakrishnan, and Tom Swartz. [Poverty Mapping Using Convolutional Neural Networks Trained on High and Medium Resolution Satellite Images, With an Application in Mexico](#), Neural Information Processing Systems (NIPS 2017)

(1) Engstrom, R., Newhouse, D., Haldavanekar, V., Copenhaver, A., & **Hersh, J.** (2017, March). Evaluating the Relationship Between Spatial and Spectral Features Derived from High Spatial Resolution Satellite Data and Urban Poverty in Colombo, Sri Lanka. In Urban Remote Sensing Event (JURSE), 2017 Joint (pp. 1-4). IEEE.

INVITED SEMINARS

2017-2018: UC Riverside (Economics); Penn State (Economics); University of Southern California (Economics); Princeton University (Empirical Studies of Conflict)

2016-2017: Chapman University (Argyros School of Business); World Bank (Development Economics Group)

INVITED CONFERENCES

2018: INFORMS International (*scheduled*); Statistical Conference in E-Commerce Research 2018 (*scheduled*); Empirical Studies of Conflict (*scheduled*); New York R Conference (*scheduled*); 11th Digital Economics Conference (Toulouse School of Economics); Artificial Intelligence for Development (CEGA/World Bank); Pacific Development Conference (UC Davis)

2017: Geospatial Analysis for International Development (CEGA/Berkeley); UN Development Program (Human Development Report Office); World Bank (POV Summer University); Princeton University (Empirical Studies of Conflict); Prediction for Prevention of Armed Conflict (Barcelona, Spain)

2016: Computational and Financial Econometrics (Seville, Spain); Annual Bank Conference on Development Economics (World Bank); Center for the Study of African Economies: Economic Development in Africa (Oxford); Eastern Economic Association; Kiel Institute (Firms in International Trade Summer School)

TEACHING

Chapman University

Introduction to Business Analytics Fall 2017

Development Economics Spring 2018

Machine Learning Applications in Business Spring 2018

MIT

Quantitative Research Methods III (Political Science PhD quantitative sequence) Fall 2017

World Bank, Summer Poverty University

Machine Learning for Development [\[course materials\]](#) Summer 2016; Summer 2017

Wellesley College

Development Economics Spring 2016

Introductory Microeconomics Spring 2016

FELLOWSHIPS AND AWARDS

La Caixa Research Grant on Socioeconomic Well-being (\$20,000)	2017
Hariri Institute for Computational Science Graduate Fellowship	2016
Big Data Innovation Challenge Award, World Bank Group (\$104,000)	2014
Teaching Fellowship, Boston University	2013-2014

PREVIOUS POSITIONS

Consultant, World Bank Group, Poverty Global Practice	2014-2018
Research Manager, University of Chicago Center for Population Economics	2011-2012
Research Professional (RA Emily Oster), University of Chicago Booth School of Business	2008-2009
Economist, RCF Economic and Financial Consulting	2006-2008
Systems Analyst and Developer, McMaster-Carr Supply Company	2005-2006

INDUSTRY ADVISING

DoubleCheck Solutions (Member, analytics advisory board)
Lander Analytics

PROFESSIONAL SERVICE

Referee: *World Bank Economic Review*

Panel Organizer: PACDEV, "Satellite & Other Big Data to Measure Poverty, Competition & Economic Activity"

SOFTWARE

Lasso A Stata wrapper that allows for estimation of glmnet models within Stata. Performs regularization and best subset selection using the R glmnet package for Lasso, Ridge and Elastic Net regression from within Stata. [\[code\]](#) [\[help file\]](#) [\[desc\]](#)

CODING

R, Stata, Python, C++, SQL, Keras

REFERENCES

Marianne Baxter
Boston University
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Sam Bazzi
Boston University
Phone: (617) 353-6150
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Matthew Harding
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(Teaching) Daniel Hidalgo
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