# **DEVIN INCERTI**

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#### **EDUCATION**

Princeton University, Woodrow Wilson School of Public & International Affairs	
Ph.D. Public Affairs	2015
Dissertation: "Essays in Health Economics and Political Economy"	
M.A. Public Affairs	2013
University of California, San Diego	
magna cum laude	
B.A. Mathematics and Economics	2009
B.A. Political Science (with highest honors)	2009

#### RESEARCH INTERESTS

Health services research, health economics, cost-effectiveness analysis, public policy, politics and health, happiness and well-being, quantitative methods

#### JOB MARKET PAPER

An Assessment of Long-term Healthcare Expenditure Risk Using a Dynamic Bayesian Model

This study uses data from eight waves of the Health and Retirement Survey to analyze out-of-pocket expenditures over a 16-year period. It develops a dynamic Bayesian model of out-of-pocket health expenditures and mortality that is able to account for (1) the persistence of expenditures from one period to the next, (2) the large number of nonspenders, (3) the right-skewed nature of nonzero expenditures and (4) the relationship between expenditures and mortality. Although the distribution of spending is less skewed over longer periods than in a single year, there is still substantial long-term spending inequality because of transitory shocks, state dependence and unobserved heterogeneity. Since out-of-pocket expenditures are determined more by transitory shocks and unobserved heterogeneity than observed data, individuals face considerable uncertainty in future health costs; there are consequently large potential welfare gains from using health insurance to reduce financial risk, even over extended periods.

#### WORKING PAPERS

- Racial, Ethnic and Educational Disparities in Pharmaceutical Expenditures
   Identified differences in prescription drug use as a potential mechanism for racial/ethnic and educational disparities in health outcomes. Showed that disparities occur due to differences in both diagnosis rates and use conditional on diagnosis. Estimated that less than 30 percent of differences can be attributed to access-related factors like income and insurance status.
- The Optimal Allocation of Campaign Funds in House Elections

  Calculated optimal campaign strategies for the Democratic and Republican parties by estimating an

expected utility model using Bayesian state-space forecasts of House elections. Showed that parties pursue strategies consistent with seat maximization rather than maximizing their probability of winning a majority of seats.

Political Instability and Firm Performance: Evidence from Financial Markets
 Used event studies and time series models to quantify the effect of political instability on stock prices.

## **WORKS IN PROGRESS**

• The Effect of Medicare Part D on Mortality

### PROFESSIONAL EXPERIENCE

Research Associate NERA Economic Consulting, Los Angeles, CA 2009 - 2010

- Conducted economic research in litigation matters under short deadlines with a particular focus on healthcare and life science firms.
- Analyzed and cleaned large datasets; extensive use of Stata and Excel.

### **TEACHING**

Teaching Assistant Princeton University, Princeton, NJ 2013 - 2014

- Led 6 sections in statistics courses over 2 semesters.
- Reviewed statistical concepts from lectures and taught students how to use R and Stata.
- Students noted my ability to explain complex concepts simply.

## **PROJECTS**

Health Analytics Website

2015

- Portion of my personal website that contains analyses with fully integrated code showing how to solve a number of problems in healthcare using different quantitative techniques.
- Examples include machine learning algorithms to predict high spenders, Bayesian hierarchical models
  to capture heterogeneity and uncertainty in health expenditures, and mathematical models for
  cost-effectiveness analysis.

R Shiny App for Skeletal Dysplasias

2015

• Partnered with UCSF physicians to create an R Shiny app that aids diagnosis of skeletal dysplasias based on clinical features. Currently available at skeletaldysplasias.ucsf.edu.

# HONORS AND AWARDS

Centennial Fellowship, Princeton University	2010 - 2015
The Award for Excellence in Joint Mathematics-Economics granted to the most outstanding graduating Senior in Joint Mathematics-Economics, UCSD Department of Economics	2009
DeWitt Higgs Award granted to the outstanding graduating Senior in the area of law and public policy, UCSD Department of Political Science	2009
Michael Addison Award for the most outstanding Senior research paper, Warren College (graduating class of 950 students)	2009
Warren College Honors Program	2005 – 2009

# SKILLS AND INTERESTS

Computing Experienced: R, Stata, LATEX, Excel

Some experience: Python, MySQL, Stan, JAGS, HTML

Statistics Bayesian statistics, machine learning, multilevel models, forecasting/prediction, time

series, causal inference, data visualization

Athletics UCSD Varsity Baseball Letterman, shortstop and centerfield, 2004 – 2006