Danton Noriega-Goodwin

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Education

Ph.D. Student in Public Policy and Economics
Duke University, Durham, NC

M.A. Economics *February 2013*
Georgetown University, Washington, DC

M.S. Applied Statistics *May 2011*
California State University at Long Beach, Long Beach, CA

B.S. Mathematics, option in Applied & Computational Math *August 2006*
University of California at Irvine, Irvine, CA
Orange Coast Community College, Costa Mesa, CA

Work Experience

Research Assistant January 2015 – Present
Duke-UNC BECR Center, *Duke University* *(40 hrs/wk) Durham, NC*

- Data science work investigating food purchasing behavior, food-related health outcomes, and food assistance policy (SNAP/WIC). The aim is to uncover trends that can help BECR design behavioral nudges to improve food choices. Also helping write papers/proposals and providing analytical results (graphics, tables, etc).

Teaching Assistant Spring 2015
Sanford School of Public Policy, *Duke University* *(15 hrs/wk) Durham, NC*

- Co-taught *PubPol 590 Applied Big Data Science Energy Data Analytics and Policy* with Dr. Matthew Harding. Students learned introductory theory about causal inference (taught by Harding) and how to use Python to analyze large datasets (taught by me). The goal was for students to finish the class with the capacity to do basic consulting for energy companies.

SSRI Visiting Student Research Fellow August 2014 – January 2015
Social Science Research Institute (SSRI), *Duke University* *(4 hrs/wk) Durham, NC*

- Provided consulting services to Duke University faculty and students through PARISS.

Research Assistant Spring 2013 – Spring 2014
Department of Economics, *Georgetown University* *(15 - 30 hrs/wk) Washington, DC*

- Conducted research for Dr. Matthew Harding (Stanford), Dr. Arik Levinson (Georgetown), and Dr. Michael Lovenheim (Cornell).
  - *Unemployment and Food Purchases project*: analyzing unemployment shocks on household food consumption using a massive data set (i.e. Big Data) of scanned food labels.
  - *Adverse Selection, Home Sales, and the Market Value of Solar Panels:* investigating whether the market undervalues homes that have invested in solar panels and other green technologies.
  - *Household Energy Consumption project*: analyzing household energy consumption and the effects of different "energy usage" information pamphlets on consumption.

Teaching Assistant Fall 2012, Fall 2013 and Spring 2014
Department of Economics, *Georgetown University* *(15 - 30 hrs/wk) Washington, DC*

- Taught recitation classes for graduate and undergraduate students taking econometrics, blending theory with practical Stata examples. Created an online grading system from scratch using Blackboard, LaTeX, and a PDF splitter. Occasionally taught lectures for Professor Harding.

  Courses

  ECON 553 *– Econometrics (Fall 2012) – TA Evaluation Score 4.65 /* 5

  ECON 553 *– Econometrics (Fall 2013) – Score 4.7*

  ECON 122 *– Intro to Econometrics (Spring 2014) – Score 4.6*

  Select Reviews

  - *"Dan seemed to genuinely care about helping everyone learn the material. He was always willing to answer questions and really helped me improve on solving proofs. Overall, I thought Dan was the best TA in the master's program."*
  - *"I can't think of a way to improve the class without reducing the content requirements. You were helpful, enthusiastic, and comical about what I had previously thought was a dry, boring subject. It was somehow both my least favorite class (workload) and my favorite class (learning!). I learned A LOT, mathematically and conceptually. AND I LEARNED STATA! Thanks for all the tools and 'do' files and review sessions."*
  - *"Dan knew and communicated the material for this extremely difficult class better than any TA I have every had (and better than most professors). The most helpful thing he did was taking the time to go through and explain the step by step process for difficult Stata procedures. It really wouldn't surprise me to see Dan become a great professor one day."*
  - *"Dan, you are an exceptional teacher and if you haven't already considered it, you should think about becoming a professor. Econometrics was one of my most engaging classes this semester, a far cry from the terrible warnings I'd received from students of prior semesters. You deserve a big part of the credit."*
  - *"Dan is without a doubt the best TA I've had at Georgetown. He put a tremendous amount of time into the course, writing up solutions, leading office hours and review sessions, and responding to questions on Piazza. Very knowledgable and passionate – could not be more satisfied!"*
  - *"Pretty awesome TA. I actually learned things in this class."*

Graduate Assistant Spring 2011
Math and Statistics Department, *CSU Long Beach* *(20 hrs/wk) Long Beach, CA*

- Assisted undergraduate students in all levels of mathematics and helped grade calculus exams.

Math, Statistics, and Physics Tutor Sept 2009 – Feb 2011
Learning Assistance Center,*CSU Long Beach* *(15 hrs/wk) Long Beach, CA*

- Assisted undergraduate students with math, statistics, and physics problems.

Transportation Economist Intern Summer 2010
US Department of Transportation *(40 hrs/wk) Washington, DC*

- Created a long-term revenue projections model for the ailing Highway Trust Fund. The model was a series of Excel spreadsheets, complete with a glossary, color-coded variables, and links to all data sources. The goal was to leave a data set that could be updated by anyone. Upon completion, it was the most accessible and comprehensive data set about fuel consumption, miles driven, and on-the-road vehicles that the Bureau of Transportation Statistics (BTS) and Federal Highway Administration (FHWA) had ever owned. The model was presented to the US DOT Chief Economist's team and 2 years later used in a report by public policy researchers at the College of William and Mary.

Native English Teacher Sept 2008 – June 2009
Haksung Girls' Middle School *(50 hrs/wk) Ulsan, South Korea*

- In-charge of listening and speaking curriculum for 800 students (normal and after school classes).

Field Team Leader Sep 2007 – Aug 2008
AmeriCorps NCCC *(60 - 80 hrs/wk) Sacramento, CA*

- Led a twelve-person team of young volunteers, ranging from ages 18 - 24, in two to three month-long community service projects over 11 months.

Current Research Projects

"Closing the Nutrition Gap: Policy Simulations Using Scanner Data" *(Dissertation Chapter)*

Estimate via simulation the demand-side effect of targeted subsidies (e.g. subsidies of fruits and vegetables) for SNAP eligible participants using transaction-level scanner data of food purchases. The goal is to see if price subsidies are sufficient for closing the "nutrition gap" observed between the low and high income household.

"Consumption Inequality: Evidence from Food Purchases" with M. Harding, G. DeGiorgio, and M. Lovenheim *(working paper 2014)*

Consumption inequality has been proposed as a better inequality measure compared to income. We merge county level unemployment statistics and housing prices to a massive data set of food purchases to estimate how changing economic conditions affect household level consumption.

"Disadvantaged and Healthy: Understanding the Purchasing Behavior of Positive Deviants" with Matthew Harding

On average, disadvantaged homes (impoverished, minority, low education) have worse health outcomes. However, there is a subset of disadvantaged households with great overall health ("positive deviants"). We study the purchasing behavior of these outlier households to help identify achievable and realistic policy recommendations.

"Understanding the Statistical Properties of IRI Store-based and House-based Scanner Data" with Matthew Harding and Ya Xue *(USDA Grant)*

Analysis of food scanner data the USDA purchased from IRI. The goals of the grant can be broadly categorized into assessing the suitability of the IRI for nutrition policy research and comparing the IRI data to other publicly available data sets.

"North Carolina Solar Queue/Pipeline Project" with U. Tomovich *(Ongoing)*

A team of Duke MBA and MEM students – working with the NC Sustainable Energy Association (NCSEA) – are trying to understand the NC Solar Pipeline, which is a queue of solar plant projects in the NC area. I was involved to help the team understand the current data from the NCSEA.

Programming

Primary

R – 2+ years of experience. Preferred programming language. Conduct most personal/dissertation research and consulting in R. Expert user of the `data.table` package for very large data files.

Stata – 3+ years of experience. Taught 3 courses with Stata. Conduct most of my initial RA work in Stata. Able to do advance programming, like writing "ado" files.

Python – 1.5+ years. Competent user of 'pandas'. Primarily use Python to do text mining and text analysis.

Secondary

Matlab and Octave – 2+ years of experience. Primarily used to do Machine Learning testing and matrix intensive computation.

SAS – 2+ years of experience as part of my M.S. in Applied Statistics. Prefer not to use.

Awards and Honors

Merit Based Fellowship (Economics), *Georgetown University* — *2011 – 2015*

2010 STIPDG Outstanding Intern Award, *US Department of Transportation* — *Summer 2010*

Fletcher Jones Fellowship, *University of California at Irvine* *(Awarded but chose not to pursue Ph.D.)* — *Fall 2006*

Dean's Honor List, *University of California at Irvine* — *Winter 2005 – Spring 2006*

Early Transfer (Academic Excellence), *Orange Coast College to UCI* — *Winter 2005*

President's List for Academic Excellence, *Orange Coast College* — *Fall 2003 – Fall 2004*

Community College Scholarship Recipient, *Hispanic Education Endowment Fund (HEEF)* — *Fall 2004*

Fun Facts

- Dual citizen of Chile and the US and a native Spanish speaker.
- Avid Ultimate Frisbee player.