

**ZACHARY MICHAEL TURK**  
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### EDUCATION

Ph.D., Environmental Economics, London School of Economics and Political Science, 2020 (expected).  
Advisors: Dr. Ben Groom and Dr. Roger Fouquet

M.E.Sc., Environmental Science, Yale University, 2017.  
Advisor: Dr. Matthew Kotchen

M.S., Agricultural and Resource Economics, University of California at Davis, 2015.

B.B.A., Business Economics, Boise State University, 2014.  
4.0 GPA in major, 3.88 GPA cumulative, Magna cum laude, Top Ten Scholar.

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### CURRENT RESEARCH

“Unconventional Approaches to Generally Intractable Environmental Problems”, LSE PhD dissertation, chapters:  
    “Harnessing Leakage: Using Technology to Project a Regulatory Agenda onto Unregulated Spheres”  
    “Allocating Space: Localized Pollutants and the Use of Clustering and Dispersion as Abatement Strategies”  
    “A New Regulatory Frontier: Incentivizing the Optimal Number of Materials”  
    “Mean-Spirited Growth” (with Ben Groom and Eli Fenichel)

“Genetic Triage: Preserving Biodiversity on a Budget” early stage working paper.

“A Fitting Median” early stage working paper.

### PREVIOUS RESEARCH & PUBLICATIONS

“Two Essays Using Survey Instruments to Derive Preferences in the Environmental Sphere” Master’s Thesis, Yale University, 2015-2017.

“Public Willingness to Pay for a U.S. Carbon Tax and Preferences for Spending the Revenue” with Matthew Kotchen and Anthony Leiserowitz at Yale University. Published in *Environmental Research Letters* (2017) volume 12.

“Market Concentration in U.S. Organic Crop Production” with Gustavo Ferreira (project leader), Economic Research Report, U.S. Department of Agriculture, Economic Research Service, 2016.

“An Overview of Organic Vegetable Production in the United States” with Gustavo Ferreira, *Vegetable and Pulses Outlook: Special Article* (VGS-357-SA2), U.S. Department of Agriculture, Economic Research Service, 30 August 2016.

“The Effect of Heterogeneity in Agricultural Factors of Production versus Expected Policy Outcomes” with Robert Mendelsohn (advisor), Independent Research, Yale University, Spring 2016.

“Linking a Comprehensive Survey of Building Satisfaction to Energy Usage at Yale School of Forestry & Environmental Studies” with Matthew Kotchen (advisor) and James Ball, Independent Research, Yale University, Fall 2015.

“Will a New Input Strategy be Warranted in Non-Irrigated Corn Production Under Global Climate Change?” McNair Scholars Program Independent Research, Boise State University, 2012-2013. Published in *McNair Scholars Research Journal* (Spring 2014) volume 10.

“Incentives, Input Strategies, and Policy Options to Reduce Exposure to Weather Uncertainty in Corn-Soybean Production” Honors College Senior Thesis, Boise State University, 2013-2014.

“The Relationship between Organic Acreage and Metropolitan Demography: Using a National Scale Dataset to Explore Causes of Farmer Willingness to Adopt Organic Production Methods”. Student Research Initiative with Kyle Brookman and Dallas Pullen, Boise State University, 2013.

## CONFERENCE PRESENTATIONS

Podium Presentation, 20<sup>th</sup> Annual BIOECON Conference, King's College, University of Cambridge, 14 September 2018. "Localized Pollutants and the Use of Clustering and Dispersion as Abatement Strategies"

Podium Presentation, 33<sup>rd</sup> F&ES Research Conference, Yale School of Forestry & Environmental Studies, 21 April 2017. "Modeling the Impact of Abatement Technology on the Demand for Coal Sulfur Content and Determining Variable Cost of Abatement"

Poster Presentations, 33<sup>rd</sup> F&ES Research Conference, Yale School of Forestry & Environmental Studies, 21 April 2017. "Public Willingness to Pay for a U.S. Carbon Tax and Preferences for Spending the Revenue" and "Linking a Comprehensive Survey of Building Satisfaction and Adaptive Behavior to Green Building Design"

Podium Presentation, 11<sup>th</sup> Annual Undergraduate Research & Scholarship Conference, Boise State University, 21 April 2014. "Decision Making and Policies to Reduce Risk and Uncertainty in Agriculture: The Case of Non-Irrigated Corn-Soybean Rotations in Iowa"

Poster Presentation, 11<sup>th</sup> Annual Undergraduate Research & Scholarship Conference, Boise State University, 21 April 2014. "The Relationship Between Organic Acreage and Urban Demography"

Podium Presentation, McNair Scholars Program Summer Research Symposium, Boise State University, 23 August 2013. "How Will Climate Change Affect Input Timing in Non-Irrigated Corn Production in the Midwest?"

Poster Presentation, 3<sup>rd</sup> Annual Summer Undergraduate Research Conference, Boise State University, 02 August 2013. "How Will Climate Change Affect Input Timing in Non-Irrigated Corn Production in the Midwest?"

Poster Presentation, 10<sup>th</sup> Annual Undergraduate Research & Scholarship Conference, Boise State University, 15 April 2013. "Has the Experience of Uganda Fit Modern Economic Growth Models? How Have Changes in Governance Affected Economic Growth?"

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## PROFESSIONAL EXPERIENCE

Student Trainee (Economics), GS-09, U.S. Department of Agriculture, Economic Research Service, Market and Trade Economics Division, Crops Branch, Washington, DC, 2016

Research Intern for Brad Wiskirchen, Director of the Salt Lake City Branch of the Federal Reserve Bank of San Francisco, Boise, ID, 2013-2014

Intelligence Analyst, U.S. Navy, 2002-2007, positions:

Assistant Special Security Officer, Commander Submarine Group Nine, Silverdale, WA

Imagery Analyst and Assistant Work Center Supervisor, USS Stennis (CVN-74), Bremerton, WA

Imagery Analyst and Tactical Imagery Specialist, USS Reagan (CVN-76), San Diego, CA

Sunni Religious Extremism and Propaganda Analyst, Combined Intelligence Operations Center, Baghdad, Iraq

Imagery Collections Manager and Operations Analyst, Joint Intelligence Center Pacific, Pearl Harbor, HI

## TEACHING & LECTURING EXPERIENCE

### Graduate Experience

Teaching Assistant, Sustainable Development, LSE, 2019-2020 (upcoming).

Reader, Applied Environmental Economics, LSE, 2018-2019.

Teaching Assistant/Fellow, Economics of the Environment (graduate level), Yale University, Fall 2016

Speaker, U.S. Department of Agriculture, Economic Research Service, "Food for Thought: Organic Agricultural Production in the United States: Contemporary Structure and Concentration Patterns", 21 July 2016

Teaching Assistant/Fellow, Economics of the Environment (graduate level), Yale University, Fall 2015

Teaching Assistant, Econometric Theory and Applications, UC Davis, Spring 2015

Guest Speaker, Boise State University Economics Association, "Making the Grade: The Ins and Outs of Graduate School", 3 April 2015

### Undergraduate Experience

Panel Member, Graduate School Forum, The Honors College at Boise State University, 23 April 2014

Guest Speaker, Boise State Economics Association, "The Graduate School Application Process", 19 March 2014

Guest Lecturer, Unemployment and Introduction to Economic Growth, Intermediate Macroeconomics, 13 March 2014

Guest Lecturer, Economic Policy in the AD/AS Model, Principles of Macroeconomics, 13 March 2014

Teaching Assistant and Capstone Project Advisor (three groups), Econometrics, Spring 2014

Learning Assistant, Intermediate Macroeconomics, Spring 2014

Reader, International Economics (two sections), Spring 2014

Panel Member, Boise State Student Research and Internship Workshop, 4 December 2013

Guest Speaker, "The First-Generation College Experience", University Foundations Course: Experiences and Expectations, 18 November 2013

Guest Speaker, "Research Opportunities at the Undergraduate Level", Honors Writing and Research, 11 September 2013

Workshop Designer and Facilitator, Application writing for the Student Research Initiative, 4 October 2013

Learning Assistant, Intermediate Macroeconomics, Fall 2013

Tutor, Quantitative Methods in Economics, Fall 2013

Guest Lecturer, Intermediate Microeconomics a Mathematical Review, Intermediate Microeconomics, 19 March 2013

Guest Lecturer, the Solow Growth Model, Seminar in Economic Growth, 31 January 2013

Reader, International Economics (two sections), Spring 2013

Tutor, Principles of Microeconomics and Principles of Macroeconomics, Spring 2013

Tutor, Boise State Student Success Program, Survey of Calculus, Spring 2013

Learning Assistant, Principles of Microeconomics and Principles of Macroeconomics, Summer 2012, Intersession 2013

Discussion Board Facilitator, Global Economic Development, Fall 2011

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## HONORS & AWARDS

### Academic Honors

Top Ten Scholar Award, Boise State University, 2013-2014 (The university's highest undergraduate honor)

Distinguished Honors Graduate, Boise State University Honors College, 2014

Outstanding Graduate Award, College of Business and Economics, Boise State University, Spring 2014

Student Signature Award, College of Business and Economics, Boise State University, Spring 2014

Student Marshal for the College of Business and Economics, Boise State University, Spring 2014 commencement

Student Spotlight Award, College of Business and Economics, Boise State University, Spring 2013

Wallace G. Kay Writing Award, Boise State University, Spring 2013

Dean's List, every regular semester, Boise State University, 2010-2013

Numerous military honors and awards for analytical accomplishments (and volunteer service)

### Scholarships & Awards

LSE PhD Studentship, full scholarship, 2017-2020

Adam Smith Fellowship, the Mercatus Center at George Mason University, \$5000, 2017-2018

Jubitz Family Endowment for Research Internships Fund award, \$2700, Yale University, Summer 2016

McNair Scholars Program research fellowship, \$2800, Summer 2013

Student Research Initiative research fellowship, \$1400, Fall 2013

Special funding for training in the Environmental Policy Integrated Climate (EPIC) model, \$1900, jointly by the Department of Economics, McNair Scholars Program, and Honors College at Boise State University, Spring 2013

Len B. and Grace Jordan Endowed Scholarship, \$3250, Department of Economics, Boise State University, 2013-2014

Ellis Lamborn Economics Scholarship, \$1684, Department of Economics, Boise State University, 2013-2014

Geetha Raha Economics Scholarship, \$860, Department of Economics, Boise State University, 2013-2014

Honors College Scholarship, \$1000, Honors College at Boise State University, 2013-2014

Anthony R. Scott Memorial Scholarship, \$2591, College of Business and Economics, Boise State University, 2012-2013

Dick Payne Endowed Scholarship, \$2078, Department of Economics, Boise State University, 2012-2013

John J. Chapman Scholarship, \$1022, Department of Economics, Boise State University, Spring 2012

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## AFFILIATIONS

American Economic Association

Adam Smith Fellow, the Mercatus Center at George Mason University, 2017-2018

McNair Scholars Program, Boise State University, 2012-2014

Honors College, Boise State University, 2011-2014

Boise State Economics Research Club, President and Founder, 2013-2014

Guide Dogs for the Blind, Assistant Puppy Raiser, 2009-2014

Dogs for Diabetics, Puppy Raiser, 2013

Omicron Delta Epsilon, Beta Chapter of Idaho

Veterans of Foreign Wars

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## ADDITIONAL TRAINING & SOFTWARE EXPERIENCE

### Additional Courses

Real Analysis (ME406), London School of Economics, 2016 Methods Summer Program- Methods for Economists

Environmental Policy Integrated Climate (EPIC) model training, Texas A&M University, Blackland Research & Extension Center, Spring 2013

### Coursera and MOOC Courses

Machine Learning, Stanford University, August 2018

Developing Innovative Ideas for New Companies: The First Step in Entrepreneurship, University of Maryland, March 2016

The Arduino Platform and C Programming, University of California, Irvine, February 2016

Introduction to the Internet of Things and Embedded Systems, University of California, Irvine, February 2016

Using Databases with Python, University of Michigan, January 2016

Using Python to Access Web Data, University of Michigan, January 2016

Python Data Structures, University of Michigan, January 2016

Programming for Everybody: Getting Started with Python, University of Michigan, January 2016

Learn to Program: The Fundamentals, University of Toronto, January 2014

### **Statistical and Special Purpose Software and Languages**

STATA

R-Statistics

General Algebraic Modeling System (GAMS)

MATLAB

WinEPIC- a Windows application of the EPIC crop impact simulator

WinAPEX- a Windows application of the Agricultural Policy/Environmental eXtender (APEX)

### **General Purpose Software and Languages**

Python 2/3

C/C++

SQL/SQL Lite

Microsoft Word, PowerPoint, Access, and Excel

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### **REFERENCES**

Pr. Ben Groom  
(principal dissertation advisor)  
Professor in Environment and Development Economics  
Department of Geography and Environment  
London School of Economics  
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Dr. Roger Fouquet  
(secondary dissertation advisor)  
Associate Professorial Research Fellow  
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Additional references on request.