

Amanda J. Harker Steele, Ph.D.

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Experience

Senior Economist June 2019 - Present
KeyLogic Systems
Sub-Contractor- MESA Team National Energy Technology Lab (NETL)
Activity Lead

Education and Certifications

Ph.D. Agriculture & Applied Economics May 2019
University of Georgia
Committee: John C. Bergstrom (Chair), Wesley Burnett, Greg Colson, Craig E. Landry

B.S. Environmental and Natural Resource Economics *Summa Cum Laude* May 2014
Minors: Communication Studies, Economics
West Virginia University

Certificate in Time-Series Analysis and Forecasting December 2019
The National Association of Business Economics (NABE)

Interdisciplinary Certificate in University Teaching May 2019
University of Georgia

Publications

Court, C. D., Jackson, R. W., Harker Steele, A. J., Adder, J., Pickenpauh, G. and Zelek, C. Extending the macroeconomic impacts forecasting capabilities of the National Energy Modeling System. *In-Press, The Energy Journal*

Harker Steele, A., Burnett, W., and Bergstrom, J. C. 2021. The Impact of Variable Renewable Energy Resources on Power System Reliability. *Energy Policy, 151*

Harker Steele, A., and Bergstrom, J. C. 2021. “Brr! It’s cold in here” measures of household energy insecurity for the United States. *Energy Research and Social Science, 72*

Submitted Papers

Harker Steele, A., and Bergstrom, J. C. Tackling Wicked Problems when Teaching Applied Economics: A Teaching Application with the Bears Ears National Monument. *Revise and Re-submit AETR*

Harker Steele, A., Warner, T. Vikara, D., Guinan, A, and Balash, P. Comparative Analysis of Carbon Capture and Storage Finance Gaps and the Social Cost of Carbon. *Special Issue Submission Energies*

In-Progress Papers

Harker Steele, A., and Bergstrom, J. C. Does Increasing Energy Efficiency Result in Less Energy Security? An Analysis of Energy Efficient Upgrades and Their Impact on Energy Assistance Programs.

Harker Steele, A., Bergstrom, J. C. and Burnett, W. Modeling Power System Production and Reliability Using a State Contingent Production Function Approach.

Technical Reports

A. Harker Steele, C. Charlton and C. E. Logan, "Market Analysis of Carbon Products from Coal," National Energy Technology Laboratory, Pittsburgh, November 14, 2019.

A. Harker Steele, P. Shirley, C. Zaremsky, P. Myles, "Techno-economic Analysis of Distributed, Multi-point, Sapphire Optical Sensors," National Energy Technology Laboratory, Pittsburgh, July 30, 2019.

Other Published Work

Harker, A. (2015). A case study for West Virginia: What the Clean Power Plan Means for Appalachia. *The Dominion Post*, pp. 2-D.

Harker, A. (2013). Influencing Energy Consumption Behavior in Residence Halls by Raising Awareness Through Education and Outreach. *AAEA Undergraduate Student Journal*.

Professional Experience

Referee

Association of Agricultural and Applied Economics 2018-2020
IEEE Electronic Power Grid 2018 (eGrid-18) 2018-2020

Association President/Secretary 2015-2017
Agricultural and Applied Economics Graduate Student Association

Founder and Policy Content Head 2015-2016
The Energy Concept @UGA

Student Trainee Economist - Intern 2015
Federal Energy Regulatory Commission (FERC) Division of Analytics and Surveillance

Graduate Student Research Mentor 2014
Ronald McNair Scholar's Program (TRIO) West Virginia University

Eco-Reps Coordinator Intern 2013-2014
Office of Sustainability West Virginia University

Economics Research Intern 2013
STEM SURE Summer Research Program West Virginia University

Energy Efficiency and Conservation Research Intern 2011-2012
Office of Sustainability West Virginia University

Conference Presentations

Harker Steele, A. et al. (2020). "Understanding the Economics of Carbon Dioxide for Storage and Enhanced Oil Recovery in the Gulf Coast Region." 2020 Southern Economics Association Meetings (Virtual) – November 2020

Harker Steele, A. and Bergstrom J. "Estimating and Comparing Alternative Empirical Measures of Household Energy Insecurity." 2020 Agricultural and Applied Economics Association Meetings (Virtual)

Harker Steele, A., J. W. Burnett, and J. C. Bergstrom "Examining the Regional Economic Costs of Electric Power Grid Interruptions Associated with Increased Intermittent Renewable Resource Capacity" 2019 NARSC Conference

Harker Steele, A. and J. C. Bergstrom "Tackling Wicked Problems when Teaching Applied Economics: An Application to the Bears Ears National Monument." 2018 AAEA Annual Meeting

- Harker Steele, A. and J. C. Bergstrom “Does Energy Efficiency Affect Energy Security? An Analysis of Energy Efficient Upgrades and Household Energy Security” 2018 AAEA Annual Meeting
- Harker Steele, A. and J. C. Bergstrom “Investigating the Effects of Energy Efficient Technology on Household Energy Security: A Stochastic Production Frontier Approach.” 6th World Congress of Environment and Natural Resource Economics (WCERE)
- Harker Steele, A. and J. C. Bergstrom “Tackling Wicked Problems when Teaching Applied Economics: An Application to the Bears Ears National Monument.” 2018 University System of Georgia Teaching and Learning Conference
- Harker Steele, A. and J.C. Bergstrom “Does Increasing Energy Efficiency Result in Less Energy Security? An Analysis of Energy Efficient Upgrades and their Impact on Energy Assistance Programs.” 24th Annual Camp Resources
- Harker Steele, A., J. W. Burnett, and J. C. Bergstrom “Gone with the Wind”: The Unintended Consequences of Increasing the Capacity of Intermittent Renewable Resources Used for Electricity Generation.” 2017 AERE Annual Meeting
- Harker Steele, A., J. W. Burnett, and J. C. Bergstrom “Gone with the Wind”: The Unintended Consequences of Increasing the Capacity of Intermittent Renewable Resources Used for Electricity Generation.” 2017 Columbia University Sustainable Development Workshop
- Harker Steele, A., C. E. Landry, and J. C. Bergstrom: “The Impact of Coastal Wind Energy Development on Recreation Demand.” 2016 Prepare, Respond, Adapt: Is Georgia Climate Ready?
- Harker Steele, A., C. E. Landry, and J. C. Bergstrom “Understanding the Impact of Offshore Wind Energy Development on Beach Trip Demand to the Coast of North Carolina.” 2016 AAEA Annual Meetings
- Harker, A. and J. W. Burnett “Does Shale Gas Development Play a Role in Listing Price of Homes?” 2013 SURE Summer Undergraduate Research Symposium
- Harker, A. and J. W. Burnett “Influencing Energy Consumption Behavior in Residence Halls by Raising Awareness through Education and Outreach.” Davis College of Agriculture, Natural Resources, and Design Annual Graduate Student Research Conference

Grants Received

AAEA Trust Travel Grant for Early Career Professionals and Graduate Students in support to attend the 2018 AAEA Annual Meeting in Washington, D.C.

Office of the Vice President for Research Grant for International Travel in support to attend the 6th World Congress of Environmental and Natural Resources Economists (WCERE) Gothenburg, Sweden

ORAU/MARS Fellowship Grant in support of the Nobel Laureate Meetings in Economic Sciences

Eterna Fund-CAES Alumni Association “Rod F. Ziemer Distinguished Annual Lecture”

Fellowships and Awards

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| USAEE Best Paper for Young Professionals Under 35 – Top 4 | 2020 |
| NARSC Graduate-Student-Led Paper Competition (3 rd Place) | 2019 |
| Rod F. Ziemer Outstanding Ph.D. Paper Award | 2018 |
| ORAU Lindau Meeting in Economic Sciences Participant | 2017 |
| USDA National Needs Fellowship (National Energy Needs) | 2015-2018 |
| Graduate School Domestic Travel Grant Recipient | 2016, 2017, 2018 |
| IMPLAN Training Course Scholarship | 2017 |
| WVU Foundation Outstanding Senior | 2014 |
| 6 th Place Davis Graduate Student Research Conference (<i>undergraduate</i>) | 2014 |

Teaching

Instructor of Record

Principles of Resource Economics: *Online* (ENVM 3060) 2018
Applied Econometrics (AAEA 4990) 2016

Teaching Assistant

Principles of Resource Economics (ENVM 3060) 2016, 2017, 2018
Non-Market Economic Valuation (AAEC 8100) 2017, 2018
Food and Fiber Marketing (AAEC 3060) 2016
Introduction Econometrics (AAEC 6610) 2015

Tutor

Athletic Department Tutor (University of Georgia) 2018
Mathematics Tutor (Private) 2017
Athletic Department Tutor (West Virginia University) 2013
Student Support Services Tutor (West Virginia University) 2012

Professional Organization and Affiliations

Agricultural and Applied Economics Association (AAEA) 2013-Present
Association of Environmental and Natural Resource Economics (AERE) 2015-Present
Southern Agricultural Economics Association (SAEA) 2015-2018
United States Association for Energy Economics 2019-Present

Volunteer Activities

Friends of the West Virginia Science Bowl Foundation-Treasurer 2020-Present

Other

Energy Modeling Language: NEMS, MARKAL (both beginner)
Programming Language: STATA, SAS, LaTeX, Matlab, Microsoft Office (suite), Python (beginner)
Skills: Communication, Leadership, Organization, Attention to Detail

References

Dr. John C. Bergstrom
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Department of Agricultural & Applied Econ.
University of Georgia
Athens, GA 30602
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Dr. Greg Colson
Associate Professor
Department of Agricultural and Applied Econ.
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Dr. J. Wesley Burnett
Agricultural Economist
USDA Economic Research Service
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