

JILLEAH WELCH

Baker School of Public Policy and Public Affairs
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Education

Ph.D., Economics, University of Tennessee, Knoxville, Tennessee (2015)
M.A., Economics, University of Tennessee, Knoxville, Tennessee (2011)
M.B.A., University of Tennessee, Knoxville, Tennessee (2006)
Concentration: Operations Management
B.S., Industrial Engineering, North Carolina State University, Raleigh, North Carolina (2004)
B.S., Mathematics, North Carolina State University, Raleigh, North Carolina (2004)

Fields of Specialization

Public Finance, Economics of Education, Environmental Economics

Professional Experience

Senior Research Associate, Baker School of Public Policy and Public Affairs, University of Tennessee
(2023-present)
Adjunct Lecturer, Baker School of Public Policy and Public Affairs, University of Tennessee (2023-present)
Senior Research Associate, Howard H. Baker Jr. Center for Public Policy, University of Tennessee (2015-2023)
Graduate Research Assistant, Center for Business and Economic Research, University of Tennessee (2012-2015)
Graduate Teaching and Research Assistant, Department of Economics, University of Tennessee (2010-2012)
Financial Analyst, The Boeing Company, Everett, Washington (2008-2010)
Industrial Engineer, The Boeing Company, Everett, Washington (2007-2008)

Publications

Welch, Jilleah G. (2023). The Incidence of Financial Aid: How Colleges Respond to Merit Scholarship Programs. *Journal of Education Finance*, 49(2): 200-221.

Welch, Jilleah G. and Matthew N. Murray. (2023). The Impact of Coal Activity on Local Revenues for Elementary and Secondary Education in Appalachia. *Public Finance Review*, 51(4): 568-613.

Welch, Jilleah G., Charles B. Sims, and Michael L. McKinney. (2022). Does an Urban Wilderness Promote Gentrification? A Case Study from Knoxville, Tennessee, USA. *Sustainability*, 14(2), 973.

Carruthers, Celeste K. and Jilleah G. Welch. (2019). Not Whether, but Where? Pell Grants and College Choices. *Journal of Public Economics*, 172, 1-19.

Greene, David L. and Jilleah G. Welch. (2018). Impacts of Fuel Economy Improvements on the Distribution of Income in the U.S. *Energy Policy*, 122, 528-541.

Welch, Jilleah G. (2014). HOPE for Community College Students: The Impact of Merit Aid on Persistence, Graduation, and Earnings. *Economics of Education Review*, 43, 1-20.

Working Papers

Carruthers, Celeste K. and Jilleah G. Welch. Financial Aid and Simplification: Estimated Effects in Technical Colleges.

Reports, Policy Briefs, and Other Publications

Murray, Matthew N. and Jilleah G. Welch. (2024). Economic Impact of the Natural Gas Sector on Tennessee. Prepared in collaboration with the Tennessee Gas Association.

Welch, Jilleah, Charles Sims, Prabuddha Prakash, Scott Gilpatric, and Scott Holladay. (2024). Rare Earth Element Markets. Center for Energy, Transportation, and Environmental Policy, Baker School of Public Policy and Public Affairs. Policy Brief.

Murray, Matthew N. and Jilleah G. Welch. (2022-2023). Manufacturing Valuable Coal-Derived Products in Southern Appalachia (multiple tasks / chapters including Existing Business and Industry Structure, Workforce Availability and Productivity, Tax Burdens and Tax Competitiveness, Economic Revitalization and Job Creation), Carbon Ore, Rare Earth and Critical Minerals (CORE-CM) Initiative for U.S. Basins. Department of Energy National Energy Technology Laboratory (DE-FOA-0002364).

Murray, Matthew N. and Jilleah G. Welch. (2022). Economic Impact Analysis: The Enbridge Ridgeline Expansion Project. Prepared in collaboration with Enbridge Inc.

Sims, Charles B., Jilleah G. Welch, and Brian Rushing. (2022). Economic Potential of the Tennessee RiverLine Water Trail: Economic Impacts and Case Study Analysis. Prepared in collaboration with the University of Alabama Center for Economic Development and the Tennessee RiverLine Partnership.

Jilleah G. Welch and Marianne H. Wanamaker. (2021). Tennessee Tutoring Corps 2021 Assessment Analysis. Prepared in collaboration with the Bill & Crissy Haslam Foundation.

Murray, Matthew N. and Jilleah G. Welch. (2021). Tennessee Advanced Energy Economic Impact Report. Prepared in collaboration with Tennessee Advanced Energy Business Council.

Campbell, Jim E., Matthew N. Murray, and Jilleah G. Welch. (2021). U.S. Department of Energy Economic Impact in Tennessee, Fiscal Year 2020. Prepared for the U.S. Department of Energy. Howard H. Baker Jr. Center for Public Policy and the East Tennessee Economic Council.

Murray, Matthew N. and Jilleah G. Welch. (2021). Evaluating the Private Sector Returns to Transportation Investments in Tennessee. Report prepared for the Tennessee Department of Transportation.

Murray, Matthew N., Charles B. Sims, Jilleah G. Welch, and Simon Jolly. (2020). An Assessment of the Energy Sector in Tennessee. Report prepared for the Tennessee State Energy Policy Council.

Welch, Jilleah G. and Matthew N. Murray. (2020). The Impact of Coal Activity on Local Revenues for Elementary and Secondary Education in Appalachia. Report prepared for the Appalachian Regional Commission.

Welch, Jilleah G. (2020). Local Governments Ban Natural Gas as Energy Source and Push for Building Electrification. Howard H. Baker Jr. Center for Public Policy. Policy Brief 1:20.

Welch, Jilleah G., Charles B. Sims, and Kylah Henderson. (2020). The Urban Wilderness, Home Prices, and Gentrification in South Knoxville. Project funded by the University of Tennessee, Office of Research and Engagement, Research Seed Program.

Welch, Jilleah G. and Matthew N. Murray. (2020). The Coal Industry and Funding Support for Elementary and Secondary Education in Appalachia: A Descriptive Analysis. Report prepared for the Appalachian Regional Commission.

Murray, Matthew N. and Jilleah G. Welch. (2020). Economic Impact of the U.S. Department of Energy's Oak Ridge Office of Environmental Management, Fiscal Year 2019. Prepared in cooperation with UCOR. Howard H. Baker Jr. Center for Public Policy. Baker Reports 1:20.

Welch, Jilleah G. (2019). A Cautionary Tale: Bans on Single-Use Products. Howard H. Baker Jr. Center for Public Policy. Policy Brief 2:19.

Greene, David L. and Jilleah G. Welch. (2019). Estimating the Value of Hydrogen Refueling Stations: Theory, Evidence and Inference. Report prepared for Argonne National Laboratory.

Carruthers, Celeste K. and Jilleah G. Welch. (2019). Can Financial Aid (Re)Connect Students to College? Evidence from Tennessee Colleges of Applied Technology. Report prepared for the Tennessee Higher Education Commission.

Welch, Jilleah G. (2019). The Evolution of Coal and Energy-Related Employment. Howard H. Baker Jr. Center for Public Policy. Policy Brief 1:19.

Murray, Matthew N. and Jilleah G. Welch. (2018). Tennessee Advanced Energy Economic Impact Report. Prepared in collaboration with Tennessee Advanced Energy Business Council.

Sims, Charles B., Jilleah G. Welch, Rebecca J. Davis, Yinan Liu, Dong Yan, Cassidy Quistorff, and Matthew N. Murray. (2018). The Economic Value of Open Space in the Cumberland Region. Howard H. Baker Jr. Center for Public Policy.

Greene, David L. and Jilleah G. Welch. (2017). The Impact of Increased Fuel Economy for Light-Duty Vehicles on the Distribution of Income in the U.S.: A Retrospective and Prospective Analysis. Howard H. Baker Jr. Center for Public Policy. Baker White Paper 2:17.

Greene, David L. and Jilleah G. Welch. (2017). Estimating the Benefits of Fuel Economy Information: An Analysis, Update and Recommendations for Enhancing Oak Ridge National Laboratory's Methodology. Howard H. Baker Jr. Center for Public Policy. Baker White Paper 1:17.

Davis, Rebecca J., Matthew N. Murray, and Jilleah G. Welch. (2017). How Much Should Hybrids and Electric Vehicles Contribute to Roadway Funding? Howard H. Baker Jr. Center for Public Policy. Policy Brief 1:17.

Sims, Charles B. and Jilleah G. Welch. (2016). An Energy Scorecard for the American States: States Ranked According to Energy, Economy and Environment. Howard H. Baker Jr. Center for Public Policy. Baker Reports 7:16.

Burton, Mark L., Matthew N. Murray, Emily K. Pratt, and Jilleah G. Welch. (2016). Tax Policies and Alternative Revenue Sources: State Responses to Declining Purchasing Power of Roadway Funding. Howard H. Baker Jr. Center for Public Policy. Policy Brief 5:16.

Greene, David L. and Jilleah G. Welch. (2016). The Impact of Increased Fuel Economy for Light-Duty Vehicles on the Distribution of Income in the United States. Howard H. Baker Jr. Center for Public Policy. Baker Reports 5:16.

Murray, Matthew N. and Jilleah G. Welch. (2016). Economic Impact of the Proposed Crab Orchard Wind Farm on Cumberland County and Tennessee. Prepared in cooperation with Crab Orchard Wind, LLC. Howard H. Baker Jr. Center for Public Policy. Baker Reports 3:16.

Carruthers, Celeste K. and Jilleah G. Welch. (2014). Encyclopedia of Education Economics and Finance. Brewer, D.J. and Picus, L.O. (Eds.). Entry for “Pell Grants”.

Bruce, Donald J., Celeste K. Carruthers, and Jilleah G. Welch. (2012). An Updated Forecast of Tennessee Education Lottery Scholarship Expenditures. Prepared for the Tennessee Higher Education Commission and the Tennessee Student Assistance Corporation. Center for Business and Economic Research, University of Tennessee.

Data Visualization and Databases

Southern Appalachia Rare Earth Element Ecosystem. (2023) Interactive map demonstrating potential domestic rare earth element supply chains from coal or coal waste in Southern Appalachia. Based on work supported by the Department of Energy National Energy Technology Laboratory (Carbon Ore, Rare Earth and Critical Minerals (CORE-CM) Initiative for U.S. Basins, DE-FOA-0002364). <https://baker.utk.edu/energy-and-environment-reports/southern-appalachia-rare-earth-element-ecosystem/>

Teaching

University of Tennessee, Knoxville, Tennessee
Economics Department

Instructor, Markets, Ethics, and Capitalism, Fall 2021

Instructor, Intermediate Microeconomics, Summer 2014

Instructor, Principles of Economics, Summer 2012

Instructor, Intermediate Macroeconomics, Fall 2011, Spring 2012

Teaching Assistant, Principles of Economics, Fall 2010

University of Tennessee, Knoxville, Tennessee

Howard H. Baker Jr. Center for Public Policy - Public Policy Analytics Minor

Guest Lecture, Policy Capstone, March 2018

Guest Lecture, Policy Process and Program Evaluation, September 2022

Mentorship

Faculty Advisor, Forum on Science Ethics and Policy (student organization), Spring 2024
Undergraduate Thesis: Bret Berry (2023); Zoe Ward (2023)

Internal Service

Institutional Review Board, Department Review Chair, Baker School of Public Policy and Public Affairs, 2024
Undergraduate Scholarships Committee Member, Baker School of Public Policy and Public Affairs, 2024
Presentation, Women and Public Policy, University of Tennessee Society of Women Engineers, April 2023
Search Committee Member, Program Manager, Howard H. Baker Jr. Center for Public Policy, 2023
Panelist, Baker Basics Research Workshop, Howard H. Baker Jr. Center for Public Policy, Fall 2022
Search Committee Chair, Research Associate, Howard H. Baker Jr. Center for Public Policy, 2022
Search Committee Chair, Grants Manager, Howard H. Baker Jr. Center for Public Policy, 2021
U.S. Department of State Diplomacy Lab Coordinator for University of Tennessee, Spring 2017

External Service

TN H₂O working group and report, State of Tennessee, member of technical working group, May-September 2018

Selected Grants and Funded Projects

Tennessee Gas Association, “TGA Impact Study,” Co-Principal Investigator (2023-2024), \$47,439.

Department of Energy, National Energy Technology Laboratory, “Manufacturing Valuable Coal-Derived Products in Southern Appalachia,” Investigator (2021-2023), \$1,499,000.

East Tennessee Natural Gas, “To Conduct an Economic Impact Analysis of the Ridgeline Expansion Project,” Co-Principal Investigator (2022), \$43,955.

Tennessee RiverLine Partnership, “To Conduct an Examination of the Economic Impact of the Proposed Tennessee RiverLine,” Investigator (2021), \$25,000.

Tennessee Advanced Energy Business Council, “Tennessee Advanced Energy Economic Impact Assessment,” Investigator (2018, 2021), \$15,000 per year.

Tennessee Department of Transportation, “Evaluating the Private Sector Returns to Transportation Investments in Tennessee,” Investigator (2021), \$100,000.

Tennessee State Energy Policy Council, “An Assessment of the Energy Sector in Tennessee,” Investigator (2020), \$70,700.

Appalachian Regional Commission, “Causal Impacts of Coal Employment and Coal Production on Local Funding Support for Elementary and Secondary Education,” Technical Staff (2020), \$56,332.

University of Tennessee, Office of Research and Engagement, “Urban Resilience: Promoting Environmental and Social Sustainability with Urban Wilderness,” Technical Staff (2020), \$15,000.

Department of Energy, United Cleanup Oak Ridge LLC (UCOR), “To Conduct an Examination of the Economic Impact of UCOR on the State of Tennessee,” Investigator (2019), \$19,500.

Smith-Richardson Foundation, “Tennessee Postsecondary Evaluation and Analysis Research Lab (TN-PEARL): Building a Foundation for Actionable Research on Higher Education Policy in Tennessee,” Technical Staff (2019), \$400,000.

Cumberland Region Tomorrow, “To Quantify the Economic Value of Protected Open Space in the Cumberland Region,” Co-Principal Investigator (2017), \$79,121.

Energy Foundation, “Estimating the Impacts of the 2025 Fuel Economy and Greenhouse Gas Standards on the Distribution of Income in the United States,” Co-Principal Investigator (2016-2017), \$60,000.

Energy Foundation, “The Impact of Increased Fuel Economy for Light-Duty Vehicles on the Distribution of Income in the United States,” Co-Principal Investigator (2016), \$40,000.

Oak Ridge National Laboratory, “The Impact of Increased Fuel Economy for Light-Duty Vehicles on the Distribution of Income in the United States,” Co-Principal Investigator (2016), \$24,995.

Apex Clean Energy, Apex Clean Energy Project, Co-Principal Investigator (2016), \$14,966.

Conference and Other Presentations

Tennessee Valley Authority and Baker School Research Briefings, Knoxville, Tennessee, April 2024
Tennessee Advanced Energy Business Council, Briefing Tour (5), Knoxville, Tennessee, March-April 2022
Tennessee Advanced Energy Business Council, Knoxville, Tennessee, December 2021
Bill & Crissy Haslam Foundation, Knoxville, Tennessee, November 2021
Appalachian Regional Commission, Washington, D.C., August 2021
East Tennessee Economic Council, Oak Ridge, Tennessee, July 2021
Tennessee Advanced Energy Business Council, Knoxville, Tennessee, July 2021
Tennessee Advanced Energy Business Council, Knoxville, Tennessee, July 2018
Oak Ridge National Laboratory, National Transportation Research Center, Oak Ridge, Tennessee, May 2016
Association for Education Finance and Policy, Denver, Colorado, March 2016
Association for Education Finance and Policy, Washington, D.C., February 2015
Mathematica Policy Research, Princeton, New Jersey, January, 2015
Southern Economic Association, Atlanta, Georgia, November 2014
University of Tennessee, Greer Seminar Series, October 2014
American Educational Research Association, Philadelphia, Pennsylvania, April 2014
Association for Education Finance and Policy, San Antonio, Texas, March 2014
University of Tennessee, Internal Seminar Series, Knoxville, Tennessee, June 2013

Skills

Stata, LaTeX, Bloomberg Market Concepts, Economic Impact Analysis Input-Output Modeling, Qualtrics
Exposure of: Python, ArcGIS

Honors and Awards

J. Fred and Wilma Holly Fellowship for Published Research, University of Tennessee (2015)
J. Fred and Wilma Holly Fellowship for Excellence in Research, University of Tennessee (2013)
Tami Gurley-Calvez Third-Year Paper Award, University of Tennessee (2013)
College of Business Administration ESPN Scholarship, University of Tennessee (2010-2014)
Graduated *magna cum laude* from North Carolina State University
North Carolina State University Scholars Program
North Carolina State University Mathematics Honors Program
Mumford (Carey) Scholarship, North Carolina State University

Referee

Economics of Education Review, Journal of Economic Behavior and Organization, Journal of Policy Analysis and Management, Education Finance and Policy, Educational Researcher, Public Finance Review

Last updated: April 2024