

Wonjun Chang

The Brattle Group
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EDUCATION

Ph.D. Agricultural and Applied Economics, University of Wisconsin–Madison 2017
Dissertation: “Math Programming Tools to Deal with Uncertainty in Climate Economics”
Committee: Thomas F. Rutherford (Chair), Michael Ferris, Corbett Grainger, Dan Phaneuf, Derek Lemoine

M.Sc. Economics, London School of Economics and Political Science 2012

B.A. Mathematics & Economics, Northwestern University 2010

FIELD INTERESTS

Energy Economics, Computational Economics, Climate Economics, Environmental Economics, Stochastic Optimization

EMPLOYMENT

University of Maryland, College Park *College Park, MD*
Adjunct Faculty, Department of Economics *Aug. 2021 – Present*

The Brattle Group *Washington, D.C.*
Senior Associate, Electricity Wholesale Markets and Planning Practice *Jan. 2022 – Present*

NERA Economic Consulting *Washington, D.C.*
Senior Consultant, Energy, Environment, Communications and Infrastructure Practice *Dec. 2019 – Dec. 2021*

Charles River Associates *Washington, D.C.*
Senior Associate, Energy Practice *Oct. 2018 – Nov. 2019*

Joint Global Change Research Institute, Pacific Northwest National Laboratory *College Park, MD*
Postdoctoral Research Associate, Modeler for Department of Energy *Aug. 2017 – Sep. 2018*

Charles River Associates *Washington, D.C.*
Energy Systems and Macroeconomic Modeling Consultant *Jan. 2017 – Aug. 2017*

Rhodium Group *New York, NY*
International Trade and Macroeconomic Modeling Consultant *Sep. 2015 – Mar. 2016*

Electric Power Research Institute (EPRI) *Washington, D.C.*
Graduate Researcher, Energy & Environmental Analysis Resource Center - Impacts Team *Aug. 2012 - Aug. 2015*

Optimization Group, Wisconsin Institute for Discovery, University of Wisconsin-Madison *Madison, WI*
Research Assistant for Professor Thomas Rutherford *Aug. 2012 - Aug. 2017*

Department of Economics, London School of Economics and Political Science *London, U.K.*
Research Assistant for Professor Sanghamitra Bandyopadhyay & Professor Elliott D. Green *Aug. 2010 - Aug. 2011*

JOURNAL PUBLICATIONS

Chang, Wonjun, Garrett Glasgow, Bharat Ramkrishnan, and Anne E. Smith.

"A Simulation-Based Assessment of Alternative Explanations for Apparent Confounding in "PM Decomposition" Studies." *Environmental Modeling & Assessment* (2022): 1-28.

Chang, Wonjun, Michael C. Ferris, Youngdae Kim and Thomas F. Rutherford. "Solving Stochastic Dynamic Programming Problems: A Mixed Complementarity Approach." *Computational Economics* (2019):

<https://doi.org/10.1007/s10614-019-09921-y>

Chang, Wonjun, and Thomas F. Rutherford. "Catastrophic Thresholds, Bayesian Learning and the Robustness of Climate Policy Recommendations." *Climate Change Economics* 8.04 (2017): 1750014

WORKING PAPERS

"How States Comply with Federal Regulations: Strategic Ambient Pollution Monitoring,"
with Corbett Grainger and Andrew Schreiber.

Revise and Resubmit at American Economic Journal: Policy.

"Increasing Approximation Levels in Smolyak-based Projection Algorithms: A Mixed Complementarity Approach"
Under Review

"Ambiguous Tipping Points of the West Antarctic Ice Sheet and the Expected Value of Perfect Information"
Under Review

"How Learning Helps Mitigate the Worst When the Downside of Climate Change is Extreme"
with Jonghyun Yoo

WORK IN PROGRESS

"The Expected Value of Perfect Information on the Climate Tipping Point: When to Invest in Uncertainty Reducing Research."

with Tom Rutherford

"Dynamic Programming with Hermite Interpolation in GAMS,"
with Youngdae Kim.

TECHNICAL REPORTS

Newell, Samuel, Wonjun Chang, Ragini Sreenath and Dean Murphy. "Retaining Diablo Canyon: Economic, Carbon, and Reliability Implications." The Brattle Group (2022).

Smith, Anne E., Sugandha Tuladhar, Wonjun Chang, Bharat Ramkrishnan and Andrew Hahn. "Economic Impacts of the Climate Leadership Council's Carbon Dividends Plan Compared to Regulations Achieving Equivalent Emissions Reductions Volume I: Analysis Insights for Policymakers." NERA Economic Consulting (2020).

Smith, Anne E., Sugandha Tuladhar, Wonjun Chang, Bharat Ramkrishnan and Andrew Hahn. "Economic Impacts of the Climate Leadership Council's Carbon Dividends Plan Compared to Regulations Achieving Equivalent Emissions Reductions Volume II: Technical Supplement." NERA Economic Consulting (2020).

Chang, Wonjun, Jordan Kwok, Parag Nathaney and Patrick Augustine. "Tackling the Storage Value Stack: Wholesale Market Value Streams." CRA Insights (2019).

Chang, Wonjun, Jesse Holzer, Andrew Schreiber, and Kitae Chang. "A Comprehensive Analysis of Seepage in Geostuctures: What Temperature Data Can Tell Us" Institute of Earth Reinforced, Kumoh National Institute of Technology (2014).

TEACHING

Lecturer, Microeconomic Analysis (ECON 641)

Fall 2021 & 2022, Department of Economics, University of Maryland-College Park

Teaching Assistant, Globalization, Poverty and Development (AAE 373)

Spring 2017, Department of Agricultural and Applied Economics, University of Wisconsin-Madison

Teaching Assistant, Quantitative Methods in Applied Economics (AAE 526 / CS 526)

Fall 2014 & 2016, Department of Agricultural and Applied Economics, University of Wisconsin-Madison

Teaching Assistant, Climate Change Economics and Policy (AAE 246)

Fall 2014 & 2015, Department of Agricultural and Applied Economics, University of Wisconsin-Madison

INVITED LECTURES & CONFERENCE PRESENTATIONS

Lecturer, University of Wisconsin-Madison Seminar in Quantitative and Applied Economics *Madison, WI, USA, 2019*

Workshop Instructor on GAMS & CGE Modeling, EU-Emissions Trading Systems Project *Seoul, Korea, 2018*

Participant, Energy Modeling Forum 34 – North American Energy Trade and Integration *Washington D.C., USA, 2018*

Presenter, 20th Annual Conference on Global Economic Analysis *West Lafayette, IN, USA, 2017*

Presenter, 39th International Association for Energy Economics Annual Conference *Bergen, Norway, 2016*

Keynote Speaker, KOICA: Intergovernmental Landslide Mitigation Workshop *Korea, 2015*

Lecturer, 2015 Wisconsin Festival of Ideas *Madison, WI, USA, 2015*

Presenter, 7th Annual Integrated Assessment Modeling Consortium (IAMC) *College Park, MD, USA, 2014*

Presenter, Association of State Dam Safety Officials (ASDSO) Dam Safety 2014 *San Diego, CA, USA, 2014*

Presenter, 2014 American Agricultural Economics Association (AAEA) Meeting *Minneapolis, MN, USA, 2014*

Participant, EAERE-FEEM-VIU European Summer School in Environmental Economics *Venice, Italy, 2013*

AWARDS

Dept. of Agricultural and Applied Economics Outstanding Teaching Award *University of Wisconsin-Madison, 2016*

JOURNAL REFEREEING

Computational Economics, INFORMS Journal on Computing, Energy Policy

ADDITIONAL INFORMATION

Languages: English (Native), Korean (Native)

Computing: GAMS, R, MATLAB, STATA