Bixuan Sun

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APPOINTMENT

Post- Doctoral Researcher
University of Minnesota, Humphrey School of Public Affairs 2018

EDUCATION

Ph.D.
University of Minnesota, Department of Applied Economics 2018
M.S.
University of Minnesota, Department of Applied Economics 2015
B.A.
University of Minnesota, Morris 2013
Shanghai University, Shanghai, China (transferred) 2009-2011

PROGRAMMING SKILLS

R, Stata, GAMS (General Algebraic Modeling System), Mathematica, Matlab, GIS (Geographic Information System), Microsoft Access, LaTex, Lyx.

PUBLICATIONS

Sun, B.; Eryilmaz, D.; Konidena, R. "Transparency in Long-Term Electric Demand Forecast: A Perspective on Regional Load Forecasting". IEEE Smart Grid Newsletter, August 2019.

Sun, B.; Apland, J. "Optimal bus scheduling considering operating costs and emissions: a multiple objective, mixed integer programming framework". Public Transport. (accepted for publication)

Sun, B. (2018). Heterogeneous direct rebound effect: Theory and evidence from the Energy Star program. Energy Economics, 69, 335-349.

Damon, A., Glewwe, P., Wisniewski, S., & **Sun, B.** (2019). What education policies and programmes affect learning and time in school in developing countries? A review of evaluations from 1990 to 2014. Review of Education, 7(2), 295-387.

Damon, A., Glewwe, P., Wisniewski, S., & **Sun, B**. (2016). Education in Developing Countries-what Policies and Programmes Affect Learning and Time in School?. Expertgruppen för biståndsanalys (EBA). ISBN:978-91-88143-12-9.

WORKING PAPERS

Bhandari, Vivek; Konidena, Rao; Sun, Bixuan. "Missing discourse on microgrids – the importance of Transmission and Distribution infrastructure"
Eryilmaz, Derya; Sun, Bixuan. "Impacts of electric vehicle adoption on utility short and long term planning"
Sun, Bixuan "Heterogeneous Impacts of Residential Solar Rebate Programs in the U.S."
Sun, Bixuan; Chan, Gabriel. "A Network-Based Automated Approach for Identifying Technological Spillovers with an Application in Solar Photovoltaics".

Glewwe, Paul; Wisniewski, Suzanne; Sun, Bixuan. "Teachers in Developing Countries".
Miller, Steve; Sun, Bixuan. “Diversifying the measurement of patent diversity”.
Miller, Steve; Sun, Bixuan. “The origins of breakthrough innovation in clean energy”.

RESEARCH EXPERIENCE

Graduate Research Assistant, 09/2016 – 05/2017. Department of Applied Economics, University of Minnesota. *Examine the relationship between patent diversity and breakthrough technologies, and its implication on clean energy development in the U.S.*

Consultant, 10/2014 – 05/2015. Center for Global Development, Washington, D.C. *Conduct literature review and data analysis on the effects of school resources and policies in developing countries.*

Graduate Research Assistant, 09/2013-05/2014. Department of Applied Economics, University of Minnesota. *Collect data and design an optimization model for efficient bus scheduling assignments and the fleet composition.*

DISSERTATION CHAPTERS ON CLEAN ENERGY TRANSITION

“Estimating the heterogeneous impacts of residential solar rebate programs in the U.S.”
Using a novel machine learning method, causal regression tree, and the Open PV data, I examine how the effectiveness of solar rebate programs at promoting residential solar differs by the presence of other renewable policies and demographic characteristics.

“Heterogeneous Direct Rebound Effect: Theory and Evidence from the Energy Star Program”
Using the Residential Energy Consumption Survey (RECS) data from the EIA, I estimate the direct rebound effect in the Energy Star (ES) program, and find negative rebound effect for ES dishwashers and potentially positive rebound effect for ES window ACs.

“Market power and the transition to clean technology”, with Steve Miller
We build a dynamic Stackelberg game model to analyze how the market power of dirty, incumbent producers affects investment in and transition to cleaner technologies, and how policy interventions counteract these effects.

TEACHING EXPERIENCE

Adjunct professor, 10/2019 – 12/2019. Hamline University.
Teaching Assistant, 01/2017. Universidad del Pacifico, Lima, Peru.
Teaching Assistant, 08/2016. The World Bank, Shanghai, China.
Teaching Assistant, 09/2015 – 12/2015. University of Minnesota.

FELLOWSHIPS AND AWARDS

2019 Agriculture & Applied Economics Association Outstanding Doctoral Dissertation Honorable Mention.
Doctoral Dissertation Fellowship, 2017. University of Minnesota.
Outstanding Teaching Assistant Award, 2016. University of Minnesota.
Applied Economics Graduate Program Assistantship, 2014-2018. University of Minnesota.

SELECTED PROFESSIONAL ACTIVITIES

2019 Workshop in Environmental Economics and Data Science, Portland, OR.
2019 EAERE-ETH European Winter School on the economics of energy transition, Ascona, Switzerland.
2017 Berkeley/Sloan Summer School in Energy and Environmental Economics, Berkeley, CA.
2017 Colorado Technology Primer for Economists and Social Scientists, Golden, CO.