**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

## RESEARCH INTERESTS

Environmental Economics, Energy Policies, Applied Microeconomics.

## 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. (2019) "Optimal bus scheduling considering operating costs and emissions: a multiple objective, mixed integer programming framework". Public Transport, 11(2), 237-267.

**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.: A Machine Learning Perspective".

Sun, Bixuan; Chan, Gabriel. "A Network-Based Automated Approach for Identifying Technological Spillovers with an Application in Solar Photovoltaics".

Sun, Bixuan; Miller, Steve. "Market power and the transition to clean energy"

Miller, Steve; Sun, Bixuan. "Diversifying the measurement of patent diversity".

Miller, Steve; Sun, Bixuan. "The origins of breakthrough innovation in clean energy"

Glewwe, Paul; Wisniewski, Suzanne; Sun, Bixuan. "Teachers in Developing Countries"


**TEACHING EXPERIENCE**

**Adjunct professor**                                                    Spring 2018
Hamline University
    **MSBA 8170: Advanced Statistics and Machine Learning I**
    *Design online course materials and teach the 8-week long course to students in Master of Science in Business Analytics program. R is the primary tool used, and topics include an overview of regression analysis (including logistic, OLS, Poisson, and nonlinear models), supervised machine learning methods, including decision trees, random forests, support vector machine, as well as text mining methods.*

**Guest Lecturer**                                                       Spring 2018
Department of Applied Economics, University of Minnesota
    **APEC 8202: Mathematical Optimization in Applied Economics**
    *Deliver lectures on the application of integer programming and transportation problem.*

**Teaching Assistant**                                                   January 2017
Universidad del Pacifico, Lima, Peru
    **Impact Evaluation Technical Course:**
    **How to Design, Manage, and Conduct Impact Evaluations**
    *Deliver hands-on-learning lectures on the application of impact evaluation; focus on econometric methods and Stata application; course participants include researchers at the Ministry of Education in Peru and undergraduate students at the Universidad del Pacifico.*

**Teaching Assistant**                                                            August 2016
The World Bank, Shanghai, China
  **Impact Evaluation Technical Course:**
  **How to Design, Manage, and Conduct Impact Evaluations**
  *Deliver hands-on-learning lectures on the application of*
  *impact evaluation; focus on program design, econometric methods*
  *and Stata application; course participants include development*
  *researchers from 20 countries.*

**Teaching Assistant**                                                            Fall 2015
Department of Applied Economics, University of Minnesota
  **APEC 8001-8002: Applied Microeconomics –**
  **Demand and Production Theory**
  *Deliver recitation lectures on the application of theories and methods;*
  *create and grade problem sets; hold office hours to assist students.*

## RESEARCH EXPERIENCE

**Graduate Research Assistant**                                                   2016-2017
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**                                                                    2014-2015
Center for Global Development, Washington, D.C.
  *Conduct literature review and data analysis on the effects of school*
  *resources and policies on learning outcomes in developing countries.*

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

## CONFERENCE PRESENTATIONS

2019 Workshop in Environmental Economics and Data Science, Portland, OR.
2019 EAERE-ETH European Winter School on the economics of energy transition, Ascona,
      Switzerland.
2018 Midwest International Economic Development Conference, Minneapolis, MN.
2017 Association of Public Policy Analysis & Management Research Conference, Chicago, IL.
2017 Agricultural and Applied Economics Association Annual Meeting, Chicago, IL.
2017 Northeastern Agricultural and Resource Economics Association Annual Meeting,
      Arlington, VA.
2017 Midwest Economics Association Annual Meeting, Cincinnati, OH.
2016 Interdisciplinary PhD Workshop in Sustainable Development, Columbia University, NYC.
2015 Midwest Economics Association Annual Meeting, Minneapolis, MN.

**FELLOWSHIPS AND AWARDS**

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