

# EMILY L. PAKHTIGIAN

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## ACADEMIC EMPLOYMENT

2020– Assistant Professor of Public Policy, Pennsylvania State University  
Jeffrey L. and Sharon D. Hyde-McCourtney Career Development Professor

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## EDUCATION

2020 Ph.D. in Public Policy (Economics Concentration), Duke University  
M.A. in Economics, Duke University  
Certificate in College Teaching, Duke University

2015 B.A. in Economics with honors, minor in Mathematics, Moravian College  
B.A. in Political Science, Moravian College

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## PROFESSIONAL EXPERIENCE

2021– Affiliate, Energy Access Project, Duke University

2020– Cofunded Faculty, Institutes of Energy and the Environment, Pennsylvania State University  
Faculty Associate, Population Research Institute, Pennsylvania State University  
Graduate Faculty, Energy, Environment, and Food Economics, Pennsylvania State University

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## RESEARCH INTERESTS

Environmental Economics ♦ Development Economics ♦ Public Health

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## PAPERS AND PUBLICATIONS

<sup>+</sup> *Student co-author*

### Peer-Reviewed Journal Articles

2023 Shrestha, G., Pakhtigian, E. L., and Jeuland, M. (2023). Women who do not migrate: Intersectionality, social relations, and participation in Western Nepal. *World Development*, 161, 106019. <https://doi.org/10.1016/j.worlddev.2022.106109pp>

2022 Pakhtigian, E. L., <sup>+</sup>Downs-Tepper, H., Anson, A., and Pattanayak, S. K. (2022). COVID-19, public health messaging, and sanitation and hygiene practices in rural India. *Journal of Water, Sanitation and Hygiene for Development*. <https://doi.org/10.2166/washdev.2022.134>

Pakhtigian, E. L., Dickinson, K., Orgill-Meyer, J., and Pattanayak, S. K. (2022). Sustaining latrine use: Peers, policies, and sanitation behaviors. *Journal of Economic Behavior and Organization*, 200, 223-242. <https://doi.org/10.1016/j.jebo.2022.05.024>

<sup>+</sup>Broyles, L. M. T., **Pakhtigian, E. L.**, Rosinger, A. Y., and Mejia, A. (2022). Climate and hydrological seasonal effects on household water insecurity: A systematic review. *WIREs Water*, e1593. <https://doi.org/10.1002/wat2.1593>

Komisarow, S. and **Pakhtigian, E. L.** (2022). Are power plant closures a breath of fresh air? Local air pollution and school absences. *Journal of Environmental Economics and Management*, 112, 102569. <https://doi.org/10.1016/j.jeem.2021.102569>

◊ Coverage in [Edutopia](#)

**2021** Komisarow, S. and **Pakhtigian, E. L.** (2021). The effect of coal-fired power plant closures on emergency department visits for asthma-related conditions among 0- to 4-year-old children in Chicago, 2009-2017. *American Journal of Public Health*, 111(5). 881-889. <https://doi.org/10.2105/AJPH.2021.306155>

◊ Coverage in [U.S. News & World Report, Health Day](#)

Aziz, S., **Pakhtigian, E. L.**, Akanda, A. S., Jutla, A., Huq, A., Alam, M., Ashan, G. U., Colwell, R. R. (2021). Does improved risk information increase the value of cholera prevention? An analysis of stated vaccine demand in slum areas of urban Bangladesh. *Social Science and Medicine*, 272, 113716. <https://doi.org/10.1016/j.socscimed.2021.113716>.

**2020** **Pakhtigian, E. L.**, Jeuland, M., Dhaubanjari, S., and Pandey, V. P. (2020). Balancing intersectoral demands in basin-scale planning: The case of Nepal's western river basins. *Water Resources and Economics*, 100152. <https://doi.org/10.1016/j.wre.2019.100152>.

**2019** **Pakhtigian, E. L.**, Jeuland, M., Bharati, L., and Pandey, V. P. (2019). The role of hydropower in visions of water resources development for rivers of Western Nepal. *International Journal of Water Resources Development*, 1-28. [10.1080/07900627.2019.1600474](https://doi.org/10.1080/07900627.2019.1600474).

**Pakhtigian, E. L.** and Jeuland, M. (2019). Valuing environmental quality: Evidence from Western Nepal. *Ecological Economics*, 158, 158-167. [10.1016/j.ecolecon.2018.12.021](https://doi.org/10.1016/j.ecolecon.2018.12.021).

### Book Chapters

**2018** Pattanayak, S. K., **Pakhtigian, E. L.**, and Litzow, E. L. (2018). Through the looking glass: Environmental health economics in low and middle income countries. *Handbook of Environmental Economics*, 4, 143-191. [10.1016/bs.hesenv.2018.08.004](https://doi.org/10.1016/bs.hesenv.2018.08.004).

### Working Papers

“Estimating lost dividends from incomplete energy access transitions” with M. Jeuland, S. K. Pattanayak, and J. Phillips (*Under review*)

“Collective action for sanitation: Evidence from experimental games in rural India” with S. K. Pattanayak

“Forest fires, smoky kitchens, and human health in Indonesia” with S. K. Pattanayak and J.-S. Tan-Soo (*Under review*)

“Seasonal variation in household water insecurity: Evidence from rural Bangladesh” with L. M. T. Broyles<sup>+</sup>, S. Aziz, A. S. Akanda, and A. Mejia (*Under review*)

“Early warning systems, mobile technology, and cholera aversion: Evidence from rural Bangladesh” with S. Aziz, A. S. Akanda, K. Boyle, and M. A. Hanifi (*Under review*) [[RFF Working Paper](#)]

“Blue and Red Tides in the Chesapeake Bay Watershed: Examining political, environmental, and self-reported health framings during the 2016 and 2020 elections” with S. Mainzer (*Under review*)

“Hydro-economic Modeling Framework to Address Water-Energy-Environment-Food Nexus Questions at the River Basin Scale” with M. Bekchanov, A. Sood, and M. Jeuland [[Working Paper](#)]

### Selected Works in Progress

“Where there’s fire, there’s smoke: Forest fire emissions, behavior, and health” [[Draft](#)]

“Economic and employment impacts of low-carbon energy transitions: Evidence from the Regional Greenhouse Gas Initiative” with H. Wething

### Policy Reports, Blogs, and Other Writing

**2021** “Why are the new climate normals abnormal?” *Institutes of Energy and the Environment Blog*. [[Blog](#)]

“Collective action for environmental health: Evidence from sanitation in rural India” with S.K. Pattanayak. *Ideas for India*. [[Blog](#)]

**2020** “Balancing economic and conservation objectives related to water resources in western Nepal” with M. Jeuland. *Global Water Forum*. [[Article](#)]

“New Data and Technologies are Transforming Energy Access—Public Policy Must Catch Up” with J. Phillips and M. Jeuland. *Next Billion*. [[Blog](#)]

**2019** “The energy access dividend in Haiti and Honduras” with N. C. Marzolf, E. Burton, M. Jeuland, S. K. Pattanayak, J. Phillips, C. E. Singer, H. Taylor, M. C. M. Hallack, J. Cuervo and C. Jacome. *Inter-American Development Bank*. [[Report](#)]

“Chapter 2.1 Status and Trends—Drivers of Change” [Contributing author] in *Intergovernmental Science–Policy Platform on Biodiversity and Ecosystem Services (IPBES) Global Assessment Report on Biodiversity and Ecosystem Services*. [[Report](#)]

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## GRANTS

### External Grants

**2020-22** Resources for the Future (RFF)  
Co-Investigator: “Quantifying benefits of using satellite derived early warning systems to predict cholera in Bangladesh” with S. Aziz (PI), A. Akanda, and K. Boyle (\$100,000)

**2019-21** International Growth Centre (IGC)  
Co-PI: “Opening the black box of information interventions: Evidence from India” with S. K. Pattanayak (£56,800)

### Internal Grants

**2022-23** Pennsylvania State University Population Research Institute Seed Grant  
PI: “Clean energy transitions and children’s health vulnerabilities: Examining the distributional health effects of air quality improvements” (\$15,000)

**2022-23** The Center for Global Studies International Research Travel Award  
PI: “Environmental health in South Asia and the Pacific” (\$4,000)

**2021-22** College of Arts and Architecture Sustainability Research Team Grant  
Co-Investigator: “Investigating well-being and inequality in the Chesapeake Bay Watershed” with S. Mainzer (PI) (\$5,000)

**2021-22** Pennsylvania State University Institutes for Energy and Environment Seed Grant

- PI: “Assessing distributional effects of coal-fired power plant operations on pollution and health” with W. Peng and H. Wiseman (\$30,000)
- 2021-22** Pennsylvania State University Institutes for Energy and Environment Seed Grant  
Co-PI: “Towards sustainable and equitable household water security: Lessons from Bangladesh” with A. Mejia (PI) (\$30,000)
- 2021-22** Pennsylvania State University Institutes for Energy and Environment Seed Grant  
Co-PI: “Analyzing the adoption of solar irrigation pumps in India within the food-energy-water nexus: Implications for carbon, groundwater depletion, and agricultural productivity” with D. Brent (PI) and M. Jacobson (\$29,479)
- 2020-21** Pennsylvania State University Population Research Institute  
PI: “Quantifying benefits of using satellite derived early warning systems to predict cholera in Bangladesh” (\$2,760)
- 2018-19** Duke University Duke India Institute  
PI: “Opening the black box of information interventions: Evidence from India” (\$1,860)

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## CONFERENCE AND SEMINAR PRESENTATIONS

\* *Invited talk*

- 2023** New Energy: Conversations with Early-Career Energy Researchers\*
- 2022** Association of Public Policy Analysis and Management Annual Meeting; KDI-ExPMR Annual Conference\*; University of Indonesia\*; Environmental Politics and Governance Conference; New Energy Summer Summit; Advances with Field Experiments Conference; Association of Environmental and Resource Economists Annual Meeting; Energy Days 2022: Mobilizing Energy and Climate Solutions; Shale Network Workshop\*; Eastern Economic Association Annual Meeting; Online Summer Workshop in Environment, Energy, and Transportation (Economics) (OSWEET); Sustainability and Development Conference; Allied Social Science Association Annual Meeting
- 2021** Resources for the Future VALUABLES Community Meeting\*; 3rd International Public Management Conference\* (*cancelled due to COVID-19*); University of British Columbia\*; ADBI-BMGF-IFS Workshop on Sanitation and Development; Pennsylvania State School of Public Policy Seminar\*; European Association of Environmental and Resource Economists Annual Meeting; Association of Environmental and Resource Economists Annual Meeting; International Growth Centre Webinar on Building State Capacity\*; Midwest Energy Fest; Pennsylvania State Water Insights Seminar\*; ADBI-Bill & Melinda Gates Foundation Roundtable on Sanitation and Development\*; Society for Benefit-Cost Analysis Annual Conference; Allied Social Science Association Annual Meeting
- 2020** 2nd International Public Management Conference\*; Pennsylvania State Energy and Environmental Economics and Policy Seminar\*; Environment for Development Annual Meeting; Association for Public Policy Analysis and Management Annual Meeting; IZA Workshop on Environment, Health and Labor Markets (*cancelled due to COVID-19*); European Association of Environmental and Resource Economists Annual Meeting; Association of Environmental and Resource Economists Annual Meeting; Moravian College InFocus Conference
- 2019** Southern Economic Association Annual Meeting; Association for Public Policy Analysis and Management Annual Meeting; Camp Resources XXVI; Sustainable Energy Transitions Initiative Annual Meeting; Allied Social Science Association Annual Meeting; Digo Jal Bikas Dissemination Workshop

- 2018** World Congress of Environmental and Resource Economists  
**2017** Digo Jal Bikas Trade-off Arena Workshop  
**2015** Eastern Economic Association Annual Meeting
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## **TEACHING EXPERIENCE**

### **Instructor of record**

- PPOL503: Statistics for Public Policy 1, Pennsylvania State University  
PPOL506: Statistics for Public Policy 2, Pennsylvania State University  
PPOL809: Public Policy Analysis, Pennsylvania State University  
PPOL897: Environmental Policy, Pennsylvania State University

### **Short courses and workshops**

- Master of Public Policy Math Refresher Course, Duke University  
Advanced Course on Program Evaluation for Natural Resource and Environmental Economists Workshop, SANDEE
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## **STUDENTS MENTORED**

### **Masters Students**

- Adrian Corbin (Pennsylvania State University MPP '21)  
Samiha Taseen (Pennsylvania State University MPP '22)  
Jeremy Hoffman (Pennsylvania State University MPP '23)  
Caroline Paterno (Pennsylvania State University MPP '24)

### **PhD Students**

- Lauren Broyles (Pennsylvania State University, Civil and Environmental Engineering, Committee Member)  
Praharsh Patel (Pennsylvania State University, Energy, Environmental, and Food Economics, Committee Member)  
Mingzhou Shen (Pennsylvania State University, Energy, Environmental, and Food Economics, Committee Member)
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## **FELLOWSHIPS, PRIZES, AND AWARDS**

- 2022** Dock Mennonite Academy Young Alumni of the Year Award  
**2022** Moravian University ODE Young Alumni Award  
**2019** Fleishman Ph.D. Fellowship (\$10,600)  
**2018-19** Duke Graduate School Award for Conference Travel (\$1,125)  
**2018** Duke Graduate School Preparing Future Faculty Fellow  
Duke University Center for International & Global Studies Graduate Awards for Research and Training (\$750)  
Duke Graduate School Professional Development Grant (\$400)

- 2017-18** Duke University Center for International & Global Studies Grant for Graduate Working Groups on Global Issues (\$2,000)
- 2016-20** Sanford School of Public Policy Small Grants (\$2,700)
- 2016-19** Duke University Graduate School Summer Research Fellowship (\$22,000)
- 2011-15** Moravian College Comenius Medallion Scholarship (Full Tuition)
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## **PROFESSIONAL SERVICE**

- 2022–** Faculty Advisor, Penn State Association of Water Students, Pennsylvania State University
- 2022** Local Planning Committee, Environmental Politics and Governance Conference
- 2021–** Awards Committee Member, School of Public Policy, Pennsylvania State University
- 2021–** Faculty Representative, Universities Council on Water Resources
- 2020–** Graduate Studies Committee Member, School of Public Policy, Pennsylvania State University
- 2020–** Speakers and Events Committee Member, School of Public Policy, Pennsylvania State University

### **Journal Reviewer**

*Energy Economics; Environmental Health Insights; Environmental Science and Policy; Health Economics; Journal of Environmental Economics and Management; Journal of Health Economics; Journal of Hydrology; Journal of Water, Sanitation and Hygiene for Development; Lancet Planetary Health; PLoS One; Resource and Energy Economics; Utilities Policy; Water Resources and Economics; Water Resources Research; World Development; World Development Perspectives*

### **Conference Submission Reviewer**

Association of Environmental and Resource Economists Annual Meeting (2023); Association for Public Policy Analysis and Management Annual Meeting (2020, 2021, 2022); Sustainable Energy Transitions Initiative Annual Meeting (2019, 2020); UNC Water and Health Conference (2020, 2021, 2022)

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## **RELATED SKILLS**

### **Computing**

Stata; R; GAMS; ArcGIS; AERMOD; L<sup>A</sup>T<sub>E</sub>X

### **Field Work**

Bangladesh; India; Nepal