### Susanna B. Berkouwer

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#### Research fields

Development economics, environmental economics

## Academic appointments

Assistant Professor of Business Economics and Public Policy	2020-
Robert J. Aresty, W'63 Faculty Scholar	2022 - 2023

#### National Bureau of Economic Research (NBER)

Faculty Research Fellow, Development Economics Program	2023 -
Faculty Research Fellow, Environmental and Energy Economics Program	2023 -

## External affiliations

Affiliate, Bureau for Research and Economic Analysis of Development (BREAD)

Affiliate, Abdul Latif Jameel Poverty Action Lab (J-PAL)

Fellow, The Coase Project

Fellow, Energy for Growth Hub

#### Internal affiliations

Fellow, Penn Environmental Innovations Initiative

Affiliated faculty, Wharton Climate Center at the Wharton ESG Initiative

Affiliated faculty, Penn Program on Regulation

Affiliated faculty, Penn Development Research Initiative

Affiliated faculty, Analytics at Wharton

Scholar, Wharton Risk Center	2020 – 2022
Graduate Student Affiliate, Energy Institute at Haas	2015 – 2020

### Education

Ph.D., Agricultural and Resource Economics, University of California, Berkeley	2014 – 2020
M.A., International and Development Economics, Yale University	2023 – 2013
B.Sc., Statistics (with Economics), University College London	2007 - 2010

#### **Teaching**

Microeconomics for Managers (MGEC 6110, Wharton MBA core) Fall 2020, 2021, 2022, 2023

#### Journal publications

Berkouwer, S. and J. Dean. 2022. "Credit, attention, and externalities in the adoption of energy efficient technologies by low-income households." *American Economic Review* 122(10)1–41. Available here.

Berkouwer, S., P. Biscaye, S. Puller, C. Wolfram. 2022. "Disbursing emergency relief through utilities: Evidence from Ghana." *Journal of Development Economics* 156(C)102826. Available here.

Berkouwer, S. 2020. "Electric heating and the effects of temperature on household electricity consumption in South Africa." *The Energy Journal* 41(4)209–230. Available here.

## Working papers

Berkouwer, S., P. Biscaye, E. Hsu, O. Kim, K. Lee, E. Miguel, C. Wolfram. 2023. "Money or power? Choosing Covid-19 Aid in Kenya." Available here. Revise & Resubmit at *Energy Economics*.

Berkouwer, S. and J. Dean. 2023. "Pollution exposure and health: The role of private actions and environmental externalities in Nairobi". Accepted by JDE Pre-results Review. Available here.

- Wolfram, C., E. Miguel, E. Hsu, S. Berkouwer ©. 2023. "Donor contracting conditions and public procurement: Causal evidence from Kenyan electrification." <u>Submitted</u>. Available here. NBER WP30948.
- Berkouwer, S., M. Bariya, G. Flaspholer, M. Odero, J. Adkins, N. Klugman. 2023. "GridWatch: Revealing the nature of power quality and reliability challenges across urban and rural Africa at scale." Submitted.
- Berkouwer, S., P. Biscaye, M. Mikdash, S. Puller, and C. Wolfram. 2023. "Voltage quality and economic activity." Pre-analysis plan at 3ie RIDIE ID 928. Available upon request.
- Wolfram, C., S. Berkouwer, F. Vial, E. Hsu, O. Kim, E. Miguel ©. 2023. "Decomposing political favoritism in Kenyan mass electrification."

## Research in progress

- "Mitigating climate risk through parametric insurance," with J. Dean
- "Economic inefficiency, morality, and the global cost of climate change mitigation," with J. Dean
- "Understanding financial decision-making," with J. Dean
- "Home energy improvements for low-income Philadelphia homeowners"

## Other publications

- Klugman, N. J. Adkins, S. Berkouwer, K. Abrokwah, M. Podolsky, P. Pannuto, C. Wolfram, J. Taneja, and P. Dutta. 2023. "Measuring Grid Reliability in Ghana." in T. Madon et al (Eds.), *Introduction to Development Engineering: A Framework with Applications from the Field*. Springer. Open Access. Available here.
- Klugman, N. J. Adkins, S. Berkouwer, K. Abrokwah, I. Bobashev, P. Pannuto, M. Podolsky, A. Suseno, R. Thatte, C. Wolfram, J. Taneja, and P. Dutta. 2019. "Hardware, Apps, and Surveys at Scale: Insights from Measuring Grid Reliability in Accra, Ghana." *Proceedings of the 2nd ACM Conference on Computing & Sustainable Societies. COMPASS'19.* Available here.
- Berkouwer, S., A. Sultan, and S. Yehia. 2014. "Homosexuality in Sudan and Egypt: Stories of the Struggle for Survival." *LGBTQ Policy Journal*, Vol. IV, pp. 66–76. Available here.

### External grants

J-PAL Social Protection Initiative, 2023 (\$7,500) with Joshua Dean

Weiss Fund for Research in Development Economics, 2022 (\$87,209) with Joshua Dean

Millenium Challenge Corporation, 2021 (\$1,550,000) with Duncan Callaway and Steven Puller

USAID Power Africa, 2021 (\$55,000) with Edward Miguel

International Growth Centre–Sierra Leone, 2020 (\$77,000) with Steven Puller and Catherine Wolfram International Growth Centre–Kenya, 2020 (\$25,000) with Eric Hsu, Oliver Kim, Kenneth Lee, Edward Miguel, and Catherine Wolfram

Private Enterprise Development in Low-income Countries, 2020 (\$46,500) with Eric Hsu, Kenneth Lee, Edward Miguel, and Catherine Wolfram

DFID Energy for Economic Growth, 2020 (\$29,000) with Edward Miguel and Catherine Wolfram International Growth Center–Kenya, 2018 (\$24,300), with Joshua Dean

Weiss Fund for Research in Development Economics, 2018 (\$31,544), with Joshua Dean

DFID Economic Development and Institutions, 2018 (\$361,000) with Edward Miguel and Catherine Wolfram

### Awards & Scholarships

AAEA, Outstanding Doctoral Dissertation, Honorable Mention, 2021

US/International Association for Energy Economics, Best Student Paper Award, 2019

Art Rosenfeld Award for Energy Efficiency, 2018

Prins Bernhard Cultuurfonds, 2014

Dr Hendrik Muller's Vaderlandsch Fonds, 2012

#### Internal grants

- 2023 Tanoto ASEAN Initiative (\$60,000), Wharton ESG Initiative (\$26,042), Kleinman Center for Energy Policy (\$17,570, \$7,500), Global Initiatives (\$13,000), Wharton Dean's Fund (\$9,000), Wharton Analytics (\$5,000)
- 2022 Mack Institute for Innovation Management (\$62,000), Penn Global (\$74,000), Analytics at Wharton (\$17,000), Kleinman Center for Energy Policy (\$15,000), Wharton Dean's Fund (\$8,500), Chicago DEC/BFI (\$10,000)
- 2021 Ripple Blockchain Research Fund (\$40,000), Wharton Dean's Fund (\$20,000), Kleinman Center for Energy Policy (\$15,000), Mack Institute for Innovation Management (\$10,000), Analytics at Wharton (\$10,000), Wharton Global Initiatives (\$8,000), Wharton Risk Center (\$7,500)
- 2020 Kleinman Center for Energy Policy (\$15,000), Analytics at Wharton (\$15,000)
- 2019 Rocca Dissertation Research Fellowship (\$6,000)
- 2018 Rocca Dissertation Research Fellowship (\$6,000), Xlab Behavioral Research Grant (\$3,000), ARE Graduate Student Travel Grant (\$1,500)
- Prior Rocca Pre-dissertation Research Fellowship (\$4,000), Xlab Behavioral Research Grant (\$3,000), Levin Family Seed Grant (\$2,000), ARE Graduate Student Travel Grant (\$1,500), Graduate Assembly Travel Award (\$300), ARE Graduate Student Travel Grant (\$1,500)

### Blog posts and policy briefs

- 15. Comparing two approaches to procurement, NBER Digest, 5/2023
- 14. Power quality in donor-funded infrastructure projects, Energy for Growth Hub memo, 2/2023
- 13. "Lights on, Lights off": Evaluating outages, voltage, and economic impacts of grid investments in Accra, Ghana, *Center for Effective Global Action*, 8/12/2022
- 12. Emergency utility subsidies can help citizens weather economic crises, but may exclude the poorest citizens, World Bank Sustainable Energy for All, 7/18/2022
- 11. Money or Power? Financial infrastructure and optimal policy, *Private Enterprise Development in Low-Income Countries*, 4/22/2022
- 10. Parametric hurricane protection in Dominica: Insights from initial adopters, Wharton Risk Center blog, 2/11/2022
- 9. What's reliability without voltage quality? Energy for Growth Hub memo, 11/29/2021
- 8. Barriers to energy efficiency adoption in low-income communities,  $Kleinman\ Center\ Policy\ Digest,$  12/9/2021
- 7. Money or power? Choosing Covid-19 aid in Kenya, *International Growth Centre Blog*, 5/25/2021
- 6. Does donor conditionality improve infrastructure construction quality? DFID Economic Development & Institutions Blog, 3/1/2021
- 5. Subsidizing electricity during a pandemic: Lessons from Ghana,  $Energy\ Institute\ at\ Haas\ Blog,\ 7/20/2020$
- 4. Can energy efficiency subsidies improve welfare in low-income countries? Evidence from Kenya says yes, *VoxDev*, 5/25/2020
- 3. What causes under-adoption of profitable energy efficient technologies in Kenya? World Bank Blog, 11/26/2019
- 2. How do credit and psychology affect the adoption of profitable energy efficient technologies in Kenya? International Growth Centre Policy Brief, 8/1/2019

1. Can cell phones help improve electricity reliability? Energy Institute at Haas Blog, 2/18/2019

## Media

- 6. Climate Crisis: Who does climate change hit the hardest? The Ripple Podcast, 4/18/2023
- 5. Research spotlight: Data analytics for economic efficiency in energy policy,  $Analytics\ at\ Wharton$ , 10/5/2022
- 4. Achieving UN SDG #1: No poverty, UPenn Earth Day Teach-in, 4/18/2022
- 3. Climate policy is anti-poverty policy, UPenn 1.5° C Minute Climate Lectures, 9/22/2021
- 2. Power for the people: How should governments develop electric grids? DFID Economic Development & Institutions, 11/21/2019
- 1. Kenya races toward goal of electrifying every household, *PBS NewsHour Weekend*, 5/20/2017

### Written coverage

- 5. Wharton study finds energy-efficient technologies can help families save money, *The Daily Penn-sylvanian*, 12/9/2021
- 4. How to drive energy efficiency among low-income households, *Knowledge@Wharton*, 11/22/2021
- 3. Fuel efficient cookstoves, Giving Green Recommendations, 11/2020
- 2. Could easier credit speed the adoption of energy efficiency? Chicago Booth Review, 9/29/2020
- 1. Closing the energy efficiency gap for low-income households, *Energy Institute at Haas*, 10/21/2020

## Seminar and conference presentations (\*scheduled)

- 2023 \*Calgary; \*Yale; \*IPA at Northwestern; \*IAP at USC; PEDL at MIT; Energy Camp at UC Berkeley; Coase Conference at Chicago; EPIC Workshop at Chicago; NBER (EEE); University of Arizona; Inter-American Development Bank; UPenn (PDRI; AEW; One Health@Penn)
- 2022 Coase Conference at Chicago; Columbia; BREAD at UCL; Energy Camp at UC Berkeley; Occasional Workshop at UC Santa Barbara; Arizona State; CMU/Pittsburgh; NBER (EEE–discussant); Resources For the Future; Center for Global Development; Busara Center for Behavioral Economics; Working Group on Kenyan Political Economy; Strathmore University; UPenn (Wharton AEW; Africa Symposium; PDRI; Kleinman)
- 2021 Duke; Cornell; University of Hawai'i; Energy Camp at UC Berkeley; IDE Conference at Yale; London School of Economics; Berkeley-Harvard-Yale (EEE); World Bank; ASSA; AERE; GiveWell; PacDev; OSWEET; UPenn (Africa symposium; PDRI)
- 2020 NBER Fall Meetings (DEV); NBER SI (EEE); CEGA E2A (Climate Change & Global Poverty); Early-Career Behavioral Economics; UPenn (Wharton AEW; EEF); Dartmouth; Boston University; Tufts; Sciences Po; University of British Columbia; Johns Hopkins (Carey); World Bank; Stockholm (IIES)
- 2019 NEUDC at Northwestern; WGAPE at University of British Columbia; Occasional Workshop at UC Santa Barbara; Heartland Workshop at UI Urbana-Champaign; USAEE; University of Nevada, Reno; Paris School of Economics (EDI); UC Berkeley (Development Economics, Psychology & Economics, ARE, SEEDEC, X-LAB)
- Prior WGAPE at the University of British Columbia; IPWSD at Columbia; CREEC at Makerere University; Busara Center for Behavioral Economics; UC Berkeley

#### Conferences & events

- 2023 Speaker, Energy Policy Fireside Chat, Penn Undergraduate Economics Society
- 2022 Moderator, Are Industry Regulators Ready for the Climate Transition?, the Kleinman Center Speaker, Wharton Climate Prof, Wharton ESG Initiative Panelist, Workshop on Global Climate Finance, Perry World House & Wharton Climate Center Panelist, Developing and managing a research agenda, AERE

Moderator, Clean Energy in Africa: Unfair & Impractical? Wharton Africa Student Association and the Wharton Energy & Climate Club

- 2021 Speaker, Coffee Break Webinar, Energy for Growth Judge, Best Student Paper award, US Association for Energy Economics Panelist, Wharton Climate Prof, Wharton Risk Center Panelist, Womxn's Faculty and Alumni panel, Economists for Equity at Berkeley
- 2020 Panelist, LGBTQ Job Market panel, American Economic Association Panelist, Women in Energy Event, Wharton Undergraduate Energy Group

#### Guest lectures

- 2023 Wharton Public Policy Certificate Program (Energy and Environmental Policy)
  UC Berkeley Summer School in Environmental and Energy Economics
  University of Pennsylvania (HIST 1370-401 African Environmental History)
- 2022 Wharton Public Policy Certificate Program (Energy and Environmental Policy)
  Strathmore University, Kenya (MS Sustainable Energy Transitions)
  Wharton PhD program (BEPP 941 Development Economics)
  Wharton Executive Education (Economics of Blockchain & Digital Assets)
- 2021 Virginia Tech (AAEC 3324 Environmental & Sustainable Development Economics) Swarthmore University (ECON 044 Behavioral Economics)
- 2020 UC Berkeley (MBA 296 Applied Impact Evaluation)
- 2019 Beahrs Environmental Leadership Program (Impact Evaluation) UC Berkeley (ECON 172 African Economic Development)
- 2016 CREEC, Makerere University, Uganda (Impact Evaluation)

### Service

- 2023–2024 Senior/lateral recruiting committee, BEPP, Wharton
- 2022– Organizer, Penn Development Economics Seminar
- 2020– Co-organizer, Energy Economics & Finance Seminar, Kleinman Center for Energy Policy
- 2022 Organizer, Wharton Applied Economics Workshop
- 2022 Organizer, Penn Development Conference on Climate Change & Environment
- 2021–2022 Junior recruiting committee, BEPP, Wharton
- 2020–2021 Committee on diversity and inclusion, BEPP, Wharton
- 2020–2021 MBA Studies Committee, BEPP, Wharton
- 2017–2018 PhD Admissions committee member, UC Berkeley Agricultural and Resource Economics

#### Professional activities

- Mentor, American Economic Association Committee on the Status of LGBTQ+ Individuals in the Economics Profession (AEA CSQIEP)
- 2022 CeMENT Mentee, American Economic Association Committee on the Status of Women in the Economics Profession (AEA CSWEP)
- 2021 Faculty coach, Researcher matching programme, International Growth Centre
- 2017–2019 Leadership board, Women in Economics at Berkeley
- 2013–2014 Member of the editorial board, Harvard LGBTQ Policy Journal

## Journal refereeing

American Economic Review, Journal of Political Economy, AEJ: Applied Economics, AEJ: Economic Policy, AER: Insights, Climatic Change, Economic Development and Cultural Change, Economic Journal, Economics Letters, Energy Journal, Energy Economics, Environment and Development Economics, Journal of Development Economics, Journal of Development Economics (pre-results review), Journal of Public Economics, Journal of the Association of Environmental and Resource Economists, Journal of the European Economic Association, Management Science, Nature Climate Change, Review of Economics and Statistics, Utilities Policy, World Bank Economic Review

## Grant & conference reviewing

J-PAL King Climate Action Initiative (K-CAI), Alfred P. Sloan Foundation, Fund for Innovation in Development (FID), Private Enterprise Development in Low-Income Countries (PEDL)

## Prior employment

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    2017 UC Berkeley, Data and Decisions (MBA 200) – Graduate Student Instructor
    2014–2020 UC Berkeley – Graduate Student Researcher
    2013–2014 Harvard University, Kennedy School of Government – EPoD Research Fellow
    2013 Yale University, Economics of Poverty Alleviation (ECON 327) – Teaching Fellow
    2012 Yale University, Economics of Natural Resources (ECON 330) – Teaching Fellow
    2010–2012 Citibank – Analyst
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# Languages

English (native), Dutch (native), French (advanced), Spanish (advanced), Swahili (conversant)

### Citizenship

Netherlands (U.S. Permanent Resident)

August 16, 2023