

Andrew Lloyd Goodkind

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Department of Economics
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Appointments

Assistant Professor of Economics, University of New Mexico (August 2017 – present)
Visiting Assistant Professor, University of Minnesota (July 2018, July 2019)
Research Associate, Department of Bioproducts and Biosystems Engineering, University of Minnesota (January 2015 – July 2017)

Education

Ph.D., Department of Applied Economics, University of Minnesota, 2014
B.A., Economics, Carleton College, 2005

Research

Peer-reviewed publications

- Goodkind, Andrew L.**, Benjamin A. Jones and Robert P. Berrens. 2022. “Estimating the climate and health damages of Bitcoin mining in the US: Is Bitcoin underwater?,” *Applied Economics Letters*. <https://doi.org/10.1080/13504851.2022.2140107>
- Jones, Benjamin A., **Andrew L. Goodkind** and Robert P. Berrens. 2022. “Economic estimation of Bitcoin mining’s climate damages demonstrates closer resemblance to digital crude than digital gold,” *Scientific Reports*, 12, 14512. <https://doi.org/10.1038/s41598-022-18686-8>
- Brauman, Kate A., **Andrew L. Goodkind**, Taegon Kim, Rylie Pelton, Jennifer Schmitt and Timothy Smith. 2020. “Unique water scarcity footprints and water risk in US meat and ethanol supply chains identified via subnational commodity flows,” *Environmental Research Letters*, 15(10), 105018. <https://doi.org/10.1088/1748-9326/ab9a6a>
- Sankar, Ashwini, Jay S. Coggins and **Andrew L. Goodkind**. 2020. “Effectiveness of air pollution standards in reducing mortality in India,” *Resource and Energy Economics*, 62, 101188. <https://doi.org/10.1016/j.reseneeco.2020.101188>
- Goodkind, Andrew, L.**, Benjamin A. Jones and Robert Berrens. 2020. “Cryptodamages: Monetary value estimates of the air pollution and human health impacts of cryptocurrency mining,” *Energy Research & Social Science*, 59, 101281. <https://doi.org/10.1016/j.erss.2019.101281>

- Goodkind, Andrew L.**, Christopher W. Tessum, Jay S. Coggins, Jason D. Hill and Julian D. Marshall. 2019. “Fine-scale damage estimates of particulate matter air pollution reveal opportunities for location-specific mitigation of emissions,” *PNAS*, 116(18), 8775-8780. <https://doi.org/10.1073/pnas.1816102116>
- Jones, Benjamin A. and **Andrew L. Goodkind**. 2019. “Urban afforestation and infant health: Evidence from MillionTreesNYC,” *Journal of Environmental Economics and Management*, 95, 26-44. <https://doi.org/10.1016/j.jeem.2019.03.002>
- Tessum, Christopher W., Joshua S. Apte, **Andrew L. Goodkind**, Nicolas Z. Muller, Kimberley A. Mullins, David A. Paolella, Stephen Polasky, Nathaniel P. Springer, Sumil K. Thakrar, Julian D. Marshall and Jason D. Hill. 2019. “Inequity in consumption adds to racial-ethnic disparities in air pollution exposure,” *PNAS*, 116(13), 6001-6006. <https://doi.org/10.1073/pnas.1818859116>
- Hill, Jason D., **Andrew L. Goodkind**, Christopher W. Tessum, Sumil K. Thakrar, Stephen Polasky, Timothy M. Smith, Natalie D. Hunt, Kimberley A. Mullins, Michael Clark and Julian D. Marshall. 2019. “Air-quality related health damages from maize production in the United States,” *Nature Sustainability*, 2(5), 397-403. <https://doi.org/10.1038/s41893-019-0261-y>
- Coggins, Jay S., **Andrew L. Goodkind**, Jason Nguyen and Zhiyu Wang. 2019. “Price effects, inefficient environmental policy and windfall profits,” *Environmental and Resource Economics*, 72(3), 637-656. <https://doi.org/10.1007/s10640-018-0217-0>
- Thakrar, Sumil K., **Andrew L. Goodkind**, Christopher W. Tessum, Julian D. Marshall and Jason D. Hill. 2018. “Life cycle air quality impacts on human health from potential switchgrass production in the United States,” *Biomass and Bioenergy*, 114, 73-82. <https://doi.org/10.1016/j.biombioe.2017.10.031>
- Smith, Timothy M., **Andrew L. Goodkind**, Taegon Kim, Rylie E. O. Pelton, Kyo Suh and Jennifer Schmitt. 2017. “Subnational mobility and consumption-based environmental accounting of US corn in animal protein and ethanol supply chains,” *PNAS*, 114(38), E7891-E7899. <https://doi.org/10.1073/pnas.1703793114>
- Marshall, Julian D., Joshua S. Apte, Jay S. Coggins and **Andrew L. Goodkind**. 2015. “Blue Skies Bluer?” *Environmental Science & Technology*, 49(24), 13929-13936. <https://doi.org/10.1021/acs.est.5b03154>
- Goodkind, Andrew L.** and Jay S. Coggins. 2015. “The Weitzman price corner,” *Journal of Environmental Economics and Management*, 73, 1-12. <http://dx.doi.org/10.1016/j.jeem.2015.06.001>
- Goodkind, Andrew L.**, Jay S. Coggins and Julian D. Marshall. 2014. “A spatial model of air pollution: The impact of the concentration-response function,” *Journal of the Association of Environmental and Resource Economists*, 1(4), 451-479. <http://dx.doi.org/10.1086/678985>

Papers in submission & working papers

- Goodkind, Andrew L.** “Increased marginal damages of air emissions following improvements in air quality in the United States”, *working paper*.

Goodkind, Andrew L., Stephen Polasky, Jason D. Hill, Sumil K. Thakrar and David Tilman.
“Nitrogen fertilizer damage reduction potential in Midwest corn production,” *under review*.

Sankar, Ashwini, Andrew L. Goodkind and Jay S. Coggins. “The air pollution tradeoff for India: Saving more lives versus reducing the inequality of exposure,” *under review*.

Goodkind, Andrew L. and Jay S. Coggins, “Market price effects and abatement technology adoption from environmental regulation,” *working paper*.

Goodkind, Andrew L. and Jay S. Coggins, “Prices versus quantities with price effects,” *working paper*.

Goodkind, Andrew L., Jay S. Coggins, Christopher W. Tessum and Julian D. Marshall.
“Optimal abatement of electricity generating unit air pollution: The impact of uncertainty in the benefits of abatement,” *working paper*.

Springer, Nathaniel P., Natalie Hunt, **Andrew L. Goodkind**, Liaila Tajibaeva and Jason D. Hill.
“Growing energy and the environment: Burgeoning short-rotation hybrid poplar industry can increase ecosystem services in the Midwest U.S.,” *working paper*.

Reports

Goodkind, Andrew L., Benjamin A. Jones, Suraj Ghimire. 2022. *Health Effects of Ozone Pollution in New Mexico*, report to State of New Mexico.

Goodkind, Andrew L., Stephen Polasky and Steven J. Taff. 2013. *Ecosystems Services Damages from Proposed NorthMet Mine*, report to Friends of the Boundary Waters Wilderness.

Goodkind, Andrew L. and Stephen Polasky. 2013. *Health & Environmental Costs of Electricity Generation in Minnesota*, report to Minnesota Center for Environmental Advocacy.

Goodkind, Andrew L. and Steven J. Taff. 2011. *RFS2 Sim Model Structure & Parameters*, Section in Sustainable Pathways to Achieving Biofuel Policy Goals report.

Lazarus, William F., **Andrew L. Goodkind**, Paul Gallagher, Hosein Shapouri, Roger Conway and James Duffield. 2010. *Impact of Carbon Offset Values on Digester Economics and Competitiveness of Dairy Farm Sizes and U.S. States*, Applied Economics Staff Paper.

Teaching

Microeconomics II – University of New Mexico (Spring 2018, Spring 2019, Spring 2020, Spring 2021, Spring 2022)

Topics in Environmental, Resource, and Ecological Economics – University of New Mexico (Fall 2017, Fall 2020)

Environmental Economics – University of New Mexico (Fall 2018, Fall 2020)

Economic Tools – University of New Mexico (Fall 2017, Spring 2018, Fall 2018, Spring 2019, Fall 2019, Spring 2020, Spring 2021, Spring 2022)

Microeconomic Principles – University of New Mexico (Fall 2019)

Economics of Natural Resource and Environmental Policy – University of Minnesota (Spring 2014)

Conferences and invited talks

Western Economic Association International Annual Conference, July 2022. “Increased marginal damages of air emissions following improvements in air quality in the United States.”

Western Economic Association International Annual Conference, Virtual, June 2020. “Socially optimal nitrogen fertilizer management in Midwest corn production.”

Southern Economic Association Annual Meetings, Ft. Lauderdale, FL, November 2019. “Optimal abatement of electricity generating unit air pollution: The impact of uncertainty in the benefits of abatement.”

AERE Annual Summer Conference, Pittsburgh, PA, June 2017. “Benefits of PM_{2.5} reductions: Effects of mortality risk and VSL age adjustments.”

Canadian Resource and Environmental Economics Annual Conference, University of British Columbia, September 2012. “Prices versus quantities with increasing marginal benefits.”

Applied Economics Environmental and Resource Economics Seminar, University of Minnesota, April 2015. “Marginal damages of criteria pollutants.”

Applied Economics Environmental and Resource Economics Seminar, University of Minnesota, April 2013. “A spatial model of air pollution: The impact of the concentration-response function.”

Applied Economics Environmental and Resource Economics Seminar, University of Minnesota, April 2012. “Prices versus quantities with increasing marginal benefits.”

AUBER Fall Conferences, Albuquerque, NM, October, 2017. *Discussant*.

Service

Referee

Journal of the Association of Environmental and Resource Economists

Journal of Environmental Economics and Management

Economics Bulletin

Energy Research & Social Science

Nature

Nature Food

Environmental Pollution

Proceedings of the National Academy of Sciences

Science of the Total Environment

Atmosphere

Environmental and Ecological Statistics

Departmental

Seminar committee, Department of Economics, University of New Mexico 2017, 2019, 2021
(member), 2018 (chair)

Microeconomics core committee, Department of Economics, University of New Mexico 2017-
2022 (member)

Personnel committee, Department of Economics, University of New Mexico 2021

University

Faculty Senate Member, University of New Mexico 2021

Professional affiliations

Association of Environmental and Resource Economists (AERE)

Consulting

Minnesota Center for Environmental Advocacy (2015)