

Alice Tianbo Zhang

Curriculum Vitae

June, 2026

International Monetary Fund
Strategy, Policy, and Review Department
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Appointments and Affiliations

International Monetary Fund

Economist, December 2022 -

Washington and Lee University

Affiliate Faculty of Environmental Studies, 2021 - 2023

Assistant Professor of Economics (tenure-track), 2020 - 2023

Federal Reserve Bank of Minneapolis, Summer Economics Fellow, 2022

Princeton University, Postdoctoral Research Associate, 2019 - 2020

Columbia University

Research Affiliate, Earth Institute, 2019 -

Fellow, Center for Development Economics and Policy, 2018 -

Graduate Research Fellow, 2017-2018

Teaching Fellow, 2014-2017

Graduate Research Assistant, Center on Global Energy Policy, 2014

Nature Scientific Data, Editorial Board, 2025-

Other Professional Experience

City of Berkeley, Council Member Gordon Wozniak's Office, Public Policy Intern, 2012-2013

General Electric, Global Growth and Operations, Financial Management Program, 2012

University of California, Berkeley, Undergraduate Research Apprentice, 2011

California Public Interest Research Group, Campaign Coordinator, 2010

Bank of China, Corporate Banking Intern, 2010

Education

Ph.D. Sustainable Development, Columbia University, 2019

Dissertation: "When Nature Meets Human Nature: Essays on the Social Impacts of Energy Infrastructure and Environmental Policy" [\[Link\]](#) (Advisors: Rodrigo R. Soares, Wolfram Schlenker, Geoffrey M. Heal)

M.A. Sustainable Development, Columbia University, 2016

Thesis: "Nonlinear Impact of Temperature on Mortality: Evidence from Monthly Weather Variations in France" (Advisor: Matthew Neidell)

Training: Summer Workshop in Climate Change Economics, UC Berkeley, 2015

Alliance Summer School in Science and Policy, Paris, 2014

B.A. Economics, Statistics, Public Policy Minor, *Cum Laude*, University of California, Berkeley, 2013

Research & Teaching Interests

Environmental and Energy Economics | Development Economics | Applied Econometrics | Data Science
 Macroeconomic & Financial Stability | Structural Transformation | Fiscal & Sovereign Risks

Research

[Google Scholar](#) | [ORCID](#) | * lead author * equal contribution

(author names in alphabetical order, unless otherwise noted)

Academic Journal Publications

1. Gregg, Matthew T., Alice Tianbo Zhang, and Elliot Charette. 2025. "Agglomeration Spillovers from Native Nations: Evidence from Casino Reopenings." **AEA Papers and Proceedings**. American Economic Association 115 (May): 438–44. [\[Paper\]](#) [\[Minneapolis Fed Working Paper\]](#)
2. Zhang, Alice Tianbo*, and Vincent Xinyi Gu. 2023. "Global Dam Tracker: A Database of More than 35,000 Dams with Location, Catchment, and Attribute Information." **Scientific Data** 10 (1): 1–19. [\[Paper\]](#) [\[Data\]](#) [\[Code\]](#) [\[Nature Portfolio Blogpost\]](#)
3. Carleton, Tamma, Amir Jina, Michael Delgado, Michael Greenstone, Trevor Houser, Solomon Hsiang, Andrew Hultgren, Robert Kopp, Kelly McCusker, Ishan Nath, James Rising, Ashwin Rode, Hee Kwon Seo, Arvid Viaene, Jiacan Yuan, Alice Tianbo Zhang. 2022. "Valuing the Global Mortality Consequences of Climate Change Accounting for Adaptation Costs and Benefits." **The Quarterly Journal of Economics** 137 (4): 2037–2105. [\[Paper\]](#) [\[NBER Working Paper 27599\]](#)
4. Gould, Carlos F., Shaily Jha, Sasmita Patnaik, Shalu Agrawal, Alice Tianbo Zhang, Sonakshi Saluja, Vagisha Nandan, Sunil Mani, and Johannes Urpelainen. 2022. "Variability in the Household Use of Cooking Fuels: The Importance of Dishes Cooked, Non-Cooking End Uses, and Seasonality in Understanding Fuel Stacking in Rural and Urban Slum Communities in Six North Indian States." **World Development** 159 (November): 106051. [\[Paper\]](#)
5. Zhang, Alice Tianbo*, Sasmita Patnaik, Shaily Jha, Shalu Agrawal, Carlos Gould, Johannes Urpelainen. 2022. "Evidence of Multidimensional Gender Inequality in Energy Services from a Large-Scale Household Survey in India." **Nature Energy** 7, 698-707. [\[Paper\]](#) [\[Data\]](#) [\[Code\]](#) [\[Nature Portfolio Blogpost\]](#)
6. Urpelainen, Johannes* and Alice Tianbo Zhang*. 2022. "Electoral Backlash or Positive Reinforcement? Wind Power and Congressional Elections in the United States." **The Journal of Politics**. 84 (3): 1306-21. [\[Paper\]](#) [\[Appendix\]](#) [\[Data & Code\]](#) [\[JOP Blogpost\]](#)
7. Guo, Dong*, Anyi Wang*, and Alice Tianbo Zhang*. 2020. "Pollution Exposure and Willingness to Pay for Clean Air in Urban China." **Journal of Environmental Management** 261 (May): 110174. [\[Paper\]](#)

Policy Publications and Working Papers

8. Nguyen, Ha, Mehdi Raissi, Bruno Versailles, and Alice Tianbo Zhang. 2026. "The Growth Effects of Natural Disasters: Evidence From A Novel Global Dataset Over 1970-2023." **IMF Working Paper** 2026 (106). [\[Paper\]](#)
9. Spray, John A., Sneha D. Thube, and Alice Tianbo Zhang. 2026. "The Economic Implications of the Energy Transition in Asia-Pacific," **IMF Working Paper** 2026 (001). [\[Paper\]](#)
10. International Monetary Fund. 2025. "Mongolia: 2025 Article IV Consultation-Press Release; Staff Report; and Statement by the Alternate Executive Director for Mongolia" **IMF Country Report** No. 2025/265. [\[Report\]](#)

11. Mitra, Pritha, Mehdi Raissi, Bruno Versailles, Samuele Centorrino, Maksym Ivanyna, Koralai Kirabaeva, Emanuele Massetti, Mariza Montes de Oca Leon, Ha Nguyen, William Oman, Nooman Rebei, Filippos Tagklis, Alice Tianbo Zhang, Christoph Ungerer, Javier Uruñuela López, and Sha Yu. 2025. "Integrating Climate Change into Macroeconomic Analysis: A Review of Impact Channels, Data, Models, and Scenarios." **IMF Working Paper** 2025 (170). [[Paper](#)]
12. Benedek, Dora, Alberto Garcia Huitron, Danielle Minnett, Junko Mochizuki, and Alice Tianbo Zhang. 2025. "The Gambia: Technical Assistance Report–Climate Policy Diagnostic." Technical Assistance Reports 2025 (019): 1. **International Monetary Fund**, Washington, DC. [[High-Level Summary](#)] [[Full Report](#)]
13. International Monetary Fund. 2024. "Global and Domestic Energy Transition Risks: Australia." **IMF Country Report** No. 2024/361. [[Paper](#)]
14. Mesa Puyo, Diego, Augustus Panton, Tarun Sridhar, Martin Stuermer, Christoph Ungerer, and Alice Tianbo Zhang. 2024. "Key Challenges Faced by Fossil Fuel Exporters during the Energy Transition." Staff Climate Note 2024/001. **International Monetary Fund**, Washington, DC. [[Paper](#)] [[COP28 Pavilion Event](#)]
15. Within but Without: Involuntary Displacement and Economic Development. SSRN Working Paper #3358089, September 2018. [[Working Paper](#)]

Other Publications

1. Zhang, Alice Tianbo, and Xinyi Gu. 2023. "A New Global Dam Database Sheds Light on the Social Cost of Energy Infrastructure." Research Data at Springer Nature. [[Link](#)]
2. Zhang, Alice Tianbo, Sasmita Patnaik, and Shaily Jha. 2022. "How Does Gender Equality (SDG 5) Relate to Sustainable Energy Policy (SDG 7)?" Behavioural and Social Sciences at Nature Portfolio. [[Link](#)]
3. Zhang, Alice Tianbo. 2022. "Not in My Backyard? Wind Power Benefits Pro-Renewables Democrats in Congress." The Journal of Politics Blog. [[Link](#)]
4. Zhang, Alice Tianbo. 2019. "Development and Displacement." Phenomenal World, Blog of the Jain Family Institute. [[Link](#)]
5. Zhang, Alice Tianbo, Johannes Urpelainen, and Wolfram Schlenker. 2018. "Power of the River: Introducing the Global Dam Tracker (GDAT)." Faculty Grant Program Research Report. Center on Global Energy Policy. [[Link](#)]
6. Lu, Yao, and Alice Tianbo Zhang. 2016. "The Link between Migration and Health." In Handbook on Migration and Health, edited by Felicity Thomas. Edward Elgar Publishing. [[Link](#)]

Selected Media Coverage

- The New York Times*: "A Climate Warning from the Cradle of Civilization", 2023. [[Link](#)]
- The Rockbridge Report*: "Proposed Solar Projects Stir Heated Debate in Rockbridge County", 2023. [[Link](#)]
- Washington Monthly*: "Why Liberals Should Embrace Permitting Reform", 2022. [[Link](#)]
- Nature Energy News & Views*: "Energy Access and Women's Empowerment", 2022. [[Link](#)]
- The News-Gazette*: "Rockbridge Conservation Honors Area Residents, Foundation", 2022. [[Link](#)]
- The Guardian*: "Rising Temperatures Will Cause More Deaths Than All Infectious Diseases", 2020. [[Link](#)]
- Bloomberg*: "Life and Death in Our Hot Future Will Be Shaped by Today's Income Inequality", 2020. [[Link](#)]
- People.cn*: "Launch of the 2019 Henan Urban Sustainability Ranking Report", 2020. [[Link](#)]
- Phys.org*: "Working Toward Green Growth in Urban China", 2018. [[Link](#)]

Original Data and Tools

Global Energy Transition Tool (GETT)

Description: Historical and projected energy supply pathways of coal, crude oil and natural gas for 150+ countries between 1971 and 2100 under different warming scenarios.

Status: Available to all IMF staff.

Global Standardized Weather Anomalies Dataset (G-SWAD)

Description: Global panel dataset of standardized weather anomalies from daily observations available for 196 countries between 1970 and 2023

Status: Data available upon request.

Global Dam Tracker (GDAT)

Description: Global dam database (n = 35,140) with validated geo-coordinates and attributes.

Status: Data available on Zenodo [\[Link\]](#)

The Gender Perception Survey for Energy Access and Use

Description: Survey with 2,312 rural and urban slum households (n = 4,624) across 6 Indian states.

Status: Data available on Harvard Dataverse [\[Link\]](#)

Henan Urban Sustainability Survey (HUSS)

Description: Survey with 3,020 respondents across 3 Chinese cities in Henan province.

Status: Data available upon request

Awards, Honors, and Grants

Class of 1956 Provost's Faculty Development Endowment Grant, Washington and Lee University, 2023

NAREA Scholar, Northeast Agricultural and Resource Economics Association, 2022

CSWEP Summer Economics Fellowship, American Economic Association, 2022

Nominated by Dean and Provost, ACS Summer Teaching and Learning Workshop, 2022

Summer Research Scholar Program Grant, Washington and Lee University, 2021, 2022, 2023

Lenfest Summer Fellowship Award, Washington and Lee University, 2020, 2021, 2022

CSWEP CeMENT Workshop Mentee, American Economic Association, 2021

Winter Research Scholar Program Grant, Washington and Lee University, 2020-2021

Data-Driven Social Science Initiative Large-Scale Grant, Princeton University, 2020-

Keynote Speaker, "2019 Henan Urban Sustainability Ranking Report" Press Conference, 2020

Zhongyuan Development Research Innovation Award, 2020

Dissertation Fellowship, Columbia University, 2018-2019

National Academy of Sciences, Sackler Colloquium Travel Award, 2018

Research Grant for "A Global Database of Dams," Columbia University, 2017-2018

Student Fellow, Initiative for Sustainable Energy Policy, Johns Hopkins University, 2017-2019

Dean's Fellowship, Columbia University, 2013-2018

Omicron Delta Epsilon, UC Berkeley Chapter, 2011-2013

Dean's Honors List, University of California, Berkeley, 2011-2013

Teaching

Washington and Lee University

Econ 402 Directed Independent Study, Instructor: Fall 2022

Econ 395 Climate and Society, Instructor: Winter 2022

Econ 202 Statistics for Economics, Instructor: Fall 2020, 2021, 2022

Econ 100 Introduction to Economics, Instructor: Winter 2021, 2022, Fall 2022

Columbia University

Microeconomics and Public Policy (Graduate, Public Policy), Tutor: Fall 2017

Microeconomics and Policy Analysis (Graduate, Public Policy), TA: Fall 2016

Introductory Statistics (Graduate, Public Policy), TA: Summer 2016

Introduction to Development Economics (Undergraduate, Economics), Grader: Spring 2016

Gender and Applied Economics (Undergraduate, Economics), TA: Spring 2016, 2017

Research Methods in Public Management & Policy (Graduate, Public Policy), TA: Fall 2015

Challenges of Sustainable Development (Undergraduate, Sustainable Development), TA: Spring 2015

Science for Sustainable Development (Undergraduate, Sustainable Development), TA: Fall 2014

Advising and Mentoring

Student Placement (as letter writer or main advisor)

Stanford University SIEPR (predoc)

University of Maryland, Center for Global Sustainability (postdoc)

Rice University, Jones Graduate School of Business (PhD)

Georgia Institute of Technology, School of Public Policy (PhD; MS)

Emory University, School of Law (JD)

Duke University, School of Law (JD)

University of Virginia, School of Law (JD)

University of Oxford (MSc; study abroad)

University of St Andrews (study abroad)

Analysis Group, Washington DC (Analyst)

2022-2023

Elias Dakhoul '26, Summer Research Scholar

Sam Moore '25, Summer Research Scholar

Economics honor thesis advisees (×2)

Independent research students (×2)

Economics major advisees (×6)

Non-major advisees (×9)

2021-2022

Oskar von Mandelsloh '24, Summer Research Scholar, John McKenzie Gunn Scholarship

Ben McClure '24, Summer Research Scholar

Independent research students (×3)

Non-major advisees ($\times 5$)
 Economics major advisees ($\times 10$)
 Economics honors thesis reader ($\times 1$)
 Environmental Studies senior capstone ($\times 1$)

2020-2021

Abbey Pinkerton '22, Winter & Summer Research Scholar, John McKenzie Gunn Scholarship
 Carrie Morrison '22, Summer Research Scholar
 Environmental Studies senior capstone ($\times 1$)

Service

Profession

Board Member: Rockbridge Area Conservation Council, 2022-2023
 Mentor: Association for Mentoring and Inclusion in Economics (AMIE), 2022-2023
 Organizer: Presidential Sessions ($\times 2$), Southern Economic Association Conference, 2022
 Moderator: W&L School of Law Journal of Civil Rights & Social Justice Symposium, 2022
 Reviewer: AERE Summer Conference 2022; AERE@ Southern Economic Association Conference, 2020
 Referee: *Nature Portfolio*; *American Economic Journal*; *European Economic Review*; *Review of Environmental Economics and Policy*; *American Journal of Political Science*; *The Journal of Politics*; *British Journal of Political Science*; *Ecological Economics*; *Applied Economics Letters*; *Energy Policy*; *Climatic Change*; *Energy Efficiency*

International Monetary Fund

Co-chair, SPR Diversity Reference Group, 2024-2026
 Co-organizer, Community of Practice for Climate Models and Macro Frameworks, 2023-2025

Washington and Lee University

Public Functions Committee, 2022-2023
 Advisory Board, The Roger Mudd Center for Ethics, 2021-2023
 University Sustainability Committee, 2021-2023
 CSWEP Liaison, Economics Department, 2022
 Econ 202 Peer Mentor Coordinator, Economics Department, 2022
 Faculty Hiring Committee, Environmental Studies Program, 2022
 Econ-DeLaney Proposal Development Committee, Economics Department, 2021
 Econ 202 Review Task Force, Economics Department, 2021
 Faculty Hiring Committee, Economics Department, 2020-2021

Columbia University

Student Committee, Sustainable Development Ph.D. Program, 2017-2018
 Co-organizer, Sustainable Development Colloquium, 2015-2016
 Student Representative, Earth Institute Faculty Meetings, 2015-2016
 Co-organizer, Interdisciplinary Workshop in Sustainable Development, 2015
 Co-organizer, Alliance Summer School in Science and Policy, Columbia – Sciences Po, 2014

Presentations

★ co-author

IMF Shanghai Center (2026); Columbia University Climate School (2025, 2026); IMF SARTTAC (2026); ASSA (2025*); International Monetary Fund (2022, 2023, 2024, 2025); SGE Annual Conference (2024); COP28 (2023*); Princeton University (2019, 2020, 2022, 2023); New York State Department of Financial Services (2022); Seminar on Planetary Management (2022); Columbia University CEEP/SusDeveR Conference (2022); Southern Economic Association Annual Meeting (2020, 2022, 2024*); Columbia Women in Economics Conference (2021); American Geophysical Union (2016, 2020); Princeton Research Day (2020); Central China Development Research Institute (2020); Henan University (2020); Johns Hopkins University (2019); New York University (2019); Center for Global Development (2019); Wheaton College (2019); Washington and Lee University (2019); NBER SI (2018*); U.C. Santa Barbara (2018); APPAM (2018*); Columbia University Development Seminar (2018); Columbia University Sustainable Development Seminar (2014, 2018); Sustainable Development Research Symposium (2016, 2018); National Academy of Science Sackler Colloquium on Economics, Environment and Sustainable Development (2018); University of Illinois, Urbana-Champaign (2017); University of Connecticut (2017*); Columbia University Development Colloquium (2017), Interdisciplinary Ph.D. Workshop in Sustainable Development (2016), Columbia University Sustainable Development Colloquium (2015, 2016, 2017)

Miscellaneous

Computing: Stata, R, Python, ArcGIS, QGIS, ENVI, Google Earth Engine, \LaTeX , GitHub, Adobe Illustrator
Language: Chinese and English (bilingual); French (novice high)

Last updated: June, 2026