Woojin Jung

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Assistant Professor
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Academic Positions

07/2019-ongoing: **Assistant Professor**, Rutgers, The State University of New Jersey, School of Social Work

08/25/2023-ongoing: **Faculty Affiliate**, Urban and Civic Informatics Lab, Bloustein School of Planning and Public Policy, Rutgers University

02/2020-ongoing: **Core Faculty**, Rutgers Global Health Institute

09/15/2022-on going: **Provost's Strategic Task Force (PST) on Cyberinfrastructure and Data Science,** Rutgers, The State University of New Jersey

06/2022-Present: Ewha Global Fellow (EGF), Ewha Women's University

Education & Certification

Highest Earned Degree

University of California, Berkeley, **Ph.D. in Social Welfare,** 2019
Designated Emphasis: Development Engineering
2020 SSWR Outstanding Dissertation Award: *Combating Poverty through Aid: A Critical Analysis of Alternative Models*

Other Earned Degrees

Harvard Kennedy School, **Master in Public Policy,** Cambridge, 2007
Concentration: Political and Economic Development

Washington University in St. Louis, **Master of Social Work,** St. Louis, 2002
Concentration: Social and Economic Development

Ewha Womans University, **Bachelor of Arts in Social Welfare**, Seoul, 1998
Minor: Education Psychology

Publications

Articles in Refereed Journals

Published or In-Press

Jung, W. Kim, H. A., & Chear, C. (2023, Accepted). Data Science and Social Work, A. Farmer (Ed.) *Encyclopedia of Social Work*, Oxford University Press.

Bukhari, M. H., Shad, M. Y., Nguyen, U. D. T., Trevino, J. A. **Jung, W.** C., Haque, U, (2023). A Bayesian spatiotemporal approach to modelling arboviral diseases in Mexico, *Transitions of the Royal Society of Tropical Medicine and Hygiene* 2023; 0: 1–9, https://doi.org/10.1093/trstmh/trad064

Jung, W. (2023). Mapping community development projects: Spatial analysis in Myanmar. *World Development, 164*. https://doi.org/10.1016/j.worlddev.2022.106124

Jung. W. (2022). The discrepancy between two approaches to global poverty: What does it reveal? *Social Indicators Research*. https://doi.org/10.1007/s11205-021-02866-6

Jung, W. (2020). Two models of community-centered development in Myanmar. *World Development, 136.* https://doi.org/10.1016/j.worlddev.2020.105081

Jung, W. (2020). Using data science to strengthen the social safety net: Predicting risk for Medicare and Medicaid insurers. *Journal of Governmental Studies. 26*(2), 29-61. [In Korean] https://dx.doi.org/10.19067/jgs.2020.26.2.29

Organista, K. C., **Jung, W.,** & Neilands, T. (2020). A structural-environmental model of alcohol and substance-related sexual HIV risk in Latino migrant day laborers. *AIDS and Behavior.* https://doi.org/10.1007/s10461-020-02876-4

Wu. C.-F., Chang, Y.-L., Rhodes, E., Musaad, S., & **Jung, W.** (2020). Work-hour trajectories and associated socioeconomic characteristics among single-mother families. *Social Work Research 44*(1), 47-57. https://doi.org/10.1093/swr/svz029

Organista, K., **Jung, W.,** & Neilands, T. (2019). Working and living conditions and psychological distress in Latino migrant day laborers. *Health Education & Behavior*, *46*(4), 637-647. https://doi.org/10.1177/1090198119831753

Kim, P. H., & **Jung, W.** (2018). Ownership and planning capacity in the Asian-style development cooperation: South Korean knowledge sharing program to Vietnam. *Korea Observer*, *49*(2), 349-368. https://doi.org/10.29152/KOIKS.2018.49.2.349

Under Review

Jung, W., Chear, C., & Ammari, T. (2024). Exploring Twitter as a Proxy for Development Measures in Zambia. *ACM transactions on computer human interaction: TOCHI/Association for Computing Machinery.*

Jung, W., Ghadimi S., Ntarlagiannis, D., & Kim, A. H. (2024) Using Artificial Intelligence/Machine Learning to Evaluate the Distribution of Community Development Aid Across Myanmar. *Socio-Economic Planning Services.*

Jung, W.,* Lu, Y.,* Kim, A. H., Ammari, T., & Sinha, A. (2024). Building Trust in Poverty Prediction via Explainability. In *International Joint Conference on Artificial Intelligence.* *Joint-1st author*

Work in Progress

Jung, W., Metaxas, D. N., Ammari, T., & Ntarlagiannis, D., & Hosseini, M., (Working paper). Exploring scalable multimodal approaches to identify vulnerable populations in Zambia.

Jung.W., Kim, A. H., Stoeffler., Q., Goudarzi, S., Benotsmane, R., Sartorius M., & Shah. V. (Working paper). Do poverty and food insecurity impact what people Tweet in Zambia?

Jung, W., & Hosseini, M., (Working paper). Detecting human interpretable features from satellite imagery to support poverty mapping

Jung, **W.** (Working paper). How are the "needs" of the Global South measured?

Jung, W. (Working paper). More aid to countries in higher poverty?.

Articles in Non-refereed or General Journals

Chun, S.-H., & **Jung, W.** (2013). Delivering aid to African agriculture: New directions. *World Agriculture*, *153*(5), 55-80. [In Korean]

Jung, W. (2010). Cross-cutting issues: Poverty. *Journal of International Development Cooperation*, (4), 120-150.

Jung, W. (2010). Successful Asian recipients: Case studies of Korea and Vietnam. *Journal of International Development Cooperation*, (3), 120-150.

Jung, W. (2010). Financial analysis and performance measurement of Oxfam America, *Journal of International Development Cooperation*, (2), 108-126.

Jung, W. (2010) The strategic partnership between Samsung Electronics and UNICEF India. *Journal of International Development Cooperation*, (1), 92-124.

Jung, W. (2010). *Korean development cooperation model*. Korea International Cooperation *Journal of International Development Cooperation*, (1), 69-91. [In Korean]

Published Conference Proceedings

<u>Accepted or In Press</u>

Jung, W. (2022). Developing AI-informed wealth metrics: Multimodal approach in Zambia. *2022 Proceedings of International Conference on Sustainable Development (ICSD).* 27 pages.

Policy Reports

Kim, E-M., **Jung, W.**, Park, M., & Rhee, H. (2012). *Social protection programs for the urban poor in the Global South*. Korea International Cooperation Agency (KOICA). 343 pages. [In Korean]

Jung, W. (2012). *Promoting pro-poor growth: Policy guidance*. Korea International Cooperation Agency (KOICA). 225 pages. [In Korean]

Jung, W., & Chung. Y.-A. (2011). *Strengthening the decentralized approach to aid management*. Korea International Cooperation Agency (KOICA). 200 pages. [In Korean]

Jung, W. (2010). *Korean development cooperation model*. Korea International Cooperation Agency (KOICA). 453 pages. [In Korean]

Bajracharya, A., **Jung, W.,** Prabhakar, B., & Singh, D. (2006). *Empowerment of women from an excluded community in Bihar State*. UNICEF India. 57 pages.

Textbooks

Jung, W. (2016). Poverty and development. In Korea International Cooperation Agency (KOICA) (Ed.). *International development cooperation: Advanced level* (pp. 559-665). Korea International Cooperation Agency (KOICA). [In Korean]

Edited Books, Anthologies, Collections, Bibliographies

Kharas, H., Makino, K., & **Jung, W.** (Eds.). (2011). *Catalyzing development: A new vision for aid*. Brookings Institution Press.

Chapters in Books or Monographs

Jung, W. (2016). Korea's development assistance in fragile states: What is at stake? In B. M. Howe (Ed.), *Post-conflict development in East Asia* (pp. 195-220). Routledge.

Kim, P. H., & **Jung, W.** (2015). Does domestic welfare reform spill into development assistance overseas? The South Korean case. In R. Hasmath (Ed.), *Inclusive growth, development and welfare policy* (pp. 44-59). Routledge.

Reviews

Jung. W. (2021). [Review of the book *Becoming one: Religion, development, and environmentalism in a Japanese NGO in Myanmar,* by C. Watanabe]. *Pacific Affairs, 94*(4), 781-783.

Conference Presentations, Lectures, & Demonstrations

Invited Addresses

- Seminar, Using AI/ML to measure poverty and strengthen social safety net, Korea Information Society Development Institute (KISDI). 08/2023

- Special Lecture, Using AI/ML to measure poverty and strengthen social safety net: The case of Sub Saharan Africa and South East Asia, Seoul National University. 07/2023, 05/2023

- Seminar speaker, Using data science to strengthen the social safety net in the global context in 08/2022 at Korea Social Security Information Service (SSIS) in Seoul.

- Seminar speaker, Innovation-technology-inclusion special lecture series: Data science in 05/2022 at Ewha Woman's University.

- Seminar speaker, Addressing global poverty through the convergence of AI and social welfare in 09/2021 at Sungkyunkwan University (SKKU).

- Seminar speaker, Innovation-technology-inclusion special lecture series: Data science in 04/2021 at Ewha Woman's University.

- Moderator, Changing landscape of development cooperation amidst and beyond COVID-19 in Asia in 11/2020 at Asia Foundation.

- Seminar speaker, Combining satellite imagery with deep learning to predict poverty in data-sparse contexts, in 07/2020 hosted by the Korea Association of International Development and Cooperation (KAIDEC) and Seoul National University Asia Center at Seoul National University in Seoul.

- Seminar speaker, Using machine learning to evaluate aid distribution in 01/2020 at the Institute of Governmental Studies at Korea University in Seoul.

- Symposium speaker, Promoting pro-poor growth: From concept to practice in 06/2012, at the Pro-Poor Growth and Development Cooperation: Experience and Lessons from Asia conference in Beijing. Hosted by Korea Development Institute and the Asia Foundation
- Workshop speaker, Korea's assistance to fragile states in 11/2012 at the East Asian Development and Human Security Workshop in Cambridge, MA. Hosted by Harvard University.
- Presenter, *Korea: The road from a successful recipient to a major donor* in 11/2011 at the 4th Seoul ODA International Conference in Seoul. Hosted by the Ministry of Foreign Affairs of Korea.

Papers, Abstracts, and Lectures

Jung, W. *AI-informed vulnerability index to target food security pack in Zambia.* Paper accepted to the 2022 International Conference on Sustainable Development (**ICSD)** at Columbia University

Jung, W. *AI-informed vulnerability index to target food security pack in Zambia.* Paper presented at the Session Machine Learning for Leveraging Rich Data Sources to the 2022 Public Policy Analysis and Management (**APPAM**)

Ziemer, K., Ren C., Rodriguez M., & **Jung, W.** *Social media as a source of data – Lessons learned and implications for utilizing computational methods in social work research*, Accepted as a roundtable at the 2022 Conference of the Society for Social Work and Research (**SSWR**).

Jung, W. *Using deep learning to evaluate the distribution of community development aid.* Paper presented at the virtual 2021 Society for Social Work and Research (**SSWR**).

Lee, J., **Jung, W.,** & Ren, C. *Teaching data science in social work: Lived experiences and future directions.* Accepted as a Panel in the Research and Program Evaluation Track at the Council on Social Work Education (**CSWE**) 66th 2020 Annual Program Meeting.

Jung, W. *Mapping community-led development aid: Combining satellite imagery and spatial data*. Paper presented at the 2020 Society for Social Work and Research (**SSWR**) in Washington D.C.

Jung, W. *Mapping community-led development projects: Spatial analysis in Myanmar.* Poster accepted at the 2019 Association for Public Policy Analysis and Management **(APPAM),** 2019 International Conference on Sustainable Development **(ICSD)** in New York, 2019 Society for Social Work and Research **(SSWR)** in Washington D.C., and Geospatial Analysis for International Development in Berkeley (**Geo4Dev**).

Jung, W. *Discrepancy between two approaches to global poverty: What does it reveal?* Paper presented at the 2018 Society for Social Work and Research **(SSWR)** in Washington D.C. and the 2016 Development Studies Association **(DSA)** in Oxford, UK.

Jung, W., & Organista, K. *Working and living conditions and psychological distress in Latino migrant day laborers*. Paper presented at the 2018 Society for Social Work and Research **(SSWR)** in Washington D.C.

Jung, W. *Analytical framework for community-driven development in fragile states: A case study in Myanmar*. Paper presented at the 2017 Development Studies Association **(DSA)** in Bradford

Jung, W. *Evidence in a changing aid landscape.* Paper presented at the 2017 Development Studies Association **(DSA)** in Bradford

Jung, W. *More aid to countries in need?* Paper presented at the 2015 International Conference on Sustainable Development **(ICSD)** in New York

Kim, P. H., & **Jung, W.** *Does the welfare-ODA nexus exist?* Paper presented at the 2012 Asian Political and International Studies Association **(APISA)** in Hong Kong.

Funding

Externally-Funded Research and/or Training Grants

2023-2024 (Grant Amount: $100,000) Assessing the needs of internally displaced persons affected by climate change in the Philippines: Korea International Cooperation Agency, Role: co-PI

2021-2023 (Grant Amount: $25,000) AI for Humanitarian Action Project Azure Grant, Woojin Jung, Agency: Microsoft, Role: PI

Internally-Funded Research and/or Training Grants

2023-2024 (Grant Amount: $25,000), "Improving Distribution of Food Aid via Trustworthy Multimodal Poverty Prediction," Cyberinfrastructure & AI for Science and Society (CASS) Seed Grant, PI: Woojin Jung

2023-2024 (Grant Amount: $50,000), "Detecting Human-Interpretable Features from Satellite Imagery to Support Poverty Mapping," The Office for the Vice Provost for Research's ML/AI Pilot Seed Grant, PI: Woojin Jung

2021-2023 (Grant Amount: $18,000) Collaborative Multidisciplinary Awards, Rutgers University Research Council, "Developing AI-informed vulnerability index to target food security pack program in Zambia, Agency: Graduate Research Council, Role: PI

2021-2022 (Grant Amount: $10,000) Exploring scalable multimodal approaches to identify vulnerable populations in the Congo, Woojin Jung, Agency: Global Health Institute, Role: PI

Contracts

2013-2019 (Grant Amount: $1,000,000) Impact Evaluation Fund (The lead author of a $1 million impact evaluation proposal), Woojin Jung, Agency: Korea International Cooperation Agency, Role: co-PI

2012-2013 (Grant Amount: $50,000) Developing content for the governmental web platform in regard to official development assistance in Korea at https://www.odakorea.go.kr/, Woojin Jung, Agency: Korean Prime Minister's Office, Role: co-PI

2011-2012 (Grant Amount: $50,000) Social protection programs for the urban poor in the Global South, Woojin Jung, Agency: Korea International Cooperation Agency (KOICA), Role: co-PI.

2011-2012 (Grant Amount: $100,000) A systematic review of evaluations conducted by governmental development aid agencies., Woojin Jung, Agency: Korean Prime Minister's Office, Role: co-PI

Teaching Activities

Courses Taught

Social Welfare Policy and Services, Fall, 2023

Research Methods I, Rutgers University, Spring 2021, 2022

Advanced Statistical Methods II: Generalized Linear Models (Ph.D. Seminar)
Rutgers University, Spring 2020, 2021, 2022

Research Methods II, Rutgers University, Fall 2020, 2021

Social Welfare Policy
U.C. Berkeley
Summer, 2018

Berkeley Connect (Mentored undergraduates in small group format)
U.C. Berkeley
2017-2018

Data Science Discovery (Undergraduate Research Apprentice Program)
U.C. Berkeley
2015-2016

International Cooperation
Sogang University
Spring, 2010

Multi-Ethnic Societies & Conflict Management
Ewha University
Spring, 2012

Globalization and Development
Ewha University
Spring, 2011

Teaching Assistant

Seminar in Social Welfare Research (Graduate Student Instructor), U.C. Berkeley, 2014-2016

Social Work as a Profession (Graduate Student Instructor), U.C. Berkeley, Spring, 2014

Quantitative Analysis & Empirical Methods (Teaching Assistant), Harvard, Spring 2016

Economic Analysis of Public Policy (Teaching Assistant), Harvard, Fall 2016

Students Supervised

Doctoral Dissertation Committee

Maryam Hosseini, Ph.D. in Urban Systems
Dissertation title: *A walk in the city using large data sets to analyze urban sidewalks*
Members of thesis committee: Karen Franck (Chair), Claudio Silva, Piyushimita Thakuriah, Andres
Sevtsuk, Woojin Jung

Doctoral Students Supervised for Research Projects or Collaborated

Matthew Purri, Doctoral student in Electrical and Computer Engineering, 2020-2021

Charles Chear, Doctoral student, Research internship, Spring 2022- ongoing,
Alisha Cupid, Doctoral student, Research internship, January 2021- May 2022,
Rofaida Benotsmane, Doctoral student in Economics, Istanbul Technical University in Turkey, 2022

Service

Contributions to the Advancement of the Academic Profession

2020-ongoing: **Ad-hoc reviewer,** World Development, Social Science and Medicine,

Social Indicators Research, International Journal of Social Welfare,

European Journal of Development Research, The International Review of Public Administration

Service to Rutgers University

Spring, 2023: Research Advisory Committee, QE committee, Rutgers School of Social Work

07/2023 Team member of Cyberinfrastructure & AI for Science and Society (CASS), Seminar Committee

09/2022-Present: Appointed as the Provost's Strategic Task Force (PST) on Cyberinfrastructure and Data Science

09/2022-05/2022: Organized and hosted monthly data science seminars.

03/2022-05/2022: Interviewed faculty candidate for Rutgers Global Health Institute.

Employment and Appointment

Positions Held

2018-2019: **Statistician,** University of California at Berkeley

2012-2013: **Senior Researcher,** Korea Institute for Development Strategy (KDS) in Seoul, Korea

2011-2012: **Research Fellow,** Graduate School of International Studies at Ewha Womans University in Seoul, Korea

2010-2010: **Lecturer**, Sogang University in Seoul, Korea

2009-2011: **Senior Policy Analyst,** Korea International Cooperation Agency (KOICA) in Seongnam, Korea

2007-2008: **Consultant**, UNICEF Division of Policy and Planning in New York, NY

2007-2008: **Data Analyst,** Harvard Kennedy School in Cambridge, MA

2002-2004: **Public Relations Officer,** The Korean Community Service Center of Greater Washington, Annandale, VA

1998-2020: **Youth Department Manager,** Jeonghae Bokji in Seoul, Korea

1998-1999: **Corporate Social Responsibility Officer,** Samsung Corporation in Seoul, Korea

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Editorial Activities

Membership on Editorial Boards of Scholarly or Professional Journals

2020-ongoing: Editorial board member of the Korean Association for Public Administration

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Organizing and Chairing Activities

Participation in Organizing or Chairing Conferences, Workshops, and Organizations

2023-2023: **Co-organizer,** *Pre-Conference workshop on data science* at the 2023 Conference of the Society for Social Work and Research (SSWR)

2010-2010: **Co-Chair,** *Catalyzing Development: A New Vision for Aid Workshop* on 07/2010 in Washington D.C., Hosted by the Brookings Institute.

Memberships

Membership/Offices Held in Scholarly and Professional Societies

Society for Social Work and Research

Association for Public Policy Analysis and Management

Development Studies Association

Computational Social Science Forum

Honors and Awards

Fellowships

National Science Foundation (NSF) Innovations at the Nexus of Food, Water, and Energy Systems Program (InFEWS) Fellowship, 2017-2019

Berkeley Connect Fellowship, 2017-2018

Human Rights Center Fellowship, Human Rights Center, 2016

Doctoral Completion Fellowship Award, Spring, 2017 & Fall, 2018

Professional Awards and Honors

2020 Society for Social Work and Research Outstanding Social Work Doctoral Dissertation Award, Washington D.C.

NSF Research Traineeship Program (NRT) Grant

Graduate Division Summer Grant, U.C. Berkeley Graduate Division, 2018, 2016 & 2014

Development Studies Association Travel Funding

Highest Honors in Graduate Research Award, Korea Association of International Development Cooperation

Social Welfare Block Grant Award, U.C. Berkeley, 2014-2015

Roy Family Scholarship, Harvard Kennedy School

National Winner of the Influencing State Policy Contest, Council on Social Work Education

Daniel Sandra Scholarship, Washington University in St. Louis

Honorary Award and Scholarship for Community Services, Ewha Womans University