

Juan F. Fung

☎ +1 217 417 7068 • ✉ juanfung@gmail.com • 🌐 juanfung.github.io

Education

University of Illinois

PhD Economics, MS Statistics

Urbana-Champaign, IL

August 2016

University of Missouri-St. Louis

MS Economics

St. Louis, MO

May 2008

New York University

BA Economics

New York, NY

May 2003

Employment

National Institute of Standards and Technology

Economist - Applied Economics Office

Gaithersburg, MD

September 2016 - present

- Project management, including developing project plans, milestones, and deliverables; coordinating interdisciplinary research teams; budget management; and status reports for annual program reviews
- Project portfolio includes: economic evaluation and statistical modeling for earthquake risk reduction; empirical, computational, and survey methods for analysis of investing in disaster resilience; and applications of Natural Language Processing (NLP) methods to semi-automated document analysis
- Mentoring undergraduate interns, graduate students, and post-doctoral scholars, with diverse backgrounds (physics, engineering, statistics, computer science)

National Institute of Standards and Technology

Analyst - Diversity, Equity, and Inclusivity Office

Gaithersburg, MD

January 2022 - present

- NIST DEIA Strategic Plan development and implementation, including working group coordination; assisting with plan authoring and development; developing output/outcome metrics and identifying data sources; developing scorecard templates for implementation
- Development of DEIA data analytics strategy through prototyping and deploying internal DEIA Dashboard; development of full survey protocol, including IRB and PRA packages as well as survey instruments; and supporting DEIA data needs and requests across the organization
- Internal DEIA support through enterprise-wide outreach, consultations, and engagement, as well as briefings to both staff and senior leadership. External DEIA support through input, review, and launch of Department-level DEIA initiatives, as well as engagements with interagency committees and working groups

Publications (peer-reviewed)

1. Fung, J. F., Zhang, Y., Johnson, K. J., Cook, D. T., & Sattar, S. (2023). Multidisciplinary research to advance the development of functional recovery for community resilience. *Disaster Prevention and Resilience*, 2(13). <http://dx.doi.org/10.20517/dpr.2023.15>
2. Zhang, Y., Fung, J. F., Johnson, K. J., & Sattar, S. (2022). Motivators and impediments to seismic retrofit implementation for wood-frame soft-story buildings: A case study in california. *Earthquake Spectra*, 38(4), 2788–2812. <https://doi.org/10.1177/87552930221100844>

3. Thomas, D., & Fung, J. (2022). Measuring downstream supply chain losses due to power disturbances. *Energy Economics*, 114, 106314. <https://doi.org/10.1016/j.eneco.2022.106314>
4. Zhang, Y., Fung, J. F., Johnson, K. J., & Sattar, S. (2022). Review of seismic risk mitigation policies in earthquake-prone countries: Lessons for earthquake resilience in the united states. *Journal of Earthquake Engineering*, 26(12), 6208–6235. <https://doi.org/10.1080/13632469.2021.1911889>
5. Hariri-Ardebili, M. A., Sattar, S., Johnson, K., Clavin, C., Fung, J., & Ceferino, L. (2022). A perspective towards multi-hazard resilient systems: Natural hazards and pandemics. *Sustainability*, 14(8), 4508. <https://doi.org/10.3390/su14084508>
6. Helgeson, J. F., Aminpour, P., Fung, J. F., Henriquez, A. R., Zycherman, A., Butry, D., Nierenberg, C., & Zhang, Y. (2022). Natural hazards compound COVID-19 impacts on small businesses disproportionately for historically underrepresented group operators. *International Journal of Disaster Risk Reduction*, 72, 102845. <https://doi.org/10.1016/j.ijdr.2022.102845>
7. Zhang, Y., Ayyub, B. M., & Fung, J. F. (2022). Projections of corrosion and deterioration of infrastructure in united states coasts under a changing climate. *Resilient Cities and Structures*, 1(1), 98–109. <https://doi.org/https://doi.org/10.1016/j.rcns.2022.04.004>
8. Fung, J. F., Sattar, S., Butry, D. T., & McCabe, S. L. (2021). The total costs of seismic retrofits: State of the art. *Earthquake Spectra*, 0(0), 87552930211009522. <https://doi.org/10.1177/87552930211009522>
9. Helgeson, J. F., Fung, J. F., & Roa-Henriquez, A. R. (2020). Rationally bounded in a storm of complex events: Small businesses facing natural hazard resilience during a pandemic. *Journal of Behavioral Economics for Policy*, 4(S3), 55–65. <https://ideas.repec.org/a/beh/jbepv1/v4y2020is3p55-65.html>
10. Fung, J. F., & Hsu, C.-L. (2021). A cumulative offer process for supply chain networks. *Review of Economic Design*, 25(1). <https://doi.org/10.1007/s10058-020-00238-z>
11. Fung, J. F., Helgeson, J. F., Webb, D. H., O'Fallon, C. M., & Cutler, H. (2020). Does resilience yield dividends? Co-benefits of investing in increased resilience in cedar rapids. *Economic Systems Research*, 1–27. <https://doi.org/10.1080/09535314.2020.1798359>
12. Fung, J. F., Sattar, S., Butry, D. T., & McCabe, S. L. (2020). A predictive modeling approach to estimating seismic retrofit costs. *Earthquake Spectra*, 36(2), 579–598. <https://doi.org/10.1177/8755293019891716>
13. Johnson, K. J., Fung, J. F., McAllister, T. P., McCabe, S. L., Sattar, S., & Segura Jr, C. L. (2020). Social and economic components of resilient multihazard building design. *Natural Hazards Review*, 21(1), 6019002.

Skills and other activities

Programming: R, Julia, Python, SQL.

Languages: English (fluent), Spanish (native).

Carpentries: Instructor and Lesson Maintainer.

Clubs: NIST Toastmasters Club; Association of NIST Hispanic Americans.