

Lucile Merrill Jones, Ph.D.

Curriculum Vitae

April 2024

Present Positions

Founder and Chief Scientist

Dr. Lucy Jones Center for Science and Society
Pasadena, California 91106
Drlucyjonescenter.org

Visiting Research Associate in Geophysics

California Institute of Technology, 1985-present
Division of Geological and Planetary Sciences
Pasadena, CA 91125

Education

Doctor of Philosophy in Geophysics, Massachusetts Institute of Technology, Cambridge, Massachusetts, 1981.

Bachelor of Arts in Chinese Language and Literature, Magna Cum Laude, Brown University, Providence, Rhode Island, 1976. Minor in Physics.

Professional Experience

2023: Fellow, Western Academy for Advanced Research, University of Western Ontario

One of six research fellows in the Climate Resilient Infrastructure and Buildings project at the University of Western Ontario, in London, ON, Canada. The project bridges academic perspectives with expertise from the public and private sectors to identify and address systemic barriers to the development of climate resilient infrastructure in Canada. I am in residence in London for 4 weeks, co-authoring two papers for the monograph, and working with the Music Department to create a Climate Concert combining a public view of the science in the CRIB project with music about the climate crisis.

2016 – current: Chief Scientist, Dr. Lucy Jones Center for Science and Society

The Dr. Lucy Jones Center for Science and Society was created in 2016 with a mission to foster the understanding and application of scientific information in the creation of more resilient communities. Working with both the public and private sectors, The Center works with communities to increase their ability to adapt and be resilient to the dynamic changes of the world around them, helps scientists become better communicators of their results and helps decision-makers understand how they can partner with scientists and use results of scientific studies to make better informed decisions.

2011 – 2016: Science Advisor for Risk Reduction, U.S. Geological Survey

The Science Advisor for Risk Reduction advises the Associate Director for Natural Hazards on science planning for the natural hazards programs of the USGS, including developing the long-term science strategy and representing hazard science in activities such as the Wildfire Science Council. As leader of the SAFRR (Science Application for Risk Reduction) Project (http://www.usgs.gov/natural_hazards/safrr/), I organized activities in partnership with the hazards programs to create products that increase the accessibility and use of USGS science

by communities at risk from natural disasters. Major products include the SAFRR Tsunami Scenario, <http://pubs.er.usgs.gov/publication/ofr20131170A>

2014: Special assignment as Mayor's Science Advisor for Seismic Safety, City of Los Angeles. Under a Technical Assistance Agreement between the USGS and the City of Los Angeles, I led a team in the Mayor's Office to identify seismic vulnerabilities and develop a technical plan in collaboration with stakeholders for increasing the long-term seismic resilience of the City. Published as *Resilience By Design*, <http://www.lamayor.org/earthquake>

2006 – 2011: Chief Scientist, Multi Hazards Demonstration Project in Southern California, US Geological Survey, Office of the Pacific Southwest Region.

The Multi Hazards Demonstration Project (MHDP) was created by Congress in 2007 with a budget of \$5 million to demonstrate how hazards science can increase a community's resilience to natural disasters, by directing new and existing science toward vulnerabilities, improving monitoring, producing innovative products, and effective communication of the results. As Chief Scientist, I led the creation of new communication products and oversaw the work of scientists in earthquake and landslide geology and geophysics, marine geology, hydrology, wildfire ecology, geography and economics. Significant achievements included creating the Great ShakeOut (www.shakeout.org), a Debris Flow Early Warning System, in cooperation with National Weather System, and 4 disaster scenarios.

1998–2006: Scientist-in-charge for Southern California, US Geological Survey, Earthquake Hazards Team, Pasadena Office

Leadership for a Democratic Society, Federal Executive Institute, Office of Personnel Management, Charlottesville, VA, (senior executive training), July 15 – August 10, 2001.

1983–1998: Geophysicist, US Geological Survey, Earthquake Hazards Team, Pasadena Office

As a researcher in earthquake statistics, I developed the equations and approaches to estimate the probability of further damaging earthquakes during earthquake sequences.

1981–1983: Research Associate, Columbia University in the City of New York, Lamont-Doherty Earth Observatory

Conducted research in rock mechanics and seismology, particularly earthquakes in China and California

1976–1981: Research Assistant, Massachusetts of Technology

Conducted research in rock mechanics and seismology. In February 1979, I was the first American scientist to work in China after normalization of relations to and worked at the Institutes of Geology and Geophysics of the State Seismological Bureau in Beijing.

Honorary Professorships

Wayne Morse Professor of Politics and Law, University of Oregon	2019
Hitchcock Professorship, University of California	2015

Research Interests

Resilience metrics, especially how hazards science can be best utilized in public policy.

Hazard and risk assessment, integrating multiple hazards in the earth and social sciences to facilitate use of science to improve societal resilience

Basic research in mechanics of faulting emphasizing the physics of the earthquake source, probabilistic assessment of short-term earthquake hazards; properties of foreshocks; and seismotectonics structure and state of stress of the crust.

Professional Service

Resilient America Roundtable	2014-2018
National Research Council of the U.S. National Academy of Sciences	
Mayor's Science Advisor for Seismic Safety	2014
City of Los Angeles	
California Earthquake Prediction Evaluation Council, member	2002-2015
Appointed by State Geologist of California	
Commissioner of the Alfred E. Alquist Seismic Safety Commission,	2002-2009
State of California, Appointed by the Governor of Calif.; Chair (2004-2005)	
Southern California Earthquake Center Leadership	1998-2007
Board of Directors and Joint SCEC-USGS Planning Committee	
Board on Natural Disasters,	1992-1998
National Research Council of the U.S. National Academy of Sciences	
Panel on Regional Networks of the Committee on Seismology,	1987-1990
National Research Council of the U.S. National Academy of Sciences	

Professional Societies

American Geophysical Union,	member since 1977
Seismology Section Secretary	1998-2000
Ambassador Award Honors Committee	2017-2020
Seismological Society of America,	member since 1982
Member of the Board of Directors	1990-1996
Chairman of the Publications Committee	1991-1995

Congressional Testimonies and Briefings

USGS Briefing to U.S. Congress on The ShakeOut	2009
Testimony to the U.S. Congress, Field hearing of the Subcommittee on Economic Development, Public Buildings and Emergency Management	2006
USGS Briefing to Congress on Earthquake Recording Systems	2003
Testimony to the United States Congress, Subcommittee on Science, Space and Technology on implications of the Northridge earthquake	1994

Awards

Beno Gutenberg Lecture, American Geophysical Union Seismology	2023
Geological Society of American Public Service Award	2022
American Geological Institute	2022
Award for Outstanding Contributions to the public Understanding of Geosciences	
Community Leader Award, Leadership California	2019
Gilbert F. White Award and Lecture, AGU Natural Hazards	2018
Frank Press Public Service Award, Seismological Society of America	2018
Distinguished Lecture Award, Earthquake Engineering Research Institute	2017
Distinguished Service Award, US Department of the Interior	2017
Freedom of Information Award, Radio and Television News Association	2017
Lifetime Achievement Award, Western States Seismic Policy Council	2016
Ambassador Award, American Geophysical Union	2015

Samuel J. Heyman Service to America Medal for Citizen Services	2015
William Rogers Distinguished Alumni Award, Brown University	2015
Southern California Earthquake Center Distinguished Service Award	2015
President's Award, Business & Industry Council Emergency Planning and Preparedness	2011
Shoemaker Award for Outstanding Communication Product of the Year, U.S. Geological Survey,	2009
Newsweek Magazine, Women in Leadership Honoree	2007
Award of Merit, County and Cities of Los Angeles Emergency Preparedness	2006
Los Angeles Times, 100 Most Powerful People of Los Angeles	2006
Golden Mike Award for Best News Special, Radio Division A Radio & Television News Association of Southern California	2005
Shoemaker Award for Lifetime Achievement in Communications, U.S. Geological Survey	2005
Meritorious Service Award, Department of the Interior	2002
Founder's Award, Parents and Teachers Association	2000
Alfred E. Alquist Award, Earthquake Safety Foundation	2000
Woman of the Year, Muses of the California Science Center	1999
Southern California Earthquake Center Outreach Award	1998
Woman of the Year, Palm Springs Desert Museum	1998
Women at Work Medal of Excellence	1994
Honoree, Women Making History '93, Sen. Boxer	1993
Fulbright Fellowship	1979
National Science Foundation Graduate Student Fellowship	1977-1980

Selected Publications of the last 20 years:

- 2023 Jones, Lucy, "If you think the earthquake damage you see in Turkey can't happen here, think again.", *Los Angeles Times*, Feb. 15, 2023
- 2021 Jones, Lucy, "Don't be smug about Texas' troubles. California isn't prepared for disasters either." *Los Angeles Times*, February 25, 2021
- 2020 Jones, L.M. Empowering the public with earthquake science. *Nat Rev Earth Environ* **1**, 2–3 (2020). <https://doi.org/10.1038/s43017-019-0007-4>
- Jones, Lucy, "Opinion: Don't trust your gut. The covid risk is greater than ever." *Washington Post*, November 24, 2020
- Hauksson, E., and L. M. Jones (2020). Seismicity, Stress State, and Style of Faulting of the Ridgecrest-Coso Region from the 1930s to 2019: Seismotectonics of an Evolving Plate Boundary Segment, *Bull. Seismol. Soc. Am.* **110(4)**, 1–17, doi: [10.1785/0120200051](https://doi.org/10.1785/0120200051)
- Jones, Lucy, "A San Andreas earthquake is unlikely now. But we should still plan to prevent catastrophe." *Washington Post*, August 13, 2020.
- Jones, Lucy, "What earthquakes teach us about the corona virus pandemic," *Los Angeles Times*, May 5, 2020
- 2019 Jones, Lucy, "The California earthquake drought is an opportunity. Will we take it?," *Los Angeles Times*, April 5, 2019

- 2018 Jones, Lucy, **The Big Ones: Natural Hazards that Have Shaped Us (And What We Can Do About Them)**, Doubleday Books, New York, NY, 257pp.
Jones, Lucy, "What qualifies a quake as The Big One? What happens afterward," Los Angeles Times, April 18, 2018
- 2017 Hauksson, E., M.-A. Meier, Z. E. Ross, and L. M. Jones, Evolution of seismicity near the southernmost terminus of the San Andreas Fault: Implications of recent earthquake clusters for earthquake risk in southern California, *Geophys. Res. Lett.*, 44, doi:[10.1002/2016GL072026](https://doi.org/10.1002/2016GL072026).
Jones, Lucy, "We March Because Reality Matters," Los Angeles Times, April 22, 2017
- 2015 Jones, Lucile M., Resilience by Design: Bringing science to policy makers, *Seismological Research Letters*, Volume 86, Number 2A March/April 2015, pp. 294-305 doi: 10.1785/0220150010
- 2014 Burkett, Erin R.; Given, Douglas D.; Jones, Lucile M., ShakeAlert: an earthquake early warning system for the United States West Coast, USGS Fact Sheet: 2014-3083, 2014.
- 2013 Holmes, Robert R., Jr.; Jones, Lucile M.; Eidenshink, Jeffery C.; Godt, Jonathan W.; Kirby, Stephen H.; Love, Jeffrey J.; Neal, Christina A.; Plant, Nathaniel G.; Plunkett, Michael L.; Weaver, Craig S.; Wein, Anne; Perry, Suzanne C., U.S. Geological Survey natural hazards science strategy: promoting the safety, security, and economic well-being of the Nation, USGS Circular: 1383-F, 2013.
Perry, Suzanne C.; Jones, Lucile M.; Holmes, Robert R., Jr., Natural Hazards Science at the U.S. Geological Survey, USGS Fact Sheet: 2013-3082, 2013.
Ross, Stephanie; Jones, Lucile, editors. The SAFRR (Science Application for Risk Reduction) Tsunami Scenario, USGS Open-File Report: 2013-1170, 2013.
- 2012 Dettinger, M.D., Ralph, F.M., Hughes, M., Das, T., Neiman, P., Cox, D., Estes, G., Reynolds, D., Hartman, R., Cayan, D., and Jones, L., 2012, Design and quantification of an extreme winter storm scenario for emergency preparedness and planning exercises in California: *Natural Hazards* Volume 60, Number 3, 1085-1111, DOI: 10.1007/s11069-011-9894-5
Jones, L. M., & Benthien, M, 2012. Preparing for a "Big One": The Great Southern California ShakeOut. *Earthquake Spectra*, 27(2), 575–595. doi:doi: 10.1193/1.3586819
Perry, S., Jones, L., & Cox, D., 2012. Developing a Scenario for Widespread Use: Best Practices, Lessons Learned. *Earthquake Spectra*, 27(2), 263–272. doi:doi: 10.1193/1.3574445
Porter, K., Jones, L., Cox, D., Goltz, J., Hudnut, K., Mileti, D., Perry, S., et al., 2012. The ShakeOut scenario: a hypothetical Mw7. 8 earthquake on the southern San Andreas fault. *Earthquake Spectra*, 27(2), 239–261. doi:doi: 10.1193/1.3563624
- 2011 American Red Cross Multi-Disciplinary Team, 2011. Report on the 2010 Chilean earthquake and tsunami response. U.S. Geological Survey Open-File Report 2011-1053, vi, 59 p.; Appendices

- 2010 Thomas H. Jordan and Lucile M. Jones, 2010, Operational Earthquake Forecasting: Some Thoughts on Why and How, *Seismological Research Letters*, July/August 2010, v. 81, p. 571-574, doi:10.1785/gssrl.81.4.571
- 2008 Jones, Lucile M., Bernknopf, Richard, Cox, Dale, Goltz, James, Hudnut, Kenneth, Mileti, Dennis, Perry, Suzanne, Ponti, Daniel, Porter, Keith, Reichle, Michael, Seligson, Hope, Shoaf, Kimberley, Treiman, Jerry, and Wein, Anne, 2008, The ShakeOut Scenario: U.S. Geological Survey Open-File Report 2008-1150 and California Geological Survey Preliminary Report 25 [<http://pubs.usgs.gov/of/2008/1150/>].
- 2007 Lucy Jones, Richard Bernknopf, Susan Cannon, Len Gaydos, Jon Keeley, Monica Kohler, Homa Lee, Daniel Ponti, Stephanie Ross, Steven Schwarzbach, Michael Shulters, A. Wesley Ward, Anne Wein, 2007, Increasing Resiliency to Natural Disasters: A Strategic Plan for the Multi-hazards Demonstration Project in Southern California, USGS Open file Report 2007-1255, 31 pp.
- 2006 California Seismic Safety Commission Ad Hoc Committee on Tsunami Safety (L. Jones, chair), 2006, The Tsunami Threat to California, 24 pp., CSSC 05-03,
- 2005 Gerstenberger, M., S. Wiemer, L. Jones, and P. Reasenber, 2005, Real-time forecasts of tomorrow's earthquakes, *Nature*, May 19, 859.
- 2004 California Seismic Safety Commission Research Committee, (L. Jones, chair), 2004, A Safer, More Resilient California: The State Plan for Earthquake Research, 14 pp., CSSC 04-01.
- Gerstenberger, Matt, Wiemer, Stefan, and Jones, Lucy, 2004, Real-time forecasts of tomorrow's earthquakes in California: a new mapping tool: U.S. Geological Survey Open-File Report 2004-1390.
- California Seismic Safety Commission Ad Hoc Committee on School Safety (L. Jones, chair), 2004, Seismic Safety in California's Schools: Findings and Recommendations on Seismic Safety Policies and Requirements For Public, Private and Charter Schools, 12 pp., CSSC 04-04
- 2003 Ogata, Y., Jones, L. M. and Toda, S. (2003). When and where the aftershock activity was depressed: Contrasting decay patterns of the proximate large earthquakes in southern California, *Journal of Geophysical Research*, Vol. 108, No. B6, 2318
- 2002 Hauksson, E., L. M. Jones, K. Hutton, The 1999 Mw7.1 Hector Mine, California earthquake sequence: complex conjugate strike-slip faulting, *Bull. Seismol. Soc. Am.*, **92**, 1154-1170, 2002.
- Hauksson, E., L. M. Jones, S. Perry, K. Hutton, Emerging from the Stress shadow of the 1992 Mw7.3 Landers southern California earthquake? A preliminary assessment, to *Seism. Res. Lett.* **73**, 33-38, 2002.