

Biosketch for Valerie G. Zartarian, Ph.D.

Dr. Valerie Zartarian served as an executive level (Scientific/Technical (ST)) Senior Physical Research Scientist (2015-2025) and as a Research Environmental Engineer (1998-2015) in the U.S. Environmental Protection Agency (EPA)'s Office of Research and Development (ORD), Center for Public Health and Environmental Assessment (CPHEA; 2019-2025) and National Exposure Research Laboratory (NERL; 1998-2019). She also served in senior advisor details in EPA's Office of Children's Health Protection (2024-2025) and EPA's Office of International Affairs (2023-2024). Dr. Zartarian led human exposure assessment and community decision support research, most recently in the area of childhood lead (Pb) exposure. In her 27-year career with EPA she led, developed, applied, and provided data, models, geospatial mapping approaches, and tools to inform decisions for improving environmental public health. Dr. Zartarian produced over 80 publications on various research topics, including 60 peer-reviewed journal articles. She presented extensively at external scientific peer reviews and conferences; and represented EPA on interagency workgroups in the U.S. and internationally. The models she co-developed and led, including the Stochastic Human Exposure and Dose Simulation model for multi-media chemicals (SHEDS-Multimedia) and SHEDS-Lead (Pb), have been widely published and used to inform Agency regulatory decisions for pesticides, heavy metals, and other chemicals.

In her last years with the EPA, she published high profile papers on lead exposure modeling and hotspots mapping, which informed regulatory decisions and helped communities address high lead exposures. Dr. Zartarian served as ORD's Executive Lead for Lead (Pb) research and CPHEA's Pb science lead; as the EPA research co-chair for the Federal Lead Action Plan under the President's Task Force (PTF) for Children's Environmental Health Risks and Safety Risks; and as EPA co-chair for the Environmental Justice (EJ) Interagency working Group (IWG) Climate Impacts subcommittee. She coauthored the U.S. Federal Action Plan to Reduce Childhood Lead Exposure and the EPA Strategy to Reduce Lead Exposures and Disparities in U.S. Communities. She served on EPA's Lead Coordinating Committee and led the cross-EPA Pb mapping workgroup to identify high exposure risk locations. She served as a member of the PTF and the PTF Lead (Pb) Subcommittee, and co-led the Pb data mapping working group and the International Pb issues working group of the PTF Pb Subcommittee.

In the area of international Pb efforts, Dr. Zartarian presented on Pb modeling at the 2016 Advancing the Pace of Chemical Risk Assessments meeting in Helsinki, and participated and presented in meetings of the Center for Global Development working group on understanding the global burden of lead poisoning, and attended (virtually) the 2022 G7 workshop on addressing lead pollution. She served as the EPA Science-Policy Liaison for US-International Lead Efforts (via EPA's Office of International Affairs) and co-chaired the PTF International Lead Exposure Working Group (ILEWG). In the area of climate justice, she led research on GIS mapping and statistical analyses to identify climate-vulnerable communities exposed to contaminated sites and flooding. She built partnerships and communicated research within and across EPA, with external stakeholders, and with other Federal Agencies, and presented to the Federal EJ Interagency Workgroup and White House/CEQ Climate Equity event in 2016.

Dr. Zartarian received numerous awards for outstanding work in human exposure science, children's health, and environmental justice. These include EPA Scientific and Technological Achievement Awards, EPA Outstanding Technical Assistance Awards, and four EPA Gold Medals for Exceptional Service. In 2000, she received the Outstanding Young Scientist Award from the International Society of Exposure Analysis. In 2024, the EPA Administrator nominated Dr. Zartarian for the prestigious Presidential Rank Award, one of the highest honors in federal civil service.

Dr. Zartarian holds a Ph.D. and M.S. in environmental engineering and science from Stanford University, and a B.S. from Princeton University in civil engineering/water resources. Her Ph.D. dissertation topic was pesticide exposure modeling ("A Physical-Stochastic Model for Understanding Dermal Exposure to Chemicals"), and her undergraduate dissertation topic was climate modeling ("A Comparison of Land Surface Parameterizations for General Circulation Models"). Prior to graduate school she worked for two years (1989-1991) with Camp, Dresser, & McKee, Inc. as an environmental engineering consultant.