Professional expertise

• Technical and policy analyses in the fields of energy, environment, sustainable development, human security, and international security.

Current appointments

- Executive director, Institute for Resource & Security Studies (IRSS), Cambridge, Massachusetts (since 1984).
- Senior research scientist, George Perkins Marsh Institute, Clark University, Worcester, Massachusetts (since 2002).

Education

- D.Phil., applied mathematics, Oxford University (Balliol College), 1973.
- B.E., mechanical engineering, Univ. of New South Wales, Sydney, Australia, 1967.
- B.Sc., mathematics & physics, Univ. of New South Wales, 1966.

Project sponsors and tasks (selected)

- Individual donors to IRSS, 2013-present: development of analytic and citizenengagement methodologies to assist broad-based societal navigation in the 21st century.
- Program on Science and Global Security (Princeton University), Managing the Atom Project (Harvard University), and China Arms Control and Disarmament Association, 2011-2015: technical and policy analyses, participation in expert workshops, and public presentations on risk and sustainability issues re. nuclear fuel reprocessing worldwide.
- National Consortium for the Study of Terrorism and Responses to Terrorism, University of Maryland, 2015: technical advice re. a study on the potential for violent, non-state actors to acquire fissile material.
- A US-wide consortium of environmental organizations, 2012-2014: technical and policy analyses and provision of expert testimony re. management of spent nuclear fuel.
- Greenpeace Canada, 2007-2014: technical and policy analyses on risk and sustainability issues re. the use of nuclear energy.
- Nautilus Institute, 2011-2013: technical analyses, and participation in expert workshops in China and ROK, re. risks arising from management of spent nuclear fuel.
- Sierra Club Canada, 2013: analyses of risk issues and provision of expert testimony re. a proposed deep geologic repository for radioactive waste in Ontario.
- Attorney General of Massachusetts, 2006-2008 and 2011-2012: analyses of risk issues and provision of expert testimony re. the Pilgrim and Vermont Yankee nuclear power plants; work in the later period took account of the Fukushima accident of 2011.

- Nautilus Institute and RMIT University, 2009-2011: policy and technical analyses on transfer of nuclear power technology to consumer countries.
- CharityHelp International and other sponsors, 2009-2011: co-convening of the Connectivity to Enhance Global Human Security initiative.
- US Institute of Peace and other sponsors, 2005-2011: co-convening of the Working Group on US-Iran Health Science Cooperation.
- Texans for a Sound Energy Policy, 2009: review of the US Nuclear Regulatory Commission's Draft Waste Confidence Decision.
- Green Energy Coalition, Pembina Institute, and Ontario Sustainable Energy Association, 2008: provision of testimony to the Ontario Energy Board.
- World Health Organization, 2006-2007: policy analyses on the potential for "health-bridge" programs to improve cooperation within and between nations.
- Sierra Club Canada, 2006-2007: preparation of a strategy for development of planning and public-engagement tools to facilitate action on climate change.
- Mothers for Peace, California, 2002-2009: analyses of risk issues and provision of expert testimony re. the Diablo Canyon nuclear power plants.
- Riverkeeper, New York, 2007-2008: analyses of risk issues and provision of expert testimony re. the Indian Point nuclear power plants.
- Minnesota Center for Environmental Advocacy, and Minnesotans for an Energy Efficient Economy, 2005-2006: technical analyses and provision of expert testimony re. the Monticello nuclear power plant.
- California Energy Commission, 2005: technical analyses and participation in an expert workshop re. safety and security of commercial nuclear facilities.
- Committee on Radioactive Waste Management (a committee appointed by the UK government), 2005: provision of expert advice and technical analyses on long-term safety and security of radioactive waste management.
- Legal Resources Centre, Cape Town, South Africa, 2004-2007: technical analyses re. the proposed South African pebble bed modular nuclear reactor.
- STAR Foundation, New York, 2002-2004: review of planning and actions for decommissioning of research reactors at Brookhaven National Laboratory.
- Attorney General of Utah, 2003: technical analyses and provision of expert testimony re. a proposed national storage facility for spent nuclear fuel.
- Citizens Awareness Network, Massachusetts, 2002-2003: technical and policy analyses on robust storage of spent nuclear fuel.
- Tides Center, California, 2002-2004: analyses for the Santa Susana Field Laboratory (SSFL) Advisory Panel re. the history of releases of hazardous material from the SSFL.
- Orange County, North Carolina, 1999-2002: assessment of risk issues associated with the Harris nuclear power plant, identification of risk-reduction options, and provision of expert testimony.
- William and Flora Hewlett Foundation and other sponsors, 1999-2009: research and project development for conflict-management projects, through IRSS's International Conflict Management Program.
- STAR Foundation, New York, 2000-2001: assessment of risk issues re. the Millstone nuclear power plant, identification of risk-reduction options, and provision of expert testimony.

- Massachusetts Water Resources Authority, 2000: assessment of risks re. water supply and wastewater systems that serve greater Boston.
- Canadian Senate, Energy & Environment Committee, 2000: review of risk issues re. the Pickering Nuclear Generating Station.
- Greenpeace International, Amsterdam, 2000: review of impacts associated with the La Hague nuclear complex in France.
- Government of Ireland, 1998-2001: development of a framework for assessment of impacts and alternative options associated with the Sellafield nuclear complex in the UK.
- Clark University, Worcester, Massachusetts, 1998-1999: participation in a confidential review of outcomes of a major foundation's grants related to climate change.
- UN High Commissioner for Refugees, 1998: co-development of a strategy for conflict management in the CIS region.
- General Council of County Councils (Ireland), W. Alton Jones Foundation (USA), and Nuclear Free Local Authorities (UK), 1996-2000: assessment of environmental and economic issues re. nuclear fuel reprocessing in the UK; identification of alternative options.
- Environmental School, Clark University, Worcester, Massachusetts, 1996: session leader at the Summer Institute, "Local Perspectives on a Global Environment".
- Greenpeace Germany, Hamburg, 1995-1996: a study on war, terrorism and nuclear power plants.
- HKH Foundation, New York, and Winston Foundation for World Peace, Washington, DC, 1994-1996: studies and workshops on preventive action and its role in US national security planning.
- Carnegie Corporation of New York, Winston Foundation for World Peace, Washington, DC, and others, 1995: collaboration with the Organization for Security and Cooperation in Europe to facilitate improved coordination of activities and exchange of knowledge in the field of conflict management.
- World Bank, 1993-1994: a study on management of data describing the performance of projects funded by the Global Environment Facility (joint project of IRSS and Clark University).
- International Physicians for the Prevention of Nuclear War, 1993-1994: a study on international control of weapons-usable fissile material.
- Government of Lower Saxony, Hannover, Germany, 1993: analyses of standards for radioactive waste disposal.
- University of Vienna (using funds supplied by the Austrian government), 1992: review of radioactive waste management at the Dukovany nuclear power plant, Czech Republic.
- Sandia National Laboratories, 1992-1993: advice to the US Department of Energy's Office of Foreign Intelligence.
- US Department of Energy and Battelle Pacific Northwest Laboratories, 1991-1992: advice for the Intergovernmental Panel on Climate Change regarding the design of an information system on technologies that can limit greenhouse gas emissions (joint project of IRSS, Clark University and the Center for Strategic and International Studies).
- Winston Foundation for World Peace, Boston, Massachusetts, and other funding sources, 1992-1993: development and publication of recommendations for strengthening the International Atomic Energy Agency.

- MacArthur Foundation, Chicago, Illinois, W. Alton Jones Foundation, Charlottesville, Virginia, and other funding sources, 1984-1993: policy analyses and public education on a "global approach" to arms control and disarmament.
- Energy Research Foundation, Columbia, South Carolina, and Peace Development Fund, Amherst, Massachusetts, 1988-1992: review of the US government's tritium production (for nuclear weapons) and its implications.
- Coalition of Environmental Groups, Toronto, Ontario (using funds supplied by Ontario Hydro under the direction of the Ontario government), 1990-1993: coordination and conduct of analyses and provision of testimony on accident risk of nuclear power plants.
- Greenpeace International, Amsterdam, Netherlands, 1988-1990: review of probabilistic risk assessment for nuclear power plants.
- Bellerive Foundation, Geneva, Switzerland, 1989-1990: planning for a June 1990 colloquium on disarmament, and editing of proceedings.
- Iler Research Institute, Harrow, Ontario, 1989-1990: analyses of regulatory response to boiling-water reactor accident potential.
- Winston Foundation for World Peace, Boston, Massachusetts, and other funding sources, 1988-1989: analyses of future options for NATO (joint project of IRSS and the Institute for Peace and International Security).
- Nevada Nuclear Waste Project Office, Carson City, Nevada (via Clark University), 1989-1990: analyses of risk aspects of radioactive waste management and disposal.
- Ontario Nuclear Safety Review (conducted by the Ontario government), Toronto, Ontario, 1987: review of safety aspects of CANDU reactors.
- Washington Department of Ecology, Olympia, Washington, 1987: analyses of risk issues re. a proposed radioactive waste repository at Hanford.
- Natural Resources Defense Council, Washington, DC, 1986-1987: provision of expert testimony on risk issues re. military production reactors at the Savannah River Plant, South Carolina.
- Lakes Environmental Association, Bridgton, Maine, 1986: analyses of federal regulations for disposal of radioactive waste.
- Greenpeace Germany, Hamburg, 1986: participation in an international study on the hazards of nuclear power plants.
- Three Mile Island Public Health Fund, Philadelphia, Pennsylvania, 1983-1989: studies re. the Three Mile Island nuclear power plant and emergency response planning.
- Attorney General of Massachusetts, 1984-1989: analyses of risk issues re. Seabrook nuclear power plant, and provision of expert testimony.
- Union of Concerned Scientists, Cambridge, Massachusetts, 1980-1985: studies on energy demand and supply, nuclear arms control, and the safety of nuclear installations.
- Conservation Law Foundation of New England, Boston, Massachusetts, 1985: provision of expert testimony on cogeneration potential at a Maine paper mill.
- Town & Country Planning Association, London, UK, 1982-1984: coordination and conduct of a study on safety and radioactive waste implications of the proposed Sizewell nuclear power plant, and testimony to the Sizewell Public Inquiry.
- US Environmental Protection Agency, Washington, DC, 1980-1981: assessment of the cleanup of Three Mile Island Unit 2 nuclear power plant.

- Center for Energy & Environmental Studies, Princeton University, Princeton, New Jersey, and Solar Energy Research Institute, Golden, Colorado, 1979-1980: studies on the potentials of renewable energy sources.
- Government of Lower Saxony, Hannover, Federal Republic of Germany, 1978-1979: coordination and conduct of studies on safety and security aspects of the proposed Gorleben nuclear fuel cycle center.

Other experience (selected)

- Principal investigator, project on "Exploring the Role of 'Sustainable Cities' in Preventing Climate Disruption", involving IRSS and three other organizations, 1990-1991.
- Visiting fellow, Peace Research Centre, Australian National University, 1989.
- Principal investigator, Three Mile Island emergency planning study, involving IRSS, Clark University and other partners, 1987-1989.
- Co-leadership (with Paul Walker) of a study group on nuclear weapons proliferation, Institute of Politics, Harvard University, 1981.
- Foundation (with others) of an ecological political movement in Oxford, UK, which contested the 1979 Parliamentary election.
- Conduct of cross-examination and presentation of expert testimony, on behalf of the Political Ecology Research Group, at the 1977 Public Inquiry into proposed expansion of reprocessing capacity at Windscale, UK.
- Conduct of research on plasma theory (while a D.Phil student), as an associate staff member, Culham Laboratory, UK Atomic Energy Authority, 1969-1973.
- Service as a design engineer on coal-fired power plants, New South Wales Electricity Commission, Sydney, Australia, 1968.

Publications (selected)

- "Mutual-Gains Negotiation as a Leadership Tool for the 21st Century" (with Paula Gutlove), *Management Magazine*, Simmons School of Management, Fall 2015, pp 12-14.
- "The Iran Nuclear Agreement: A Test of US Leadership" (with Paula Gutlove), *The World Post*, 2 September 2015.
- Plutonium Separation in Nuclear Power Programs: Status, Problems, and Prospects of Civilian Reprocessing Around the World (with ten other authors), a report by the International Panel on Fissile Materials, 2015.
- "Ebola and Human Security" (with Paula Gutlove), *Asia Times Online*, 21 October 2014.
- Radiological Risk at Nuclear Fuel Reprocessing Plants, a report for the Program on Science and Global Security, Princeton University, July 2014.
- Radiological Risk at Nuclear Fuel Reprocessing Plants, Appendix A: La Hague Site, a report for the Program on Science and Global Security, Princeton University, May 2014.
- Darlington Refurbishment: Risk Issues Require Greater Attention, a report for Greenpeace Canada, February 2014.
- Comments on the US Nuclear Regulatory Commission's Waste Confidence Generic

Environmental Impact Statement, Draft Report for Comment (September 2013), a declaration on behalf of a US-wide consortium of environmental organizations, December 2013.

- Radiological Risk at Nuclear Fuel Reprocessing Plants, Appendix B: Rokkasho Site, a report for the Program on Science and Global Security, Princeton University, November 2013.
- "Systems Integration for Sustainable Outcomes: A Proposed Curriculum", proceedings of the conference, *Engineering Education for Sustainable Development EESD13*, Cambridge University, UK, September 2013.
- Comments on OPG's Proposal to Develop a Deep Geologic Repository for Radioactive Waste: A Neglected Potential for Malevolent Acts, a report for Sierra Club Canada, August 2013.
- Handbook to Support Assessment of Radiological Risk Arising from Management of Spent Nuclear Fuel, a report for Nautilus Institute for Security and Sustainability, January 2013.
- "Unmasking the truth: The science and policy of low-dose ionizing radiation", *Bulletin of the Atomic Scientists*, Volume 68, Issue 3, 2012, pp 44-50.
- New and Significant Information from the Fukushima Daiichi Accident in the Context of Future Operation of the Pilgrim Nuclear Power Plant, a report for the Attorney General, Commonwealth of Massachusetts, June 2011.
- Outline of a Code of Conduct for Transfer of Nuclear Power Plant Technology to Consumer Countries, a report for Nautilus Institute and RMIT University, April 2011.
- Environmental Impacts of Storing Spent Nuclear Fuel and High-Level Waste from Commercial Nuclear Reactors: A Critique of NRC's Waste Confidence Decision and Environmental Impact Determination, a report for Texans for a Sound Energy Policy, Victoria, Texas, February 2009.
- Scope of the EIS for New Nuclear Power Plants at the Darlington Site in Ontario: Accidents, Malfunctions and the Precautionary Approach, a report for Greenpeace Canada, November 2008.
- Cost Implications of the Residual Radiological Risk of Nuclear Generation of Electricity in Ontario, a report for the Green Energy Coalition et al, July 2008.
- "The US Effort to Dispose of High-Level Radioactive Waste", *Energy and Environment*, Volume 19, Numbers 3 and 4 (joint issue), 2008, pp 391-412.
- Design and Siting Criteria for Nuclear Power Plants in the 21st Century, a report for Greenpeace Canada, January 2008.
- Risk-Related Impacts from Continued Operation of the Indian Point Nuclear Power Plants, a report for Riverkeeper, Tarrytown, New York, November 2007.
- Assessing Risks of Potential Malicious Actions at Commercial Nuclear Facilities: The Case of a Proposed Independent Spent Fuel Storage Installation at the Diablo Canyon Site, a report for San Luis Obispo Mothers for Peace, California, June 2007.
- Health as a Bridge for Peace: Achievements, Challenges, and Opportunities for Action by WHO (with Paula Gutlove), a report for the Department for Health Action in Crises, World Health Organization, Geneva, December 2006.

- "Using Psychosocial Healing in Postconflict Reconstruction" (with Paula Gutlove), in Mari Fitzduff and Chris E. Stout (eds), *The Psychology of Resolving Global Conflicts: From War to Peace*, Praeger Security International, 2006.
- "What Role for Nuclear Power in a Sustainable Civilization?", *The Green Cross Optimist*, Spring 2006, pp 28-30.
- Radiological Risk of Homeport Basing of a Nuclear-Propelled Aircraft Carrier in Yokosuka, Japan, a report for the Citizens Coalition Concerning the Homeporting of a CVN in Yokosuka, June 2006.
- Risks and Risk-Reducing Options Associated with Pool Storage of Spent Nuclear Fuel at the Pilgrim and Vermont Yankee Nuclear Power Plants, a report for the Attorney General, Commonwealth of Massachusetts, May 2006.
- Reasonably Foreseeable Security Events: Potential threats to options for long-term management of UK radioactive waste, a report for the UK Committee on Radioactive Waste Management, November 2005.
- "Plasma, policy and progress", *The Australian Mathematical Society Gazette*, Volume 32, Number 3, 2005, pp 162-168.
- "A Psychosocial-Healing Approach to Post-Conflict Reconstruction" (with Paula Gutlove), *Mind & Human Interaction*, Volume 14, Number 1, 2005, pp 35-63.
- "Designing Infrastructure for New Goals and Constraints", Proceedings of the conference, *Working Together: R&D Partnerships in Homeland Security*, Boston, Massachusetts, April 2005, sponsored by the US Department of Homeland Security. (A version of this paper has also been published as CRS Discussion Paper 2005-02, Center for Risk and Security, George Perkins Marsh Institute, Clark University, Worcester, Massachusetts.)
- "Potential Radioactive Releases from Commercial Reactors and Spent Fuel", Proceedings of the conference, *Working Together: R&D Partnerships in Homeland Security*, Boston, Massachusetts, April 2005, sponsored by the US Department of Homeland Security. (A version of this paper has also been published as CRS Discussion Paper 2005-03, Center for Risk and Security, George Perkins Marsh Institute, Clark University, Worcester, Massachusetts.)
- Safety of the Proposed South African Pebble Bed Modular Reactor, a report for the Legal Resources Centre, Cape Town, South Africa, 12 January 2005.
- Releases of Hazardous Material from the Santa Susana Field Laboratory: A Retrospective Review, a report for the SSFL Advisory Panel, June 2004.
- Decommissioning of Research Reactors at Brookhaven National Laboratory: Status, Future Options and Hazards, a report for STAR Foundation, East Hampton, New York, April 2004.
- "Psychosocial Healing and Post-Conflict Social reconstruction in the Former Yugoslavia" (with Paula Gutlove), *Medicine, Conflict and Survival*, Volume 20, Number 2, April-June 2004, pp 136-150.
- "Reducing the Hazards from Stored Spent Power-Reactor Fuel in the United States" (with Robert Alvarez, Jan Beyea, Klaus Janberg, Jungmin Kang, Ed Lyman, Allison Macfarlane and Frank N. von Hippel), *Science and Global Security*, Volume 11, 2003, pp 1-51.

- "Health, Human Security, and Social Reconstruction in Afghanistan" (with Paula Gutlove and Jacob Hale Russell), in John D. Montgomery and Dennis A. Rondinelli (eds), *Beyond Reconstruction in Afghanistan*, Palgrave Macmillan, 2004.
- Psychosocial Healing: A Guide for Practitioners, based on programs of the Medical Network for Social Reconstruction in the Former Yugoslavia (with Paula Gutlove), IRSS, Cambridge, Massachusetts and OMEGA Health Care Center, Graz, Austria, May 2003.
- A Call for Action to Protect the Nation Against Enemy Attack on Nuclear Power Plants and Spent Fuel, and a Supporting Document, San Luis Obispo Mothers for Peace, California, April 2003 and May 2003.
- "Human Security: Expanding the Scope of Public Health" (with Paula Gutlove), *Medicine, Conflict and Survival*, Volume 19, 2003, pp 17-34.
- Social Reconstruction in Afghanistan through the Lens of Health and Human Security (with Paula Gutlove and Jacob Hale Russell), IRSS, Cambridge, Massachusetts, May 2003.
- Robust Storage of Spent Nuclear Fuel: A Neglected Issue of Homeland Security, a report for Citizens Awareness Network, Shelburne Falls, Massachusetts, January 2003.
- Medical Network for Social Reconstruction in the Former Yugoslavia: A Survey of Participants' Views on the Network's Goals and Achievements, IRSS, Cambridge, Massachusetts, September 2001.
- The Potential for a Large, Atmospheric Release of Radioactive Material from Spent Fuel Pools at the Harris Nuclear Power Plant: The Case of a Pool Release Initiated by a Severe Reactor Accident, a report for Orange County, North Carolina, November 2000.
- A Review of the Accident Risk Posed by the Pickering 'A' Nuclear Generating Station, a report for the Standing Committee on Energy, Environment and Natural Resources, Canadian Senate, August 2000.
- High-Level Radioactive Liquid Waste at Sellafield: An Updated Review, a report for the UK Nuclear Free Local Authorities, June 2000.
- Hazard Potential of the La Hague Site: An Initial Review, a report for Greenpeace International, May 2000.
- A Strategy for Conflict Management: Integrated Action in Theory and Practice (with Paula Gutlove), IRSS, Cambridge, Massachusetts, March 1999.
- Risks and Alternative Options Associated with Spent Fuel Storage at the Shearon Harris Nuclear Power Plant, a report for Orange County, North Carolina, February 1999.
- High Level Radioactive Liquid Waste at Sellafield: Risks, Alternative Options and Lessons for Policy, IRSS, Cambridge, Massachusetts, June 1998.
- "Science, democracy and safety: why public accountability matters", in F. Barker (ed), *Management of Radioactive Wastes: Issues for local authorities*, Thomas Telford, London, 1998.
- "Conflict Management and the OSCE" (with Paula Gutlove), *OSCE/ODIHR Bulletin*, Volume 5, Number 3, Fall 1997.
- Safety of the Storage of Liquid High-Level Waste at Sellafield (with Peter Taylor), Nuclear Free Local Authorities, UK, November 1996.
- Assembling Evidence on the Effectiveness of Preventive Actions, their Benefits, and their Costs: A Guide for Preparation of Evidence, IRSS, Cambridge, Massachusetts, August 1996.

- War, Terrorism and Nuclear Power Plants, Peace Research Centre, Australian National University, Canberra, October 1996.
- "The Potential for Cooperation by the OSCE and Non-Governmental Actors on Conflict Management" (with Paula Gutlove), *Helsinki Monitor*, Volume 6 (1995), Number 3.
- "Potential Characteristics of Severe Reactor Accidents at Nuclear Plants", "Monitoring and Modelling Atmospheric Dispersion of Radioactivity Following a Reactor Accident" (with Richard Sclove, Ulrike Fink and Peter Taylor), "Safety Status of Nuclear Reactors and Classification of Emergency Action Levels", and "The Use of Probabilistic Risk Assessment in Emergency Response Planning for Nuclear Power Plant Accidents" (with Robert Goble), in D. Golding, J. X. Kasperson and R. E. Kasperson (eds), *Preparing for Nuclear Power Plant Accidents*, Westview Press, Boulder, Colorado, 1995.
- A Data Manager for the Global Environment Facility (with Robert Goble), Environment Department, The World Bank, June 1994.
- Preventive Diplomacy and National Security (with Paula Gutlove), Winston Foundation for World Peace, Washington, DC, May 1994.
- Opportunities for International Control of Weapons-Usable Fissile Material, International Physicians for the Prevention of Nuclear War, Cambridge, Massachusetts, January 1994.
- "Article III and IAEA Safeguards", in F. Barnaby and P. Ingram (eds), *Strengthening the Non-Proliferation Regime*, Oxford Research Group, Oxford, UK, December 1993.
- Risk Implications of Potential New Nuclear Plants in Ontario (prepared with the help of eight consultants), a report for the Coalition of Environmental Groups, Toronto, submitted to the Ontario Environmental Assessment Board, November 1992 (3 volumes).
- Strengthening the International Atomic Energy Agency, IRSS, Cambridge, Massachusetts, September 1992.
- Design of an Information System on Technologies that can Limit Greenhouse Gas Emissions (with Robert Goble and F. Scott Bush), Center for Strategic and International Studies, Washington, DC, May 1992.
- Managing Nuclear Accidents: A Model Emergency Response Plan for Power Plants and Communities (with six other authors), Westview Press, Boulder, Colorado, 1992.
- "Let's X-out the K" (with Steven C. Sholly), *Bulletin of the Atomic Scientists*, March 1992, pp 14-15.
- "A Worldwide Programme for Controlling Fissile Material", and "A Global Strategy for Nuclear Arms Control", in F. Barnaby (ed), *Plutonium and Security*, Macmillan Press, UK, 1992.
- No Restart for K Reactor (with Steven C. Sholly), IRSS, Cambridge, Massachusetts, October 1991.
- Regulatory Response to the Potential for Reactor Accidents: The Example of Boiling-Water Reactors, IRSS, Cambridge, Massachusetts, February 1991.
- Peace by Piece: New Options for International Arms Control and Disarmament, IRSS, Cambridge, Massachusetts, January 1991.
- Developing Practical Measures to Prevent Climate Disruption (with Robert Goble), CENTED Research Report No. 6, Clark University, August 1990.
- "Treaty a Useful Relic", Bulletin of the Atomic Scientists, July/August 1990, pp 32-33.

- "Practical Steps for the 1990s", in Sadruddin Aga Khan (ed), *Non-Proliferation in a Disarming World*, Proceedings of the Groupe de Bellerive's 6th International Colloquium, Bellerive Foundation, Geneva, Switzerland, 1990.
- A Global Approach to Controlling Nuclear Weapons, IRSS, Cambridge, Massachusetts, October 1989.
- *IAEA Safety Targets and Probabilistic Risk Assessment* (with three other authors), Greenpeace International, Amsterdam, August 1989.
- *New Directions for NATO* (with Paul Walker and Pam Solo), published jointly by IRSS and the Institute for Peace and International Security (both of Cambridge, Massachusetts), December 1988.
- "Verifying a Halt to the Nuclear Arms Race", in F. Barnaby (ed), *A Handbook of Verification Procedures*, Macmillan Press, UK, 1990.
- "Verification of a Cutoff in the Production of Fissile Material", in F.Barnaby (ed), *A Handbook of Verification Procedures*, Macmillan Press, UK, 1990.
- "Severe Accident Potential of CANDU Reactors", Consultant's Report in *The Safety of Ontario's Nuclear Power Reactors*, Ontario Nuclear Safety Review, Toronto, February 1988.
- Nuclear-Free Zones (edited with David Pitt), Croom Helm Ltd, Beckenham, UK, 1987.
- Risk Assessment Review For the Socioeconomic Impact Assessment of the Proposed High-Level Nuclear Waste Repository at Hanford Site, Washington (edited; written with five other authors), report prepared for the Washington Department of Ecology, December 1987.
- *The Nuclear Freeze Revisited* (with Andrew Haines), Nuclear Freeze and Arms Control Research Project, Bristol, UK, November 1986. Variants of the same paper have appeared as Working Paper No. 18, Peace Research Centre, Australian National University, Canberra, February 1987, and in *ADIU Report*, University of Sussex, Brighton, UK, Jan/Feb 1987, pp 6-9.
- *International Nuclear Reactor Hazard Study* (with fifteen other authors), Greenpeace, Hamburg, Federal Republic of Germany (2 volumes), September 1986.
- "What happened at Reactor Four" (the Chernobyl reactor accident), *Bulletin of the Atomic Scientists*, August/September 1986, pp 26-31.
- The Source Term Debate: A Report by the Union of Concerned Scientists (with Steven C. Sholly), Union of Concerned Scientists, Cambridge, Massachusetts, January 1986.
- "Checks on the spread" (a review of three books on nuclear proliferation), *Nature*, 14 November 1985, pp 127-128.
- Editing of *Perspectives on Proliferation*, August 1985, published by the Proliferation Reform Project, IRSS.
- "A Turning Point for the NPT?", *ADIU Report*, University of Sussex, Brighton, UK, Nov/Dec 1984, pp 1-4.
- "Energy Economics", in J. Dennis (ed), *The Nuclear Almanac*, Addison-Wesley, Reading, Massachusetts, 1984.
- "The Genesis of Nuclear Power", in J. Tirman (ed), *The Militarization of High Technology*, Ballinger, Cambridge, Massachusetts, 1984.
- A Second Chance: New Hampshire's Electricity Future as a Model for the Nation (with Linzee Weld), Union of Concerned Scientists, Cambridge, Massachusetts, 1983.

- Safety and Waste Management Implications of the Sizewell PWR (prepared with the help of six consultants), a report to the Town & Country Planning Association, London, UK, 1983.
- Utility-Scale Electrical Storage in the USA: The Prospects of Pumped Hydro, Compressed Air, and Batteries, Princeton University report PU/CEES #120, 1981.
- *The Prospects for Wind and Wave Power in North America*, Princeton University report PU/CEES # 117, 1981.
- *Hydroelectric Power in the USA: Evolving to Meet New Needs*, Princeton University report PU/CEES # 115, 1981.
- Editing, coordination, and part authorship of "Potential Accidents & Their Effects", Chapter III of *Report of the Gorleben International Review*, published in German by the Government of Lower Saxony, FRG, 1979; Chapter III published in English by the Political Ecology Research Group, Oxford, UK.
- A Study of the Consequences to the Public of a Severe Accident at a Commercial FBR located at Kalkar, West Germany, Political Ecology Research Group, Oxford, UK, 1978.

Expert presentations and testimony (selected)

- NRC Commissioners' Briefing on Spent Fuel Pool Safety and Consideration of Expedited Transfer of Spent Fuel to Dry Casks, Rockville, Maryland, January 2014, presentation: "Imperatives for Expedited Transfer".
- Asahi-Princeton Symposium on Managing Spent Fuel To Reprocess or Store, Tokyo, December 2013, presentation: "Radiological Risk at the Rokkasho Reprocessing Plant".
- Conference, *Engineering Education for Sustainable Development EESD13*, Cambridge University, UK, September 2013, presentation: "Systems Integration for Sustainable Outcomes: A Proposed Curriculum".
- Experts Meeting on Safety of Spent Fuel Storage after Fukushima, Seoul, ROK, June 2013: presentation, "Storage of Spent Fuel: Options and their Characteristics".
- Nautilus Institute Working Group Meeting on Spent Fuel, Radiological Risk, Deep Borehole, etc., Beijing, China, May 2013: presentation, "Assessment of SNF Radiological Risk: Review of Methodology, and Application to a Case Study from USA".
- US Nuclear Regulatory Commission's Annual Regulatory Information Conference, Rockville, Maryland, March 2013, presentation: "The Case for Expedited Transfer of Spent Fuel to Dry Storage."
- Workshop on the Safety and Security of China's Nuclear Facilities, Shenzhen, China, January 2013: presentation, "Radiological Risk in Spent Fuel Management and Reprocessing".
- Nautilus Institute Working Group Meeting, Resilience and Security of Spent Fuel in NE Asia, Seoul, ROK, April 2012: presentation, "A Handbook to Support Assessment of Radiological Risk Arising from Management of Spent Nuclear Fuel".
- Energy Futures Working Group, Global Green USA, Washington, DC, March 2012, presentation: "Sustainability Principles for Design of Infrastructure".

- Regional Seminar on Nuclear Fuel Supply, Reprocessing, and Disposal in Asia, Beijing, China, October 2011, presentation: "A Sustainability Framework for Assessing Investments in Nuclear Infrastructure".
- Harvard & Peking University Workshop on the Economics of Nuclear Reprocessing and the Availability of Uranium, Beijing, China, October 2011, presentation, "Liquid High-Level Waste: Risks and Options".
- Egyptian Council for Foreign Affairs, Cairo, May 2011: presentation, "Nuclear Technology and Global Child Health: Threats and Opportunities".
- Bibliotecha Alexandrina (BA), Egypt, April 2011: presentation, "Accelerating a Green-Technology Transition: A Leading Role for the BA".
- Conference, *Prospects for Nuclear Non-Proliferation and Disarmament*, Cairo, October 2010: presentation (with Paula Gutlove), "The Potential for Near-Term Confidence-Building Measures and Cooperative Actions for an Eventual Middle East NWFZ, Promoting the 2012 Conference".
- Blue Ribbon Commission on America's Nuclear Future, Washington, DC, September 2010: presentation to the Subcommittee on transportation & storage of radioactive waste.
- Green Cross Strategy Workshop, Geneva, Switzerland, May 2010: presentation, "Nuclear Weapons and Power: Issues and Opportunities".
- Munk Centre for International Studies, University of Toronto, March 2010: presentation (with Paula Gutlove), "Demonstrating a New Approach to Stability in Afghanistan: Remote Engagement for Community Empowerment and Rural Development".
- Marsh Institute and Kasperson Library Seminar, Clark University, October 2009: presentation, "Navigating the Socio-Technical Transition to Sustainability".
- Maxwell School, Syracuse University, February 2009: presentation, "A Second Track for Climate Negotiations: The Biosphere as Common Property".
- Society for Risk Analysis annual meeting, Boston, Massachusetts, December 2008: presentation, "Multi-Criteria Frameworks for Considering Diverse Risks in Infrastructure Design".
- Institute of Environmental Studies, University of New South Wales, Sydney, Australia, April 2008: presentation, "Citizen Engagement for Sustainable Society".
- Department of Urban and Regional Planning, Shaheed Beheshti University, Tehran, April 2008: presentation, "Sustainable Cities: Challenges and Opportunities".
- National Academy of Sciences, Washington, DC, January 2008: presentation, "What do interested parties think about the expansion of nuclear energy?"
- Abt Associates, Cambridge, Massachusetts, March 2007: presentation, "Creating Informed Action on Climate Change".
- Universities of Medical Science in Tabriz and Isfahan, Iran, April 2007: presentation, "Healthy Design of the Built Environment".
- Minnesota Public Utilities Commission, 2006: testimony regarding trends, risks and costs associated with management of spent fuel from the Monticello nuclear power plant.
- Presentation, "Are Nuclear Installations Terrorist Targets?", at the conference, *Nuclear Energy: Does it Have a Future?*, Drogheda, County Louth, Ireland, March 2005.
- Presentation at the session, "UN Security Council Resolution 1244 and Final Status for Kosovo", at the conference, *Lessons Learned from the Balkan Conflicts*, Boston College, Chestnut Hill, Massachusetts, October 2004.

- California Public Utilities Commission, 2004: testimony regarding the nature and cost of potential measures for enhanced defense of the Diablo Canyon nuclear power plant.
- European Parliament (EP), 2003: invited presentation to EP members regarding safety and security issues at the Sellafield nuclear site in the UK, and broader implications.
- US Congress, 2002 and 2003: invited presentations at member-sponsored staff briefings on vulnerabilities of nuclear-power facilities to attack and options for improved defenses.
- Numerous public forums in the USA, 2001-2006: invited presentations to public officials and general audiences regarding vulnerabilities of nuclear-power facilities to attack and options for improved defenses.
- UK Consensus Conference on Radioactive Waste Management, 1999: invited testimony on information and decision-making.
- Joint Committee on Public Enterprise and Transport, Irish Parliament, 1999: invited testimony on nuclear fuel reprocessing and international security.
- UK and Irish Parliaments, 1998: invited presentations to members on risks and alternative options associated with nuclear fuel reprocessing in the UK.
- Center for Russian Environmental Policy, Moscow, 1996: invited presentation at a forum in parallel with the G-7 Nuclear Safety Summit.
- Lacey Township Zoning Board, New Jersey, 1995: testimony regarding radioactive waste management.
- Ontario Court of Justice, Toronto, Ontario, 1993: testimony regarding Canada's Nuclear Liability Act.
- Oxford Research Group, seminar on "The Plutonium Legacy", Rhodes House, Oxford, UK, 1993: invited presentation on nuclear safeguards.
- Defense Nuclear Facilities Safety Board, Washington, DC, 1991: testimony regarding the proposed restart of K-reactor, Savannah River Site.
- Conference to consider amending the Partial Test Ban Treaty, United Nations, New York, 1991: presentation on a global approach to arms control and disarmament.
- US Department of Energy, hearing on draft EIS for new production reactor capacity, Columbia, South Carolina, 1991: testimony on tritium need and implications of tritium production options.
- Society for Risk Analysis, 1990 annual meeting, New Orleans, special session on nuclear emergency planning: presentation on real-time techniques for anticipating emergencies.
- Parliamentarians' Global Action, 11th Annual Parliamentary Forum, United Nations, Geneva, 1990: invited presentation on the potential for multilateral nuclear arms control.
- Advisory Committee on Nuclear Facility Safety, Washington, DC, 1989: testimony on public access to information and on government accountability.
- Peace Research Centre, Australian National University, seminar on "Australia and the Fourth NPT Review Conference", Canberra, 1989: invited presentation regarding a universal nuclear weapons non-proliferation regime.
- Carnegie Endowment for International Peace, Conference on "Nuclear Non-Proliferation and the Role of Private Organizations", Washington, DC, 1989: invited presentation on options for reform of the non-proliferation regime.
- US Department of Energy, EIS scoping hearing, Columbia, South Carolina, 1988: testimony on appropriate scope of an EIS for new production reactor capacity.

- International Physicians for the Prevention of Nuclear War, 6th and 7th Annual Congresses (Koln, FRG, 1986, and Moscow, USSR, 1987): invited presentations on relationships between nuclear power and the threat of nuclear war.
- County Council, Richland County, South Carolina, 1987: testimony on implications of severe accidents at military reactors at the Savannah River Plant.
- Maine Land Use Regulation Commission, 1985: testimony on cogeneration potential at facilities of Great Northern Paper Company.
- Interfaith Hearings on Nuclear Issues, Toronto, Ontario, 1984: invited presentations on options for Canada's nuclear trade and Canada's involvement in nuclear arms control.
- Sizewell Public Inquiry, UK, 1984: testimony on safety and radioactive waste implications of the proposed Sizewell nuclear power plant.
- New Hampshire Public Utilities Commission, 1983: testimony on electricity demand and supply options for New Hampshire.
- Atomic Safety & Licensing Board, US Nuclear Regulatory Commission, 1983: testimony on use of filtered venting at the Indian Point nuclear power plant.
- US National Advisory Committee on Oceans and Atmosphere, 1982: testimony on implications of ocean disposal of radioactive waste.
- Environmental & Energy Study Conference, US Congress, 1982: invited presentation on implications of radioactive waste management.

Miscellaneous

- Married, two children.
- Extensive experience in public speaking and interviews by representatives of print and electronic media.
- Author of numerous essays and letters in newspapers and magazines.

Contact information

Institute for Resource and Security Studies 27 Ellsworth Avenue, Cambridge, Massachusetts 02139, USA Phone: 617-491-5177