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E X P E R I E N C E

- University of Maryland, College Park** *1988 - present*
ASSOCIATE PROVOST FOR ACADEMIC AFFAIRS, 2013–
INTERIM DEAN OF THE GRADUATE SCHOOL, 2017–
ACTING EXECUTIVE DIRECTOR, CENTER FOR ADVANCED STUDY OF LANGUAGE, 2017–
PROFESSOR, SCHOOL OF PUBLIC POLICY, 2000–
DEAN, SCHOOL OF PUBLIC POLICY, 2005–09
ASSOCIATE DIRECTOR, JOINT GLOBAL CHANGE RESEARCH INSTITUTE, 2001–03
DIRECTOR, ENVIRONMENTAL POLICY PROGRAM, 1997–2000
DIRECTOR, INTERNATIONAL SECURITY AND ECONOMIC POLICY, 1994–96
ASSOCIATE PROFESSOR, 1992–2000
DIRECTOR, NATIONAL SECURITY POLICY PROGRAM, 1990–92
ASSISTANT PROFESSOR, 1988–92
- Office of Science and Technology Policy, The White House** *2009-12, 2015-17*
PRINCIPAL ASSISTANT DIRECTOR FOR NATIONAL SECURITY AND
INTERNATIONAL AFFAIRS, 7/15-1/17
PRINCIPAL ASSISTANT DIRECTOR FOR ENVIRONMENT AND ENERGY, 5/11-8/12
ASSISTANT DIRECTOR AT-LARGE, 3/09-8/12
- Department of State** *1992, 2004*
AMERICAN INSTITUTE OF PHYSICS SCIENCE FELLOW, 2004
COUNCIL ON FOREIGN RELATIONS INTERNATIONAL AFFAIRS
FELLOW, BUREAU OF POLITICAL-MILITARY AFFAIRS, 1992
- Stanford University** *1996 - 1997*
VISITING SCIENCE FELLOW
CENTER FOR INTERNATIONAL SECURITY AND ARMS CONTROL
- Department of Defense** *1993 - 1994*
SPECIAL ASSISTANT TO THE ASSISTANT SECRETARY OF DEFENSE
FOR INTERNATIONAL SECURITY POLICY, ASH CARTER
- Harvard University** *1986 - 1988*
POSTDOCTORAL RESEARCH FELLOW
CENTER FOR SCIENCE AND INTERNATIONAL AFFAIRS
- Lawrence Livermore National Laboratory** *1985 - 1986*
POSTDOCTORAL RESEARCH FELLOW
-

E D U C A T I O N

- University of California, Berkeley** *1981 - 1985*
MS AND PHD IN ENERGY AND RESOURCES
- Massachusetts Institute of Technology** *1978 - 1981*
SB IN PHYSICS, *SUMMA CUM LAUDE*

S E R V I C E

National Academy of Sciences

Intelligence Science and Technology Experts Group, 2017–
Committee on International Security and Arms Control, 1994–2006, 2014–15, 2017–
Co-chair, Monitoring Nuclear Weapons and Nuclear Explosive Materials, 2000–04
Member, Panel on Nonproliferation, 2007–2009
Committee on Ballistic Missile Defense in the Context of Strategic Stability, 2015
Committee on Geoeengineering Climate, 2013–2015
Committee on the Effects of Nuclear Earth Penetrator Weapon and Other Weapons, 2004
Committee on the Internationalization of the Civilian Nuclear Fuel Cycle, 2006–2008
Committee on Conventional Prompt Global Strike Capability, 2007–08
Reviewer, Review of the Department of Energy's Inertial Confinement Fusion Program, 1997
Reviewer, Review of DOE's Nuclear Energy Research and Development Program, 2007

American Physical Society

Member, Panel on Public Affairs, 2003–05; chair of national security subcommittee
Member, Szilard/Burton Awards Committee, 2005; chair, 2006
Executive Committee (elected), Forum on Physics and Society, 1998–2001

American Association for the Advancement of Science

Member, AAAS-APS Study Group on Nuclear Forensics, 2007–08
Member, Nuclear Weapons Complex Assessment Committee, 2006–07

Board of Directors

Union of Concerned Scientists, 2014–
Arms Control Association, 1998–2009, Treasurer, 2000–09
Sustainable Energy Institute, 1999–2009
RAND Graduate School Board of Governors, 2003–2005
Federation of American Scientists, 1996–2003; Vice Chairman, 2000–2003

Board of Editors

Science and Global Security, 1993–
Washington Quarterly, 1996–98

Council on Foreign Relations, term member, 1990–95; member, 2007–

The Deep Cuts Commission, member, 2013–2015; 2017–

Association of Professional Schools of International Affairs (APSIA)

President, 2008–09; Vice President, 2007–08

Advisory Committees

Intelligence Science Board, Director of National Intelligence, 2008–09
Nuclear Energy Research Advisory Committee, U.S. Department of Energy, 2000–07
Human Rights Watch, Arms Division Advisory Committee, 2002–2006

Consultant

Department of Energy and National Nuclear Security Administration, 2017–
Department of Homeland Security, 2004–07
Arms Control and Disarmament Agency, 1994–97
Office of Technology Assessment, 1992–95
Idaho National Engineering Laboratory, 1986–90

Visiting Scientist, Plasma Fusion Center, Massachusetts Institute of Technology, 9/86–7/88

A W A R D S A N D F E L L O W S H I P S

Hans Bethe "Science in the Public Service" Award, Federation of American Scientists, 2005
American Institute of Physics State Department Science Fellowship, 2004
Joseph A. Burton Forum Award, American Physical Society, May 2000
Fellow, American Physical Society, October 1994
Secretary of Defense Award for Outstanding Public Service, July 1994
International Affairs Fellow, Council on Foreign Relations, 1992–93
Summer Research Award, General Research Board, University of Maryland, 1992
Sloan Fellow, Center for Science and International Affairs, Harvard University, 1986–88
Arms Control Fellow, Lawrence Livermore National Laboratory, 1985–86
Regent's Fellow, University of California, Berkeley, 1981–82

P U B L I C A T I O N S A N D P A P E R S

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96. Steve Fetter and Jon Wolfsthal, "No First Use," submitted to ***Journal for Peace and Nuclear Disarmament***.
95. Steve Fetter, Richard L. Garwin, and Frank von Hippel, "Nuclear-weapon Dangers and Policy Options," ***Physics Today***, forthcoming.
94. Valentin Stanev and Steve Fetter, "Estimating the Amount of Weapon-usable Nuclear Material outside Government Control based on Reported Seizures," ***Science & Global Security***, Vol. 25, No 3 (2017), pp. 124-141.*
93. Jonas Siegel, Elisabeth Gilmore, Nancy Gallagher, and Steve Fetter, "An Expert Elicitation of the Proliferation Resistance of Using Small Modular Reactors for the Expansion of Civilian Nuclear Systems," ***Risk Analysis*** (11 July 2017).*
92. Charles L. Glaser and Steve Fetter, "Should the United States Reject MAD? Damage Limitation and U.S. Nuclear Strategy toward China," ***International Security***, Vol. 41, No. 1 (Summer 2016), pp. 49-98; Charles L. Glaser and Steve Fetter, "Correspondence: The Limits of Damage Limitation," ***International Security***, Vol. 42, No. 1 (Summer 2017), pp. 201-207.*
91. Steve Fetter and Erich Schneider, "The New York Times was wrong; Russian uranium deals don't threaten world supply security," ***Bulletin of the Atomic Scientists*** (May 2015), <http://thebulletin.org/new-york-times-was-wrong-russian-uranium-deals-dont-threaten-world-supply-security8329>

90. National Research Council, Committee on Geoengineering Climate, ***Climate Intervention: Carbon Dioxide Removal and Reliable Sequestration*** (Washington, DC: The National Academies Press, 2015), <https://www.nap.edu/catalog/18805/climate-intervention-carbon-dioxide-removal-and-reliable-sequestration>* [committee member]
89. National Research Council, Committee on Geoengineering Climate, ***Climate Intervention: Reflecting Sunlight to Cool Earth*** (Washington, DC: The National Academies Press, 2015), <https://www.nap.edu/catalog/18988/climate-intervention-reflecting-sunlight-to-cool-earth>* [committee member]
88. The Deep Cuts Commission, “Strengthening Stability in Turbulent Times,” April 2015, http://www.deepcuts.org/images/PDF/Second_Report_of_the_Deep_Cuts_Commission_English.pdf [commission member]
87. Gokul Iyer, Nathan Hultman, Steve Fetter, and Son H. Kim, “Implications of Small Modular Reactors for Climate Change Mitigation,” ***Energy Economics***, Vol. 45, pp. 144-154 (2014).*
86. The Deep Cuts Commission, “Preparing for Deep Cuts: Options for Enhancing Euro-Atlantic and International Security,” April 2014, http://www.deepcuts.org/files/pdf/First_Report_of_the_Deep_Cuts_Commission_English.pdf [commission member]
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84. Steve Fetter, “Science in the White House,” ***Physics and Society***, Vol. 42, No. 3 (July 2013), <http://www.aps.org/units/fps/newsletters/201307/white-house.cfm>
83. Steve Fetter and Ivan Oelrich, “Verifying a Prohibition on Nuclear Weapons,” in Barry Blechman and Alex Bollfrass, eds., ***Elements of a Nuclear Disarmament Treaty: Unblocking the Road to Zero*** (Washington, DC: Henry L. Stimson Center, 2010), pp. 27-56.
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79. Joint Working Group of the American Physical Society and the American Association for the Advancement of Science, ***Nuclear Forensics: Role, State of the Art, Program Needs*** (Washington, DC: American Association for the Advancement of Science, 2007), 64 pgs, <http://cstsp.aaas.org/files/Complete.pdf> [working group member]
78. Bruce G. Blair, Thomas B. Cochran, Jonathan Dean, Steve Fetter, Richard L. Garwin, Kurt Gottfried, Lisbeth Gronlund, Henry Kelly, Hans M. Kristensen, Robert S. Norris, Ivan Oelrich, Christopher Paine, Frank N. von Hippel, David Wright, and Stephen Young, ***Toward True Security: Ten Steps the Next President Should Take to Transform U.S. Nuclear Weapons Policy*** (Washington, DC: Federation of American Scientists, Natural Resources Defense Council, Union of Concerned Scientists, February 2008), 31 pgs, http://www.ucsusa.org/global_security/nuclear_weapons/truesecurity.html
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72. National Academy of Sciences, ***Effects of Nuclear Earth-Penetrator and Other Weapons*** (Washington, DC: National Academy Press, 2005)* [committee member]
71. National Academy of Sciences, Committee on International Security and Arms Control, ***Monitoring Nuclear Weapons and Nuclear Explosive Materials: An Assessment of Methods and Capabilities*** (Washington, DC: National Academy Press, 2005) [co-chair]*

70. Steve Fetter and Charles L. Glaser, "Critiquing the NPR's New Nuclear Missions," in James J. Wirtz and Jeffrey A. Larsen, eds., ***Nuclear Transformation: The New U.S. Nuclear Doctrine*** (New York: Palgrave Macmillan, 2005), pp. 23-38.
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63. Bruce G. Blair, Thomas B. Cochran, Tom Z. Collina, Jonathan Dean, Steve Fetter, Richard L. Garwin, Kurt Gottfried, Lisbeth Gronlund, Henry Kelly, Matthew G. McKinzie, Robert S. Norris, Adam Segal, Robert Sherman, Frank N. von Hippel, David Wright, and Stephen Young, ***Toward True Security: A U.S. Nuclear Posture for the Next Decade*** (Washington, DC: Federation of American Scientists, Natural Resources Defense Council, Union of Concerned Scientists, June 2001), 33 pgs; <http://www.ucsusa.org/publications/NPRall.pdf>.
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54. Steve Fetter, **Climate Change and the Transformation of World Energy Supply** (Stanford, CA: Center for International Security and Cooperation, 1999), 95 pgs; <http://www.stanford.edu/group/CISAC/test/pub/fetter.pdf>
53. Steve Fetter, "Preventing Climate Change: The Role of Nuclear Energy," in C.R. Hill, B. van der Zwaan, G. Ripka, and A.L. Mechelynck, eds., **Nuclear Energy: Promise or Peril?** (London: World Scientific Publishing Co., 1999), pp. 29–45; <http://www.worldscientific.com/books/engineering/4173.htm>
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51. Steve Fetter, "Limiting the Role of Nuclear Weapons," in Harold Feiveson, ed., **The Nuclear Turning Point: A Blueprint for Deep Cuts and De-alerting of Nuclear Weapons** (Washington, DC: The Brookings Institution, 1999), pp. 29–45; <http://www.brook.edu/press/books/nucturn.htm>*
50. Steve Fetter, "Nuclear Strategy and Targeting Doctrine," in Harold Feiveson, ed., **The Nuclear Turning Point: A Blueprint for Deep Cuts and De-alerting of Nuclear Weapons** (Washington, DC: The Brookings Institution, 1999), pp. 47–59.*

49. Harold Feiveson and Steve Fetter, "Verifying Deep Reductions in Nuclear Forces," in Harold Feiveson, ed., *The Nuclear Turning Point: A Blueprint for Deep Cuts and De-alerting of Nuclear Weapons* (Washington, DC: The Brookings Institution, 1999), pp. 215–241.*
48. Steve Fetter, "Future Directions in Nuclear Arms Control and Verification," *INESAP Bulletin*, No. 15 (April 1998), pp. 50–54, <http://www.th-darmstadt.de/ze/ianus/inesap/no15.html>; also in Götz Neuneck, Jürgen Altmann, and Jürgen Scheffran, eds., *Nuklearwaffen—Neue Rüstungstechnologien—Verifikation von Abrüstung* (Bad Honnef, Germany: Deutsche Physikalische Gesellschaft, 1998), pp. 9–21.
47. Steve Fetter, "Climate Change and the Future of Nuclear Energy," in Carl E. Walter, ed., *The Enduring Nuclear Fuel Cycle* (Livermore, CA: Lawrence Livermore National Laboratory, 1998), pp. 32–46; <http://www.llnl.gov/tid/lof/documents/pdf/233752.pdf>
46. Steve Fetter, "Climate Change and the Transformation of World Energy Supply," SSRC–MacArthur Foundation Program on International Peace and Security Newsletter, Vol. 10 (February 1998), pp. 11–12.
45. Steve Fetter, "Verifying Nuclear Disarmament," in Joseph Rotblat, ed., *Nuclear Weapons: The Road to Zero* (Boulder, CO: Westview Press, 1998), pp. 71–100.
44. National Academy of Sciences, Committee on International Security and Arms Control, *The Future of U.S. Nuclear Weapons Policy* (Washington, DC: National Academy Press, 1997), 110 pgs; <http://www.nap.edu/readingroom/books/fun>* [committee member]
43. Steve Fetter, "Verifying Nuclear Disarmament" (Washington, DC: Henry L. Stimson Center, Occasional Paper No. 29, October 1996), 42 pgs; <http://www.stimson.org/pubs/zeronuke/fetter.pdf>; abridged version published in *INESAP Bulletin*, No. 13 (July 1997), pp. 41–43; <http://130.83.47.198/ze/ianus/inesap/no13.html>
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41. Steve Fetter, "Overview of the Desirability and Feasibility of Ballistic Missile Defenses," chapter one in Joseph Cirincione and Frank von Hippel, eds., *The Last 15 Minutes: Ballistic Missile Defense in Perspective* (Washington, DC: Coalition to Reduce Nuclear Dangers, 1996), pp. 6–15; <http://www.clw.org/pub/clw/coalition/chapter1.htm>
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35. Steve Fetter, "Reasons for Nuclear Testing," in *Towards a Comprehensive Test Ban Treaty* (Oslo: Royal Norwegian Ministry of Foreign Affairs, 1992), pp. 8–25.
34. Steve Fetter, "Control and Disposition of Nuclear-weapons Materials," presented at the International Symposium on Conversion of Nuclear Weapons for Peaceful Purposes," Rome, 15-17 June 1992.
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32. Steve Fetter, "The Effect on Nuclear Nonproliferation," in "Reversing the Arms Race: The Bush-Gorbachev Initiatives on Nuclear Weapons," CISSM Commentaries No. 4 (College Park, MD: Center for International Security Studies at Maryland, November 1991).
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28. Steve Fetter and Stanislav Rodionov, "Verifying START," in Francesco Calogero, Marvin L. Goldberger, and Sergei P. Kapitza, eds., **Verification: Monitoring Disarmament** (Boulder: Westview Press, 1991), pp. 95–121; also published in Russian (Moscow: Mir, 1991); abridged version appeared in **Public Agenda** (Fall/Winter, 1989), pp. 1–19.
27. Steve Fetter, E.T. Cheng, and F.M. Mann, "Long-term Radioactive Waste from Fusion Reactors: Part II," **Fusion Engineering and Design**, Vol. 13 (1990), pp. 239–246.*
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18. Steve Fetter, "The Effects of Nuclear Detonations and Nuclear War," in Graham T. Allison Jr., Robert D. Blackwill, Albert Carnesale, Joseph S. Nye Jr., and Robert P. Beschel Jr., eds., ***A Primer for the Nuclear Age***, Occasional Paper No. 6 (Cambridge, MA: Center for Science and International Affairs, Harvard University, 1990), pp. 23–30.
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11. John P. Holdren, et al., "Exploring the Competitive Potential of Magnetic Fusion Energy: The Interaction of Economics with Safety and Environmental Characteristics," ***Fusion Technology***, Vol. 13, No. 1 (January 1988), pp. 7–56.* (Environmental and safety calculations done by Steve Fetter.)
10. Steve Fetter, "Stockpile Confidence Under a Nuclear Test Ban," ***International Security***, Vol. 12, No. 3 (Winter 1987/88), pp. 132–167;* Steve Fetter, "An Exchange on Stockpile Confidence," ***International Security***, Vol. 13, No. 1 (Summer 1988), pp. 210–215.
9. Steve Fetter, "Would a Test Ban Strengthen SDI?" ***Bulletin of the Atomic Scientists***, Vol. 43, No. 9 (November 1987), pp. 40–41.
8. Steve Fetter, "The Radiological Hazards of Magnetic Fusion Reactors," ***Fusion Technology***, Vol. 11, No. 2 (March 1987), pp. 400–415.*
7. Steve Fetter, "The Use of Tags in Monitoring Limits on Mobile Missiles," UCID-21034 (Livermore, CA: Lawrence Livermore Laboratory, March 1987).

6. Steve Fetter and Michael M. May, "Protecting U.S. Space Assets from Anti-satellite Weapons," *Annals of the New York Academy of Sciences*, Vol. 489 (1986), pp. 18–37.
5. Steve Fetter, "A Computational Methodology for Comparing the Accident, Occupational, and Waste-Disposal Hazards of Fusion Reactor Designs," *Fusion Technology*, Vol. 8 (July 1985), pp. 1359–1366.*
4. John P. Holdren and Steve Fetter, "Contribution of Activation Products to Fusion Accident Risk: Part II. Effects of Alternative Materials and Designs," *Nuclear Technology/ Fusion*, Vol. 4, No. 3 (November 1983), pp. 599–619.*
3. Steve Fetter, "Maximum Permissible Concentrations of Radionuclides Important in Fusion Reactor Materials," ERG-82-2 (Berkeley: University of California, May 1982).
2. Steve Fetter, "The Vulnerability of Nuclear Reactors to Attack by Nuclear Weapons," PSTIS Report #7 (Cambridge: Massachusetts Institute of Technology, April 1982).
1. Steve Fetter and Kosta Tsipis, "Catastrophic Releases of Radioactivity," *Scientific American*, Vol. 244, No. 4 (April 1981), pp. 41–47.

I N V I T E D L E C T U R E S A N D O T H E R A C T I V I T I E S

Many available at <http://www.publicpolicy.umd.edu/fetter>

- "Technical capabilities and implications of THAAD deployment in Korea," bilateral meeting of Chinese Scientists Group on Arms Control and CISAC, Shanghai, China, 11/30/17.
- "Key Existing and Emerging Technologies Influencing Strategic Stability," "Prompt Global Strike: Technical and Mission Capabilities," U.S.-Russia Dialogue on Full-Scope Strategic Stability, IMEMO, Moscow, 11/7-8/17.
- "Obama's Prague Agenda: Success and Frustration," Program on Science and Global Security, Princeton University, 9/29/17.
- "New Technologies, New Threats?" Cooperative Threat Reduction Programs for the Next Ten Years and Beyond, National Academy of Sciences, Washington, DC, 9/18/17, <https://vimeo.com/album/4801186/video/237111413>.
- "The Obama Record on Nuclear Weapon Policy," CISSM Global Forum, University of Maryland, 3/30/17.
- "Science and National Security in the Obama White House," Physics Colloquium, University of Maryland, 3/28/17.
- "The impact of Japan's plutonium program on nuclear proliferation and nuclear terrorism," U.S.-Japan Nuclear Cooperation Agreement and Japan's Plutonium Policy, Tokyo, 2/23/17.
- "No First Use," Tokyo, 2/22/17.
- "Science and Public Service," Intelligence Community Academic Research Symposium, Washington, DC, 9/20/16
- "Grand Challenges in Nuclear Verification Technology and Transparency Measures," Pacific Northwest National Laboratory, 6/16/16.

- "Climate Change and National Security," Second Annual Climate Change and National Security Interagency Roundtable, Washington, DC, 6/7/16.
- "The Nonproliferation Implications of Japan's Nuclear Fuel Cycle Decisions," Center for Strategic and International Studies, Washington, DC, 11/21/14.
- Comment on "Missile Defense: Confrontation and Cooperation," CISAC-RAS meeting, Geneva, Switzerland, 6/9/2014.
- "The impact of Japan's reprocessing program on the risks of nuclear proliferation and nuclear terrorism," Asahi Shimbun-Princeton Symposium on Managing Spent Fuel: To Reprocess or Store," Tokyo, 12/5/13, http://ajw.asahi.com/article/behind_news/social_affairs/AJ201401050011.
- "Science, Technology, and Innovation Policy in the Obama Administration," Bovay Seminar in Engineering Ethics, Cornell University, 4/24/13.
- "Science in the White House," American Physical Society, Denver, 4/13/13.
- "Comments on 'Making Sense of Missile Defense'," CISAC-CAS meeting, Washington, DC, 4/10/13.
- "U.S.-Russian Cooperation on Missile Defense," CISAC-RAS meeting, Washington, DC, 4/6/13.
- "Managing the Risks of Nuclear Fuel Cycles," Bulletin of the Atomic Scientists Doomsday Clock Symposium, Washington, DC, 11/29/12.
- "Science and Technology Policy: A View from the White House," Princeton University, 11/26/12.
- "Science and Technology Policy: A View from the White House," Georgetown University, 11/15/12.
- "Science, Technology, and Innovation Policy: A View from the White House," Research Review Day, Department of Electrical and Computer Engineering, University of Maryland, 10/9/09.
- "Expanding Nuclear Energy Without Increasing the Risks of Nuclear Proliferation," 73 Jahrestagung der Deutsche Physikalische Gesellschaft, University of Hamburg, 3/5/09.
- "The Transformation of World Energy Supply: From Fossil Fuels to Carbon-free Energy," Great Decisions, Frederick, MD, 1/25/09.
- "Conventional Prompt Global Strike: Silver Bullet or Shot in the Dark?" Program on Science and Global Security, Princeton University, Princeton, NJ, 11/12/08.
- "Relationship between Multinationalization of the Fuel Cycle and Nuclear Disarmament," Workshop on Internationalizing Uranium Enrichment, MIT, Cambridge, MA, 10/21/08.
- Roundtable with Senator Voinovich and Senator Carper, "Nuclear Renaissance: Challenges and Opportunities Associated with Spent Fuel Recycling," Washington, DC, 9/25/08.
- "Contraction of Nuclear Energy Use" Pathways: Scenarios for Nuclear Energy and Nuclear Weapons in 030 and Implications for U.S. Policy, University of California, Berkeley, 9/19/08.
- "Evidence-based policy or policy-based evidence? Nuclear weapons decision making in the United States v. Europe, Euroscience Open Forum, Barcelona, 7/19/08.
- "Nuclear Power Growth: Proliferation Resistance and Physical Protection," Woodrow Wilson International Center for Scholars, 4/24/08.
- "A New Nuclear World Order: Asian Perspectives," Centre on Asia and Globalization, Lee Kwan Yew School of Public Policy, Singapore, 3/7/08.

- “Nuclear Attribution and Response: Political, Operational, and Technical Avenues for Cooperation,” U.S.-Russian Dialogue on Strategic Cooperation and Joint Crisis Management, The National Academies, Washington, DC, 11/28/07.
- “The Limits of Advanced Technology,” Workshop on Nuclear Power Growth,” Woodrow Wilson International Center for Scholars, Washington, DC, 11/28/07.
- Respondant to paper by Roy Spencer, “Manmade Global Warming, Science or Religion?” Institute on Religion and Democracy, Washington, DC, 11/14/07.
- Participant, Workshop on the Technical Challenges to Complete Nuclear Disarmament, International Institute for Strategic Studies, London, 11/8-9/07.
- “A Conversation about Science Policy,” University of Chicago, 10/31/07.
- “Climate Change and the Future of Nuclear Energy,” Physics Department Colloquium, University of Maryland, 10/30/07.
- “What Role Does Nuclear Energy Play in Global Climate Change Policy,” The Role of Nuclear Power in Global and Domestic Energy Policy,” Woodrow Wilson Center, Washington, DC, 10/3/07.
- “Advice on Nuclear Power for the Next Secretary of Energy,” Union of Concerned Scientists National Advisory Board, Washington, DC, 9/29/07.
- “Economics of Nuclear Power,” The Role of Nuclear Power, Summer Workshop, Washington and Lee University and Council on Foreign Relations, 6/23/07.
- “Responsible Use of Civil Nuclear Technology,” joint meeting between the Islamabad Policy Research Institute and the Committee on International Security and Arms Control, Bhurban, Pakistan, 6/8/07.
- “The Nonproliferation Impacts of the ‘Global Nuclear Energy Partnership’ Program, Assessing the IAEA’s Ability to Safeguard Peaceful Nuclear Energy, Paris, France, 11/13/06.
- “The Future of Nuclear Energy and Nuclear Proliferation,” Economic Forum, Krynica, Poland, 9/8/06.
- “The Climate Change Imperative and the Future of Nuclear Power,” and “Resources for the Long Term,” International Seminars on Planetary Emergencies, Erice, Italy, 8/20/06.
- “The Bush administration’s Global Nuclear Energy Partnership,” CISAC-RAS meeting, Moscow, 6/6/06.
- “Climate Change and the Future of Energy,” Prince George’s County Kiwanis Club, 5/18/06.
- “The Future of Nuclear Power,” Woodrow Wilson Center for Scholars, 4/25/06.
- “A Prohibition on Nuclear Weapons: The Best Nonproliferation Policy?” School of Public Policy, 4/6/06
- “The Bush administration’s Global Nuclear Energy Partnership,” CISAC-CSGAC meeting, Vancouver, 4/3/06.
- “Monitoring Nuclear Weapons and Nuclear Explosive Materials,” American Physical Society meeting, Baltimore, 3/13/06.
- “The Bush Nuclear Doctrine and the Case for Prohibition,” The Atlantic Council, Washington, DC, 12/8/05.
- “A Prohibition on Nuclear Weapons: The Best Nonproliferation Policy?” National Press Club, Washington, DC, 11/30/05.
- Testimony on “Economic Aspects of Nuclear Fuel Reprocessing” before Subcommittee on Energy, Committee on Science, House of Representatives, 7/12/05.

- “Monitoring Nuclear Weapons and Nuclear Explosive Materials,” Security for a New Century (bipartisan study group for Congress), 5/4/05.
- “World Fuel Cycle and Nonproliferation,” Workshop on Nuclear Energy’s Role in Meeting Future U.S. Energy Requirements, National Academy of Sciences, Washington, 3/28/05.
- “The Economics of Reprocessing and Recycle v. Direct Disposal of Spent Fuel,” Atomic Energy Commission, Tokyo, Japan, 6/1/04.
- “The Economics of Reprocessing and Recycle v. Direct Disposal of Spent Fuel,” Fukushima Energy Policy Review Council, Fukushima, Japan, 5/31/04.
- “The Economics of Reprocessing and Recycle v. Direct Disposal of Spent Fuel,” Aomori, Japan, 5/30/04.
- “A Technical Assessment of the Bush Administration Nuclear Posture Review: BMD, EPW, HDBT, ADW, and all that,” Georgetown University, 2/18/04.
- “Nuclear Materials Management in a New Era of Arms Control,” Institute of Nuclear Materials Management workshop, Washington, DC, 11/13/03.
- “Climate Change and the Transformation of World Energy Supply,” Geography Department, University of Maryland, College Park, MD, 10/23/03.
- “The Future of the Nuclear Fuel Cycle,” Stanford University, 9/18/03.
- “The Radiological Risks Associated with the Use of Depleted Uranium,” The Health Impact of Depleted Uranium Munitions, New York Academy of Medicine, 6/14/03
- “The Effects of Nuclear and Radiological Attacks,” Chesapeake Series on Homeland Security, Rayburn House Office Building, 5/19/03.
- “The Bush Administration’s Nuclear Policy: The Fallacy of the Last Move?” American Physical Society, Philadelphia, PA, 4/8/03.
- “Nuclear and Radiological Attack,” primer for journalists, National Press Club, 3/10/03
- “The Effect of the New Bush Doctrine of ‘Preemptive Action’ on U.S. Foreign Policy and Non-Proliferation Efforts,” conference on “Nuclear Policy in the Bush Era,” jointly sponsored by the Center for Defense Information and Physicians for Social Responsibility, Washington, DC, 2/27/03.
- “Climate Change and the Transformation of World Energy Supply,” Geology Department, University of Maryland, College Park, MD, 11/8/02.
- “Climate Change and the Transformation of World Energy Supply,” World Energy Policy in the 21st Century, University of Maryland, 9/17/02.
- “Climate Change: What Do We Know? What Should We Do?” League of Women Voters, Washington, DC, 9/13/02.
- Stanford Summer Study on Reducing the Risk of Erroneous or Unauthorized Launch, 8/18-23/02.
- “The Debate over National Missile Defense,” Washington Institute for Operations Research Washington Academy of Sciences, World Future Society, Washington, DC, 3/21/02.
- “The Debate over National Missile Defense,” Carnegie Institution of Washington, Washington, DC, 3/11/02.
- “Promoting Best Practices for the Security of of Nuclear Materials and Facilities,” National Institute for Advanced Studies, Bangalore, 5 March 2002.
- “Requirements for Verifying the Prohibition of Nuclear Weapons,” Department of Foreign Affairs and International Trade, Ottawa, 1/10/02.

- “Energy Sustainability: Current Realities and Future Possibilities,” 2nd National Conference on Science, Policy and the Environment, National Council for Science and the Environment, Washington, DC, 12/7/01.
- “The Science of Missile Defense,” Philosophical Society of Washington, Washington, DC, 11/9/01.
- “The Future of Strategic Nuclear Arms Control,” Max Planck Institute, Berlin, 10/26/01.
- “The Link between Environment and Security,” National Religious Partnership for the Environment, Airlie House, VA, 10/12/01.
- “The Prospects for Nuclear Power,” National Intelligence Council energy conference, College Park, MD 9/7/01.
- “North Korea’s Nuclear and Missile Programs and Capabilities,” National Security Agency, Ft. Meade, MD, 6/6/01.
- “After the Dust Settles: The Health Risks of Depleted Uranium Munitions,” CISSM Forum, University of Maryland, 3/8/01.
- “Energy and Climate Change,” Royal Institute of International Affairs, Chatham House, London, 3/16/01.
- “Possibilities for Comprehensive Nuclear Arms Reductions,” bilateral meeting of Chinese Scientists Group on Arms Control and CISAC, Irvine, CA, 3/4/01.
- “Stockpile Declarations,” SIPRI working group on transparency for fissile materials, warheads, and facilities,” Paris, 2/9/01.
- Interviews on the health effects of the use of depleted uranium munitions in Yugoslavia:
“Science Daily,” Discovery Channel Canada, broadcast 1/8/01; interview by Hans Peter Stalder, SRG Swiss Television DRS, broadcast 1/10/01; interview by Sandy McCutcheon, Radio National’s “Summer Breakfast Program,” Australian Broadcast Corporation, broadcast 1/10/01; interview by Jonathan Mann, “Insight,” Cable News Network International, broadcast 1/10/01, http://www.cnn.com/transcripts/0101/10/i_jns.00.html; Interview by David Kestenbaum, “All Things Considered,” National Public Radio, broadcast 1/11/01, <http://www.npr.org/ramfiles/atc/20010111.atc.15.rmm>; Washington Post live on-line forum, 1/17/01, http://www.washingtonpost.com/wp-srv/liveonline/01/world/fetter_011701.htm; interview by Robert Hetkaemper, ARD German television, broadcast 1/18/01.
- “Evaluation of Carbon-free Energy Sources to Mitigate Climate Change,” UNESCO Autumn School of Global Climate Changes and Impact on Biosphere, Milan, Italy, 10/11-12/00.
- “The Vulnerability of the Proposed NMD System to Countermeasures,” U.S. Army Space and Missile Defense Conference, Huntsville, AL, 8/24/00.
- “Alternatives to NMD,” Carnegie Endowment for International Peace, Washington, DC, 5/16/00
- “National Missile Defense: Same As It Ever Was,” American Physical Society meeting, Long Beach, CA, 4/30/00.
- “Climate Change and the Transformation of World Energy Supply,” Georgetown University, 4/18/00.
- “When the Dust Settles: The Hazard Posed by Depleted Uranium Munitions,” University of California, Berkeley, 4/3/00.
- “National Missile Defense,” annual meeting, Arms Control Association, Washington, DC, 3/31/00; <http://www.armscontrol.org/ACT/april00/panap00.htm>.
- “PRC and US future participation in arms control,” bilateral meeting of Scientists Group on Arms Control and CISAC, Beijing, 3/5-6/00.

- “Future of Nuclear Arms Control,” bilateral meeting of Russian and U.S. Committees on International Security and Arms Control, Moscow, 1/00.
- “Verifying a Nuclear Weapons Convention,” and “Depleted Uranium: Technical and Political Issues,” Critical Disarmament Issues, UN Centre for Disarmament Affairs and NGO Committee on Disarmament, New York, 10/29/99.
- Research and Policy Directions for Carbon Management, Harvard University, 6/14–15/99.
- “Climate Change and the Transformation of World Energy Supply,” University of Tokyo, 5/25/99.
- “Towards Nuclear Zero: Comprehensive Accounting Arrangements for Warheads and Fissile Materials, 1st Bilateral Meeting of U.S. Committee on International Security and Arms Control and Indian National Institute for Advanced Study, Bangalore, India, 5/20/99.
- “National Missile Defense,” 25th Bilateral Meeting of U.S. and Russian Committees on International Security and Arms Control, Berlin, 5/15/99.
- Seminar director, “Proliferation of Weapons of Mass Destruction;” talk on “Nuclear Weapon Design, Production, and Proliferation,” National Security Agency, Ft. Meade, MD, 5/4-5/99.
- “The Future of Nuclear Arms Control,” American Physical Society Centennial Meeting, Atlanta, 3/24/99; http://www.apscenttalks.org/pres_masterpage.cfm?nameID=166.
- “The Russian Nuclear Complex: Security in an Age of State Collapse,” University of Maryland, 3/18/99
- “Proliferation of Weapons of Mass Destruction: The Role of Russia,” and “Nuclear Materials in the former Soviet Union,” National Security Agency, Ft. Meade, MD, 3/16/99.
- “The Future of U.S. Nuclear Weapons Policy,” Princeton University, 3/9/99.
- Chair, “Policies for New and Renewable Energy,” US, Japan, Germany Energy Experts Network Meeting on National Policies and International Cooperation for Global Climate Change Mitigation: Challenges and Opportunities, University of Maryland, 2/22–23/99.
- “Climate Change and the Transformation of World Energy Supply,” Pacific Northwest Laboratories, Washington, DC, 2/18/99.
- “The Future of U.S. Nuclear Weapons Policy,” University of Chicago, 1/19/99.
- “From START II to START III and Beyond” (with Gen. William Burns), 24th Bilateral Meeting of U.S. and Russian Committees on International Security and Arms Control, Washington, 1/13–15/99.
- “Climate Change and the Future of Nuclear Energy,” Pugwash meeting no. 244, “The Prospects for Nuclear Energy,” Paris, 12/4/98.
- “Climate Change and Future Energy Supply,” Physics Department Colloquium, University of Maryland, College Park, MD, 11/17/98.
- “Energy, Environment, and International Security,” Eighth Student Pugwash USA National Conference on Science and Social Responsibility, Washington, DC, 11/12/98.
- “Nuclear Disarmament: Feasible? Verifiable?” The World at a Critical Turning Point, UN Centre for Disarmament Affairs and NGO Committee on Disarmament, New York, 10/29/98; <http://www.igc.apc.org/disarm/nukverif.html>.
- “Economics of Plutonium Recycle,” Bilateral Meeting of Chinese People’s Association for Peace and Disarmament and CISAC, Beijing, 5/26/98.
- “Non-Proliferation Aspects of Civilian plutonium Programs,” Second International Workshop on Plutonium and Global Society, Tokyo, 5/22/98.

- "Nuclear Materials in the former Soviet Union," National Security Agency, Ft. Meade, MD, 5/6/98.
- "Climate Change and the Transition to a Sustainable Energy Supply: A Role for Fusion?" Madison, WI, 4/27/98.
- "The Future of Arms Control and Verification Technologies," Annual Meeting of the German Physical Society, Regensburg, Germany, 3/26/98.
- "Climate Change and the Transition to a Sustainable Energy Supply: A Role for Fusion?" Laboratory for Plasma Research, University of Maryland, 3/4/98.
- "Climate Change and the Transition to a Sustainable Energy Supply," Energy and Resources Group, University of California, Berkeley, 2/17/98.
- "Energy R&D and Climate Change: Preparing for the Future," Annual Meeting of the American Association for the Advancement of Science, Philadelphia, PA, 2/15/98.
- "Global Environmental Trends," National Security Agency, Ft. Meade, MD, 2/10/98.
- "Tactical Nuclear Weapons," Workshop on the Future of Russian-US Strategic Arms Reductions: START III and Beyond, Cambridge, MA, 2/2-5/98.
- "The Transparency and Verification Issues Involved in the Transition to a Nuclear Arms Reductions Regime Based on Controlling All Warheads," Bilateral Meeting of U.S. and Russian Committees on International Security and Arms Control, Moscow, 1/14–16/98.
- "Climate Change and Nuclear Energy," American Nuclear Society Winter meeting, Albuquerque, NM, 11/18/97.
- "Climate Change and the Future of Nuclear Energy," Los Alamos National Laboratory, Los Alamos, NM, 11/17/97.
- "Nuclear Materials in the former Soviet Union," National Security Agency, Ft. Meade, MD, 10/15/97.
- "Climate Change and the Transition to a Sustainable Energy Supply," Center for Energy and Environmental Studies, Princeton University, 9/14/97.
- Rapporteur, Pugwash Symposium on Science and World Affairs, Lillehammer, Norway, 8/1-8/97; <http://www.fas.org/cusp/alert/pugwash.htm>.
- "Climate Change and the Transition to a Sustainable Energy Supply," Energy Analysis Division, Lawrence Berkeley National Laboratory, 7/3/97.
- "Climate Change and the Transition to a Sustainable Energy Supply," Kennedy School of Government, Harvard University, 6/19/97.
- "The Future of U.S. Nuclear Weapons Policy," Center for Nonproliferation Studies, Monterey Institute of International Studies, 6/5/97.
- "Economics and Timing of Transition to Plutonium Recycle and Breeder Reactors," Bilateral Meeting of Chinese People's Association for Peace and Disarmament and CISAC, Beijing, 5/19/97.
- "Verifying Nuclear Disarmament," 25th Pugwash Workshop on Nuclear Forces, London, 10/27/96; press conference, 10/28/96.
- "North Korea: A Case Study in Proliferation and Nonproliferation" Carnegie-Mellon University, 10/22/96.
- "Characteristics and Technical Capabilities of U.S. Ballistic-Missile Defense Programs," Bilateral Meeting of Chinese People's Association for Peace and Disarmament and CISAC, Washington, 10/21/96.

- “What Might A Warhead Verification Regime Look Like,” 10th ACDA Conference on Stability and the Offense-Defense Relationship, Airlie, VA, 10/9/96.
- “Nuclear Power and Nonproliferation,” Center for National Policy workshop on The Future of Nuclear Power in the United States, Washington, DC, 6/26/96.
- “Verifying Nuclear Disarmament,” Council on Foreign Relations Nuclear Study Group, Washington, DC, 4/24/96.
- International Expert Task Force for the Moscow Nuclear Safety Summit, Moscow, 4/17–18/96.
- “Assessing the Feasibility and the Desirability of Ballistic Missile Defenses,” American Association for the Advancement of Sciences, Baltimore, 2/10/96.
- “North Korea: A Case Study in Proliferation and Nonproliferation” Grinnell College, 2/6/96.
- “The Clinton Administration’s Response to the North Korean Nuclear Program,” Stanford University, 8/15/95.
- “Controlling Missile Technology: The Future of Cruise Missile Proliferation,” Bilateral Meeting of CISAC and Russian counterpart group, Moscow, 5/29–31/95.
- “Controlling Nuclear Materials,” Roundtable on controlling nuclear materials in the former Soviet Union, Foreign Service Institute, Arlington, VA, 5/23/95.
- “Future of the Russian Weapon Laboratories,” State Department-sponsored workshop at Meridian Corporation, Washington, DC, 5/7/95.
- “Controlling Missile Technology: China’s Role in South Asia,” Bilateral Meeting of Chinese People’s Association for Peace and Disarmament and CISAC, Beijing, 4/18–20/95.
- Chair of working group on proliferation and plenary session on conventional arms control, ACDA conference on the future of arms control, University of Maryland, 3/31/95.
- “The Clinton Administration’s Nuclear Posture Review,” Pugwash Workshop on the Future of the Nuclear Weapon Complexes of the USA and Russia, Moscow, 2/20–22/95.
- “The Clinton Administration’s Response to the North Korean Nuclear Crisis,” University of Maryland, 2/16/95.
- “The Clinton Administration’s Nuclear Posture Review,” 23rd Pugwash Workshop on Nuclear Forces, Geneva, 12/10–11/94.
- “The North Korean Nuclear Program: How Will It End?” Defense and Arms Control Studies Program, Massachusetts Institute of Technology, 10/19/94.
- “The Atom in the New World Order: The Changing Role of Nuclear Weapons and Nuclear Power,” Allegheny College, 10/10/94.
- International Seminar on Nuclear Security Problems, Kiev, 12/17/92.
- Workshop on the Future of Reprocessing and Arrangements for the Storage and Disposition of Separated Plutonium, Moscow, 12/14–16/92.
- Rapporteur, 1992 Global Change Institute, Industrial Ecology and Global Change, Snowmass, CO, 7/19-31/92.
- International Workshop on the Disposal of Plutonium from Retired Warheads, King’s College, London, 6/18/92.
- International Symposium on Conversion of Nuclear Warheads for Peaceful Purposes, Rome, 6/15-17/92.
- Rapporteur, Bilateral Meeting on Defense Conversion, University of Maryland, 5/13-15/92.
- Debate on Technical Aspects of a CTB, Congressional Research Service, 4/13/92.

Workshop on a Comprehensive Nuclear Test Ban, Norwegian Ministry of Foreign Affairs, Oslo, 3/30-31/92.

"Arms Control After the Collapse of the Soviet Union," Physics Colloquium, University of Maryland, 2/18/92.

UCS Workshop on Limited Defenses, Washington, DC, 1/21/92.

Workshop on Safeguarded Storage and Dismantlement of Nuclear Warheads, Moscow and Kiev, 12/16-20/91.

"Nuclear Archeology," Brookhaven National Laboratory, 8/14/91.

"Warhead Arms Control," Physics Colloquium, Argonne National Laboratory, 7/19/91.

Workshop on "Western Nuclear Policy and the New Geopolitical Context," Airlie House, VA, 6/13-16/91.

Workshop on "Regional Security Regimes: Building a Conventional Arms Control Regime in the Balkans," Bulgaria, 5/29-6/3/91.

"Naval Arms Control," AAAS Annual Meeting, Washington, DC, 2/16/91.

"Ballistic-missile Proliferation," Second International Summer School on Science and World Affairs, Princeton University, 8/12/90.

US-USSR Conference on Nuclear Testing Policy, Moscow, 5/28-29/90.

International Citizens Congress for a Nuclear Test Ban, Alma Ata, USSR, 5/24-26/90.

"Black Sea Experiment," Physics Department, Ohio State University, 2/6/90.

"Black Sea Experiment," Idaho National Engineering Laboratory, 1/9/90.

"Black Sea Experiment," National Bureau of Standards, 1/4/90.

"Black Sea Experiment," Engineering and Public Policy Program, Carnegie-Mellon University, 11/3/89.

"Black Sea Experiment," Peace Studies Program, Cornell University, 10/18/89.

"Black Sea Experiment," Naval Research Laboratory, 8/15/89.

"Black Sea Experiment," Lawrence Livermore National Laboratory, 8/11/89.

Rapporteur, Pugwash Symposium on Science and World Affairs, Cambridge, MA, 7/23-28/89.

"Black Sea Experiment," Argonne National Laboratory, 7/14/89.

Workshop on CFE Verification, Stockholm Peace Research Institute, 5/18-19/89.

"Toward a Comprehensive Test Ban," American Physical Society Meeting, Baltimore, 5/2/89.

"Toward a Comprehensive Test Ban," Physical Sciences Colloquium Series, Thomas J. Watson IBM Research Center, 3/28/89.

"The Environmental Aspects of Fusion Energy," Laboratory for Plasma Research Seminar, University of Maryland, 1/30/89.

"Toward a Comprehensive Test Ban," Center for Political Studies Seminar, University of Michigan, Ann Arbor, 12/14/88.

Workshop on Verification of Nuclear and Conventional Arms Reductions, London, 11/30-12/2/88.

Conference on the Limited Test Ban Treaty at 25, Cambridge, MA, 11/10-11/12/88.

Conference on the Role of Scientists in the Making of National Security Policy, University of Illinois, Champaign, 10/28-10/29/88.

Annual Conference on the Technology of Fusion Energy, Salt Lake City, 10/10-10/13/88.

Belmont Conference on Nuclear Testing Policy, Baltimore, 9/29-10/1/88.

New Faces Conference, Bellagio, Italy, 6/13-6/17/88.

Conference on International Peace and Security Studies, Social Science Research Council, New York, 11/20-11/22/87.

Summer Seminar on Global Security and Arms Control, University of California Institute on Global Conflict and Cooperation, Santa Barbara, 6/16-6/30/86.

Bishop of Oakland's Colloquium on Ethics and Deterrence, 5/6/86.

P E R S O N A L

Born and raised in central Pennsylvania, Steve was the first member of his family to receive a high school diploma and the first to attend college. He enjoys cooking, hiking, bicycling, and kayaking. He has been married since 1980 to Marie Fetter, a nurse-practitioner and certified nurse-midwife at Mary's Center. Their daughter Emily is an attorney in the U.S. Securities and Exchange Commission Division of Enforcement; their son Max is a student at the University of Maryland.