

# Curriculum Vitae

## Matthew Bunn

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Belfer Center for Science and International Affairs  
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### *Academic and Professional Positions*

HARVARD KENNEDY SCHOOL	CAMBRIDGE, MA
James R. Schlesinger Professor of the Practice of Energy, National Security, and Foreign Policy, 2020- Professor of Practice, 2013-2020 Associate Professor of Public Policy, 2008-2013 Senior Research Associate, 2002-2008 Assistant Director, Science, Technology, and Public Policy Program, 1997-2001	
OFFICE OF SCIENCE AND TECHNOLOGY POLICY Advisor, 1994-1996	WASHINGTON, D.C.
NATIONAL ACADEMY OF SCIENCES Study Director, 1992-1996	WASHINGTON, D.C.
ARMS CONTROL ASSOCIATION Editor, <i>Arms Control Today</i> , and Associate Director for Publications, 1990-1992 Senior Research Analyst, 1986-1990	WASHINGTON, D.C.
MASSACHUSETTS INSTITUTE OF TECHNOLOGY Research Fellow, Center for International Studies, 1985-1986 Research Associate, Program in Science and Technology for International Security, 1981-1985	CAMBRIDGE, MA

### *Education*

MASSACHUSETTS INSTITUTE OF TECHNOLOGY Ph.D. in Technology, Management, and Policy, 2007 Dissertation: "Guardians at the Gates of Hell: Estimating the Risks of Nuclear Theft and Terrorism, and Identifying the Highest-Priority Risks of Nuclear Theft." SM and SB in Political Science, specializing in defense and arms control, 1985 Thesis: "Strategic Stability: Theory and Measurement for Arms Control."	CAMBRIDGE, MA
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### *Honors*

Fellow, American Association for the Advancement of Science  
 Joseph A. Burton Forum Award, American Physical Society (2007)  
 Hans Bethe Award, Federation of American Scientists (2007)

### *Other Professional Activities*

Committee on International Security and Arms Control, National Academy of Sciences, 2014-  
 Nuclear Energy Advisory Committee, U.S. Department of Energy, 2011-  
 Board of Directors, Arms Control Association, 1999-  
 Steering Committee, Fissile Material Working Group, 2009-  
 Advisory Committee, Nuclear Innovation Alliance, 2018-  
 MacArthur Foundation, Nuclear Challenges External Advisor, 2016-2019  
 Strategic Advisory Board, Global Security Directorate, Oak Ridge National Laboratory, 2018-  
 2019  
 Task Force on Nuclear Nonproliferation, Secretary of Energy Advisory Board, 2013-2015  
 Co-author, chapter on “Nuclear Energy,” Global Energy Assessment, International Institute for  
 Applied Systems Analysis, 2008-2011  
 Editorial Board, *Innovations: Technology, Governance, Globalization*, 2005-2010  
 Board of Directors, Partnership for Global Security, 1997-2011  
 Committee on Internationalization of the Civilian Nuclear Fuel Cycle, National Academy of  
 Sciences-Russian Academy of Sciences, 2006-2008  
 Principal drafter, Commission of Eminent Persons, International Atomic Energy Agency, 2007-  
 2008  
 Board of Directors, Center for Arms Control and Nonproliferation, 1998-2006  
 Advisory Committee on Nuclear Nonproliferation, University of Chicago, 2004  
 Task Force on Technological Opportunities for Proliferation-Resistant Systems, Nuclear Energy  
 Research Advisory Committee, U.S. Department of Energy, 1999-2000  
 Co-author, chapter on “Advanced Energy Supply Technologies,” World Energy Assessment, UN  
 Environmental Program, 1998-2000  
 Chair, Immobilization Form Peer Review Panel, Lawrence Livermore National Laboratory, 1997  
 U.S. Executive Secretary, U.S.-Russian Independent Scientific Commission on Disposition of  
 Excess Weapons Plutonium, 1996-1997

### *Selected Consulting*

Macarthur Foundation, Nuclear Threat Initiative, Oak Ridge National Laboratory, Pacific  
 Northwest National Laboratory, Lawrence Livermore National Laboratory, Brookhaven National  
 Laboratory, Bechtel National Corporation

### *Selected Reviewing*

National Research Council; *Proceedings of the National Academy of Sciences*; *International  
 Security*; *Science*; *Energy Policy*; *Nonproliferation Review*; *Science and Global Security*; MIT  
 Press; Stanford University Press.

## Matthew Bunn

### Publications

#### Peer-Reviewed Books

Matthew Bunn, *The Gates of Hell: Guarding Against Nuclear Theft and Terrorism* (Cambridge, Mass.: MIT Press, under contract).

Matthew Bunn, Martin B. Malin, William C. Potter, and Leonard S. Spector, eds., *Preventing Black-Market Trade in Nuclear Technology* (Cambridge, U.K.: Cambridge University Press, 2018). 363 pp.

Matthew Bunn and Scott D. Sagan, eds., *Insider Threats* (Ithaca, N.Y.: Cornell University Press, 2017). 216 pp.

Laura Diaz Anadon, Matthew Bunn, and Venkatesh Narayanamurti, eds, *Transforming U.S. Energy Innovation* (Cambridge, U.K.: Cambridge University Press, 2014). 231 pp.

#### Other Books and Major Reports

Matthew Bunn, Nickolas Roth, and William H. Tobey, *Revitalizing Nuclear Security in an Era of Uncertainty* (Cambridge, Mass.: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, January 2019). 206 pp.

Matthew Bunn, William H. Tobey, Martin B. Malin, and Nickolas Roth, *Preventing Nuclear Terrorism: Continuous Improvement or Dangerous Decline?* (Cambridge, Mass.: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, March 2016). 152 pp.

Matthew Bunn, Hui Zhang, and Li Kang, *The Cost of Reprocessing in China* (Cambridge, Mass.: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, January 2016). 84 pp.

Laura Diaz Anadon, Matthew Bunn, Gabriel Chan, Melissa Chan, Charles Jones, Ruud Kempener, Audrey Lee, Nathaniel Logar, and Venkatesh Narayanamurti, *Transforming U.S. Energy Innovation* (Cambridge, Mass.: Energy Technology Innovation Policy, Belfer Center for Science and International Affairs, Harvard Kennedy School, November 2011). 340 pp.

Matthew Bunn and Vyacheslav P. Kuznetsov, directors, and Graham T. Allison, Andrei Yu. Gagarinski, Martin B. Malin, Steven E. Miller, Andrew Newman, Nikolai N. Ponomarev-Stepnoi, Vladimir M. Schmelev, William H. Tobey, Victor F. Tsibulski, and Evgeniy P. Velikhov, *Promoting Safe, Secure, and Peaceful Growth of Nuclear Energy: Next Steps for Russia and the United States* (Cambridge, Mass.: Belfer Center for Science and International Affairs, Harvard Kennedy School, and Russian Research Center “Kurchatov Institute,” October 2010). 73 pp.

Matthew Bunn, Anatoli Diakov, Ming Ding, Tadahiro Katsuta, Charles McCombie, M.V. Ramana, Tatsujiro Suzuki, Susan Voss, and Suyuan Yu, Frank von Hippel, ed., *The Uncertain Future of Nuclear Energy* (Princeton: International Panel on Fissile Materials, September 2010). 107 pp.

Matthew Bunn, *Securing the Bomb 2010: Securing All Nuclear Materials in Four Years* (Cambridge, Mass., and Washington, D.C.: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, and Nuclear Threat Initiative, April 2010). 115 pp.

U.S. Committee on Internationalization of the Civilian Nuclear Fuel Cycle, National Academy of Sciences and National Research Council, and Russian Committee on Internationalization of the Nuclear Fuel Cycle, Russian Academy of Sciences, *Internationalization of the Nuclear Fuel Cycle: Goals, Strategies, and Challenges* (Washington, D.C.: National Academy Press, 2009) 206 pp. (Matthew Bunn, U.S. committee member.)

Matthew Bunn, *Securing the Bomb 2008* (Cambridge, Mass., and Washington, D.C.: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, and Nuclear Threat Initiative, November 2008). 183 pp.

Matthew Bunn, *Securing the Bomb 2007* (Cambridge, Mass., and Washington, D.C.: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, and Nuclear Threat Initiative, September 2007). 166 pp.

Matthew Bunn and Anthony Wier, *Securing the Bomb 2006* (Cambridge, Mass., and Washington, D.C.: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, and Nuclear Threat Initiative, July 2006). 171 pp.

Matthew Bunn and Anthony Wier, *Securing the Bomb 2005: The New Global Imperatives* (Cambridge, Mass., and Washington, D.C.: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, and Nuclear Threat Initiative, May 2005). 121 pp.

Matthew Bunn and Anthony Wier, *Securing the Bomb: An Agenda for Action* (Washington, D.C.: Nuclear Threat Initiative and the Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School May 2004). 109 pp.

Matthew Bunn, Steve Fetter, John P. Holdren, and Bob van der Zwaan, *The Economics of Reprocessing vs. Direct Disposal of Spent Nuclear Fuel* (Cambridge, MA: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, December 2003). 117 pp.

Matthew Bunn, Anthony Wier, and John P. Holdren, *Controlling Nuclear Warheads and Materials: A Report Card and Action Plan* (Washington, D.C.: Nuclear Threat Initiative and the Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, March 2003). 189 pp.

Matthew Bunn, John P. Holdren and Anthony Wier, *Securing Nuclear Weapons and Materials: Seven Steps for Immediate Action* (Cambridge, MA: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, and Nuclear Threat Initiative, May 2002). 78 pp.

Matthew Bunn, John P. Holdren, Allison Macfarlane, Susan E. Pickett, Atsuyuki Suzuki, Tatsujiro Suzuki, and Jennifer Weeks, *Interim Storage of Spent Nuclear Fuel: A Safe, Flexible, and Cost-Effective Approach to Spent Fuel Management* (Cambridge, MA: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, and Project on Sociotechnics of Nuclear Energy, University of Tokyo, June 2001). 127 pp.

Oleg Bukharin, Matthew Bunn, and Kenneth N. Luongo, *Renewing the Partnership: Recommendations for Accelerated Action to Secure Nuclear Material in the Former Soviet Union* (Washington, DC: Russian-American Nuclear Security Advisory Council, August 2000). 88 pp.

Matthew Bunn, *The Next Wave: Urgently Needed New Steps to Control Warheads and Fissile Material* (Washington DC: Carnegie Endowment for International Peace and Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, April 2000). 109 pp.

*Nonproliferation and Arms Control Assessment of Weapons-Usable Fissile Material Storage and Excess Plutonium Disposition Alternatives*, DOE/NN-0007 (Washington DC: U.S. Department of Energy, January 1997). 232 pp. (Matthew Bunn, principal author.)

Panel on U.S.-FSU Cooperation to Protect, Control, and Account for Weapons-Usable Nuclear Materials, President's Committee of Advisors on Science and Technology, *Securing Weapons-Usable Nuclear Materials in the Former Soviet Union: Urgent Measures to Prevent Nuclear Proliferation (U)*. (Washington DC: Office of Science and Technology Policy, March 28, 1995). (Secret/Noform.) (Matthew Bunn, Study Director.)

Panel on Reactor-Related Options for the Disposition of Excess Weapons Plutonium, Committee on International Security and Arms Control, National Academy of Sciences, *Management and Disposition of Excess Weapons Plutonium: Reactor-Related Options* (Washington DC: National Academy Press, 1995). 418 pp. (Matthew Bunn, Study Director.)

Committee on International Security and Arms Control, National Academy of Sciences, *Management and Disposition of Excess Weapons Plutonium* (Washington DC: National Academy Press, 1994). 275 pp. (Matthew Bunn, Study Director.)

Matthew Bunn, *Foundation for the Future: The ABM Treaty and National Security*. (Washington, DC: Arms Control Association, June 1990). 222 pp.

Matthew Bunn, *Technology of Ballistic Missile Reentry Vehicles* (Cambridge, MA: Program in Science and Technology for International Security, Report # 11, Massachusetts Institute of Technology, March 1984). 82 pp. (Also published in Kosta Tsipis and Penny Janeway, eds., *Review of U.S. Military Research and Development: 1984* (Washington DC: Pergamon-Brassey's, 1984).)

Matthew Bunn and Kosta Tsipis, *Ballistic Missile Guidance and Technical Uncertainties of Countersilo Attacks* (Cambridge, MA: Program in Science and Technology for International Security, Report #9, Massachusetts Institute of Technology, August 1983). 164 pp.

### Peer-Reviewed Journal Articles

Matthew Bunn and Dmitri Kovchegin, "Nuclear Security in Russia: Can Progress be Sustained?" *Nonproliferation Review*, Vol. 24, No. 5-6 (Spring 2018), pp. 527-551.

Matthew Bunn and Kathryn M. Glynn, "Preventing Insider Theft: Lessons From the Casino and Pharmaceutical Industries," *Journal of Nuclear Materials Management*, Vol. 41, No. 3 (Spring 2013), pp. 4-16.

Laura Diaz Anadon, Valentina Bosetti, Matthew Bunn, Michela Catenacci, and Audrey Lee, "Expert Judgments about RD&D and the Future of Nuclear Energy," *Environmental Science & Technology*, Vol. 46, No. 21 (November 2012), pp. 11497-11504.

Matthew Bunn and Olli Heinonen, "Preventing the Next Fukushima," *Science*, Vol. 333 (16 September 2011), pp. 1580-1581.

Matthew Bunn and E.P. Maslin, "All Stocks of Weapons-Usable Nuclear Materials Worldwide Must be Protected Against Global Terrorist Threats," *Journal of Nuclear Materials Management*, Vol. 39, No. 2 (Winter 2011), pp. 21-27.

Matthew Bunn, "A Mathematical Model of the Risk of Nuclear Terrorism," *Annals of the American Academy of Political and Social Science*, Vol. 607 (September 2006), pp. 103-120.

Matthew Bunn and Anthony Wier, "Terrorist Nuclear Weapon Construction: How Difficult?" *Annals of the American Academy of Political and Social Science*, Vol. 607, September 2006, pp. 133-149.

Matthew Bunn, Steve Fetter, John P. Holdren, and Bob van der Zwaan, "The Economics of Reprocessing v. Direct Disposal of Spent Nuclear Fuel," *Nuclear Technology*, Vol. 150, No. 3 (June 2005), pp. 209-230.

Matthew Bunn, "Securing Nuclear Warheads and Materials: Seven Steps for Immediate Action," *Austrian Military Periodical*, Special Edition, Proceedings of the EU-High Level Scientific International Conference on Strengthening global Practices for Protecting Nuclear Material (NUMAT), 2003, pp. 102-105.

Matthew Bunn and George Bunn, "Strengthening Nuclear Security Against Post-September 11 Threats of Theft and Sabotage," *Journal of Nuclear Materials Management*, Vol. 30, No. 3 (Spring 2002), pp. 48-60.

Matthew Bunn and John P. Holdren, "Managing Military Uranium and Plutonium in the United States and the Former Soviet Union," *Annual Review of Energy and the Environment*, Vol. 22, 1997, pp. 403-486.

### Magazine Articles, Book Chapters, Reviews, and Short Reports

Matthew Bunn, "Enabling a Significant Nuclear Role in China's Decarbonization: Loosening Constraints, Mitigating Risks," in Daniel P. Schrag and Henry Lee, *Decarbonizing China's Energy System* (forthcoming).

Mariana Budjeryn and Matthew Bunn, “Budapest Memorandum at 25: Between Past and Future” (Cambridge, Mass.: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, March 2020). 20 pp.

Matthew Bunn and Nickolas Roth, “The Past and Potential Role of Civil Society in Nuclear Security,” CN-278-586, International Conference on Nuclear Security: Sustaining and Strengthening Efforts, International Atomic Energy Agency, Vienna, Austria, February 10-14, 2020.

Matthew Bunn, “The Need for Creative and Effective Vulnerability Assessment and Testing,” CN-278-587, International Conference on Nuclear Security: Sustaining and Strengthening Efforts, International Atomic Energy Agency, Vienna, Austria, February 10-14, 2020.

Nickolas Roth and Matthew Bunn, “Assessing Progress on Nuclear Security Action Plans,” CN-278-605, International Conference on Nuclear Security: Sustaining and Strengthening Efforts, International Atomic Energy Agency, Vienna, Austria, February 10-14, 2020.

Matthew Bunn, “In Memoriam: Roland Timerbaev (1927-2019): At the Vanguard of Nuclear Nonproliferation,” *Arms Control Today*, September 2019.

Aaron Arnold, Matthew Bunn, Caitlin Chase, Steven E. Miller, Rolf Mowatt-Larsen, and William H. Tobey, *The Iran Nuclear Archive: Impressions and Implications* (Cambridge, Mass: Belfer Center for Science and International Affairs, Harvard Kennedy School, April 2019). 26 pp.

Matthew Bunn, “Nuclear Disarmament, Nuclear Energy, and Climate Change: Exploring the Linkages,” in Bård Nikolas Vik Steen and Olav Njølstad, eds., *Nuclear Disarmament: A Critical Assessment* (Oxon, England: Routledge, March 2019), pp. 185-204.

Matthew Bunn, “Governance of Solar Geoengineering: Learning from Nuclear Regimes,” in Robert N. Stavins and Robert C. Stowe, eds., *Governance of the Deployment of Solar Geoengineering* (Cambridge, Mass.: Harvard Project on Climate Agreements, February 2019), pp. 51-54.

Matthew Bunn and William C. Potter, “Introduction: The Problem of Black-Market Nuclear Technology Networks,” in Matthew Bunn, Martin B. Malin, William C. Potter, and Leonard S. Spector, eds., *Preventing Black-Market Trade in Nuclear Technology* (Cambridge, U.K.: Cambridge University Press, 2018), pp. 1-22.

Matthew Bunn, “Countering Nuclear Black Markets by Strengthening Nonproliferation Culture,” in Matthew Bunn, Martin B. Malin, William C. Potter, and Leonard S. Spector, eds., *Preventing Black-Market Trade in Nuclear Technology* (Cambridge, U.K.: Cambridge University Press, 2018), pp. 249-270.

Martin B. Malin, Matthew Bunn, Leonard S. Spector, and William C. Potter, “Conclusion: Stopping Illicit Trade in Nuclear Technology: Progress, Gaps, and Next Steps,” in Matthew Bunn, Martin B. Malin, William C. Potter, and Leonard S. Spector, eds., *Preventing Black-Market Trade in Nuclear Technology* (Cambridge, U.K.: Cambridge University Press, 2018), pp. 323-364.

Matthew Bunn, Nickolas Roth, and William H. Tobey, “Protecting Nuclear Materials and Facilities Against the Full Spectrum of Plausible Threats,” IAEA-CN-254-262, International Atomic Energy Agency, “International Conference on Physical Protection of Nuclear Materials and Nuclear Facilities,” November 13-17, 2017.

Matthew Bunn, “Scenarios of Insider Threats to Japan’s Nuclear Facilities and Materials – and Steps to Strengthen Protection,” NAPSNET Special Report (San Francisco, Calif.: Nautilus Institute, November 2, 2017).

Matthew Bunn and Nickolas Roth, “The Effects of a Single Terrorist Nuclear Bomb,” *Bulletin of the Atomic Scientists*, September 28, 2017.

Matthew Bunn and Nickolas Roth, “Preventing Nuclear Catastrophe: Strengthening DOE Nuclear Nonproliferation Programs,” in *Proceedings of the 58<sup>th</sup> Annual Meeting of the Institute for Nuclear Materials Management, July 16-20, 2017* (Mount Laurel, N.J.: INMM, 2017).

Matthew Bunn, “Steps for Rebuilding U.S.-Russian Nuclear Security Cooperation,” in *Proceedings of the 58<sup>th</sup> Annual Meeting of the Institute for Nuclear Materials Management, July 16-20, 2017* (Mount Laurel, N.J.: INMM, 2017).

Matthew Bunn, “Nuclear Terrorism: How Big is the Risk to Japan?” NAPSNET Special Report (San Francisco, Calif.: Nautilus Institute, June 8, 2017)

Matthew Bunn and Scott D. Sagan, “Introduction: Inside the Insider Threat,” in Bunn and Sagan, eds., *Insider Threats* (Ithaca, N.Y.: Cornell University Press, 2017), pp. 1-9.

Matthew Bunn and Kathryn M. Glynn, “Preventing Insider Theft: Lessons from the Casino and Pharmaceutical Industries,” in Bunn and Sagan, eds., *Insider Threats*, pp. 121-144.

Matthew Bunn and Scott D. Sagan, “A Worst Practices Guide to Insider Threats,” in Bunn and Sagan, eds., *Insider Threats*, pp. 145-174.

Matthew Bunn, “Evolving State and Nonstate Proliferation Threats and Strengthening UNSCR 1540’s Role in Overcoming Them,” *1540 Compass*, Winter 2016, pp. 15-17.

Matthew Bunn, Martin B. Malin, Nickolas Roth, and William H. Tobey, “Key Steps for Continuing Nuclear Security Progress,” CN-244-574, International Conference on Nuclear Security: Commitments and Actions, International Atomic Energy Agency, Vienna, Austria, December 5-9, 2016.

Matthew Bunn, review of *Doomed to Cooperate: How American and Russian Scientists Joined Forces to Avert Some of the Greatest Post-Cold-War Nuclear Dangers*, *Physics Today*, November 2016, p. 56.

Matthew Bunn and Nicholas Roth, “Reducing the Risks of Nuclear Theft and Terrorism,” in Joseph F. Pilat and Nathan E. Busch, eds., *Routledge Handbook of Nuclear Proliferation and Policy* (London: Routledge, 2015), pp. 419-429.

Gary Samore, ed., *The Iran Nuclear Deal: A Definitive Guide* (Cambridge, Mass.: Belfer Center for Science and International Affairs, Harvard Kennedy School, August 2015). (Matthew Bunn, contributor.) 68 pp.



Matthew Bunn, “Unmaking the Bomb: A Fissile Material Approach to Nuclear Disarmament and Nonproliferation (Book Review),” *Physics Today*, Vol. 68, Issue 5 (May 2015), p. 50.

Gary Samore, ed., *Decoding the Iran Nuclear Deal: Key Questions, Points of Divergence, Pros and Cons, Pending Legislation, and Essential Facts* (Cambridge, Mass.: Belfer Center for Science and International Affairs, Harvard Kennedy School, April 2015). 60 pp. (Matthew Bunn, contributor.)

Secretary of Energy Advisory Board Task Force on Nuclear Nonproliferation, *Report of the Task Force on Nuclear Nonproliferation* (Washington, D.C.: U.S. Department of Energy, 31 March 2015). 53 pp. (Matthew Bunn, Task Force member.)

Matthew Bunn, Nickolas Roth and William H. Tobey, “Cutting Too Deep: The Obama Administration’s Proposals for Nuclear Security Spending Reductions” (Cambridge, Mass.: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, July 2014). 32 pp.

Matthew Bunn and Scott Sagan. “A Worst Practices Guide to Insider Threats: Lessons from Past Mistakes” (Cambridge, Mass: Occasional Paper, American Academy of Arts and Sciences, April 2014). 21 pp.

Matthew Bunn, Martin B. Malin, Nickolas Roth, and William H. Tobey. *Advancing Nuclear Security: Evaluating Progress and Setting New Goals* (Cambridge, Mass.: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, March 2014). 77 pp.

Matthew Bunn and Eben Harrell, *Threat Perceptions and Drivers of Change in Nuclear Security Around the World: Results of a Survey* (Cambridge, Mass.: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, March 2014). 36 pp.

Matthew Bunn, Valentin Kuznetsov, Martin B. Malin, Yuri Morozov, Simon Saradzhyan, William H. Tobey, Viktor I. Yesin, and Pavel S. Zolotarev, “Steps to Prevent Nuclear Terrorism: Recommendations Based on the U.S.-Russia Joint Threat Assessment” (Cambridge, Mass.: Belfer Center for Science and International Affairs, Harvard Kennedy School, and Institute for U.S. and Canadian Studies, October 2013). 19 pp.

Matthew Bunn, Valentin Kuznetsov, Yuri Morozov, Gary Samore, Simon Saradzhyan, William H. Tobey, Viktor I. Yesin, and Pavel S. Zolotarev, “Transcending Mutual Deterrence in the U.S.-Russian Relationship” (Cambridge, Mass.: Belfer Center for Science and International Affairs, Harvard Kennedy School, and Institute for U.S. and Canadian Studies, September 2013). 25 pp.

Matthew Bunn, “Beyond Crises: The Unending Challenge of Controlling Nuclear Weapons and Materials,” in Henry Sokolski and Bruno Tetrakis, eds., *Nuclear Weapons Security Crises: What Does History Teach?* (Carlisle, Penn.: Strategic Studies Institute, U.S. Army War College, 2013), pp. 253-278.

Matthew Bunn and Eben Harrell, “Drivers of Change in Nuclear Security Policies: Results of a Survey,” in *Proceedings of the Institute for Nuclear Materials Management 54<sup>th</sup> Annual Meeting*, Palm Desert, Calif., 14-18 July 2013 (Deerfield, IL: INMM, 2013).

Matthew Bunn, “Strengthening Global Approaches to Nuclear Security,” in *Proceedings of the Institute for Nuclear Materials Management 54<sup>th</sup> Annual Meeting*, Palm Desert, Calif., 14-18 July 2013 (Deerfield, IL: INMM, 2013).

Matthew Bunn, “Strengthening Global Approaches to Nuclear Security,” IAEA-CN-203-298, in *Proceedings of International Nuclear Security: Enhancing Global Efforts*, Vienna, July 1-5, 2013 (Vienna: International Atomic Energy Agency, 2013).

Matthew Bunn, “The Threat of Nuclear Terrorism is Real,” in Stuart Gottlieb, ed., *Debating Terrorism and Counterterrorism*, 2<sup>nd</sup> ed. (Washington, D.C.: Congressional Quarterly Press, 2013), pp. 174-187.

Frank von Hippel (convening lead author), Matthew Bunn, Anatoli Diakov, Ming Ding, Robert Goldston, Tadahiro Katsuta, M.V. Ramana, Tatsujiro Suzuki, Suyuan Yu (lead authors), and Charles McCombie (contributing author) “Nuclear Energy,” in Thomas B. Johansson, Anand Patwardhan, Nebojsa Nakicenovic, and Luis Gomez-Echeverri, eds., *Global Energy Assessment: Toward a Sustainable Future* (Cambridge: Cambridge University Press for the International Institute for Applied Systems Analysis, 2012), pp. 1069-1129.

Matthew Bunn, Eben Harrell, and Martin B. Malin, “Progress on Securing Nuclear Weapons and Materials: The Four-Year Effort and Beyond” (Cambridge, Mass.: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, March 2012). 31 pp.

Matthew Bunn and Eben Harrell, *Consolidation: Thwarting Nuclear Theft* (Cambridge, Mass.: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, March 2012). 50 pp.

Matthew Bunn, “Reducing Nuclear Dangers” (review of Ron Rosenbaum, *How the End Begins: The Road to a Nuclear World War III*), *Issues in Science and Technology*, Winter 2012, pp. 93-95.

Matthew Bunn, Yuri Morozov, Rolf Mowatt-Larssen, Simon Saradzhyan, William Tobey, Viktor I. Yesin, and Pavel S. Zolotarev, *The U.S.-Russia Joint Threat Assessment of Nuclear Terrorism* (Cambridge, Mass.: Belfer Center for Science and International Affairs, Harvard Kennedy School, and Institute for U.S. and Canadian Studies, June 2011). 52 pp.

Laura Diaz Anadon, Valentina Bosetti, Matthew Bunn, Michela Catenacci, and Audrey Lee, *International Workshop on Research, Development, and Demonstration to Enhance the Role of Nuclear Energy in Meeting Climate and Energy Challenges* (Cambridge, Mass.: Belfer Center for Science and International Affairs, Harvard Kennedy School; ICARUS Project, Fondazione Eni Enrico Mattei; and International Center for Climate Governance, June 2011). 36 pp.

Fred McGoldrick, with Matthew Bunn, Martin Malin, and William H. Tobey. *Limiting Transfers of Enrichment and Reprocessing Technology: Issues, Constraints, and Options* (Cambridge, Mass.: Belfer Center for Science and International Affairs, Harvard Kennedy School, May 2011). 63 pp.

Matthew Bunn, Venkatesh Narayanamurti, Laura D. Anadon, Hanna Breetz, Henry Lee, and Erik Mielke, *Transforming the Energy Economy: Options for Accelerating the Commercialization of Advanced Energy Technologies* (Cambridge, Mass.: Energy Technology Innovation Policy, Belfer Center for Science and International Affairs, Harvard Kennedy School, February 2011). 38 pp.

Matthew Bunn, "Nuclear Terrorism: A Strategy for Prevention," in Michael E. Brown, Owen R. Coté, Sean M. Lynn-Jones, and Steven E. Miller, eds., *Going Nuclear: Nuclear Proliferation and International Security in the 21<sup>st</sup> Century* (Cambridge, Mass.: MIT Press, 2010), pp. 329-367.

Matthew Bunn, "The Real Risk of Nuclear Terrorism," in Stuart Gottlieb, ed., *Debating Terrorism and Counterterrorism* (Washington, D.C.: Congressional Quarterly Press, 2010), pp. 168-200.

Anadon, Laura Diaz, Matthew Bunn, Gabriel Chan, Melissa Chan, Kelly Sims Gallagher, Charles Jones, Ruud Kempener, Audrey Lee, and Venkatesh Narayanamurti, "DOE FY 2011 Budget Request for Energy Research, Development, Demonstration, and Deployment: Analysis and Recommendations" (Cambridge, Mass.: Energy Technology Innovation Policy Research Group, Belfer Center for Science and International Affairs, Harvard Kennedy School, April 2010). 22 pp.

Matthew Bunn and Col.-Gen. Evgeniy P. Maslin (ret.), "All Stocks of Weapons-Usable Nuclear Materials Worldwide Must Be Protected Against Global Terrorist Threats," paper prepared for "Protecting Nuclear Programmes From Terrorism," World Institute for Nuclear Security Best Practices Workshop, 19-20 November 2009.

Andrew Newman and Matthew Bunn, "Securing Nuclear Stockpiles: The First Line of Defense in Preventing Nuclear Terrorism," *Fletcher Forum of World Affairs*, Vol. 33, No. 2 (Fall 2009), pp. 109-128.

Matthew Bunn and Martin Malin, "Enabling a Nuclear Revival – And Managing Its Risks," *Innovations: Technology, Governance, Globalization*, Vol. 4, Issue 4, (Fall 2009), pp. 173-191.

Matthew Bunn, "Reducing the Greatest Risks of Nuclear Theft and Terrorism," *Daedalus*, Vol. 138, No. 4, Fall 2009, pp. 112-123.

Matthew Bunn, "Nuclear Bomb Squad: Looking for a Nuclear Needle in the Haystack," (Review of Jeffrey Richelson, *Defusing Armageddon*), *Nonproliferation Review*, Vol. 16, No. 3, November 2009, pp. 533-538.

Matthew Bunn, "Corruption and Nuclear Proliferation," in Robert I. Rotberg, ed., *Corruption, Global Security, and World Order* (Washington, D.C.: Brookings, 2009), pp. 124-126.

Laura Diaz Anadon, Kelly Sims Gallagher, and Matthew Bunn, "DOE FY 2010 Budget Request and Recovery Act Funding for Energy Research, Development, Demonstration, and Deployment: Analysis and Recommendations" (Cambridge, Mass.: Energy Technology Innovation Policy, Belfer Center for Science and International Affairs, Harvard Kennedy School, June 2009). 21 pp.

Andrew Newman and Matthew Bunn, "Funding for U.S. Efforts to Improve Controls for Nuclear Weapons, Materials, and Expertise Overseas: A 2009 Update" (Cambridge, Mass.: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, and Nuclear Threat Initiative, June 2009). 21 pp.

Matthew Bunn, "The Threat of Nuclear Terrorism is Real," in Louise I. Gerdes, ed., *At Issue: Nuclear Weapons* (Farmington Hills, Mich.: Greenhaven Press, 2009), pp. 66-73.

Matthew Bunn, "Securing Nuclear Stockpiles Worldwide," in George P. Shultz, Steven P. Andreasen, Sidney D. Drell, and James E. Goodby, eds., *Reykjavik Revisited: Steps Toward a World Free of Nuclear Weapons* (Stanford, Calif.: Hoover Institution Press, 2008), pp. 243-277.

Matthew Bunn, "Transparent and Irreversible Dismantlement of Nuclear Weapons," George P. Shultz, Steven P. Andreasen, Sidney D. Drell, and James E. Goodby, eds., *Reykjavik Revisited: Steps Toward a World Free of Nuclear Weapons* (Stanford, Calif.: Hoover Institution Press, 2008), pp. 205-227.

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