Brian A. Jackson, Ph.D.

Curriculum Vitae

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CAREER HISTORY

The RAND Corporation

Director, Safety and Justice Program (2012 to present)
Senior Physical Scientist (2007 to present)
Associate Director, Homeland Security Program (2006 to 2009)
Physical Scientist (2003 to 2007)
Associate Physical Scientist (2000 to 2003)

Program director of multi-million dollar program containing RAND Corporation's research on policing, corrections, drug policy, courts and occupational safety and health. Responsible for quality assurance of research products and proposals, internal and external outreach, business development, and related management functions.

Led and participated in numerous studies assessing: the terrorist threat to the United States, with particular focus on terrorist organizations' use and adoption of new technologies; the consequences of terrorist attacks and natural disasters; security and intelligence approaches for the prevention of terrorism; counterterrorism and policing technologies; emergency preparedness and response planning; critical infrastructure protection; design and execution of preparedness exercises; intelligence tradecraft development; technology assessment; and research and development planning.

Applied scientific expertise in the physical and biological sciences to public policy problems, including interpretation and presentation of technical topics and information for general audiences.

Authored or co-authored research grant and contract proposals resulting in over \$6.7 million dollars of funded research effort.

Briefed and disseminated study results to a range of policy audiences both outside and within government (including the Executive and Legislative Branches), resulting in direct policy impact in select areas.

Pardee RAND Graduate School

Affiliate Faculty Member (2010 to present)

Participated in graduate student research mentorship and thesis committees.

Georgetown University Center for Peace and Security Studies

Adjunct Associate Professor (2009 to 2012)

Developed and taught "Science and Technology of Terrorism and Counterterrorism." Course included parallel examination of technology choices and characteristics from both the perspective of terrorist organizations and security planners.

Developed a table-top, semester long terrorism-counterterrorism game to provide a structure for students to integrate course material and explore decision making on both sides of such conflicts. Published analysis of the game in the academic literature, and materials have been requested by educators in six other institutions to use it in their courses and training.

Center for Homeland Defense and Security Naval Postgraduate School

Contract Faculty (2004)

Team-taught the course "Homeland Security and Asymmetric Conflict" within the Center for Homeland Defense and Security's Master's Degree Curriculum in Homeland Security. Course included the terrorist group organization, tactics, strategy, and decision making.

EDUCATION

George Washington University M.A. 2001

Elliott School of International Affairs Science, Technology, and Public Policy

Minor in Defense/Terrorism Policy

California Institute of Technology Ph.D. 1999

Division of Chemistry and Chemical EngineeringBio-Inorganic Chemistry

Minor in Science, Ethics, and Society

Haverford College B.S. (summa cum laude) 1994

Chemistry (High Honors)

AWARDS AND PROFESSIONAL HONORS

Bronze Award, RAND Corporation Merit Bonus Award Program, 2007

US Army Combined Arms Center Commanding General's Special Topics Writing Competition on Countering Insurgency, Third Place Paper, 2006

Silver Award, RAND Corporation Merit Bonus Award Program, 2005

John Henry Cowles Prize, Elliott School of International Affairs, George Washington University, 2001

Policy Studies Fellowship, George Washington University, 1999

Ralph M. Parsons Foundation Fellowship, 1999

National Science Foundation Predoctoral Fellowship, 1995

Fannie and John Hertz Foundation Research Fellowship Grant, 1995

American Chemical Society Prize for Scholastic Achievement, Haverford College, 1994

Lyman Beecher Hall Prize in Chemistry, Haverford College, 1994

Phi Beta Kappa, Zeta Chapter of Pennsylvania, Haverford College, 1993

Goldwater National Science Scholarship, 1993

Howard Hughes Scholar and Research Fellow, Haverford College, 1992

SELECTED PUBLICATIONS

JOURNAL ARTICLES (PEER REVIEWED)

TERRORISM AND HOMELAND SECURITY

"Assessing the Effectiveness of Layered Security for Protecting the Aviation System against Adaptive Adversaries," **B.A. Jackson**, T. LaTourrette, *submitted*.

"Human Subjects Protection and Research on Terrorism and Conflict," **B.A. Jackson**, T.K. Bikson, P.P. Gunn, *Science*, **340**(6131), 434-435, 26 April 2013.

"The Challenge of Measuring Emergency Preparedness: Integrating Component Metrics to Build System-Level Measures for Strategic National Stockpile Operations," **B.A. Jackson**, K. Sullivan Faith, *Disaster Medicine and Public Health Preparedness*, **7**(1), 96-104, (2013).

"Considering al-Qa'ida's Innovation Doctrine: From Strategic Texts to 'Innovation in Practice,'" **B.A. Jackson**, B. Loidolt, *Journal of Terrorism and Political Violence*, **25**(2), 284-310, (2013).

"Assessing the Security Benefits of a Trusted Traveler Program In the Presence of Attempted Attacker Exploitation and Compromise," **B.A. Jackson**, E.W. Chan, T. LaTourrette, *Journal of Transportation Security*, **5**(1), 1-34, (2012).

"Text Analysis of After Action Reports to Support Improved Emergency Response Planning," K. Sullivan Faith, **B.A. Jackson**, H.H. Willis, *Journal of Homeland Security and Emergency Management*, 8(1), Article 57, (December 2011), online at http://www.bepress.com/jhsem/vol8/iss1/57.

"Are We Prepared? Using Reliability Analysis to Evaluate Emergency Response Systems," **B.A. Jackson**, K. Sullivan Faith, H. H. Willis, *Journal of Contingencies and Crisis Management*, 19(3), 147-157, (2011).

"A Table-Top Game to Teach Technological and Tactical Planning in a Graduate Terrorism and Counterterrorism Course," **B.A. Jackson**, *Journal of Homeland Security and Emergency Management*, 8(2), Article 3 (July 2011), online at http://www.bepress.com/jhsem/vol8/iss2/3/.

"Preparedness Exercises 2.0: Alternative Approaches to Exercise Design That Could Make Them More Useful for Evaluating – and Strengthening – Preparedness," **B.A. Jackson,** S McKay, *Homeland Security Affairs*, **7**, Article 9 (April 2011), online at http://www.hsaj.org/?article=7.1.9.

"Technology Strategies for Homeland Security: Adaptation and Coevolution of Offense and Defense," **B.A. Jackson**, *Homeland Security Affairs*, **5**, Article 1 (January 2009), online at http://www.hsaj.org/?article=5.1.4

"Rifling Through the Terrorists' Arsenal: Exploring Groups' Weapon Choices and Technology Strategies," **B.A. Jackson**, D.R. Frelinger, *Studies in Conflict and Terrorism*, **31**, 583-604 (2008).

"Counterinsurgency Intelligence in a 'Long War:' Learning Lessons from the British Experience in Northern Ireland," **B.A. Jackson**, *Military Review*, Jan-Feb, 74-85, (2007).

"Groups, Networks, or Movements: A Command-and-Control-Driven Approach to Classifying Terrorist Organizations and Its Application to al Qaeda" **B.A. Jackson**, *Studies in Conflict and Terrorism*, **29**, 241-262, (2006).

"Bioterrorism with Zoonotic Disease: Public Health Preparedness Lessons from a Multi-Agency Exercise," **B.A. Jackson**, J.W. Buehler, D. Cole, S. Cookson, D.J. Dausey, L. Honess-Morreale, S. Lance, R.C. Molander, P. O'Neal, N. Lurie, *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science*, **4**(3), 287-292, (2006).

"Use of Respiratory Protection Among Responders at the World Trade Center Site – New York City, September 2001" D. Prezant, K. Kelly, **B. Jackson**, D. Peterson, D. Feldman, S. Baron, C.A. Muller, B. Bernard, B. Lushniak, L. Smith, R. BerryAnn, B. Hoffman, *Morbidity and Mortality Weekly Report*, September 11, **51**, 6-8, (2002).

"Technology Acquisition by Terrorist Groups: Threat Assessment Informed by Lessons from Private Sector Technology Adoption" **B.A. Jackson**, *Studies in Conflict and Terrorism*, **24**, 183-213 (2001).

SCIENTIFIC AND TECHNICAL TOPICS

"Innovation and Intellectual Property: The Case of Genome Patenting" **B.A. Jackson**, *Journal of Policy Analysis & Management*, **22**(1), 5-25, 2003.

"Recognition of Base Mismatches in DNA by 5,6-Chrysenequinone Diimine Complexes of Rhodium(III): A Proposed Mechanism for Preferential Binding in Destabilized Regions of the Double Helix" **B.A. Jackson,** J.K. Barton, *Biochemistry*, **39**, 6176-6182 (2000).

"DNA Repair: Models for Damage and Mismatch Recognition" S.R. Rajski, **B.A. Jackson**, J.K. Barton, *Mutation Research*, **447**, 49-72 (2000).

"Probing Nucleic Acid Structures with Shape Selective Rhodium and Ruthenium Complexes" **B.A. Jackson,** J.K. Barton in *Current Protocols in Nucleic Acid Chemistry*, 6.2.1-6.2.39, John Wiley and Sons, Inc., NY (2000).

"Spectral and Structural Characterization of 5,6-Chrysenequinone Diimine Complexes of Rhodium(III): Evidence for a pH Dependent Ligand Conformational Switch" **B.A. Jackson**, L.M. Henling, J.K. Barton, *Inorganic Chemistry*, **38**, 6218-6224 (1999).

"A Versatile Mismatch Recognition Agent: Specific Cleavage of a Plasmid DNA at a Single Base Mispair" **B.A. Jackson**, V.Y. Alekseyev, J.K. Barton, *Biochemistry*, **38**, 4655-4662 (1999).

"A Versatile Synthetic Approach to Rhodium(III) Diimine Metallointercalators: Condensation of *o*-Quinones with Coordinated *cis*-Ammines" H. Mürner, **B.A. Jackson**, J.K. Barton; *Inorganic Chemistry*, **37**, 3007-3012 (1998).

"Recognition of DNA Base Mismatches by a Rhodium Intercalator" **B.A. Jackson,** J.K. Barton; *Journal of the American Chemical Society*, **119**, 12986-12987 (1997).

"Transient Resonance Raman-Spectroscopy of Copper(II) Complexes of Meso-Tetraphenylporphine and Meso-Tetraphenylchlorin" J.C. De Paula, V.A. Walters, **B.A. Jackson**, K. Cardozo, *Journal of Physical Chemistry*, **99**, 4373-4379 (1995).

"Electronic Structure of Triplet-States of Zinc(II) Tetraphenylporphyrins" V.A. Walters, J.C. De Paula, **B.A. Jackson**, C. Nutaitis, K. Hall, J. Lind, K. Cardozo, K. Chandran, D. Raible, C.M. Phillips, *Journal of Physical Chemistry*, **99**, 1166-1171 (1995).

MONOGRAPHS (PEER REVIEWED)

"Cluster Basing: A Joint Solution to the Anti-Access Challenge (U)," M. Lostumbo, D.R. Frelinger, J. Heim, **B.A. Jackson**, A. Becker, C. Worman, RR-465-OSD, May 2014, document not publicly available.

"Efficient Aviation Security: Strengthening the Analytic Foundation for Making Air Transportation Security Decisions," **B.A. Jackson**, T. LaTourrette, E.W. Chan, R. Lundberg, A.R. Morral, D.R. Frelinger, MG-1220-RC, August 2012.

"What Should Be Classified? Framework with Application to the Global Force Management Data Initiative," M.C. Libicki, **B.A. Jackson**, D.R. Frelinger, B.E. Lachman, C. Ip, MG-989-JS, January 2011.

- "Decisionmaking in al-Qaida: Applying Social Science to Understanding Choices Made in a Global Terrorist Network (U)," **B.A. Jackson**, L. Kennedy-Boudali, et al., MG-1000-OSD and MG-1007-OSD, April 2009, documents not publicly available.
- "Evaluating the Reliability of Emergency Response Systems for Large-Scale Incident Operations," **B.A. Jackson**, K. Sullivan Faith, H.W. Willis, MG-994-FEMA, June 2010.
- "Evaluating Novel Threats to the Homeland: Unmanned Aerial Vehicles and Cruise Missiles," **B.A. Jackson**, D. Frelinger, M. Lostumbo, R.W. Button, RAND National Defense Research Institute, MG-626-DTRA, March 2008.

Translated into Chinese (complex characters) by the Republic of China Air Force.

- "Securing America's Passenger Rail Systems," J.M. Wilson, **B.A. Jackson**, M. Eisman, K. Jack Riley, RAND Infrastructure, Safety and Environment, MG-705-NIJ, December 2007.
- "Stealing the Sword: Limiting Terrorist Use of Advanced Conventional Weapons," J. Bonomo, G. Bergamo, D. Frelinger, J. Gordon, **B.A. Jackson**, RAND Infrastructure, Safety and Environment, MG-510-DHS, November 2007.
- "Sharing the Dragon's Teeth: Terrorist Groups and the Exchange of New Technologies," K. Cragin, P. Chalk, S.A. Daly, **B.A. Jackson**, RAND Infrastructure, Safety and Environment, MG-485-DHS, May 2007.
- "Breaching the Fortress Wall: Understanding Terrorist Efforts to Overcome Defensive Technologies," **B.A. Jackson**, P. Chalk, B. Newsome, J. Parachini, W. Rosenau, E.M. Simpson, RAND Infrastructure, Safety and Environment, MG-481-DHS, February 2007.
- "Aptitude for Destruction, Volume 1: Organizational Learning in Terrorist Groups and Its Implications for Combating Terrorism" **B.A. Jackson** with J.C. Baker, P. Chalk, K. Cragin, J. Parachini, H.C. Trujillo, RAND Infrastructure, Safety and Environment, MG-331-NIJ, April 2005.
- "Aptitude for Destruction, Volume 2: Case Studies of Organizational Learning in Five Terrorist Groups" **B.A. Jackson**, J.C. Baker, P. Chalk, K. Cragin, J. Parachini, H.C. Trujillo, RAND Infrastructure, Safety and Environment, MG-332-NIJ, April 2005.
- "Protecting Emergency Responders, Volume 3: Safety Management in Disaster and Terrorism Response" **B.A. Jackson**, J.C. Baker, M.S. Ridgely, J.T. Bartis, H.I. Linn, RAND Science and Technology and National Institute for Occupational Safety and Health, MG-170-NIOSH, June 2004.
- "Protecting Emergency Responders, Volume 2: Community Views of Safety and Health Risks and Personal Protection Needs" T. LaTourrette, D.J. Peterson, J.T. Bartis, **B.A. Jackson**, A. Houser, RAND Science and Technology Policy Institute, MR-1646-NIOSH, August 2003.
- "Challenges and Choices for Crime-Fighting Technology" W. Schwabe, L.M. Davis, **B.A. Jackson**, RAND Science and Technology Policy Institute, MR-1349-OSTP/NIJ, September 2001.
- "Science and Technology Collaboration: Building Capacity in Developing Countries" C.S. Wagner, I. Brahmakulam, **B.A. Jackson**, A. Wong, T. Yoda; RAND Science and Technology Policy Institute, MR-1357.0-WB, March 2001.
- "Human Cloning: A Case Study in the Public Dispute Over Scientific Progress" **B.A. Jackson**; Minor Thesis, California Institute of Technology, Division of the Humanities and Social Sciences (1999)
- "Recognition of Base Mismatches in DNA by Chrysenequinone Diimine Intercalators of Rhodium(III)" **B.A. Jackson**; Ph.D. Thesis, California Institute of Technology, Division of Chemistry and Chemical Engineering (1999).

EDITED VOLUMES (PEER REVIEWED)

"The Challenge of Domestic Intelligence in a Free Society: A Multidisciplinary Look at the Creation of a U.S. Domestic Counterterrorism Intelligence Agency," (multi-author edited volume), **B.A. Jackson,** ed., RAND Homeland Security and Intelligence Policy Institute, MG-804-DHS February 2009.

"Considering the Creation of a Domestic Intelligence Agency in the United States: Lessons from the Experiences of Australia, Canada, France, Germany, and the United Kingdom," (multi-author edited volume), **B.A. Jackson**, ed., RAND Homeland Security and Intelligence Policy Institute, MG-805-DHS, March 2009.

POLICY REPORTS AND PAPERS (PEER REVIEWED)

"How Do We Know What Information Sharing is Really Worth? Exploring Methodologies to Measure the Value of Information Sharing and Fusion Efforts," **B.A. Jackson**, RR-380-OSD, *forthcoming*.

"Wireless Emergency Alerts: Mobile Penetration Strategy," D. Gonzales, E. Balkovich, **B.A. Jackson**, *et al.*, PR-594-OSD, published by the Department of Homeland Security, July-August 2013.

"Influences on the Adoption of Multifactor Authentication," M.C. Libicki, E. Balkovich, **B.A. Jackson**, R. Rudavsky, K.W. Webb, TR-937-NIST, April 2011.

"Understanding the Role of Deterrence in Counterterrorism Security," A.R. Morral, **B.A. Jackson**, OP-281-RC, December 2009.

"Understanding Why Terrorist Operations Succeed or Fail," **B.A. Jackson,** D.R. Frelinger, RAND Homeland Security, OP-257-RC, August 2009.

"Emerging Threats and Security Planning: How Should We Decide What Hypothetical Threats to Worry About?" **B.A. Jackson,** D.R. Frelinger, RAND Homeland Security, OP-256-RC, May 2009.

"Initial Evaluation of the Cities Readiness Initiative," H.H. Willis, C. Nelson, S.R. Shelton, A.M. Parker, J.A. Zambrano, E.W. Chan, J. Wasserman, **B.A. Jackson**, RAND Health, TR-640-CDC, April 2009.

"The Lessons of Mumbai," A. Rabasa, R.D. Blackwill, P. Chalk, K. Cragin, C.C. Fair, **B.A. Jackson**, B.M. Jenkins, S.G. Jones, N. Shestak, A.J. Tellis, RAND National Security Research Division, OP-249-RC, March 2009.

"Analysis of Emerging Tactical Scenarios for Attacks on Protected Targets," **B.A. Jackson**, D.R. Frelinger, D. Hoffmann, D.M.E. Noricks, D. R. Howell, RAND Homeland Security, TR-648-DHS, February 2009, document not publicly available.

"Marrying Prevention and Resiliency: Balancing Approaches to an Uncertain Terrorist Threat," **B.A. Jackson**, RAND Homeland Security, OP-236-RC, December 2008.

"The Problem of Measuring Emergency Preparedness: The Need for Assessing 'Response Reliability' as Part of Homeland Security Planning," **B.A. Jackson**, RAND Homeland Security, OP-234-RC, December 2008.

"Network Technologies for Networked Terrorists: Assessing the Value of Information Technologies to Modern Terrorist Organizations," B. Don, D. Frelinger, S. Gerwehr, E. Landree, **B.A. Jackson**, RAND Infrastructure, Safety and Environment, TR-454-DHS, October 2007.

"Economically Targeted Terrorism," **B.A. Jackson**, L. Dixon, V. Greenfield, RAND Center for Terrorism Risk Management Policy, TR-476-CTRMP, May 2007.

- "Emergency Responder Injuries and Fatalities: An Analysis of Surveillance Data" A.N. Houser, **B.A. Jackson**, J.T. Bartis, D.J. Peterson, RAND Science and Technology Policy Institute, TR-100-NIOSH, March 2004.
- "The Office of Science and Technology Blue Ribbon Panel on The Threat of Biological Terrorism Directed Against Livestock: Conference Proceedings, Washington, DC, December 8 9, 2004" T.K. Kelly, P. Chalk, J. Bonomo, J. Parachini, **B.A. Jackson**, G. Cecchine, RAND Science and Technology, CF-193-OSTP, April 2004.
- "Protecting Emergency Responders: Lessons Learned from Terrorist Attacks" **B.A. Jackson**, D.J. Peterson, J.T. Bartis, T. LaTourrette, I. Brahmakulam, A. Houser, J. Sollinger, RAND Science and Technology Policy Institute, CF-176-OSTP/NIOSH, March 2002.

BOOK CHAPTERS

- "Training of Terrorists," **B.A. Jackson**, invited contribution to the *SAGE Reference Encyclopedia* of *Terrorism*, MTM Publishing, invited, *forthcoming*.
- "Terrorist Cells," **B.A. Jackson**, in *The Wiley-Blackwell Encyclopedia of Globalization*, G. Ritzer, ed., Hoboken, NJ: Wiley-Blackwell, 2012 (invited contribution).
- "Don't Let Short-Term Urgency Undermine a Long-Term Security Strategy," **B.A. Jackson**, invited contribution to *The Long Shadow of 9/11: America's Response to Terrorism*, MG-1107-RC, July 2011.
- "Organizational Decisionmaking by Terrorist Groups," **B.A. Jackson**, in <u>Social Science for Counterterrorism: Putting the Pieces Together</u>, P.K. Davis and K. Cragin, eds., RAND National Security Research Division, MG-849-OSD, May 2009.
- "Identifying and Exploiting Group Learning Patterns for Counterterrorism," H.R. Trujillo, **B.A. Jackson** in <u>Terrorism Informatics: Knowledge Management and Data Mining for Homeland Security</u>, H. Chen, E. Reid, J. Sinai, A. Silke, and B. Ganor, eds., New York, NY: Springer, 2008, pp. 175-196.
- "Developing Measures of Effectiveness" T. Sullivan, W. Perry, **B.A. Jackson** in *Minimizing the Threat from Improvised Explosive Devices in Iraq: A Pilot Study*, W. Perry, K.S. McMahon, and J. Sollinger, eds., RAND National Security Research Division, MG-594-OSD, June 2007, document not publicly available.
- "Intelligence and Fusion" **B.A. Jackson**, D. Frelinger, E. O'Connell, W. Perry in *Minimizing the Threat from Improvised Explosive Devices in Iraq: A Pilot Study*, W. Perry, K.S. McMahon, and J. Sollinger, eds., RAND National Security Research Division, MG-594-OSD, June 2007, document not publicly available.
- "Federal R&D: Shaping the National Investment Portfolio" **B.A. Jackson**, in <u>Shaping Science & Technology Policy: The Next Generation of Research</u>, D.H. Guston and D. Sarewitz, eds., Madison, WI: University of Wisconsin Press, 2006, pp. 33-54.
- "Technology and Terrorism," **B.A. Jackson** in *The Global Technology Revolution 2020, In-Depth Analyses: Bio/Nano/Materials/Information Trends, Drivers, Barriers, and Social Implications*, R.S. Silberglitt, P.S. Antón, D.R. Howell, and A. Wong, RAND National Security Research Division, TR-303-NIC, June 2006.
- "Biotechnology, Bionanotechnology, and Biomedical Science Trends to 2020," **B.A. Jackson,** F. Wu in *The Global Technology Revolution 2020, In-Depth Analyses: Bio/Nano/Materials/Information Trends, Drivers, Barriers, and Social Implications*, R.S. Silberglitt, P.S. Antón, D.R. Howell, and A. Wong, RAND National Security Research Division, TR-303-NIC, June 2006.

- "Training for Urban Resistance: The Case of the Provisional Irish Republican Army" **B.A. Jackson** in <u>The Making of a Terrorist: Recruitment, Training, and Root Causes</u>, Volume II, J. Forest, ed., Wesport, CT: Praeger Security International, 2006, pp. 119-135.
- "Organizational Learning and Terrorist Groups" H.R. Trujillo, **B.A. Jackson** in <u>Teaching Terror: Knowledge Transfer in the Terrorist World</u>, J. Forest, ed., Lanham, MD: Rowman & Littlefield, 2006.
- "Organizational Learning and Terrorist Groups" **B.A. Jackson**, in <u>Organizational Learning in a Global Context</u>, M. Leann Brown, Michael Kenney, and Michael Zarkin, eds., Burlington, VT: Aldershot, Hants, 2006.
- "Nano-Enabled Components and Systems for Biodefense" C. Shipbaugh, P. Antón, G. Bloom, **B.A. Jackson**, R. Silberglitt, in <u>Biomedical Nanotechnology</u>, Neelina H. Malsch, ed., New York, NY: CRC Press, 2005, pp. 113-144.
- "Acquisition, Implementation, and Evaluation of Information Technology" L.M. Davis, **B.A.**Jackson, in <u>Turning Information into Knowledge: Information Technology and the Criminal</u>

 Justice System Experience, April Pattavina, ed., Thousand Oaks, CA: Sage Publications, 2004.
- "Technology Acquisition by Terrorist Groups" **B.A. Jackson**, in <u>America Confronts Terrorism</u>, J. Prados, ed. (Chicago, IL: Ivan R. Dee, 2002).

WRITTEN CONGRESSIONAL TESTIMONY

- "Developing Robust Border Security Technologies to Protect Against Diverse and Adaptive Threats," **B.A. Jackson**, CT-294, November 2007. (Written testimony before the U.S. House of Representatives, Science and Technology Committee, Subcommittee on Technology and Innovation, November 15, 2007).
- "Protecting Emergency Responders at Large-Scale Incidents: Lessons Learned from the Response to the Attacks on the World Trade Center," **B.A. Jackson**, CT-291, September 2007. (Written testimony before the U.S. House of Representatives, Education and Labor Committee, September 12, 2007).
- "Information Sharing and Emergency Responder Safety Management," **B.A. Jackson**, CT-258, March 2006. (Written testimony before the U.S. House of Representatives, Government Reform Committee, March 30, 2006).

OTHER POLICY PUBLICATIONS AND OPINION PIECES

- "Needed: Sustainable Spying Oversight," **B.A. Jackson**, US News and World Report News.Opinion Blog, September 17, 2013.
- "Firearms and Gun Control: Many Questions, Some Answers," S.M. Greathouse, **B.A. Jackson**, K. J. Riley, A.M. Morral, D. Knopman, A.L. Kellerman, RAND Blog, January 17, 2013.
- "Short-Term Savings, Long-Term Losses: When Police Departments Respond to Economic Pressure by Cutting Their Forces," P. Heaton, **B.A. Jackson**, RAND Blog, November 12, 2012.
- "The Olympics and Terrorism: Why the Games Remain an Appealing Target," **B.A. Jackson**, RAND Blog, July 25, 2012.
- "Proposed Directions of Change to the Common Rule for Protecting Human Research Participants: RAND Responses," T.K. Bikson, S. Adler, S.H. Berry, R.L. Collins, C.R. Corey, M.D. Greenberg, P.P. Gunn, **B.A. Jackson**, S. Joiner, S.G. Straus, RAND Corporate Publication, CP-659, October 2011.
- "Change and Continuity in Terrorism Revisited: Terrorist Tactics, 1980–2005," R. Lal, **B.A. Jackson**, Oklahoma City Memorial Institute for the Prevention of Terrorism (MIPT) Terrorism Annual 2006, pp. 3-18, 2006.

- "Katrina proved we must do better job of protecting our protectors," **B.A. Jackson**, Op-Ed, *The Clarion-Ledger*, Jackson, Mississippi, August 13, 2007.
- "Is America Prepared for Disaster?" **B.A. Jackson**, Op-Ed, Think Tank Town, *Washington Post*, May 30, 2007.
- "Communications Interoperability and Emergency Response" **B.A. Jackson**, M. Geruso, in *Forging America's New Normalcy: Securing Our Homeland, Protecting Our Liberty*, Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving Weapons of Mass Destruction (The Gilmore Commission), December 15, 2003.
- "Genomic Intellectual Property and Clinical Testing" **B.A. Jackson**, invited Commentary, *IVD Technologies*, June 2003, 18-21.
- "Antimicrobial Resistance: An Emerging Public Health Problem" **B.A. Jackson**, D.U. Vogt; Congressional Research Service Report for Congress, RL 30814, January 24, 2001.
- "International Science and Technology Capacity Building: Models and Issues" J.A. Daly, C.S. Wagner, **B.A. Jackson**; RAND Corporation Science and Technology Policy Institute, AB-432-OSTP, July 2000.
- "Stem Cell Research" J.A. Johnson, **B.A. Jackson**; Congressional Research Service Report for Congress, RS 20266, March 28, 2000.
- "Labeling of Genetically Modified Foods" D.U. Vogt, **B.A. Jackson**; Congressional Research Service Report for Congress, RS 20507, March 20, 2000.

PATENTS

"Detection and Treatment of Duplex Polynucleotide Damage," US Patent Numbers: 6,031,098, February 29, 2000; 6,306,601; October 23, 2001; 6,444,661, September 3, 2002; 6,777,405, August 17, 2004.

SELECTED PRESENTATIONS AND ORAL TESTIMONY

- "Assessing the Effectiveness of Layered Security for Protecting the Aviation System against Adaptive Adversaries," B.A. Jackson, *International Symposium on Aviation Security*, Toronto, Canada, May 8-9, 2014 (invited).
- "Effectiveness of Emergency Response to Serious Incidents," B.A. Jackson, *The Security Response to Abu Dhabi Plan 2030*, Abu Dhabi, United Arab Emirates, December 13, 2011 (invited).
- "Adaptive Adversary Risk Analysis: Linking Models to Primary Data on Terrorist Behavior," B.A. Jackson, *Society for Risk Analysis Annual Conference*, Charleston, SC, December 5, 2011.
- "Adaptive Adversary Risk Analysis: Linking Models to Primary Data on Terrorist Behavior," B.A. Jackson, *INFORMS Annual Conference*, Charlotte, NC, November 13, 2011.
- "The Long Shadow of 9/11: America's Response to Terrorism," panel member, RAND Corporate Event, National Press Club, Washington, DC, July 26, 2011.
- "Assessing the Security Benefits of a Trusted Traveler Program In the Presence of Attempted Attacker Exploitation and Compromise," B.A. Jackson, Briefing to Transportation Security Administration Risk Analysis and Intelligence Staff, Arlington, VA, March 30, 2011.
- "Workshop on Improving the Department of Homeland Security Risk Assessment Process for Informed Decision-making," Innovative Decisions, Inc., Vienna, Virginia, January and March, 2011 (invited panel participant)

- "Adversary Adaptation to Protective Measures," B.A. Jackson, Optimizing Investments in Critical Infrastructure Protection Working Group, *Military Operations Research Society*, Arlington, VA, November 16, 2010.
- "Weapons of Mass Destruction? A Scientist's Perspective on the Threat of Chemical and Biological Terrorism," B.A. Jackson, 2009 Fisher Lecture, Roanoke College, Salem, VA, November 9, 2009 (invited endowed lecture).
- "Al Qaeda Evolution," B.A. Jackson, Presentation at the National Counterterrorism Center (NCTC) *Conference on the Future of al-Qa'ida and the Global Jihad*, Warrenton, VA, August 20, 2009 (invited).
- "Marrying Prevention and Resiliency: Balancing Approaches to An Uncertain Terrorist Threat" B.A. Jackson, Presentation at the *Military Operations Research Society, Risk-Informed Decision Making for HLS Resource Allocation Workshop*, Homeland Security Institute, Arlington, VA, April 14, 2009 (invited).
- JTRC OECD/ITF Round Table on Security, Risk Perception and Cost-Benefit Analysis Paris France, December 11-12, 2008 (invited participant)
- "Adaptation by Terrorist Groups to Defensive Measures: Implications For Risk Analysis," B.A. Jackson, Briefing at the *Intelligence and Risk Analysis Communities Collaboration Workshop*, Homeland Security Institute, Arlington, VA, November 18, 2008 (invited).
- "Thinking About Insurgents, Terrorists, and International Action in Protectorate States: Dark Networks, Bright Networks, and Many Shades of Gray," B.A. Jackson, Presentation at *Modern Protectorates, Culture, and Dark Networks* workshop, University of Konstanz, Germany, September 19-20, 2008 (invited).
- "Terrorist Networks: Understanding Their Strengths and Weaknesses," B.A. Jackson, Workshop as part of the Network Performance Project (joint effort of the Fels Institute of Government, University of Pennsylvania and the Kennedy School of Government, Harvard University), National Academy of Public Administration, April 4, 2008 (invited).
- "Developing Robust Border Security Technologies to Protect Against Diverse and Adaptive Threats," B.A. Jackson, Briefing to the National Academy of Sciences, Committee on Science, Engineering and Public Policy, February 29, 2008 (invited).
- "Technology and the "Networked Terrorist Threat:" Implications for Whole-of-Government Responses," B.A. Jackson, Presentation at the *Networked Government & Homeland Security Workshop*, Singapore, January 7, 2008 (invited).
- "Developing Robust Border Security Technologies to Protect Against Diverse and Adaptive Threats," B.A. Jackson, Testimony before the U.S. House of Representatives, Science and Technology Committee, Subcommittee on Technology and Innovation, November 15, 2007.
- "Protecting Emergency Responders at Large-Scale Incidents: Lessons Learned from the Response to the Attacks on the World Trade Center," B.A. Jackson, Testimony before the U.S. House of Representatives, Education and Labor Committee, September 12, 2007.
- "Where Ethical Guidance is Needed to Take Next Steps," B.A. Jackson (discussion facilitator), "Ethical Principles in Social-Behavioral Research on Terrorism: Probing the Parameters, Part II," National Institute of Justice Conference 2007, Washington, DC, July 25, 2007.
- "Understanding the Advantages and Countering the Threats of Emerging Technologies: Biotechnology," B.A. Jackson, *Future Technologies for the Warfighter Workshop*, Maxwell AFB, AL, April 10, 2007 (invited).
- "Panel Presentation" B.A. Jackson, Ethical Principles in Social-Behavioral Research on Terrorism: Probing the Parameters, RAND Workshop, Arlington, VA, January 10, 2007.

- "Breaching the Fortress Wall: Understanding Terrorist Efforts to Overcome Defensive Technologies," B.A. Jackson, *Society for Risk Analysis Annual Conference*, Baltimore, MD, December 7, 2006.
- "Breaching the Fortress Wall: Understanding Terrorist Efforts to Overcome Defensive Technologies," B.A. Jackson, Transportation Security Administration, *Far Blue Cell Planning Workshop*, Washington, DC, November 20 and December 6, 2006 (invited).
- "Deterring Terrorist Planners and Trainers," B.A. Jackson, Institute for Defense Analyses, *Deterring WMD Terrorism: Theory and Practice*, Washington, DC, November 28, 2006 (invited).
- "Assessing the Impacts of the Internet on Terrorist Groups and their Implications for Intelligence," B.A. Jackson, Canadian Association for Security and Intelligence Studies Conference, Ottawa, Canada, October 28, 2006 (invited).
- "Breaching the Fortress Wall: Understanding Terrorist Efforts to Overcome Defensive Technologies," B.A. Jackson, Congressional Briefing, Washington, DC, October 24, 2006.
- "Aptitude for Destruction: Organizational Learning in Terrorist Groups and Its Implications for Countering Terrorism," B.A. Jackson, National Institute of Justice Terrorism Research Conference, Denver, CO, June 12, 2006.
- "Terrorist Adaptation and Assessing the Benefits of Homeland Security Efforts," B.A. Jackson, Workshop on Benefit Methodologies for Homeland Security Analysis, CREATE Homeland Security Center of Excellence, Washington, DC, June 9, 2006 (invited).
- "Aptitude for Destruction: Organizational Learning and Its Implications for Combating Terrorism," B.A. Jackson, IEEE Intelligence and Security Informatics Conference, San Diego, California, May 23, 2006 (invited).
- "Crafting Technology Strategies for Homeland Security: Adaptation by Terrorist Groups and Its Implications for Combating Terrorism" B.A. Jackson, Center for International Science and Technology Policy, Elliott School of International Affairs, George Washington University, Washington, DC, May 10, 2006 (invited).
- "Information Sharing and Emergency Responder Safety Management," B.A. Jackson, Testimony before the U.S. House of Representatives, Government Reform Committee, March 30, 2006.
- "Homeland Security as a Dynamic Conflict: Adaptation by Terrorist Groups and Its Implications for Combating Terrorism," B.A. Jackson, Center for International Security and Cooperation, Stanford University, Palo Alto, CA, February 9, 2006 (invited).
- "Protecting Emergency Responders, Volume 3: Safety Management in Disaster and Terrorism Response" B.A. Jackson, Briefing to the National Advisory Committee for Occupational Safety and Health, Washington, DC, August 18, 2004.
- "Protecting Emergency Responders, Volume 3: Safety Management in Disaster and Terrorism Response" B.A. Jackson, Congressional Briefing, Washington, DC, June 16, 2004.
- "Organizational Learning and Terrorist Groups" B.A. Jackson, presentation at the *International Studies Association Conference*, Montreal, Canada, March 13, 2004.
- "Protecting Emergency Responders: Safety Management in Disaster and Terrorism Response" B.A. Jackson, J.C. Baker presentation to the *Department of Homeland Security: National Response Plan/National Incident Management System Task Force*, Arlington, VA, May 30, 2003.

OTHER PROFESSIONAL ACTIVITIES

PROFESSIONAL SERVICE AND BOARDS

Editorial Board, Behavioral Sciences of Terrorism and Political Aggression (originally Terrorism Research), 2007 – 2010.

RAND Human Subjects Protection Committee (Institutional Review Board), 2007 – present

Mentor to PRGS graduate students (Russell Lundberg, dissertation committee, 2011-2014) and visiting Fellows (Edward Geist, Stanton Nuclear Fellow, 2013-2014)

Mentoring or co-mentoring RAND Summer Associate students (2005, 2008, 2009)

Ad hoc refereeing for Science; Terrorism and Political Violence; Disasters; Security Journal; Journal of Policy Analysis and Management; Criminology & Public Policy; Behavioral Sciences of Terrorism and Political Aggression (originally Terrorism Research); Association for Computing Machinery (CSCW 2012); Palgrave-Macmillan Ltd; Cognitive Systems Research; International Journal of Comparative and Applied Criminal Justice; Politics, Religion & Ideology; Journal of Contingencies and Crisis Management; Journal of Conflict Resolution; Journal of Policing, Intelligence and Counterterrorism, and RAND Corporation research publications.

Outstanding Peer Reviewer Award, RAND Infrastructure, Safety & Environment, 2010.

Community Advisory Group, supporting the staff of Chairman Bennie Thompson, U.S. House of Representatives, Homeland Security Committee, 2007 – 2008

California Institute of Technology Industrial Mentors Program (2011 – present)

"Careers in Public Policy and National Security," Presentation to the Caltech Alternative PhD Careers Club, November 30, 2011.

RAND Counterterrorism and Counterinsurgency Search Committee, member, 2006.

Representative to RAND Hiring Panel for International and Security Policy/Policy Sciences Departments, 2011 – 2013.

Guest lecturer in courses at the Naval Postgraduate School, selected colleges and universities, and RAND carried out intelligence and homeland security organization educational programs. Topics include terrorist innovation and learning, red teaming, intelligence analysis, and emergency preparedness analysis.

ASSOCIATION MEMBERSHIPS

American Society of Criminology, 2012 –
International Association of Chiefs of Police, 2012 –
Military Operations Research Society, 2010 – 2012
Society for Terrorism Research, 2007 –
Society for Risk Analysis, 2006 –2012
American Association for the Advancement of Science, approx. 1996 –
American Chemical Society, approx. 1994 –

MEDIA INTERACTION

Ad hoc interviews on terrorism, policing and homeland security in international, national, and local print and broadcast media.