20 Oct 2026

BARRY C. EZELL, Ph.D.

Interim Executive Director, VMASC • Founding Director, SATTL • Research Professor
Old Dominion University | Virginia Modeling, Analysis and Simulation Center
1030 University Blvd, Suffolk, VA 23435

103	$44M	20+	38+
Research Projects	Total Funding Secured	Years Army Service	Journal Publications

BIOGRAPHY

Dr. Barry Ezell serves as VMASC's Interim Executive Director and founding Director for the Spectrum Advanced Training and Technology Laboratory (SATTL), where he provides senior leaders with expert guidance in modeling and simulation, multi-objective portfolio decision analysis, and risk management. Renowned for leading high-impact initiatives, Dr. Ezell has secured $33 million in project funding and has partnered with a diverse array of government agencies. His collaborators include the Office of the Under Secretary of War for Research and Engineering, Department of Homeland Security's Science and Technology Directorate, Federal Law Enforcement Training Center, Cybersecurity and Infrastructure Security Agency, National Institute of Standards and Technology, Sandia National Laboratories, National Nuclear Security Administration, and Virginia Department of Emergency Management.

In addition to his research and advisory roles, Dr. Ezell brings a wealth of military experience from his distinguished career in the U.S. Army. A combat veteran, he has served in pivotal leadership positions including Commanding Officer, Staff Officer, and Operations Research Systems Analyst during assignments in South Korea, Saudi Arabia, Iraq, and the Republic of Georgia. Dr. Ezell's broad expertise and leadership have consistently delivered innovative solutions to complex challenges in both civilian and military settings.

EDUCATION

Ph.D., Engineering Management — **2005**

Old Dominion University

M.S., Systems Engineering — **1998**

University of Virginia

B.S. (Honors), Mechanical Engineering Technology — **1988**

University of Southern Mississippi (Graduated with Honors)

PROFESSIONAL EXPERIENCE

Interim Executive Director — **April 2026 – Present**

Virginia Modeling, Analysis and Simulation Center (VMASC) — Old Dominion University

Founding Director, Spectrum Advanced Training and Technology Laboratory (SATTL) — **2024 – Present**
Old Dominion University

Deputy Executive Director & Director of Research Operations — **2018 – 2025**
VMASC — Old Dominion University

Chief Scientist & Research Associate Professor — **2010 – 2018**
VMASC — Old Dominion University

Research Assistant / Associate Professor — **2008 – 2010**
VMASC — Old Dominion University

Joint Appointment — Senior Analyst — **2022 – 2023**
Idaho National Laboratory

Deputy Chief, Studies & Analysis / Deputy Director — The Army School System — **2003 – 2008**
U.S. Army Training and Doctrine Command, Fort Monroe, VA

Deputy Director, Operations Research Center of Excellence; Assistant Professor, Systems Engineering — **1998 – 2001**
U.S. Military Academy, West Point, NY

Commanding Officer, Staff Officer, Operations Research Systems Analyst — **1984 – 2008**
U.S. Army — Various Locations (South Korea, Saudi Arabia, Iraq, Republic of Georgia)

RESEARCH IMPACT (2008–2026)

ODU Research Portal — Investigative History: 103 research projects totaling $44 million in secured funding. Sponsored by DoW R&E, DHS S&T, FLETC, CISA, NIST, Sandia National Laboratories, NNSA, and Virginia DEMME, among others.

SELECTED PUBLICATIONS

Journal Articles

1. Abdelmagid, A. M., Ezell, B. C., & McShane, M. K., "A Bayesian Network-Driven Zero Trust Model for Cyber Risk Quantification in Small-Medium Businesses," arXiv:2601.06553, 2026.
2. Lynch, C. J., et al. (incl. Ezell, B.), "AI-Generated Messaging for Life Events Using Structured Prompts: A Comparative Study of GPT with Human Experts and Machine Learning," IEEE Access, 2025. (IF: 3.6)
3. Reinhold, A. M., Gore, R. J., Ezell, B., et al., "From Cyclones to Cybersecurity: A Call for Convergence in Risk and Crisis Communications Research," Journal of Homeland Security and Emergency Management, 2025. (IF: 1.0)
4. Hill, R. E. Jr., et al. (incl. Ezell, B. C.), "Navigating Diverse Agency Priorities in Emergency Management," Natural Hazards Review, 2024. (IF: 2.7)
5. Ezell, B., Lynch, C., Hester, P., "Methods for Weighting to Assist Decision Analysts and Modelers," Applied Sciences, Vol. 12, No. 1, 2021. (IF: 5.3)
6. Hassler, M., Andrews, D., Ezell, B., et al., "Multi-perspective scenario-based preferences in enterprise risk analysis of public safety wireless broadband network," Reliability Engineering and System Safety, Vol. 197, 2020. (IF: 7.03)
7. Lathrop, J. & Ezell, B., "A Systems Approach to Risk Analysis Validation for Risk Management," Safety Science, Vol. 99, pp. 187–195, 2017. (IF: 4.88)
8. Ezell, B., von Winterfeldt, D., Bennett, S., Sokolowski, J., & Collins, A., "Probabilistic Risk Analysis and Terrorism Risk," Risk Analysis, Vol. 30, No. 1, 2010. (IF: 4.00)
9. Ezell, B., "Critical Infrastructure Vulnerability Assessment Model (I-VAM)," Risk Analysis, Vol. 27, No. 3, 2007. (IF: 4.00)

10. Ezell, B., Haimes, Y., & Lambert, J., "Risks of Cyber Attack to Water Utility SCADA Systems," Military Operations Research, Vol. 6, No. 2, 2001.

Book Chapters

1. Ezell, B., von Winterfeldt, D., et al., "Probabilistic Risk Analysis and Terrorism Risk," in Improving Homeland Security Decisions, Cambridge University Press, 2017.
2. Tatman, J. & Ezell, B., "Bayes Net Modeling: The Means to Craft the Digital Patient," in The Digital Patient, Wiley, 2016.
3. Ezell, B. & Parnell, G., "Comparison of Approaches for Adversary Modeling Decision Support for Counterterrorism," in Conflict and Complexity, Springer, 2015.
4. Ezell, B., "Homeland Security Risk Modeling," in Handbook of Real-World Applications in Modeling and Simulation, Wiley, 2012.

Note: Complete list includes 38 journal articles, 5 book chapters, and 17 conference proceedings.

TEACHING & INSTRUCTION

- Decision and Risk Analytics — Short Courses (24–40 hrs): NSA, DHS, Sandia National Laboratories, Idaho National Laboratory (2012–2022)
- Risk Modeling, Assessment and Management — DHS Office of Risk Management and Analysis (2009, 2011)
- Risk and Decision Analysis — Sandia National Laboratory, 32 hrs (2010)
- Continuing Education in Risk Analysis — 80th Military Operations Research Symposium, 16 hrs
- Statistical Methods in Psychology — Adjunct Professor, Saint Thomas Aquinas College, NY (2001)
- Elementary Statistics — Adjunct Professor, Mount Saint Mary's College, NY (2000–2001)
- Systems Design I & II; Introduction to Systems Design; Advanced Individual Studies — USMA West Point, Dept. of Systems Engineering (1998–2001)

DOCTORAL STUDENT MENTORING

- Ahmed M. Abdelmagid (2026) — Ph.D., Engineering Management & Systems Engineering. "An Integrated Bayesian Network-Based Zero Trust Model to Quantify Cyber Risk in Small-Medium Businesses." (Committee Director)
- Rafi Soule (2026) — Ph.D., Engineering Management & Systems Engineering. "Bridging Mission and Execution: Integrating Participatory Design in Early-Phase Mission Engineering." (Committee Director)
- John Young (2020) — Ph.D., M&S. "Validation Risk Across Hierarchical Models." (Committee Director)
- Alan Bell (2014) — Ph.D., M&S. "Time-Based Collision Risk Modeling for Air Traffic Management." (Committee Member)
- Kara Hill (2012) — Ph.D., EMSE. "Risk Quadruplet: Integrating Assessments of Threat, Vulnerability, Consequence, and Perception." (Committee Member)
- Shelly Bumphus (2012) — Ph.D., EMSE. "Assessing Resiliency and Sustainability in an Intelligence Infrastructure System." (Committee Co-director)
- Van Brewer (2010) — Ph.D., EMSE. "A Decision Making Construct for Complex Situations." (Committee Member)

CONSULTING ACTIVITIES

- Idaho National Laboratory — Critical Infrastructure Senior Analyst (2019–2022)

- Sandia National Labs — Global Biological, Chemical, and Nuclear Prioritization Modeling (2020)
- DHS — Quadrennial Homeland Security Review, Bioterrorism Risk Assessment Program (2014)
- DHS — Risk Assessment Process for Informed Decision Making (2010)
- DHS — Bioterrorism Risk Assessment Third Party Review (2011)

PROFESSIONAL MEMBERSHIPS & SERVICE

- Military Operations Research Society (MORS) — Member, 1998–Present; Risk Community of Practice Co-Lead, 2017–Present
- Society for Risk Analysis — Member, 1998–Present; Annual Conference Workshop Committee, 2010–2016
- Hampton Roads All-Hazards Advisory Committee — Member, 2015–Present; Resource Allocation Sub-committee, 2015–Present
- Security Analysis and Risk Management Association — President, May 2013–June 2015
- FBI InfraGard — Member, 2009–Present
- National Center for Simulation — Member, 2019–Present
- Editorial Review Board — International Journal of Operations Research, 2009–Present
- Association of the United States Army — Member, mid-1990s–Present

UNIVERSITY SERVICE

- Faculty Advisory Committee, ODU Research Foundation — 2023–Present
- Strategic Planning Group, Research Growth Subcommittee (appointed by President Hemphill) — 2021–2023
- ODU M&S Steering Committee — 2014–Present (Chair, 2018–Present)
- ODU Council of Chairs — 2019–2025
- Research Business Development Workshop Series for OERI Faculty & Staff — March–April 2024
- M&S Capstone Conference Panelist — 2009–Present
- ODU Military Activities Committee — 2015–Present

COMMUNITY ENGAGEMENT

- Threat Hazards Assessment Risk Assessment Advisory Council Member — 2025–2026
- Hampton Roads High School Debate Competition Judge — January 2026
- Toby's Dream Foundation — Founding Board Member (2009); Board President (2018–2023)
- Salem Woods Civic Association — President (2006–2011, 2013); Board of Directors (2022–2024)
- Hampton Roads All-Hazards Planning Committee — 2014–Present
- STEM Outreach Presentations — Salem Middle School (2017); St. Gregory the Great School (2014–2016)
- Science Fair Judge — St. Gregory the Great School (2013–2015)
- Panelist — NSF Engineering, Science and Technology (2013); DHS S&T Bioterrorism Risk Model Redesign (2013)
- National Homeland Security Conference — Speaker, 2011, 2012, 2013, 2016

MEDIA & RECOGNITION

- 2026 — Cybersecurity Maturity Model Certification Webinar Speaker (January 28, 2026)
- 2025 — "Honoring Veterans in STEM: Dr. Barry Ezell's Journey from Combat Veteran to Research Innovator," The Science Coalition
- 2024 — Awarded $8.2M for Spectrum Modernization Lab via Systems Engineering Research Center (Sponsor: USD R&E)
- 2022 — "No Small Potatoes: Understanding Risks and Impacts to Our Agricultural Supply Chain," Idaho National Laboratory
- 2021 — ODU Research Helping Virginia Plot COVID-19 Vaccine Strategy (multiple outlets)
- 2016 — VMASC Researchers Analyze Effectiveness of DHS Risk Assessment Tools
- 2013 — Elected President, Security Analysis and Risk Management Association
- 2012 — Named Chief Scientist at VMASC; VMASC Risk Analysis Work Cited by Leading Journal
- 2011 — "With Good Reason" Radio Interview on Cyber Risk to U.S. Infrastructure

HONORS & AWARDS

- 2008 — 3rd Meritorious Service Award, upon retiring, U.S. Army
- 2001 — 2nd Meritorious Service Award, U.S. Military Academy, U.S. Army
- 2000 — Selected for Fully Funded Ph.D. Program, U.S. Military Academy
- 1998 — Award for Distinguished Public Service, Center for Risk Management of Engineering Systems, University of Virginia
- 1997 — Selected for Army Fully Funded Graduate School; Instructor, Systems Dept., U.S. Military Academy
- 1996 — 1st Meritorious Service Award as Commanding Officer, U.S. Army; Ranked #1 of 45 company commanders; Promoted to Major one year ahead of peers
- 1993 — Commandant's List Top 10%, Infantry Advanced Officer Course, Ft. Benning, GA
- 1990 — Top Secret Clearance (held continuously through present); MVP Award, Air Defense Artillery Officer Basic Course, Ft. Bliss, TX
- 1988 — Graduated with Honors, University of Southern Mississippi
- 1984 — "Soldier of the Cycle," #1 of approximately 300 new soldiers, U.S. Army