

Jay Simon

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Previous Positions

2009-2015: Assistant Professor of Decision Science, Defense Resources Management Institute, Graduate School of Business & Public Policy, Naval Postgraduate School.

2005-2009: Instructor, Research Assistant, and Teaching Assistant, University of California, Irvine.

2004-2005: Quantitative Analyst, Prostate Cancer Decision Analyst (PCaDA).

Education

Ph.D.: Operations and Decision Technologies. Paul Merage School of Business, University of California, Irvine, 2009.

M.S.: Management Science and Engineering, Stanford University, 2004.

B.S.: Mathematical and Computational Science, Stanford University, 2003.

Peer-Reviewed Publications

Simon, J, Apte, A., & Regnier, E. (2017). An Application of the Multiple Knapsack Problem: The Self-Sufficient Marine. *European Journal of Operational Research* **256**(3) 868-876.

Apte, A., Khawam, J., Regnier, E., & Simon, J. (2016). Complexity and Self-Sustainment in Disaster Response Supply Chains. *Decision Sciences* **47**(6) 998-1015.

Simon, J. (2016). On the Existence of Altruistic Value and Utility Functions. *Theory and Decision* **81**(3) 371-391.

Huynh, C., & Simon, J. (2016). Using Means Objectives to Present Risk Information. *Decision Analysis* **13**(2) 117-127.

- Huynh, C., L. R. Keller, & Simon, J. (2016). Decision Technologies. In G. Keren & G. Wu (Eds.), *Wiley-Blackwell Handbook of Judgment and Decision Making*.
- Regnier, E., Simon, J., Nussbaum, D., & Whitney, L. (2015). The Fuel Multiplier in Multi-Stage Supply Chains. *Journal of Defense Modeling and Simulation* **12**(1) 5-17.
- Simon, J., Kirkwood, C. W., & Keller, L. R. (2014). Decision Analysis with Geographically Varying Outcomes: Preference Models and Illustrative Applications. *Operations Research* **62**(1) 182-194.
- Simon, J., Regnier, E., & Whitney, L. (2014). A Value-Focused Approach to Energy Transformation in the United States Department of Defense. *Decision Analysis* **11**(2) 117-132.
- Lipow, J., & Simon, J. (2014). Attitude, Aptitude, and Testing in the Efficient Mobilization of Military Manpower. *Defence and Peace Economics* **25**(2) 113-124.
- Lipow, J., & Simon, J. (2014). Probability Segmenting and the Social Cost of Draft Evasion. *Economics Bulletin* **34**(1) 307-312.
- Simon, J., & Melese, F. (2011). A Multiattribute Sealed-Bid Procurement Auction with Multiple Budgets for Government Vendor Selection. *Decision Analysis* **8**(3) 170-179.
- Guyse, J. L., & Simon, J. (2011). Consistency Among Elicitation Techniques for Intertemporal Choice: A Within-Subjects Investigation of the Anomalies. *Decision Analysis* **8**(3) 233-246.
- Lipow, J., & Simon, J. (2011). Military Reserves and Social Welfare. *Economics Letters* **113**(3) 208-210.
- Wang, Y., Keller, L. R., & Simon, J. (2011). Descriptive Models of Perceived Risk. In J. J. Cochran (Ed.), *Wiley Encyclopedia of Operations Research and Management Science*. Hoboken, NJ: Wiley.
- Simon, J., Wang, Y., & Keller, L. R. (2010). Paradoxes and Empirical Violations of Normative Decision Theory. In J. J. Cochran (Ed.), *Wiley Encyclopedia of Operations Research and Management Science*. Hoboken, NJ: Wiley.
- Simon, J. (2009). Decision Making with Prostate Cancer: A Multiple-Objective Model with Uncertainty. *Interfaces* **39**(3) 218-227.
- Keller, L. R., Simon, J., & Wang, Y. (2009). Multiple Objective Decision Making with Multiple Stakeholders. *TutORials in Operations Research* 139-155.

Manuscripts Under Review

Keller, L. R., & Simon, J. Preference Functions for Spatial Risk Analysis.

Simon, J., & Wang, Y. Nash Bargaining Problems with Altruistic Individuals.

Research in Progress

Simon, J. Procurement Auctions with Uncertain Buyer Preferences.

Regnier, E., & Simon, J. Estimating Multi-Commodity Demands of Self-Sustaining Supply Networks.

Simon, J., Saari, D., & Keller, L. R. Modeling Altruistic Preferences.

Simon, J., & Wall, K. D. Interpreting Output of Simulation-Based Sensitivity Analysis

Other Publications

Whitney, L., Regnier, E., & Simon, J. (2013). Energy Objectives for the United States Department of Defense. *Technical Report*. Office of Naval Research. Arlington, VA.

Regnier, E., Simon, J., Nussbaum, D., Apte, A. & Khawam, J. (2013). Fully-Burdened Cost of Supply in Self-Sustaining Logistics Networks. *Proceedings of the Tenth Annual Acquisition Research Symposium Volume II*. Monterey, CA. NPS-LM-13-C10P05R01-059.

Apte, A., Khawam, J., Regnier, E., Simon, J., & Nussbaum, D. (2013). Issues and Challenges in Self-Sustaining Response Supply Chains. *Proceedings of the Tenth Annual Acquisition Research Symposium Volume II*. Monterey, CA. NPS-LM-13-C10P05R06-064.

Regnier, E., Simon, J. & Nussbaum, D. (2012). Estimating Logistics Burdens in Support of Acquisition Decisions. *Proceedings of the Ninth Annual Acquisition Research Symposium Volume II*. Monterey, CA. NPS-AM-12-C9P24R01-091.

Feng, T., Jones, N. S., Kessel, L., Simon, J., Keller, L. R., & Kirkwood, C. (2007). Survey of Key Stakeholder Evaluation Concerns and Tradeoffs for Central Arizona Water Resource Planning: Methods and Results. *Technical Report*.

Decision Center for a Desert City, Global Institute of Sustainability, Arizona State University. Tempe, AZ.

Teaching Experience

Instructor, Kogod School of Business, American University (2015-present):
Business Analytics (undergraduate), *Business Insights through Analytics* (graduate),
Applied Managerial Statistics (graduate). Taught courses both on campus and online.

Lecturer and Discussion Leader, Defense Resource Management Institute, Naval Postgraduate School (2009-2015):
Delivered lectures encompassing a wide range of topics in quantitative analysis, decision maker preferences, uncertainty, risk, logistics, and economics. Coordinated and oversaw *Risk Management* and *Multicriteria Decision Making* courses.

Instructor, Global Public Policy Academic Group, Naval Postgraduate School (2012):
Introduction to Analytic Methods

Instructor, University of California, Irvine (2008-2009):
Business Statistics, Management Science

Teaching Interests

Decision analysis, analytics, preference modeling, behavioral decision theory, management science, operations research, statistics

Curriculum Development

American University:

ITEC 620 – Business Insights through Analytics: developed the online version of the course, including: creating new material, adapting existing material, recording asynchronous material (~17 hours), and leading development and delivery of synchronous material.

Naval Postgraduate School:

Developed substantial material, including lectures, problems, and cases, for many of DRMI's team-taught courses. New lectures created and delivered include: *Decisions and Human Behavior*, *Decisions Under Uncertainty*, *Evaluating Multiple Risks*, *Predicting*

Uncertain Events, Quantitative Models for Analysis, Resource Allocation with Multiple Risks, Risk Perception, Scoping Decision Problems, Smart Data Measurement, Uncertainty and Rationality.

Recent Honors and Awards

Defense Resources Management Institute Faculty Teaching Award, 2013.

NPS Acquisition Research Program Award (two), 2012-2013.

Member of the US Young Scholars & Experts Delegation to the Republic of China (Taiwan), 2012.

NPS Acquisition Research Program Award, 2011-2012.

Pierskalla Award Finalist, INFORMS Health Applications Section, 2010

National Science Foundation Dissertation Grant, Social and Economic Sciences: Decision, Risk, and Management Sciences, 2008-2009

Outstanding Teaching Assistant Award, upon vote of students in Executive MBA Class of 2009 (Statistics for Management, Management Science)

Outstanding Teaching Assistant Award, upon vote of students in Full-Time MBA Class of 2008 (Statistics for Management)

Sanli Pastore and Hill Excellence in Economics Writing Award, Third Place, 2009

Recent Conference Presentations

Simon, J. (2017). Procurement Auctions with Uncertain Buyer Preferences. INFORMS Computing Society Conference, Austin, TX.

Simon, J. (2016). Multiattribute Procurement Auctions with Unknown Buyer Preferences. INFORMS Annual Meeting, Nashville, TN.

Simon, J., Keller, L. R. (2016). Spatial Preference Functions for Risk Analysis. INFORMS Annual Meeting, Nashville, TN.

Simon, J., Apte, A., & Regnier, E. (2016). The Self-Sufficient Marine: Knapsacks and Tradeoffs. INFORMS International, Waikoloa, HI.

- Simon, J., Apte, A., & Regnier, E. (2016). An Application of the Multiple Knapsack Problem: The Self-Sufficient Marine. Western Decision Sciences Institute Annual Meeting, Las Vegas, NV.
- Huynh, C., & Simon, J. (2015). Using Means Objectives to Present Risk Information (poster). Society for Risk Analysis Annual Meeting, Alexandria, VA.
- Simon, J. (2015). Decision Analysis Concepts in Public Procurement. INFORMS Annual Meeting, Philadelphia, PA.
- Simon, J., Kirkwood, C. W., & Keller, L. R. (2015). Decision Analysis with Geographically Varying Outcomes: Preference Models and Illustrative Applications. INFORMS Annual Meeting, Philadelphia, PA.
- Simon, J. (2015). Altruistic Value and Utility Functions. INFORMS Annual Meeting, Philadelphia, PA.
- Regnier, E., & Simon, J. (2015). A Value-Focused Approach to Energy Transformation in the United States Department of Defense. Western Decision Sciences Institute Annual Meeting, Lahaina, HI.
- Simon, J., Kirkwood, C. W., & Keller, L. R. (2014). Decision Analysis with Geographically Varying Outcomes: Preference Models and Illustrative Applications. INFORMS Annual Meeting, San Francisco, CA.
- Apte, A., Regnier, E., & Simon, J. (2014). Self-Sufficient Warfighter Analysis. INFORMS Annual Meeting, San Francisco, CA.
- Simon, J., & Wall, K. D. (2014). Interpreting Output of Simulation-Based Sensitivity Analysis of Preference Parameters. Advances in Decision Analysis, Washington, DC.
- Regnier, E., & Simon, J. (2014). Managing Portfolio Effects in Costs and Benefits for Department of Defense Installation Energy Projects. Western Decision Sciences Institute Annual Meeting, Napa, CA.
- Huynh, C. H., & Simon, J. (2013). Risk Attitudes for Means Objectives. INFORMS Annual Meeting, Minneapolis, MN.
- Simon, J., & Regnier, E. (2013). Decision Support for Reducing Consumption in Self-Sustaining Supply Chains. INFORMS Annual Meeting, Minneapolis, MN.
- Simon, J., & Regnier, E. (2013). Energy Objectives for the U.S. Department of Defense. INFORMS Annual Meeting, Minneapolis, MN.

Lipow, J., & Simon, J. (2013). Attitude, Aptitude, and Testing in the Efficient Mobilization of Military Manpower. Western Economic Association Annual Conference. Seattle, WA.

Simon, J., & Wall, K. D. (2012). Sensitivity Analysis on Multiple Parameters with Simulation (poster). Society for Risk Analysis Annual Meeting, San Francisco, CA.

Regnier, E., & Simon, J. (2012). Estimating Costs of Self-Sustaining Logistics Networks. INFORMS Annual Meeting, Phoenix, AZ.

Lipow, J., & Simon, J. (2012). Probability Segmenting: Managing Uncertainty in Military Drafts. INFORMS Annual Meeting, Phoenix, AZ.

Regnier, E., Simon, J., & Nussbaum, D. (2012). Estimating Logistics Burdens in Support of Acquisition Decisions, Acquisition Research Symposium, Monterey, CA.

Recent Service

Associate Editor, *Decision Analysis*, 2012-present.

Webmaster & Social Media Officer, Decision Analysis Society, 2012-present.

Guest Editor, *Decision Analysis* special issue on Decision Analysis and Social Media, 2016-present.

Member, Kogod Undergraduate Curriculum Review Committee, 2016-present.

Track Chair, Computational Decision Analysis, INFORMS Computing Society Conference, 2017.

Track co-chair, Military Applications track, Western Decision Sciences Institute Annual Meeting, 2016.

Panelist, INFORMS Junior Faculty Interest Group: Publication Tips, 2015-2016.

Dissertation committee member, Jussi Kangaspunta, Aalto University, "Resource Allocation Methods for Defence and Infrastructure Systems," 2016.

Room Attendant, Kogod Case Competition, 2016.

Member, Kogod Bibliometrics Committee, 2015-2016.

Faculty Participant, Kogod MS in Analytics Webinar, 2015.

Panelist, Advances in Decision Analysis Research Incubator, 2014.

Judge, INFORMS Interactive Poster Competition, 2014.

Member, INFORMS Collaboration Subcommittee, 2014.

Panelist, INFORMS Future Academician Colloquium, 2012-2013.

Coordinator for DRMI's new Decision Science faculty search, 2011-2012.

Associate Editor (ad hoc), *Decision Analysis*, 2009-2011.

Editorial Board member, *Decision Analysis*, 2011.

Reviewer:

- Journals:
 - *Operations Research*
 - *Management Science*
 - *Decision Analysis*
 - *Decision Sciences*
 - *Risk Analysis*
 - *Manufacturing & Service Operations Management*
 - *European Journal of Operational Research*
 - *Journal of the Operational Research Society*
 - *Environment Systems & Decisions*
 - *Games*
- Funding organizations
 - *American Association for the Advancement of Science*
- Book chapters:
 - *Analytical Methods for Risk Management: A Systems Engineering Perspective.*

Session Chair:

- Information and Decision Making, INFORMS Computing Society Conference, Austin, TX, 2017.
- Applications of Multiattribute Preferences, INFORMS Annual Meeting, Nashville, TN, 2016.
- Trade-offs in Prescriptive Applications of Decision Analysis, INFORMS International, Waikoloa, HI, 2016.
- Operations and Logistics, WDSI Annual Meeting, Las Vegas, NV, 2016.
- Spatial Analysis for Multicriteria Decisions, INFORMS Annual Meeting, San Francisco, CA, 2014.

- Selecting Objectives, INFORMS Annual Meeting, Minneapolis, MN, 2013.
- Risk and Uncertainty in Public Policy and Defense, INFORMS Annual Meeting, Phoenix, AZ, 2012.
- Preferences over Intertemporal Outcomes, INFORMS Annual Meeting, San Diego, CA, 2009.
- Creating Vision, Mesa Court Keystone Conference, UC Irvine, 2009

Professional Memberships

- Decision Analysis Society
- Public Sector Operations Research
- INFORMS