ELISA F. LONG

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Academic Positions

UCLA Anderson School of Management
Bing ('86) and Alice Liu Yang Endowed Term Chair in Management, 2024-present
Professor of Decisions, Operations and Technology Management, 2023-present
Vice Chair of Curriculum and Teaching, 2023-2025
Associate Professor (with tenure) of Decisions, Operations and Technology Management, 2018-2023
Assistant Professor of Decisions, Operations and Technology Management, 2013-2018

Yale University
Assistant Professor of Operations Management, 2008-2013
Assistant Professor of Health Policy and Administration (by courtesy), 2012-2013

Education

Stanford University
PhD, Management Science and Engineering (Decision and Risk Analysis concentration), 2008
Dissertation: "Economic Analysis of Preventive and Therapeutic HIV Interventions"

Stanford University
MS, Management Science and Engineering, 2005

Cornell University
BS, Operations Research and Industrial Engineering (*Magna Cum Laude*), 2003

Research Interests

Healthcare operations, empirical analyses in healthcare, decision analysis, epidemic modeling, queueing applications in healthcare, cost-effectiveness analysis, Markov models, simulation

Honors & Awards

UCLA Anderson Clayburn La Force Faculty Leadership Award, 2025
UCLA Anderson MBA Teaching Award, 2021
UCLA Anderson MBA Teaching Award, 2018
UCLA Anderson Eric and E Juline Faculty Excellence in Research Award, 2018
UCLA Faculty Community Engagement Award, 2018
Poets & Quants Favorite Professor, 2018
Poets & Quants Best 40 Under 40 Professors, 2017
UCLA Anderson George W. Robbins Assistant Professor Teaching Award, 2016
Diana Gordon Jonsson Award, UCLA Jonsson Comprehensive Cancer Center, 2016
UCLA Faculty Career Development Award, 2015
Seth Bonder Research Fellowship Award, 2015
Stanford University Distinguished Alumni Scholar Award, 2010
Seth Bonder Award for Applied Operations Research in Health Services, INFORMS, 2005
Lee B. Lusted Award for Best Student Oral Presentation, Society for Medical Decision Making, 2005
Cortland and Jean Van Rensselear Graduate Fellowship, Stanford University, 2003

Merrill Presidential Scholar (top 1% of graduating class), Cornell University, 2003
Ormond Scholar (Highest Honors), University of Melbourne, Australia, 2002
Lockheed Martin Engineering Scholar Award, Cornell University, 2001

Refereed Publications

1. Bravo F, Gandhi A, Hu J, **Long EF**. "Closer to Home: A Structural Estimate-then-Optimize Approach to Improve Access to Healthcare Services", *Management Science*, 2025.
   - Pierskalla Best Paper (finalist), *INFORMS Health Applications Society*, 2024
2. Berger N, Schulze-Schwering S, **Long EF**, Spinler S. "Risk Management of Supply Chain Disruptions: An Epidemic Modeling Approach", *European Journal of Operational Research*, 2023, 304(3):1036-1051.
3. **Long EF**, Montibeller G, Zhuang J. "Health Decision Analysis: Evolution, Trends, and Emerging Topics", *Decision Analysis*, 2022, 19(4):255-264.
4. Chen MK, Chevalier JA, **Long EF**. "Nursing Home Staff Networks and COVID-19", *Proceedings of the National Academy of Sciences*, 2021, 118(1):e2015455118.
5. Bravo F, Corcoran T, **Long EF**. "Flexible Drug Approval Policies", *Manufacturing & Service Operations Management*, 2021, 24(1):542-560.
   - Best Paper (finalist) *POMS College of Healthcare Operations Management*, 2019
   - Best Paper (first place), *INFORMS Public Sector OR Section*, 2018
   - Pierskalla Best Paper (finalist), *INFORMS Health Applications Society*, 2018
   - Best Student Paper (finalist), *INFORMS Manufacturing & Service Operations Management Society*, 2018
6. Brauer ER, **Long EF**, Petersen J, Ganz PA. "Current Practice Patterns and Gaps in Guideline-Concordant Breast Cancer Survivorship Care", *Journal of Cancer Survivorship*, 2021.
7. **Long EF**, Chen MK, Rohla R. "Political Storms: Emergent Partisan Skepticism of Hurricane Risks", *Science Advances*, 2020, 6(37):eabb7906.
8. Zhang B, **Long EF**. "Cost-effectiveness Analysis of Palbociclib or Ribociclib in the Treatment of Advanced Hormone Receptor-Positive, HER2-Negative Breast Cancer", *Breast Cancer Research and Treatment*, 2019, 175(3):775-779.
9. Brauer ER, **Long EF**, Melnikow J, Ravdin PM, Ganz PA. "Communicating Risks of Adjuvant Chemotherapy for Breast Cancer: Getting Beyond the Laundry List", *Journal of Oncology Practice*, 2019, 15(2): e98-e109.
10. **Long EF**, Nohdurft E, Spinler S. "Spatial Resource Allocation for Emerging Epidemics: A Comparison of Greedy, Myopic and Dynamic Policies", *Manufacturing & Service Operations Management*, 2018, 20(2):181-198.
    - Best Paper (second place), *INFORMS Public Sector OR Section*, 2015
11. **Long EF**, Mathews KS. "The Boarding Patient: Effects of ICU and Hospital Occupancy Surges on Patient Flow", *Production and Operations Management*, 2018, 27(12):2122-2143.
    - Most Influential Service Operations Paper Award (finalist), *POMS College of Service Operations*, 2019
12. Nohdurft E, **Long EF**, Spinler S. "Was Angelina Jolie Right? Optimizing Cancer Prevention Strategies among BRCA Mutation Carriers", *Decision Analysis*, 2017 Sep, 14(3):139-169.
    - Special Recognition Award (annual award for paper most worthy of recognition), *Decision Analysis*, 2017
13. Zelenev A, **Long EF**, Bazazi AR, Kamarulzaman A, Altice FL. "The Complex Interplay of Social Networks, Geography and HIV Risk among Malaysian Drug Injectors: Results from Respondent-Driven Sampling", *International Journal of Drug Policy*, 2016, 37:98-106.
14. **Long EF**, Ganz PA. "Cost-effectiveness of Universal BRCA1/2 Screening", *JAMA Oncology*, 2015, Sep:1-2.

15. Mathews KS, **Long EF**. "A Conceptual Framework for Improving Critical Care Patient Flow and Bed Use", *Annals of the American Thoracic Society*, 2015, 12(6):886-894.

16. Gilbert JA, **Long EF**, Brooks RP, Friedland GH, Moll AP, Townsend JP, Galvani AP, Shenoi SV. "Integrating Community-Based Interventions to Reverse the Convergent TB/HIV Epidemics in Rural South Africa", *PLoS ONE*, 2015, 10(5):e0126267.

17. VanDeusen A, Paintsil E, Agyarko-Poku T, **Long EF**. "Cost Effectiveness of Option B Plus for Prevention of Mother-to-Child Transmission of HIV in Resource-Limited Countries: Evidence from Kumasi, Ghana", *BMC Infectious Diseases*, 2015, 15(130):1-10.

18. Song D, Altice FL, Copenhaver MM, **Long EF**. "Cost-effectiveness Analysis of Brief and Expanded Evidence-Based Risk Reduction Interventions for HIV-Infected People Who Inject Drugs in the United States", *PLoS ONE*, 2015, 10(2):e0116694.

19. Alistar SS, **Long EF**, Brandeau ML, Beck EJ. "HIV Epidemic Control—A Model for Optimal Allocation of Prevention and Treatment Resources", *Health Care Management Science*, 2014, 17(2):162-181.

20. **Long EF**, Mandalia R, Mandalia S, Alistar SS, Beck EJ, Brandeau ML. "Expanded HIV Testing in Low-Prevalence, High-Income Countries: A Cost-Effectiveness Analysis for the United Kingdom", *PLoS ONE*, 2014, 9(4):e95735.

21. **Long EF**, Swain GW, Mangi AA. "Comparative Survival and Cost-Effectiveness of Advanced Therapies for End-Stage Heart Failure", *Circulation: Heart Failure*, 2014, 7(3):470-8.

22. **Long EF**, Stavert RR. "Portfolios of Biomedical HIV Interventions in South Africa: A Cost-Effectiveness Analysis", *Journal of General Internal Medicine*, 2013, 28(10):1294-301.

23. Eaton JW, Johnson LF, Salomon JA, Bärnighausen T, Bendavid E, Bershteyn A, Bloom DE, Cambiano V, Fraser C, Hontelez JAC, Humair S, Klein DJ, **Long EF**, Phillips AN, Pretorius C, Stover J, Wenger EA, Williams BG, Hallett TB. "HIV Treatment as Prevention: Systematic Comparison of Mathematical Models of the Potential Impact of Antiretroviral Therapy on HIV Incidence in South Africa", *PLoS Medicine*, 2012, 9(7):e1001245.

24. HIV Modeling Consortium Treatment as Prevention Editorial Writing Group. "HIV Treatment as Prevention: Models, Data, and Questions—Towards Evidence-Based Decision-Making", *PLoS Medicine*, 2012, 9(7):e1001259.

25. **Long EF**, Owens DK. "The Cost-Effectiveness of a Modestly Effective HIV Vaccine in the United States", *Vaccine*, 2011, 29(36):6113-24.

26. **Long EF**. "HIV Screening via Fourth-Generation Immunoassay or Nucleic Acid Amplification Test in the United States: A Cost-Effectiveness Analysis", *PLoS ONE*, 2011, 6(11):1-10.

27. Juusola JL, Brandeau ML, **Long EF**, Owens DK, Bendavid E. "The Cost-Effectiveness of Symptom-Based Testing and Routine Screening for Acute HIV Infection in Men Who Have Sex with Men in the United States", *AIDS*, 2011, 25(14):1779-87.

28. Kaimal AJ, Little SE, Odibo AO, Stamilio DM, Grobman WA, **Long EF**, Owens DK, Caughey AB. "Cost-Effectiveness of Elective Induction of Labor at 41 Weeks in Nulliparous Women", *American Journal of Obstetrics and Gynecology*, 2011, 204(2):137.e1-e9.

29. **Long EF**, Brandeau ML, Owens DK. "The Cost-Effectiveness and Population Outcomes of Expanded HIV Screening and Antiretroviral Treatment in the United States", *Annals of Internal Medicine*, 2010, 153(12):778-89.

30. **Long EF**, Brandeau ML, Owens DK. "Potential Population Health Outcomes and Expenditures of HIV Vaccination Strategies in the United States", *Vaccine*, 2009, 27(39):5402-10.

31. Patil CG, **Long EF**, Lansberg MG. "Cost-Effectiveness Analysis of Mechanical Thrombectomy in Acute Ischemic Stroke", *Journal of Neurosurgery*, 2009, 110(3):508-13.

32. **Long EF**, Vaidya NK, Brandeau ML. "Controlling Co-epidemics: Analysis of HIV and Tuberculosis Infection Dynamics", *Operations Research*, 2008, 56(6):1366-81.

33. **Long EF**, Brandeau ML, Galvin CM, Vinichenko T, Tole SP, Schwartz A, Sanders GD, Owens DK. "Effectiveness and Cost-Effectiveness of Strategies to Expand Antiretroviral Therapy in St. Petersburg, Russia", *AIDS*, 2006, 20:2207-15.

Working Papers

1. Hu J, Bravo F, **Long EF**. "Predicting Long-Term Opioid Use Via Interpretable Machine Learning", 2024.

2. **Long EF**, Chen MK, Chevalier JA, Caughey AB. "The Political Paradox of Reproductive Healthcare: Private Behavior vs. Public Opinion on Abortion in Conservative States", 2024.

3. **Long EF**. "Opioid and Benzodiazepine Prescriptions within Pharmacy Deserts in California, 2016-2019", 2022.

4. **Long EF**, Ganz PA. "A Personalized Decision-Support Tool for Risk-Reducing Surgery in BRCA1/2 Mutation Carriers", 2021.

5. Chen MK, Zhuo Y, De La Fuente M, **Long EF**. "Partisan Responses to COVID-19 Government Restrictions: Evidence from Individual Smartphone Mobility Data", 2021.

Popular Press Articles

1. "How Statistics Guided Me Through Life, Death, and 'The Price is Right' ", *Washington Post*, August 7, 2015. `http://wapo.st/1KVF46X`

Other Publications

1. **Long EF**, Brandeau ML. "OR's Next Top Model: Decision Models for Infectious Disease Control" In *Tutorials in Operations Research*, Gray P (Ed.), Institute for Operations Research and Management Sciences (INFORMS), 2009.

2. Caughey AB, Sundaram V, Kaimal AJ, Cheng YW, Gienger A, Little SE, Lee JF, Wong L, Shaffer BL, Tran SH, Padula A, McDonald KM, **Long EF**, Owens DK, Bravata DM. "Maternal and Neonatal Outcomes of Elective Induction of Labor", Evidence Report/Technology Assessment No. 176. (Prepared by the Stanford University-UCSF Evidenced-based Practice Center). *Agency for Healthcare Research and Quality (AHRQ)* Publication No. 09-E005, 2009.

3. Brandeau ML, **Long EF**, Hutton DW, Owens DK. "Optimal Spending on HIV Prevention and Treatment: A Framework for Evaluating the Cost-Effectiveness of HIV Prevention and Treatment Programs with Example Application to the India AIDS Initiative", In *Optimization in Medicine and Biology*, Lim GJ and Lee EK (Eds.), Taylor and Francis Publishers, 2008.

Invited Talks

University of Nebraska-Lincoln, College of Business, May 2024
University of Michigan, Ross School of Business, April 2024
Stanford University, Graduate School of Business, February 2024
University of Pennsylvania, Wharton School, January 2024
Cornell University, Johnson Graduate School of Management, September 2023
University of Chicago, Institute for Mathematical and Statistical Innovation, April 2023
Georgia Tech, School of Industrial and Systems Engineering, September 2021
Centers for Disease Control and Prevention, March 2021
Stanford University, Management Science & Engineering, December 2020
London Business School, December 2020
Yale School of Management, October 2020

UCLA, Computational Medicine, January 2020
University of Illinois, Gies College of Business, December 2019
Southern Methodist University, Cox School of Business, August 2018
USC, Schaeffer Center for Health Policy and Economics, June 2016
Scripps Translational Science Institute, March 2016
UCLA, Jonsson Comprehensive Cancer Center, February 2016
Centers for Disease Control and Prevention, May 2014
UCLA, Fielding School of Public Health, April 2014
UC-Berkeley, School of Engineering, February 2013
New York University, Department of Population Health, February 2013
USC, School of Engineering, February 2013
UCLA, Anderson School of Management, January 2013
University of North Carolina, Kenan-Flagler Business School, December 2012
Stanford University, School of Medicine, November 2012
Utah Winter Operations Conference, February 2012
Yale University, Section of Pulmonary and Critical Care Medicine, February 2012
New York University, School of Medicine, December 2011
MIT Sloan School of Management, November 2011
Georgia Tech, School of Industrial and Systems Engineering, October 2011
University of Chicago, Booth School of Business, May 2011
Northeastern University, College of Engineering, April 2011
Joint United Nations Programme on HIV/AIDS (UNAIDS), Geneva, Switzerland, March 2011
New York University, School of Medicine, December 2010
Yale School of Public Health, November 2010
London Business School (Innovation in Operations Conference), June 2010
United States Coast Guard Academy, April 2009

Conference Presentations

"Big (Bad?) Data and the Healthcare Consumer"
- American Bar Association Annual Emerging Issues in Healthcare Law Conference, San Diego, CA, March 2023

"Digital Footprints: How Smartphone Location Data Can Track Health Behaviors and Other Phenomena"
- INFORMS Annual Meeting, Indianapolis, IN, October 2022

"Nursing Home Staff Networks and COVID-19"
- INFORMS Healthcare Conference (virtual), July 2021
- INFORMS Annual Meeting, Anaheim, CA, October 2021

"Political Storms: Emergent Partisan Skepticism of Hurricane Risks"
- INFORMS Annual Meeting, Seattle, WA, October 2019

"Spatial Resource Allocation for Emerging Epidemics: A Comparison of Greedy, Myopic, and Dynamic Policies"
- Production and Operations Management (POMS) Annual Meeting, Houston, TX, May 2018
- 9th Annual Conference on Health and Humanitarian Logistics, Copenhagen, Denmark, June 2017

"Individual Decision-Making in Breast Cancer Treatment"
- Advances in Decision Analysis Conference, Austin, TX, June 2017
- Production and Operations Management (POMS) Annual Meeting, Seattle, WA, May 2017
- INFORMS Annual Meeting, Nashville, TN, November 2016
- INFORMS Health Care Conference, Nashville, TN, July 2015

"The Boarding Patient: Effects of ICU and Hospital Occupancy Surges on Patient Outcomes"
- INFORMS Annual Meeting, Nashville, TN, November 2016

"Patients without Patience: An Econometric Model of Waiting in the Intensive Care Unit"
- INFORMS Annual Meeting, Minneapolis, MN, October 2013
- INFORMS Health Care Conference, Chicago, IL, June 2013

- Production and Operations Management (POMS) Annual Meeting, Denver, CO, May 2013

"Optimizing the Flow of Short-Stay Patients in the Intensive Care Unit: A Simulation Model"
- INFORMS Annual Meeting, Phoenix, AZ, October 2012
- Society for Medical Decision Making Annual Meeting, Phoenix, AZ, October 2012

"Potential Impact of an RV144-like HIV Vaccine in Diverse Epidemic Settings"
- XIX International AIDS Conference, Washington, DC, July 2012

"A Portfolio Approach to HIV Control in South Africa"
- 7th International AIDS Economics Network Meeting, Washington, DC, July 2012
- INFORMS Health Care Conference, Montreal, Canada, June 2011
- Society for Medical Decision Making Annual Meeting, Chicago, IL, October 2011
- INFORMS Annual Meeting, Charlotte, NC, November 2011

"The Cost-Effectiveness of an HIV Vaccine with Exponentially Declining Efficacy"
- INFORMS Health Care Conference, Montreal, Canada, June 2011
- INFORMS Annual Meeting, Charlotte, NC, November 2011

"The Cost-Effectiveness of Acute HIV Screening in the United States"
- 17th Conference on Retroviruses and Opportunistic Infections, San Francisco, CA, February 2010
- INFORMS Annual Meeting, Austin, TX, November 2010

"A Tale of Two Models: Health Benefits and Costs of HIV Vaccination in the United States"
- Manufacturing and Service Operations Management Annual Conference, Haifa, Israel, June 2010
- AIDS Vaccine 2010 Conference, Atlanta, Georgia, September 2010
- INFORMS Annual Meeting, Austin, TX, November 2010

"How Effective is Comparative Effectiveness?"
- Yale University Healthcare Conference, New Haven, CT, April 2010

"Cost-Effectiveness of Alternative HIV Intervention Portfolios in South Africa"
- Society for Medical Decision Making Annual Meeting, Hollywood, CA, October 2009

"OR's Next Top Model: Decision Models for Infectious Disease Control"
- INFORMS Annual Meeting, San Diego, CA, October 2009

"Economic Evaluation of HIV Interventions: Expanded Screening versus Treatment"
- INFORMS Annual Meeting, Washington, DC, October 2008
- Society for Medical Decision Making Annual Meeting, Philadelphia, PA, October 2008

"The Cost-Effectiveness of Alternative HIV Vaccination Strategies among U.S. Risk Groups"
- INFORMS Annual Meeting, Seattle, WA, November 2007
- Society for Medical Decision Making Annual Meeting, Pittsburgh, PA, October 2007

"Optimal Allocation of HIV Prevention and Treatment Resources"
- INFORMS Annual Meeting, Seattle, WA, November 2007
- Society for Medical Decision Making Annual Meeting, Pittsburgh, PA, October 2007

"The Cost-Effectiveness of Expanding Antiretroviral Therapy in Russia"
- Operating on Health Care: An Operations Research Symposium, Vancouver, Canada, August 2007
- Harvey Mudd Conference on Public Sector Operations Research, Los Angeles, CA, September 2007
- 16th International Conference on AIDS, Cancer & Public Health, St. Petersburg, Russia, May 2007

"Mathematical Modeling of Infectious Disease Co-epidemics: HIV and Tuberculosis in India"
- INFORMS Annual Meeting, Pittsburgh, PA, November 2006
- INFORMS Annual Meeting, San Francisco, CA, November 2005

"Treating Injection Drug Users with Antiretroviral Therapy: Effect on the HIV Epidemic in Russia"
- 14th International Conference on AIDS, Cancer & Public Health, St. Petersburg, Russia, May 2005
- Society for Medical Decision Making Annual Meeting, San Francisco, CA, October 2005

Expert Work

1. Expert testimony in pharmaceutical damages case (deposition May 2024)
2. Expert witness in biopharma statistical sampling case (September 2024)

Teaching Experience

UCLA Anderson School of Management
Data and Decisions (MBA core), 2013-present
Entertainment and Sports Analytics (MBA capstone), 2023-present
Healthcare Analytics (MSBA and MBA elective), 2018-2021

Yale School of Management
Introduction to Probability Modeling (MBA core), 2011-2013
Healthcare Operations (MBA elective and Executive MBA core), 2008-2013
Leadership Development Program (MBA core), 2010-2011
Decision Analysis (MBA elective), 2008-2010

Stanford University
TA for Analysis of Costs, Risks, and Benefits of Healthcare (MBA elective), 2005-2007
TA for Principles of Decision Analysis (graduate course), 2004-2005

Cornell University
TA for Engineering Stochastic Processes (undergraduate course), 2002-2003
TA for Introduction to Operations Research (undergraduate course), 2002-2003

Grants

1. "Decision-Making among BRCA Mutation Carriers"
   Goldberg Charitable Trust and UCLA Jonsson Cancer Center Foundation
   Role: Primary Investigator (2017-2018)
2. "Making Better Decisions: Policy Modeling for AIDS and Drug Abuse" (R01-DA15612)
   National Institute on Drug Abuse
   Role: Consultant (2013-2018)
3. "Secondary HIV Prevention and Adherence among HIV-Infected Drug Users" (R01-DA032290)
   National Institute on Drug Abuse
   Role: Co-Investigator (2012-2013)

Industry Experience

Strategic Decisions Group, Palo Alto, CA
Summer Consultant, June-August 2004

University of Melbourne, Melbourne, Australia
Research Assistant, Strategic Planning in Naval Operations, February-July 2002

Maxim Integrated Products, Sunnyvale, CA
Production Planning Co-op, August-December 2001

Professional Activities

Associate Editor: *Management Science*, *Manufacturing & Service Operations Management*, *Health Care Management Science*

Member: Institute for Operations Research and Management Sciences (INFORMS), Production and Operations Management Society (POMS), Society for Medical Decision Making (SMDM)

Reviewer: *Management Science*, *Operations Research*, *Manufacturing & Service Operations Management*, *Production & Operations Management*, *Health Care Management Science*, *Annals of Internal Medicine*

Grant reviewer: National Science Foundation