

FERNANDA BRAVO

Anderson School of Management, University of California, Los Angeles

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APPOINTMENTS

University of California, Los Angeles, CA

Anderson School of Management

Decisions, Operations, and Technology Management

Assistant Professor

Jul 2015 - Present

EDUCATION

Massachusetts Institute of Technology, Cambridge, MA

Sloan School of Management

Ph.D. in Operations Management

Sept 2010 - Jul 2015

· Thesis title: *Cost and resource allocation in healthcare delivery systems.*

Advised by Retsef Levi.

Universidad de Chile, Santiago, Chile

School of Engineering

Master in Operations Management (Graduated with Highest Honors)

Mar 2008 - Oct 2009

Industrial Engineering

Mar 2002 - Oct 2009

· Double Bachelor Degree in Industrial and Biotechnology Engineering

· Graduated 1st (out of 117) in the Industrial Engineering class with Highest Honors

PUBLISHED PAPERS

Bravo, F., and Y. Shaposhnik. Mining optimal policies: a pattern recognition approach to model analysis. *INFORMS Journal on Optimization* (2020). <https://doi.org/10.1287/ijoo.2019.0026>

Johnson, D., Kwok, E., Ahn, C., Pashchinskiy, A., Laviana, A., Golla, V., Rosenthal, T., Bravo, F., Litwin, M. and C. Saigal. (2019) Financial margins for prostate cancer surgery: Quantifying the impact of modifiable cost inputs in an episode-based reimbursement model. *The Journal of Urology* 202, no. 3 (2019): 539-545. <https://doi.org/10.1097/JU.0000000000000283>

Adida, E. and F. Bravo. Contracts for healthcare referral services: Coordination via outcome-based penalty contracts. *Management Science* 65, no. 3 (2019): 1322-1341. <https://doi.org/10.1287/mnsc.2017.3000>.

· Summary article at *UCLA Anderson Review*.

Bravo, F., L. Ferrari, R. Levi, M. McManus. The nature and sources of variability in pediatric surgical case duration. *Paediatric Anaesthesia* (2015). <https://doi.org/10.1111/pan.12709>

Bravo, F., G. Durán, A. Lucena, J. Marengo, D. Morán, A. Weintraub. Mathematical models for optimizing production chain planning in salmon farming. *International Transactions in Operational Research* 20.5 (2013): 731-766.

Hernández P., A. Alonso-Ayuso, F. Bravo, L. Escudero, M. Guignard., V. Marianov, A. Weintraub. A branch-and-cluster coordination scheme for selecting prison facility sites under uncertainty. *Computers & Operations Research* 39.9 (2012): 2232-2241.

SUBMITTED PAPERS

Bravo, F., T. Corcoran, E. Long. Flexible drug approval policies. Accepted in *Manufacturing & Service Operations Management* (September 2020).

- First place Public Sector OR Competition 2018.
- Third place CHOM Best Paper Award 2019.
- Finalist Pierskalla Best Paper Award 2018.
- Finalist MSOM Student Paper Competition 2018.
- Summary article at *UCLA Anderson Review*.

Johnson, D., F. Bravo, E. Kwok, C. Ahn, A. Pashchinskiy, M.S. Litwin, and C.S. Saigal Prospective financial modeling to predict outcomes and quantify risk in episode-based payment models. Accepted in *The American Journal of Managed Care* (November 2020).

- Summary article at UCLA Anderson Review.

Nyotta, B., F. Bravo, and K. Chen. Computing the conditional entry-state distribution in Erlang loss systems. Minor Revision in *OR Letters* (December 2020).

Bravo, F., M. Braun, V. Farias, R. Levi. Optimization-driven framework to understand healthcare networks cost and resource allocation. 1st round of revision in *Health Care Management Science*.

Bravo, F., R. Levi, G. Perakis, G. Romero. A Risk-sharing pricing contract for service outsourcing applied to healthcare referrals. Major revision at *Production and Operations Management*.

Bravo, F., C. Rudin, Shaposhnik Y., and Yuan Y. Simple rules for predicting congestion risk in queueing systems: Application to ICUs. Under Revision *Management Science* (September 2020).

WORKING PAPERS

Adida, E. and F. Bravo. Comprehensive primary care plus initiative: implications and recommendations. Reject & Resubmit to *MSOM* (October 2020).

Nyotta, B., F. Bravo, J. Feldman. Discounted rides in dockless, electric vehicle sharing systems. In preparation to be resubmitted to *MSOM* (To be submitted in Spring 2021).

- Summary article at UCLA Anderson Review.

Nyotta, B., F. Bravo, K. Chen. Estimating spatial elasticity.

RESEARCH IN PROGRESS

Bravo, R., T. Corcoran, E. Long, and C. Tang. Contracts to increase the effectiveness and availability of vaccines.

Bravo, F., J. Hu, A. Siddiq Pricing idleness in micro mobility-shared systems.

Bravo, F., Y. Chen, J. Silberholz Identification of adverse drug reactions in medical drugs labels.

TEACHING EXPERIENCE

UCLA, Anderson School of Management, Los Angeles, CA

2015 - Present

- Professor:
 - Operations and Technology Management (core, MBA and Full-Employed MBA)
 - Contracts in Operations and Supply Chains (PhD seminar, DOTM)
 - Healthcare Management and Analytics (elective, Master in Business Analytics)
 - Healthcare Management and Analytics (executive, Easton Center)

MIT, Sloan School of Management, Cambridge, MA

2013 - 2015

- Teaching Assistant:
 - Operations Management (Executive MBA)
 - System Optimization and Analysis (Leaders of Global Operations Master-MBA)
 - Healthcare Delivery Systems (MBA)

Universidad de Chile, Industrial Engineering, Santiago, Chile

2005 - 2010

- Instructor: Optimization, (Undergraduate).
- Teaching Assistant: Optimization, Operations Management, and Operations Research (Undergraduate), Logistics and Production (Graduate).

Universidad de los Andes, Industrial Engineering, Santiago, Chile

2009 - 2010

- Instructor: Stochastic Models, Operations Management, Math Modeling (Undergraduate).

Universidad Andrés Bello, Instituto Salud y Futuro, Santiago, Chile

2006 - 2007

- Instructor: Seminar in Quantitative Methods Applied to Healthcare (MBA Healthcare track).

UNIVERSITY SERVICE

Decisions, Operations and Technology Management area

- PhD Program Liaison 2018 - 2020
- PhD Program Admission Committee 2016 - Present
- Colloquium Series Coordinator 2016 - Present

Voting Member of the UCLA Legislative Assembly

2017 - 2020

Member of PhD students thesis committee:

- Co-advising: Jingyuan Hu (1st year), Bobby Nyotta (5th year). 2016 - Present
- Undergraduate Students: Yunliang Chen (2019-2020; PhD student at Berkeley), Artem Pashchinskiy (2018; IQVIA)
- Graduated PhD Students: Taylor Corcoran (2019; Sable Education LLC)

CONFERENCE PRESENTATIONS

Prospective Financial Modeling of Clinical Episodes of Care

- ValU Care Redesign Summit, Los Angeles, CA Jun 2019.

Financial Incentives under CPC+

- INFORMS Annual Meeting, Seattle, WA, Oct 2019.
- INFORMS Healthcare Conference, Boston, MA, Jul 2019.
- POM Annual Meeting, Washington, DC, May 2019.

Optimizing an Electric Vehicle Charing System

- INFORMS Annual Meeting, Phoenix, AZ, Nov 2018.

Mining Optimal Policies: A Pattern Recognition Approach to Model Analysis

- CIST-Conference on Information Systems and Technology, Phoenix, AZ, Nov 2018.
- INFORMS Annual Meeting, Phoenix, AZ, Nov 2018.
- EURO Conference, Valencia, Spain, Jul 2018.
- MSOM Conference, Dallas, TX, Jul 2018.

Contracts for Healthcare Referrals Services

- INFORMS Healthcare Conference, Rotterdam, Netherlands, Jul 2017.
- MSOM Conference, Chapel Hill, NC, Jun 2017.
- POMS Conference, Seattle, WA, May 2017.

- INFORMS Annual Meeting, Nashville, TN, Nov 2016.

Managing Capacity for Long-Stay-Patients in a Pediatric ICU

- INFORMS Annual Meeting, Nashville, TN, Nov 2016.
- POMS Conference, Orlando, FL, May 2016.

Pricing Contracts between Healthcare Systems

- INFORMS Healthcare Conference, Nashville, TN, Jul 2015.
- INFORMS Conference, San Francisco, CA, Nov 2014.
- MSOM Conference, Seattle, WA, Jun 2014.
- SIAM Optimization Conference, San Diego, CA, May 2014.
- INFORMS Annual Meeting, Minneapolis, MN, Oct 2013.

Efficient Cost and Resource Allocation in Healthcare Delivery Systems

- INFORMS Annual Meeting, Nashville, TN, Nov 2016.
- INFORMS Conference, San Francisco, CA, Tuesday Nov 2014.
- MSOM Conference, Presented by Retsef Levi, Seattle, WA, Jun 2014.
- SIAM Optimization, Presented by Retsef Levi, San Diego, CA, May 2014.
- MIT Sloan Healthcare Seminar Series, Cambridge, MA, Apr 2014.

Production Planning Model for the Salmon Fresh Water Stage under Uncertainty

- The International Conference on Continuous Optimization (ICCOPT), Santiago, Chile, Jul 2010.
- VIII Chilean Congress of Operations Research (OPTIMA), Chillán, Chile, Oct 2009.
- XIV Latin American OR Summer School (ELAVIO), El Fuerte, México, Aug 2009.

INVITED SEMINARS

- University of Chile, Industrial Engineering Department, Santiago, Chile, Jan 2021.
- HEC Montreal Business School, Montreal, Canada, April 2020 (postponed due to COVID).
- University of Virginia, Darden School of Business, Charlottesville, VA, Fall 2020. (postponed due to COVID).
- USC, Marshall School of Business, Los Angeles, CA, Apr 2019.
- Duke University, The Fuqua School of Business, Durham, NC, Apr 2019.
- Northwestern University, Kellogg School of Management, Evanston, IL, Oct 2016.
- UC San Diego, Rady School of Management, San Diego, CA, May 2016.
- University of Florida, Herbert Wertheim College of Engineering, Gainesville, FL, Mar 2015.
- UCLA, Anderson School of Management, Los Angeles, CA, Feb 2015.
- UC Berkeley, Haas School of Business, Berkeley, CA, Feb 2015.
- Washington University in St. Louis, Olin Business School, St. Louis, MO, Feb 2015.
- University of Waterloo, Management Sciences, Waterloo, Canada, Feb 2015.
- Eindhoven University of Technology, Department of Industrial Engineering, Eindhoven, Netherlands, Jan 2015.
- University of Pittsburgh, Swanson School of Engineering, Pittsburgh, PA, Jan 2015.
- Harvard University, Harvard Kennedy School, Cambridge, MA, Jan 2015.
- University of Washington, Foster School of Business, Seattle, WA, Jan 2015.

- McGill University, Desautels Faculty of Management, Montreal, Canada, Jan 2015.
- Emory University, Goizueta Business School, Atlanta, GA, Dec 2014.

HONORS

- *Fellowship, Thomas P. Gerrity, Jr. (1963)*, 2010-2015
Sloan School of Management, MIT.
- *Roberto Ovalle Aguirre Award*, 2010
Instituto de Ingenieros Chile. Awarded to the best thesis project with high impact on a national industry.
- *Dean's List*, 2003-2007
School of Engineering, Universidad de Chile. Awarded to the best 5% of students in the engineering school out of 554.
- *Best Reader*, 2007
Industrial Engineering Department, Universidad de Chile.
- *Universidad de Chile Scholarship*, 2002-2007
Awarded to top 100 new enrolled students (merit and need based) across the entire university.

PROFESSIONAL ACTIVITIES

- Member of INFORMS, MSOM Society, POM Society.
- Ad-hoc reviewer for Management Science, MSOM, Interfaces, POM, and Operations Research for Health Care Journal.
- Cluster chair MSOM Healthcare for the 2017 & 2019 INFORMS Annual Meeting.
- Cluster chair Healthcare Analytics for the 2020 & 2021 POM Conference.
- Judge for the Pierskalla Award 2017, 2019 & 2020.
- Judge for the HAS student paper competition 2019 & 2021.
- Judge for the MSOM student paper competition 2017-2019.
- Judge for the CHOM best paper award 2020.
- Co-chair Public Sector Operations Research paper competition 2019.

NON-ACADEMIC WORK EXPERIENCE

Millennium Institute Complex Engineering Systems, Santiago, Chile

Assistant Editor

2009-2010

- Edition of the journal Engineering System Journal (RIS) XXIII 2009, XXIV 2010.

Polisoft Ltda. Consulting, Santiago, Chile

Project Engineer

Dec 2006-Sept 2008

- Cash Flow Automation. Industria de Alimentos Trendy S.A.
- Health Management System. The National Public Health Service, North Zone

Biosonda S.A., Santiago, Chile

Biotechnology Intern

Dec 2005-Jan 2006

- Laboratory assistant for the extraction of Hemocyanin from *Concholepas concholepas*.

PERSONAL

Country of citizenship	Chile
Languages	Native Spanish, fluent English
Hobbies	Biking, Photography

Last updated on January 2021.