

# Max Yakovlev

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## EMPLOYMENT

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### Vanderbilt University, Owen School of Management | Nashville, Tennessee

Postdoctoral Research Fellow in Operations Management

- Joint appointment with Vanderbilt University Medical Center

**Supervisor:** M. Eric Johnson

**Research Areas:** Hospital Operations Management, Service Operations, Human-AI Interaction

## EDUCATION

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### Northwestern University, Kellogg School of Management | Evanston, Illinois

August 2024

Ph.D. in Operations Management

**Committee:** Maria R. Ibanez (Chair), Martin Lariviere (Chair), Itai Gurvich, Bradley Staats (UNC Kenan-Flagler)

**Research Areas:** Healthcare Operations, Service Operations, Public Sector Operations, Behavioral Operations

**Methodology:** Econometric Analysis, Causal Inference, Causal Machine Learning, Field Experiments

### University of North Carolina at Chapel Hill | Chapel Hill, NC

May 2018

B.S. B.A., Business Administration, Economics (Minor in Statistics) | with distinction

## RESEARCH

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### Job Market Paper

**Yakovlev, M., & Ibanez, M.** How Recreational Cannabis Legalization Affects Hospital Operations  
(Invited for Major Revision at *Management Science*)

### Working Papers

**Yakovlev, M., & Ibanez, M.** Racial Disparity in Maternal Care and Moderating Factors: Role of Specialization, Exposure, and Ownership in Eliminating the Gap (*manuscript available upon request*)

**Yakovlev, M., & Ibanez, M.** Unweeding the Workload: Effects of Recreational Cannabis Legalization on Judiciary Branch Performance

### Work in Progress

**Yakovlev, M.** Impact of Health Incentives on Workers' Productivity and Retention: Evidence from Germany

**Yakovlev, M., Johnson M. E.** Quality Through the Lens of Compliance: How Medical Providers' Misconduct and Incompliance Impacts Operational Performance

**Yakovlev, M., Johnson M. E.** Call the Midwife: Maternal Care Continuity and Midwifery Care Referral Decisions

**Yakovlev, M., Johnson M. E., Tiwari, V.** Catalyst or Outsider? Travelling Nurses And Surgical Performance

## CONFERENCE PRESENTATIONS

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### How Recreational Cannabis Legalization Affects Hospital Operations

DSI Annual Conference

November 2023

INFORMS Annual Meeting

October 2023

Wharton Empirical Operations Management Workshop

October 2023

**Racial Disparity in Maternal Care: Role of Operational Factors in Moderating the Gap**  
INFORMS Annual Meeting

October 2024

## TEACHING EXPERIENCE

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**Teaching Interests:** Operations Management, Data Science, Business Analytics, Service Operations

**Kellogg School of Management at Northwestern University**  
*Teaching Assistant*

MBA, OPNS 455 – **Data Science with Large Language Models (Chat-GPT)** 2020-2024

Previously: Data Science and Analytics in R

Instructor: Rob Bray.

TA Evaluations: Mean – 4.3/5, Median – 5/5

MBA and Exec MBA, OPNS 440 – **Designing and Managing Business Processes** 2019-2023

Instructor: Sunil Chopra.

MBA, OPNS 430 – **Operations Management** 2019-2023

Instructors: Martin Lariviere, Rob Bray, Achal Bassamboo, Tarek Abdallah, Anton Braverman.

MBA, OPNS 455 – **Supply Chain Management** 2019-2023

Instructor: Achal Bassamboo.

## SERVICE

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**Kellogg School of Management | Evanston, Illinois | Student Recruiting Leader and Organizer** 2019 - 2022

**Lincoln Park Conservatory | Chicago, Illinois | Volunteer** 2022 – 2024

**Habitat for Humanity | Nashville, Tennessee | Volunteer** 2024 – now

## SKILLS

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**Programming/Software:** Python (CausalML, Pytorch, Object Identification, NLP), R (tidyverse), Stata, SPSS, SQL

**Languages:** English (Native), Russian (Native), French (Basic)

## REFERENCES

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**Maria R. Ibanez**

Operations Management Department  
Kellogg School of Management  
2211 Campus Drive  
Evanston, IL, 60208  
[ibanez@kellogg.northwestern.edu](mailto:ibanez@kellogg.northwestern.edu)

**Martin Lariviere**

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**Bradley Staats**

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### **How Recreational Cannabis Legalization Affects Hospital Operations** with Maria R. Ibanez

**Problem definition:** In the last decade, many US states have legalized recreational cannabis. While not directly regulating healthcare providers' activities, the potential ramifications of such laws could indirectly affect their operations by changing the patients they care for. In this paper, we study how hospital operations are influenced by recreational cannabis legalization (RCL). **Methodology/results:** Using a difference-in-differences approach, we investigate the effect of recreational cannabis legalization (RCL) on hospital operations. We find that legalization alters the workload of hospital staff by changing the patient mix: While there is a null effect on total inpatient admissions, more cannabis-related patients are admitted, who, in turn, increase workload complexity. More strikingly, hospitals speed up care for other (i.e., non-cannabis) patients, with legalization shortening lengths of stay by 2.6%. We attribute this phenomenon to cannabis generating workload for hospital staff that reduces the resources (including staff time) available to other patients. We further find adverse effects on experiential quality of care and medical professionals' compliance: First, patient satisfaction with hospital noise levels at night, hospital staff helpfulness, and information received about home recovery significantly decreases, resulting in lower experiential quality of care and potential financial damages for providers. Second, disciplinary actions against doctors, physician assistants, and nurses increase by about 34%. **Managerial implications:** These findings offer evidence of another dimension—the impact on hospitals—that governments should consider when deciding on legalization and inform hospital managers about what to expect after legalization.

### **Empirical Investigation of Racial Disparity in Maternal Care and Moderating Factors: Role of Specialization, Exposure, and Ownership in Eliminating the Gap** with Maria R. Ibanez

Annually, approximately 60,000 U.S. women experience severe maternal morbidity—unexpected labor or delivery outcomes with serious short- or long-term health impacts (Declercq and Zephyrin 2021). Many of these outcomes could have been prevented with appropriate care choices and applications. Additionally, demographic disparities in the quality of obstetric care and outcomes persist over time. For instance, Black women continue to experience higher rates of labor complications (BCBS 2022). In this paper, we examine the role of hospital operational factors in moderating and accentuating the racial disparity for Black mothers. Using cross-sectional data of all labor and delivery admissions in several U.S. states, our results suggest that Black mothers receive C-sections disproportionately more frequently than other mothers. Further analysis suggests that higher hospital relative familiarity with patients of Black ethnicity and C-section specialization attenuate the inequality. On the other hand, strong physician's focus (in the top quartile) by maternal care specialization accentuates the gap. These findings highlight the importance of continuous diversity, equity, and inclusion education, more rigorous hospital evaluation by regulators, and better matching between mothers and care providers for advancing unbiased decision-making and equitable health outcomes.