

# LANCE GUI

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Department of Economics

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## EDUCATION

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**University of Arizona**

Ph.D., Economics

Tucson, AZ

2020 - Present

**University of Arizona**

M.A., Economics

Tucson, AZ

December 2021

**Pepperdine University**

B.S., Mathematics and B.A., Economics

Malibu, CA

May 2020

## FIELDS

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Health Economics, Empirical IO, Applied Microeconomics

## WORKING PAPERS

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**Closing the Opioid Use Disorder Treatment Gap:**

2024

**Expanding Nurse Practitioners' Prescriptive Authority**

The Comprehensive Addiction and Recovery Act (CARA) of 2016 allows Nurse Practitioners (NPs) to prescribe buprenorphine independently to combat the opioid epidemic. Using a Difference-in-Differences analysis, this study finds that the policy leads to a 27% increase in NPs prescribing buprenorphine, a 16% rise in buprenorphine consumption, and an 11% reduction in opioid-related mortality. However, the policy also reveals potential moral hazards, unequal access in rural areas, and a shift in treatment focus away from comprehensive specialized programs.

**Anatomy of Opioid Diversion: Examining Supply-Side Curtailment**

2024

With Mo Xiao, Chuan Qin

Rogue pharmacies worsen the opioid epidemic by diverting opioids to non-medical users. Using pharmacy-level opioid shipment and hospital diagnosis data, we examine the spatial redistribution of opioid shipments after targeted shutdowns by the Drug Enforcement Administration. A structural model reveals that over half of pharmacy-distributed opioids were diverted to non-medical use. However, aggressive pharmacy crackdowns may drive non-medical users who lose access to black markets towards more dangerous narcotics like heroin and fentanyl.

**Anatomy of a Scandal: #Batterygate and Consumer Choice**

2022

I link over 35,000 individuals' Twitter behaviors to their offline phone purchases to examine the heterogeneous consumer response to Batterygate, where Apple slowed down iPhone processors without acknowledgment in 2017. Using a novel trend-extrapolated Differences-in-Differences technique, I find that Batterygate only negatively impacts potential consumers, not the current user base, highlighting the importance of consumer heterogeneity in determining customer responses to negative media sentiment.

## TEACHING EXPERIENCES

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University of Arizona, *Sole Instructor*

ECON300 Microeconomics Analysis For Business Decisions (×2)

University of Arizona, *Teaching Assistant*

ECON460 Industrial Organization (× 4)

ECON551 (MBA) Business Strategy (× 2)

ECON508 (Ph.D.) Applied Economic Analysis (× 1)

ECON200 Basic Economic Issues (× 1)

ECON462 Firms, Markets, and Competition (× 3)

ECON407 Economics of Strategy (× 2)

ECON300 Microeconomic Analysis (× 1)

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## OTHER PUBLICATIONS

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Lee, S.B., **Gui, X.**, Manquen, M. and Hamilton, E.R., 2019, October. "Use of Training, Validation, and Test Sets for Developing Automated Classifiers in Quantitative Ethnography." In International Conference on Quantitative Ethnography (pp. 117-127).

Lee, S., **Gui, X.**, and Hamilton, E. 2020. "Application of AutoML in the Automated Coding of Educational Discourse Data." In Gresalfi, M. and Horn, I. S. (Eds.), The Interdisciplinarity of the Learning Sciences, 14th International Conference of the Learning Sciences (ICLS) 2020, Volume 5 (pp. 2597-2600).

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## RESEARCH EXPERIENCE

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Research Assistant to Mo Xiao, University of Arizona	2023 - 2024
Research Assistant to Eric Hamilton, Pepperdine University	2016 - 2020
[National Science Foundation (NSF) Grants: #1612824, 1824924]	

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## PRESENTATIONS

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2024	IIOC Annual Conference
2023	CES (Chinese Economist Society) Annual Conference EARIE Annual Conference, EARIE Inaugural Summer School
2022	CES (Chinese Economist Society) Annual Conference
2019	International Conference on Quantitative Ethnography

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## HONORS, AWARDS & GRANTS

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2024	Lundgren Retail Collaborative Grant (\$2000) with Mo Xiao CMIH Research Grant (\$5000) with Mo Xiao CMIH Data Grant (\$2000) with Mo Xiao
2023	Eller Small Grant (\$3000) with Mo Xiao Edward E. Zajac Prize for the Best Third Year Paper (Honorable Mention)
2022	Steve Manos Prize for the Best Second Year Paper (Honorable Mention)
2020 - Present	University of Arizona Graduate Fellowship

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## REFeree SERVICE

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International Journal of Industrial Organization (ad-hoc ×1)

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## SKILLS

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Programming Languages	R, Julia, Python, MATLAB, C++ (in order of usage)
Language	English, Chinese

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