

# **Matthew Leisten**

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Evanston, IL 60208 Citizenship: USA

Fields Research: Industrial Organization

Teaching: Microeconomics, Industrial Organization

**Education** Ph.D., Economics, Northwestern University, 2020 (Anticipated)

Dissertation: *Empirical Studies of Firm Behavior and Information* Committee: Robert Porter (Chair), Gaston Illanes, Michael Mazzeo

B.A., Economics (with Highest Distinction) and Environmental Thought and Practice,

University of Virginia, 2013

**Fellowships &** Graduate Dissertation Fellowship, 2019–2020

**Awards** Distinguished Teaching Assistant, 2016, 2017, 2018

University Fellowship, 2014–2015 Duncan Clark Hyde Award, 2013 Kenneth G. Elzinga Scholarship, 2012

**Grants** Center for the Study of Industrial Organization (Northwestern), \$1650

**Teaching Experience** Teaching Assistant, Northwestern University, 2015-2018

Principles of Microeconomics, Intermediate Microeconomics I and II, Industrial Economics, Environmental Economics, Public Finance

Conference Leader, Northwestern New TA Conference, 2017

**Research Experience** Research Assistant, Gaston Illanes, Northwestern University, 2018–2019

Summer Research Intern, Karen Palmer and Margaret Walls, Resources for the Future, 2013

**Conferences and** 2020: Compass Lexecon

**Presentations** 2019: Northwestern University IO Workshop

2018: Empirics and Methods in Economics Conference (EMCON) (Discussant)

**Refereeing** International Journal of Industrial Organization

Job Market Paper "Information, Managerial Incentives, and Scale: Evidence from Hotel Pricing"

I measure what determines the quality of information firms have about market demand when setting prices, with application to the hotel industry. The hotel industry is vertically disintegrated between national chains and smaller franchisees. Chains delegate pricing to franchisees and extract royalty payments as a percentage of revenues; larger chains charge higher royalties. Franchisees affiliated with larger hotel chains may have better information about demand because larger chains have more

data, or they may have worse information because higher royalties create weaker incentives to gather information. I develop a novel method to infer the quality of firms' information from price and quantity data. I apply this method to a proprietary data set from a hotel performance benchmarking firm to show that hotels affiliated with large chains have worse information than hotels affiliated with smaller chains. In a counterfactual setting in which royalties are fixed across chains, large chains become better-informed than small chains, suggesting that franchisee effort in gathering information is an important driver of information quality. My findings suggest that local knowledge is the key driver of hotel information quality.

### **Works in Progress**

#### "Informational Complementarities and IT Arms Races"

Across a broad class of supermodular games, including most forms of price competition, information is complementary in the following sense: the better any player's information becomes, the more valuable information is to the playerâs rivals. If one player obtains better information, rivals will be more inclined to do so as well. This may lead to informational arms races, in which firms suddenly invest heavily in information technologies in response to each other. I measure how complementary information quality is in the hotel industry. Using a simple theoretical model, I illustrate that (1) stronger coordination incentives make information-gathering more complementary and (2) access to additional private information makes information-gathering less complementary. I then measure the quality of information hotels have about demand when setting prices. I simulate counterfactual hotel revenues if a hotel were to unilaterally gain better information, and counterfactual hotel revenues if all hotels gain better information. Finally, I predict the equilibrium levels of information in hotel markets if the costs of acquiring information became smaller for one hotel chain only.

### Non-Economics Publications

"Fine-scale spatial variability of heat-related mortality in Philadelphia County, USA, from 1983-2008: a case-series analysis", with D. Hondula (lead author), R. Davis, M. Saha, L. Veazey, and C. Wegner, *Environmental Health*, 2011.

High temperature and humidity conditions are associated with short-term elevations in the mortality rate in many United States cities. Previous research has quantified this relationship in an aggregate manner over large metropolitan areas, but within these areas the response may differ based on localscale variability in climate, population characteristics, and socio-economic factors. Methods. We compared the mortality response for 48 Zip Code Tabulation Areas (ZCTAs) comprising Philadelphia County, PA to determine if certain areas are associated with elevated risk during high heat stress conditions. A randomization test was used to identify mortality exceedances for various apparent temperature thresholds at both the city and local scale. We then sought to identify the environmental, demographic, and social factors associated with high-risk areas via principal components regression. Results: Citywide mortality increases by 9.3% on days following those with apparent temperatures over 34°C observed at 7:00 p.m. local time. During these conditions, elevated mortality rates were found for 10 of the 48 ZCTAs concentrated in the west-central portion of the County. Factors related to high heat mortality risk included proximity to locally high surface temperatures, low socioeconomic status, high density residential zoning, and age. Conclusions: Within the larger Philadelphia metropolitan area, there exists statistically significant fine-scale spatial variability in the mortality response to high apparent temperatures. Future heat warning systems and mitigation and intervention measures could target these high risk areas to reduce the burden of extreme weather on summertime morbidity and mortality.

## Previous Employment

Compass Lexecon, Jun 2012–Aug 2012 (Intern); Aug 2013–Aug 2014 (Analyst) Resources for the Future, May 2013–Aug 2013
Environmental Law Institute, Jun 2011–Aug 2011

Languages

English (native), French (basic)

**Programming** 

MATLAB, Stata, Python (basic), ArcGIS (basic)

#### References

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## **Last Updated**

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