



Yixi Yang

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Education

University of Wisconsin - Madison - PhD in Economics (*Expected* June 2022)
University of Wisconsin - Madison – MS in Economics (2015)
Nanjing University – BS in Chemistry (2009)

Dissertation

“An equilibrium model of traffic accidents”

Abstract Summary: My dissertation constructs a theoretical framework for analyzing automobile accidents as an equilibrium outcome. In the first chapter I introduce a game-theoretical model that models drivers’ interaction of choosing vigilance levels as a game of strategic substitutes. I show there exists a unique equilibrium in this game under reasonable assumptions of the failure rate function. Under the same set of assumptions, I prove the drivers would be more vigilant against worsen traffic/road conditions even in the presence of strategic interactions. In the second chapter I provide a sufficient condition that rules the Peltzman effect (safer cars lead to more accidents) in this strategic model. This sufficient condition is motivated from robust empirical findings. In the last Chapter I study the identifiable part of the model and use mutual car accidents between different age/gender groups to estimate the ordinal relation between the equilibrium vigilance across these groups of drivers.

References

Lones Smith (Chair)
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Daniel Quint
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608-263-2515
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Marek Weretka
University of Wisconsin-
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Research Fields

Microeconomic Theory, Applied Microeconomics

Research Papers

“*An equilibrium model of traffic accident*” (with Lones Smith), (Job Market Paper, in progress)
“*Information Asymmetry in an Epidemic: A Game Theoretical Analysis of Communication Failure*” (with Yue Li), (working paper)

Teaching Experience

Intermediate Microeconomics (Fall 2015, Spring 2016)
Principles of Economics (Fall 2016)
Microeconomics I (Fall 2017, Fall 2018)
Microeconomics II (Spring 2020)

Research Experience and Other Employment

Project Assistant for Professor Lones Smith (Spring 2017, Spring 2018, Spring 2019)



Honors, Scholarships and Fellowships

NSF researcher (Spring 2018, Spring 2019)

Technical Skills --- R, Matlab and Stata