

# OLIVIA FRANCES EDWARDS

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## EDUCATION

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### Texas A&M University

*Expected 2026*

4th Year PhD Student in Economics

Research Interests: Economics of Education, Industrial Organization

### Millsaps College

*2017-2021*

BS in Economics, Minors in Mathematics & Data Analytics

Phi Beta Kappa

## PUBLICATIONS

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### Lattice Configurations Determining Few Distances

*2020*

Integers Volume 20 (with Balaji et al.)

We begin by revisiting a paper of Erdos and Fishburn, which posed the following question: given  $k \in N$ , what is the maximum number of points in a plane that determine at most  $k$  distinct distances, and can such optimal configurations be classified? We rigorously verify claims made in remarks in that paper, including the fact that the vertices of a regular polygon, with or without an additional point at the center, cannot form an optimal configuration for any  $k \geq 7$ . Further, we investigate configurations in both triangular and rectangular lattices studied by Erdos and Fishburn. We collect a large amount of data related to these and other configurations, some of which correct errors in the original paper, and we use that data and additional analysis to provide explanations and make conjectures.

### Sets in $R^d$ Determining $K$ Taxicab Distances

*2019*

Involve Volume 13, No. 2 (with Balaji et al.)

We address an analog of a problem introduced by Erdos and Fishburn, itself an inverse formulation of the famous Erdos distance problem, in which the usual Euclidean distance is replaced with the metric induced by the  $\ell^1$ -norm, commonly referred to as the taxicab metric. Specifically, we investigate the following question: given  $d, k \in N$ , what is the maximum size of a subset of  $R^d$  that determines at most  $k$  distinct taxicab distances, and can all such optimal arrangements be classified? We completely resolve the question in dimension  $d = 2$ , as well as the  $k = 1$  case in dimension  $d = 3$ , and we also provide a full resolution in the general case under an additional hypothesis.

## WORKING PAPERS

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### Markets to Minds: The Role of Accountability in School Competition

*2024*

This paper explores the impact of charter school authorization and accountability policies on competition and educational quality within the all-charter district of New Orleans. I answer the question: How do these policies, intended to enhance school performance, affect competition among charter schools and the educational outcomes for students, particularly in low-income areas? I investigate how these policies, designed to foster improvement, can inadvertently reduce competition and limit school choice. Using a combination of quasi-experimental and structural modeling approaches, I assess both the immediate and long-term effects of school closures on student outcomes and school behavior. By constructing market equilibrium using demand-side preferences and supply-side responses informed by quasi-experimental estimates, this study aims to provide insights into the unintended consequences of accountability-driven school closures and offers evidence-based recommendations for refining charter school policies to serve diverse student populations and maximize competitive efficiency.

## **The Economics of Encouragement: Can A Simple Email Shape Major Choice?** 2024

Under Review (with Jonathan Meer)

We examine the impact of encouragement emails sent to high-performing students in a principles of microeconomics course at a large state university, aimed at motivating them to take additional economics courses and consider an economics major or minor. Using a regression discontinuity design, we find some evidence of an increase in the likelihood of enrolling in intermediate microeconomics, but limited effects on major switching or declaring an economics minor. Our findings suggest sustained interventions may be necessary to produce lasting effects.

## TEACHING EXPERIENCE

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**ECON 285: First-Year Experience** *Fall 2023*

Instructor at Texas A&M

**ECON 202: Principles of Microeconomics** *Spring 2022 - present*

Teaching Assistant for Dr. Jonathan Meer at Texas A&M

**ECON 328: Economics of Education** *Spring 2022, Fall 2023*

Teaching Assistant for Dr. Jonathan Meer at Texas A&M

**ECON 100: Principles of Economics** *2020 - 2021*

Teaching Assistant for Dr. Patrick Taylor at Millsaps College

## OTHER EXPERIENCE

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**Advisory Council Member (Volunteer)** *2021 - present*

In Support of the Prenatal Clinic of Bryan & Prevent Child Abuse America

### **Research Assistant**

Dr. Jonathan Meer, Texas A&M *Summer 2022, 2023*

Dr. Steve Puller, Texas A&M *Fall 2021*

Dr. Blakely Fender, Millsaps College *2019 - 2021*

Dr. Alex Rice, Millsaps College (Dept. of Mathematics) *2019 - 2020*

**Pre-K3 Teacher** *2017 - 2019, Summer 2021*

St. Martin's School; New Orleans, LA

**Congressional Intern** *Summer 2020*

House of Representatives (MS-03); Washington D.C.

## CONFERENCES AND WORKSHOPS

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**2024:** ASSA Annual Meeting, Urban Economics Association Summer School

**2023:** ASSA Annual Meeting, Southern Economic Association Meeting

**2020:** Academy of Business Research (presenter), Tri-Beta Symposium (presenter)

## PROFESSIONAL ACTIVITIES & GRANTS

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Charter Research Collaborative Pilot Grant, MIT and Blueprint Labs (\$47,000) *2024 - 2025*

1st-Year Ph.D. Student Mentor, Texas A&M *2022 - present*

Undergraduate Research Advisor, Texas A&M *2022 - present*

Referee: Journal of Human Capital *2024*

## AWARDS AND HONORS

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| Lechner Liberal Arts Scholarship, Texas A&M                      | <i>2021-present</i> |
| Most Outstanding Else Business School Graduate, Millsaps College | <i>2021</i>         |
| Pi Mu Epsilon, Millsaps College                                  | <i>2020</i>         |
| Omicron Delta Kappa, Millsaps College                            | <i>2020</i>         |
| Omicron Delta Epsilon, Millsaps College                          | <i>2019</i>         |

## ADVISORY COMMITTEE

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|                                 |   |
|---------------------------------|---|
| <b>Jonathan Meer (Co-Chair)</b> | Texas A&M Department of Economics<br>jmeer@tamu.edu   |
| <b>Steve Puller (Co-Chair)</b>  | Texas A&M Department of Economics<br>spuller@tamu.edu |
| <b>Fernando Luco (Member)</b>   | Texas A&M Department of Economics<br>fluco@tamu.edu   |

## SKILLS & INTERESTS

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|------------------------------|---|
| <b>Security Clearances</b>   | Special Sworn Status (current), Public Trust (previous)                     |
| <b>Programming Languages</b> | R (advanced), Python (beginner), Matlab (beginner),<br>Stata (introductory) |
| <b>Software &amp; Tools</b>  | Git, LaTeX, Tableau   |

Last Updated: October 2024