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#### **EDUCATION**

Ph.D., Economics, Texas A&M University, College Station, expected May 2024 M.A., Economics, Xiamen University, China, June 2018 B.A., Taxation, Guangdong University of Foreign Studies, China, June 2013

### RESEARCH FIELDS

Education Economics, Labor Economics, Environmental Economics, Crime Economics, and Health Economics

### **WORKING PAPERS**

### "Early Grade Retention Harms Adult Earnings" (Job market paper, under review)

This paper provides the first causal evidence of the effects of grade retention on labor market outcomes using Texas' policy of retaining third graders who fail a reading test. The fuzzy regression discontinuity design estimates show that grade retention reduces earnings 15 years later by \$4513 (35%), raising violence and absenteeism and reducing high school graduation rates. These findings suggest that grade retention is ineffective in aiding struggling students to catch up academically and disadvantages them in the labor market. Moreover, higher retention rates among Black and Hispanic students, coupled with significant reductions in earnings, contribute to perpetuating racial earnings inequality.

"Can Social Media Rhetoric Incite Hate Incidents? Evidence from Trump's "Chinese Virus" Tweets" (Corresponding author, joint with Andy Cao and Jason M. Lindo), revised and resubmitted to Journal of Urban Economics. NBER WORKING PAPER 30588.

We investigate whether Donald Trump's "Chinese Virus" tweets contributed to the rise of anti-Asian incidents. We find that the number of incidents spiked following Trump's initial "Chinese Virus" tweets and the subsequent dramatic rise in internet search activity for the phrase. Difference-in-differences and event-study analyses leveraging spatial variation indicate that this spike in anti-Asian incidents was significantly more pronounced in counties that supported Donald Trump in the 2016 presidential election relative to those that supported Hillary Clinton. We estimate that anti-Asian incidents spiked by 4000 percentage points in Trump-supporting counties, over and above the spike observed in Clinton-supporting counties.

# "The Effect of Lead Exposure on Human Capital Formation: Evidence from Aviation Fuel" (Joint with Thao Duong)

This research paper examines the causal impact of lead exposure on students' educational outcomes, risk behavior, and earnings, with a particular focus on low-level lead pollution. The study utilizes a quasi-random variation resulting from the unregulated use of leaded gasoline in piston-engine aircraft (PEA), which declined consistently following the 9/11 terrorist attacks. The difference-in-difference results show that decreased lead exposure resulting from reduced PEA operation has a positive and cumulative impact on students' test scores. Additionally, the study finds that reducing lead exposure significantly decreases criminal activity and increases earnings up to 17 years later. These results have important implications for policymakers seeking to regulate lead pollution and its effects on human capital development. By providing evidence of the long-term effects of lead exposure on educational and economic outcomes, this research paper offers valuable insights into the potential benefits of implementing measures to mitigate lead pollution.

#### **WORK IN PROGRESS**

### "The Spillover Effects of Holding Students Back a Grade"

The impact of grade retention has been a subject of debate among researchers, leading to increased interest in its effect on retained students' outcomes. However, the spillover effects of grade retention remain poorly understood, and neglecting these could result in inaccurate assessments of its impact. This study employs a quasi-random change in promotion cutoff generated by Texas's test-based retention policy to provide new causal evidence of grade retention's spillover effects. Using longitudinal panel data from the Texas Education Research Center, which links educational records from kindergarten to post-secondary education and labor market outcomes, I estimate the short-term and long-term spillover effects of exposure to retained students. The findings shed light on the broader implications of grade retention and contribute to a more nuanced understanding of its impact on student outcomes.

# "The Impact of English Proficient Reclassification on Long-Term Educational and Earnings Outcomes" (Joint with Sijia Zhang and Yayun Chen)

Many states have assessed English proficiency for English learners in light of Title III. Given that over 10% of public elementary and secondary school students in the United States are English learners, a thorough investigation into the long-term implications of reclassification is warranted. In this paper, we employ data from the Texas Education Research Center that links educational records with labor market outcomes to provide a causal assessment of the long-term impact of English proficient reclassification on earnings. Our results, obtained via a regression discontinuity design, indicate that reclassification as English proficient in grade 3 has a statistically significant and positive impact on earnings 17 years later. However, we also find that attaining English proficiency in grade 5 has a statistically significant and negative impact on earnings. Finally, our results indicate no statistically significant effects on earnings for later grades. These findings provide crucial insights into the long-term implications of English proficient reclassification for students' economic well-being.

# "The Impacts of Light and Noise Exposure on Human Capital Formation: Evidence from Wind Farm Operation" (Joint with Thao Duong)

This paper examines the effects of light and noise pollution exposure on students' academic, behavioral, and labor market outcomes. We exploit the quasi-exogenous variation in the timing and location of wind farm installations to uncover the causal effects of pollution on students' outcomes in Texas. Specifically, we use the difference-in-difference method to compare the outcomes over time between students attending schools near the wind farms and those far away from them. The students' outcome variables come from Texas ERC, which can link individual educational records to labor market outcomes. These data distinguish this paper from others by making it possible to estimate the short-, medium-, and long-term effects of pollution on students' outcomes. This paper will be the first to uncover the causal effects of wind farms on educational and earnings outcomes at the individual student level.

### 'The Lifelong Impact of Pre-Kindergarten Education" (Joint with Maya Mikdash)

Recent studies have highlighted the long-term impact of early education on individuals' lifetime outcomes. While parents increasingly prioritize investing in pre-kindergarten education to improve inter-generational income mobility, there is limited evidence of the effects of pre-kindergarten education on long-term outcomes. This project aims to fill this knowledge gap by analyzing data from the Texas ERC to estimate the causal effect of pre-kindergarten education. To do so, we exploit a Texas policy requiring schools to establish a pre-kindergarten program if eligible students exceed 15. By examining the long-term outcomes of students who have accessed pre-kindergarten education under this policy, we provide valuable insights for policymakers, educators, and parents on the effectiveness of pre-kindergarten education in improving individual long-term outcomes.

#### "Breaking the School-to-Prison Pipeline: The Role of Alternative Education" (Joint with Maya Mikdash)

Individuals involved in criminal activities often have limited educational attainment, with higher school dropout rates. Despite this association, little is known about the impact of additional education on their long-term behavior, educational attainment, and earnings outcomes. This paper addresses this gap by examining the effectiveness of the Juvenile Justice Alternative Education Program (JJAEP) mandated by Texas policy for counties with population over 250,000. JJAEP educates students expelled from regular classes, offering an alternative path to increase

their educational attainment. Using data from Texas Education Research Center, we analyze the causal impact of JJAEP on crime reduction and other long-term outcomes such as educational attainment and earnings.

# "Measuring the Negative Impacts of Teachers: Disciplined Teachers and Student Outcomes" (Joint with Maya Mikdash)

Previous research has demonstrated that high value-added teachers can positively impact students' academic outcomes. However, the negative impact of exposure to poorly performing or disciplined teachers on student outcomes remains understudied. This paper addresses this gap by examining the effect of exposure to disciplined teachers on students' short and long-term outcomes using the timing of disciplinary actions and course assignment information. We utilize unique data from the Texas Education Research Center that links educational records of students from kindergarten to post-secondary education and labor market outcomes. Our findings shed new light on the potential adverse effects of teacher disciplinary actions on student outcomes and provide valuable insights into how to improve student learning and outcomes.

### "Tobacco 21 and Youth Substance Use" (Joint with Benjamin Hansen and Joseph J.Sabia)

This paper estimates the effect of the Tobacco 21 law on youth substance use using longitudinal PATH study survey data. Using longitudinal data distinguishes this paper from others that use cross-section data by tracking individuals' changes in substance use and social sources over time. The results show that Tobacco 21 substantially decreases cigarette and e-cigarette use by 3.5 and 6.1 percentage points for young adults aged between 18 and 20. Tobacco 21 also has a spillover effect on youth younger than 18 by reducing their cigarette and e-cigarette use. Further, this paper provides new causal evidence of the Tobacco 21 law on youth tobacco sources change. While Tobacco 21 law decreases in-person purchases, it increases the amount of tobacco obtained from social sources and family members.

### **PRESENTATIONS**

2023 Western Economic Association International 98th Annual Conference

2023 Eastern Economic Association Conferences

2023 LBJ School Policy Research Workshop

2022 Southern Economics Association conferences

2022 Association for Public Policy Analysis and Management

2022 Western Economic Association International 97th Annual Conference

2022 Midwest Economics Association

2021 Health Econ/Health Policy Mentoring Workshop

2020 Successfully Navigating Your Ph.D. Workshop

### TEACHING EXPERIENCE

### **Instructor of Record**

Microeconomics Theory, Summer 2022

### **Teaching Assistant**

Data Science for Economic and Social Issues, Spring 2023 Applied Micro-econometrics (Ph.D. level), Spring 2022 Econometrics 461, Fall 2021 Public Finance 412 (Spring 2020, Fall 2019, Spring 2019)

### RESEARCH ASSISTANT

Texas A&M University, Prof. Barr, Summer and Fall 2021

### **REFEREE**

**Economic Inquiry** 

## **HONORS AND AWARDS**

The Institute for Humane Studies (IHS) Hayek Fund Scholars Grant Award, June 2022-August 2023

### **Dissertation Committee**

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