THAO DUONG

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Department of Economics, Texas A&M University | 2935 Research Pkwy, College Station, TX 77845

Education

Texas A&M University   College Station, TX
Ph.D. Economics   *Expected May 2025*

Kalamazoo College   Kalamazoo, MI
B.A. Economics (with honors)   *June 2018*

Research Interests

Industrial Organization, Applied Microeconomics, Energy and Environmental Economics

Working Papers

"Optimal Allocation of Electric Vehicle Subsidies: Consumers or Dealers (or Both)", [Job Market Paper](Joint with Stephanie Weber)

This paper examines the effectiveness of electric vehicle (EV) subsidies, focusing on whether consumer or dealer incentives better promote EV adoption. Using a unique state-level EV rebate program offering both consumer and dealer incentives, we analyze their impacts on EV prices and adoption through cross-sectional and temporal variation. Our findings reveal that targeted consumer subsidies significantly enhance EV adoption compared to dealer incentives. Using a structural model of automobile demand and supply, we further analyze the optimal allocation of subsidies to maximize EV adoption under a fixed budget. Counterfactual analysis suggests that reallocating subsidies toward battery electric vehicles (BEVs) and price-sensitive models maximize adoption and environmental benefits. Furthermore, targeting low-income households and EVs with high North American value-added content can promote equity and domestic economic growth while enhancing adoption and sustainability.

"Lead in the Air: Unraveling the Long-Term Impacts of Lead Exposure" (Joint with Jiee Zhong) [Full paper]

This paper estimates the short- and long-term effects of low-level lead exposure in early childhood, using a natural experiment from the decline in piston-engine aircraft traffic following the 9/11 attacks. By exploiting variation in lead exposure across schools, cohorts, and wind patterns, we estimate the causal impact of lead exposure on educational, behavioral, and labor market outcomes using longitudinal, student-level data from Texas. The findings demonstrate that increased exposure significantly lowers test scores, reduces high school graduation rates and college enrollment, and decreases earnings in adulthood.

"Preventing a Vehicle Arms Race: The Social Benefits of "Weightless" Safety Ratings" (Joint with Jonathan B. Scott) [Full paper]

This paper estimates the social benefits of a vehicle ratings regime that neglects the role of weight in its safety evaluations. We compare the current methodology to one incorporating relative weight by estimating the marginal effect of weight on vehicle fatalities and mapping those effects into a re-calibrated safety rating. For identification, we exploit underlying, in-lab crash metrics determining the rating to measure the reduction in fatality risk and to isolate a demand response to the rating. Counterfactual calculations demonstrate that incorporating the role of weight into safety ratings increases the demand for trucks and SUVs by 2.6%, potentially exacerbating an arms race in vehicle size.

Work In Progress

"Electric Vehicle Charging Station at Workplace"
"The Impacts of Noise Pollution on Human Capital Formation: Evidence from Wind Farm Operation" (Joint with Jiee Zhong)
"The Effectiveness of Expanded Naloxone Access: Evidence from Co-Prescription Mandate" (Joint with Daniel Gomez)

Publication

"Trade Openness, Economic Growth, and Environmental Degradation in Asian Developing Countries" (with Patrik T. Hultberg), *Journal of Applied Business and Economics, Vol 20 No 5 (2018)*

This paper examines the effects of trade openness and economic growth on CO_2 emission using a theoretical trade model. The theoretical results indicate that an increase in trade openness intensifies environmental degradation, while an increase in imports may result in the advancement of technology that has a positive effect on environmental quality, implying a possible existence of the Environmental Kuznets Curve (EKC). This paper explores these findings using a panel data framework based on annual data from Asian developing countries (1986-2013). The empirical results show that trade openness and economic growth intensify CO_2 emissions. However, the results do not validate the EKC.

Teaching Experience

Instructor of Record

ECON 285 - Hullabaloo U, Texas A&M University (course evaluation: 4.5/5)	Fall 2023
ECMT 463 - Introduction to Econometrics, Texas A&M University (course evaluation: 4.73/5)	Fall 2022

Teaching Assistant

ECON 323 - Microeconomic Theory, Texas A&M University	Fall 2023 & 2024
ECON 440 - Experimental Economics, Texas A&M University	Spring 2024
ECMT 463 - Introduction to Econometrics (with recitations), Texas A&M University	Summer 2023
ECON 433/633 - Energy Market and Policy, Texas A&M University	Spring 2022
ECON 489 - Data Science, Texas A&M University	Fall 2021
ECON 636 - Ph.D.-level Macroeconomic Theory I (with recitations), Texas A&M University	Fall 2020
ECON 330 - Economic Development, Texas A&M University	Spring 2020
Tutoring Lab, Texas A&M University	Fall 2019 & Spring 2023

Research Experience

Research Assistant, *Dr. Kalena Cortes, Texas A&M University* — Summer 2022-Summer 2023

Cleaned and analyzed administrative and survey data for Texts4Teens, a middle school parent engagement texting study. Estimated regression models to assess the effect of parental-child engagement on middle school students' behavioral and academic outcomes.

Research Assistant, *Dr. Marco Castillo, Texas A&M University* — Spring & Summer 2021

Estimated structural models of household's energy consumption in response to the information on gas usage or information coupled with conservation incentives provided by the Alaska Home Energy Rebate Program.

Research Assistant, *FleishmanHillard TRUE Global Intelligence* — 2018-2019

Developed quantitative analyses and data-driven solutions for Fortune 500 clients across various industries, including technology, finance, consumer products, and pharmaceuticals, utilizing statistical methods such as A/B testing, pre-post analysis, and causal inference.

Research Assistant, *Dr. Nguyen Duc Thanh, Vietnam Economics and Policy Research Institute* — Summer 2017

Worked and reported directly to Dr. Nguyen Duc Thanh, director of VEPR and a Vietnam Prime Minister's Economic Advisory Group member. Participated in various research projects, including the informal sector, minimum wage, and labor productivity in developing countries. Assisted economists and researchers in writing the Vietnam Quarterly Macroeconomic Report (2017-2018).

Conferences

Southern Economic Association (SEA) Conference	2022, 2023, 2024
NABE Tech Economics Conference (TEC)	2024
Association of Environmental and Resource Economists (AERE) Conference	2024
Eastern Economic Association (EEA) Conference	2023
Midwest Economic Association (MEA) Conference	2018
Michigan Academy of Science, Arts & Letters Conference	2018

Honors and Awards

S. Charles Maurice Graduate Fellowship in Economics	2023
Gail Frey Monson Memorial Scholarship	2023
Private Enterprise Research Center's E.R. Daniel Scholarship	2022-2023
Department of Economics Graduate Assistantship, Texas A&M University	2019-2025
The Provost Prize in Business and Economics, Kalamazoo College	2018
Departmental Honor in Economics, Kalamazoo College	2018
Excellent Senior Thesis, Kalamazoo College	2018

Professional Services

Graduate Instruction Committee	2021-2022
Class Representative - ECON Graduate Student Association	2021-2022

Languages

English (fluent), Vietnamese (native)

Skills

Computer Languages: STATA, Matlab, Python, SQL
Software & Tools: LaTex, ArcGIS, Git, Azure

References

Dr. Steve Puller
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