Alexander Toy

Ajtoy@asu.edu | Alexander-Toy.com | +1 (414) 343-6404
ASU Placement Director: Professor Gustavo Ventura (Gustavo.ventura@asu.edu)
ASU Placement Coordinator: Laura Talts (ltalts@asu.edu)

Work Authorization: U.S. Citizen

Education

Ph.D. in Economics, Arizona State University — May 2026 (expected)
Research Interests: Applied Microeconomics, Industrial Organization, Economics of Education
M.S. in Economics, Arizona State University — December 2022
M.S. in Economics, University of Wisconsin-Madison — May 2020
B.S. in Economics w/ Mathematics Emphasis, University of Wisconsin-Madison — May 2018

Working Papers

"Tuition, Transfer, and Turmoil: Understanding the Dynamics of For-Profit College Shutdowns" (JMP)
Abstract**:** Between 2015 and 2018, several of the nation's largest for-profit college chains abruptly collapsed, disrupting the education of over 200,000 students. In the year before failure, these schools raised tuition by nearly $1,000, eight times their typical annual increase, while most continuing students stayed put until the day of closure. This striking inelasticity reveals high switching costs that leave students "locked in," unable to escape even as prices spike. After closure, students overwhelmingly reallocate to nearby community colleges, highlighting the public sector's role as a safety net. To interpret these dynamics and design effective policy, I estimate a dynamic college-choice model in which forward-looking students face heterogeneous switching costs and form expectations about potential closures. The model explains both the muted response to pre-closure tuition hikes and the chaotic, forced transfers that follow. Counterfactuals show that tuition freezes alone provide limited protection and can even backfire, keeping prices low and drawing new students into failing schools. By contrast, policies that lower switching costs, such as universal credit transfer or targeted transfer grants, and increase transparency about institutional distress generate large welfare gains. These interventions encourage proactive, voluntary transfers, curbing the disruptive wave of last-minute moves when schools collapse. My results show that protecting students requires mobility and information, not just price regulation. Reducing switching costs tackles the root problem, preventing predatory pricing and minimizing the fallout when higher education institutions fail.

"Overhead Costs: The Impact of Airplane Noise on Academic Achievement" (with Jasdeep Mandia) [Awaiting Permission to Circulate]
Abstract: Environmental noise is a pervasive and understudied input in the education production function, with potential implications for academic achievement and equity. This paper examines the impact of airport noise on student achievement by exploiting quasi-random changes in flight paths around Phoenix Sky Harbor Airport. We assemble student-level English-Language Arts (ELA) and math test scores for grades 4–8 from 2012 to 2017 and link them to school-level measures of ambient noise exposure before and after the FAA's 2015 route realignment. Using a difference-in-differences design we find that a 1 dB increase in average noise reduces both ELA and math performance 1.13% and 1.01% of a standard deviation respectively. These results inform policy debates on school siting, sound-proofing investments, and flight-path management to mitigate academic losses.

"Difference in Physician Responses to New Technology and New Information by Patient Race: Evidence from Drug-Eluting Stents" (with Jonathan Ketcham & Chad Stecher)
Abstract: We investigate how physicians' responses to new technology and new information differ by patient race. Specifically, we leverage a unique data set that captures the introduction of drug–eluting stents (DES) for coronary percutaneous interventions (PCIs) in the US in 2003 and new quality concerns about DES announced in 2006. Our unconditional analysis show that overall, Black patients are no less likely to receive DES than White patients; however, analysis conditional on clinical risk factors shows that physicians are systematically less likely to provide DES to higher–risk Black patients and instead provide the older bare–metal stents. We find no evidence that

physician experience explains these differences: although higher experience is associated with greater likelihood of DES receipt, Black patients on average are treated by more experienced physicians. We also find no evidence supporting "statistical" discrimination regarding concerns about patient adherence to complementary medication: while provision of DES fell in 2006 following the new information about the role of adherence in preventing mortality, the decrease was similar between White and Black patients. Finally, these results are not explained by patients being treated by different hospitals or different physicians or having different insurance coverage.

Work in Progress

"Does Success Beget Success? The Impact of Arizona's Results-Based Funding Program on Student Achievement"

"School Letter-Grades, Vouchers, and Student Transfer: Examining the Impact of Empowerment Scholarship Accounts in Arizona" (with Esteban Aucejo & Vibhuti Mehta)

"Striking a Balance with Income-Driven Repayment: Default Protection vs. Labor Market Distortions" (with Jacob French & Spencer Perry)

"Impact of Medication Adherence on Healthcare Utilization - Evidence from a Randomized Control Trial" (with Chad Stecher & Tyler Williams)

Teaching Experience

Instructor of Record

Business Statistics (ECN 221) (2024, 2025)

- Summer 2024 Distinguished Economics Graduate Instructor Award

Teaching Assistant

Labor Economics (ECN 421) (2023,2024)
Workforce Analytics (ECN 394) (2023, 2024)
Principles of Macroeconomics (ECN 211) (2022)
Principles of Microeconomics (ECN 212) (2021, 2022)

Research Experience

Research Assistant for Chad Stecher (2024-2025)
Research Assistant for Andreas Kostøl (2024)
Research Assistant for Alexis Villacis (2023)

Conferences and Workshops

2025: ASU General Economics Workshop, Southern Economics Association Annual Meeting
2022-2024: ASU General Economics Workshop

Awards

ASU Graduate College Travel Award (2025)
Distinguished Economics Graduate Instructor Award (Summer 2024)

Additional

Skills: Python, R, Stata, SQL, LaTeX
Citizenship: United States Citizen

References

Esteban Aucejo (Chair)
Professor
Department of Economics
Arizona State University
Esteban.aucejo@asu.edu

Alvin Murphy
Associate Professor
Department of Economics
Arizona State University
Alvin.murphy@asu.edu

Tomas Larroucau
Assistant Professor
Department of Economics
Arizona State University
Tomas.Larroucau@asu.edu

Pre-PhD Publications

"Enhancing use of medications for opioid use disorder through external coaching." Molfenter, T., Kim, H., Kim, J. S., Kisicki, A., Knudsen, H. K., Horst, J., Brown, R., Madden, L., **Toy, A.**, Haram, E., & Jacobson, N. *Psychiatric Services (2023)*

"Organizational facilitators and barriers to medication for opioid use disorder capacity expansion and use." Jacobson, N., Horst, J., Wilcox-Warren, L., **Toy, A.**, Knudsen, H. K., Brown, R., ... & Molfenter, T..*The journal of behavioral health services & research (2020)*

"NIATx-TI versus typical product training on e-health technology implementation: a clustered randomized controlled trial study protocol." White, V. M., Molfenter, T., Gustafson, D. H., Horst, J., Greller, R., Gustafson, D. H., & **Toy, A**. *Implementation Science (2020)*

"Physicians' satisfaction with providing buprenorphine treatment." Knudsen, H. K., Brown, R., Jacobson, N., Horst, J., Kim, J. S., Collier, E., Starr, S., Madden, L., Haram, E., **Toy, A**., & Molfenter, T. *Addiction Science & Clinical Practice (2019)*

"Use of telemedicine in addiction treatment: current practices and organizational implementation characteristics" Molfenter, T., Brown, R., O'Neill, A., Kopetsky, E., & **Toy, A** *International Journal of Telemedicine and Applications*, *2018*(1),

"Test of a workforce development intervention to expand opioid use disorder treatment pharmacotherapy prescribers: protocol for a cluster randomized trial." Molfenter, T., Knudsen, H. K., Brown, R., Jacobson, N., Horst, J., Van Etten, M., Kim, J., Haram, E., Collier, E., Starr, S., **Toy, A.**, & Madden, L. *Implementation Science (2017)*