

Whitney W. Zhang

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RESEARCH INTERESTS	Labor economics, household finance, behavioral economics	
EDUCATION	Massachusetts Institute of Technology , Cambridge, Massachusetts USA Ph.D. Student, Economics Massachusetts Institute of Technology , Cambridge, MA S.B., Mathematical Economics, Minor in Computer Science, May 2021	
FELLOWSHIPS AND AWARDS	National Science Foundation Graduate Research Fellowship, 2021 Undergraduate: Rhodes Finalist and Phi Beta Kappa, 2021	
WORK EXPERIENCE	Research Assistant to Professor Jon Gruber, MIT Research Assistant to Professor Heather Sarsons, University of Chicago Summer Analyst, Federal Reserve Bank of New York Research Assistant to Professor Jon Gruber, MIT Research Assistant to Professor David Autor, MIT	2022 2022 2020 2019-2020 2019-2020
PUBLICATIONS	“Improving Commuting Zones Using the Louvain Community Detection Algorithm.” <i>Economics Letters</i> , October 2022. Well-defined commuting zones are essential for accurate research on US local labor markets. To develop commuting zones, one must construct edge weights – a measure of commuting flows between counties – and then use the edge weights to partition counties into clusters. I improve upon currently used “ERS” commuting zones in two ways. First, it is unclear if ERS commuting zones use the best edge weights. Therefore, I test multiple edge weights. Second, the algorithm to produce ERS commuting zones requires specifying a theoretically-unguided cutoff parameter; results may be sensitive to the parameter choice. Instead, I use the Louvain algorithm, which optimizes for “modularity”, a graph-intrinsic parameter that is greater when there is higher intra-commuting zone flow and lower inter-commuting zone flow. I call my new delineations “TS Louvain”, which uses the ERS commuting flow definition to construct edge weights, and “Sum Louvain”, which uses the total number of commuters as edge weights. Compared to ERS, TS Louvain and Sum Louvain have 0.05 to 0.15 greater modularity, Sum Louvain has a 0.01 to 0.02 higher share of people who work and live in the same commuting zone, and in a case study, TS Louvain produces greater estimates and t-statistics. These metrics suggest that these new commuting zones improve upon the existing delineations. Researchers can access these commuting zone definitions at bit.ly/LouvainCZ .	
RESEARCH IN PROGRESS	“Minority vs. Non-Minority Beliefs on Employer Discrimination.” “Survey Evidence on Job Search Methods” (with Shakked Noy) “Gamification and Information to Encourage Credit Card Debt Reduction” (with Andrew Komo)	

GRANTS	George and Obie Shultz Fund for “Minority vs. Non-Minority Beliefs on Employer Discrimination.”	2022
	George and Obie Shultz Fund for “Survey Evidence on Job Search Methods” (with Shakked Noy)	2022
	George and Obie Shultz Fund for “Gamification and Information to Encourage Credit Card Debt Reduction” (with Andrew Komo)	2022
PROFESSIONAL AND PUBLIC SERVICE	MIT Graduate Economics Association Social Chair	2022
	Application Assistance and Mentoring Program Mentor	2022
	Boston Chinatown Neighborhood Center College Access and Post-Secondary Mentor	2022
	MIT Economics DEI Committee Representative	2020-2021