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**DOCTORAL STUDIES** Massachusetts Institute of Technology (MIT)  
PhD, Economics, Expected completion June 2025  
DISSERTATION:  
“Effects of Immigration on Labor Markets: Theory, Methods, and Evidence”

**DISSERTATION COMMITTEE AND REFERENCES**

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**PRIOR EDUCATION** *Koc University*  
*Bachelor of Arts in Economics and Bachelor of Science in* 2017  
*Mathematics* 2019  
*Master of Arts in Economics*

**CITIZENSHIP** Turkish **GENDER:** Male

**LANGUAGES** Turkish, English, French

**FIELDS** Primary: Labor Economics  
Secondary: Applied Econometrics, Development Economics, Public Economics

# MIT Economics

AHMET GULEK

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<b>TEACHING EXPERIENCE</b>	14.41 Public Finance & Public Policy (undergraduate)	2024
	Teaching Assistant to Professor Jon Gruber	
	14.01 Principles of Microeconomics (undergraduate)	2023
	Head Teaching Assistant to Professor Sara Ellison	
	14.01 Principles of Microeconomics (undergraduate)	2021
	Teaching Assistant to Professor Jon Gruber	
	14.64 / 14.661 Labor Economics (undergraduate/graduate)	2021
	Teaching Assistant to Professors Joshua Angrist and Heather Sarsons	
	14.662 Labor Economics 2 (graduate)	2024
	Teaching Assistant to Professors David Autor and Nina Roussille	(planned)
<b>RELEVANT POSITIONS</b>	Research Assistant to Professor Joshua Angrist	2022-24
<b>FELLOWSHIPS, HONORS, AND AWARDS</b>	International Association for Applied Econometrics Conference	2024
	<i>Best Paper Presented by a Graduate Student Award</i>	
	for <i>Synthetic IV estimation in panels</i> (joint with Jaume Vives-i-Bastida)	
	Institute of Humane Studies Junior Fellow Conference	2024
	MIT Hausman Dissertation Fellowship	2024
	MIT Global Seed Fund	2023
	MIT Shultz Fund	2022-2024
MIT Center for International Studies Summer Research Grant	2022-2023	
Unicredit Foundation Crivelli Europe Scholarship	2019	
<b>PROFESSIONAL ACTIVITIES</b>	<b>Referee:</b> American Economic Review Insights, Journal of Development Economics, European Economic Review	
	<b>Conferences and Presentations:</b> International Association of Applied Econometrics, Society of Labor Economics, Identity & Conflict Lab at Yale, American Causal Inference Conference, IZA workshop on Labor Markets and Innovation during Times of War and Reconstruction, Bilkent University, Koc University, Ted University	
	<b>Service:</b> Organizer, MIT Labor Lunch (2021-2022)	
<b>PUBLICATIONS</b>	<b>“Driving While Hungry: The Effect of Fasting on Traffic Accidents”</b> <i>Journal of Development Economics, May 2024.</i> <i>Abstract:</i> I study the impact of hunger on traffic accidents by exploiting the fasting that is religiously mandated during the month of Ramadan. Identification comes from working hours not being adjusted during Ramadan in Turkey. I find that driving while fasting at rush hour is associated with a significant increase in road traffic accidents. Using existing survey evidence on fasting rates in	

Turkey, I conclude that hunger induced by fasting increases the probability of an accident by 25%, which is smaller than the effect of driving while intoxicated, but larger than the effect of mild sleep deprivation.

## RESEARCH PAPERS

### **“Effects of Immigrants on Non-host Regions: Evidence from the Syrian Refugees in Turkey” (Job Market Paper) with Tishara Garg**

*Abstract:* This paper investigates how immigration-induced wage shocks can propagate beyond the regions receiving immigrants through the production network. Using the Syrian refugee crisis in Turkey as a quasi-experiment and the near universe of domestic firm-to-firm transaction data from VAT records, we show that the immigration shock propagates both forward and backward along the supply chain. Firms in non-host regions who directly or indirectly buy from host regions demand more labor. Firms who sell to host regions weakly increase their sales. Estimates imply an elasticity of substitution between labor and intermediate goods of 0.76 and an elasticity of substitution of nearly 1 between intermediates. Counterfactual analyses show that the spillover effects on non-host regions are economically meaningful when the host regions are central nodes of the domestic trade network. For example, a 1% increase in labor supply in Istanbul decreases real wages in Istanbul by 0.56% and increases real wages in the average non-host city by 0.38%.

### **“Formal Effects of Informal Labor: Evidence from the Syrian Refugees in Turkey”**

*Abstract:* I study how firms and native workers respond to an informal labor supply shock, driven by an inflow of refugees who are not provided work permits and are thus only employable in the informal economy. Crucially, I distinguish between native workers in the informal and formal sectors, of which the latter may be positively or negatively impacted. The empirical setting is the Syrian refugee crisis in Turkey. Using travel distance as an instrument for refugee location, I show that a one percentage point (pp) increase in the refugee/native ratio decreases native informal salaried employment by 0.17 pp and formal salaried employment by 0.13 pp among low-skill natives. I document two mechanisms: (i) formal firms reduce their formal labor demand, and (ii) new firms relocate from formal to informal economy. These estimates imply a relatively high elasticity of substitution, of approximately 10, between formal and informal workers. This is consistent with the Turkish context, where informal employment is often in the same sectors and even in the same firms as formal employment. As a counterfactual, I predict that granting refugees work permits would have created up to 120,000 more formal jobs in the economy through higher informal wages.

### **“Synthetic IV estimation in panels” (joint with Jaume Vives-i-Bastida)**

*Abstract:* We propose a Synthetic Instrumental Variables (SIV) estimator for panel data that combines the strengths of instrumental variables and synthetic controls to address unmeasured confounding. We derive conditions under which SIV is consistent and asymptotically normal, even when the standard IV

estimator is not. Motivated by the finite sample properties of our estimator, we introduce an ensemble estimator that simultaneously addresses multiple sources of bias and provide a permutation-based inference procedure. We demonstrate the effectiveness of our methods through a calibrated simulation exercise, two shift-share empirical applications, and an application in digital economics that includes both observational data and data from a randomized control trial. In our primary empirical application, we examine the impact of the Syrian refugee crisis on Turkish labor markets. Here, the SIV estimator reveals significant effects that the standard IV does not capture. Similarly, in our digital economics application, the SIV estimator successfully recovers the experimental estimates, whereas the standard IV does not.

## **“Formal Effects of Informal Labor Supply and Work Permits: Evidence from Venezuelan Refugees in Colombia”**

*(joint with Dany Bahar and Isabel Di Tella)*

*Abstract:* Whether refugees should have work permits is an active policy debate. We formalize the relevant trade-offs of providing work permits to refugees and test them empirically. Our setting is the Venezuelan refugee crisis in Colombia. The keys to our analysis are (1) refugees arrive without work permits initially, and (2) Colombia started granting work permits to Venezuelans in waves. Using a shift-share design and relaxing the exogeneity of shares assumption by employing Synthetic IV à la Gulek and Vives (2023), we find that the arrival of informal refugees displaced formal and informal natives in salaried jobs, which suggests high substitutability between informal and formal labor in production. Work permits allow middle to high-skill refugees to find formal jobs and work closer to their skill level, reducing the mismatch in the economy. This comes at a cost to some natives, who lose their formal jobs, and at a benefit to others, who observe increases in salaries.

## **“Occupational Heterogeneity of Child Penalty in the United States”**

*Abstract:* I investigate the extent to which the child penalty varies by occupation, the role of occupational heterogeneity in driving gender inequality, and the correlates of occupation-specific gender penalties. I document that fatherhood’s average zero effect masks the fact that some occupations have large negative penalties and some have large positives. Even motherhood’s large negative effect masks that some occupations have essentially zero or even positive penalties. Occupational change post-parenthood explains one-third of the income penalties for women and almost all for men. Availability of part-time work, not the flexibility of hours, is associated with lesser inequality in employment penalties.

## **RESEARCH IN PROGRESS**

### **“Does Working From Home Reduce the Child Penalty?”**

*(joint with Christina Langer)*

*Abstract:* Child penalty accounts for most of the gender gap in earnings in the developed countries. In this paper, we examine how the recent increase in the availability of remote work has affected mothers’ labor market outcomes. Our identification strategy exploits the heterogeneous rise in remote work across

occupations. By comparing child employment penalties across occupations with higher and lower exposure to remote work, before and after its widespread adoption, we find that the availability of remote work decreases child employment penalties for mothers but does not impact the employment penalties for men. We are currently investigating changes in income, hours, and wage penalties, as well as the implications for gender inequality in earnings.