JOB MARKET PAPER

The Welfare Impact of Dollar Stores

Dollar stores are small-box discount stores that offer a broad range of products at low prices with a limited selection within each product category. Major dollar store chains in the U.S. have experienced exponential growth in the past two decades, outgrowing Walmart and McDonald's in terms of store locations. In this paper, I discuss three potential channels through which dollar stores can affect consumer welfare: (1) dollar stores charge lower prices for the same products than their competitors and offer a higher share of private-brand products that generate disproportionate sales; (2) dollar store entry leads to exits of grocery stores and changes the local market structure; and (3) low-income households are more exposed to dollar store entry than high-income households. I propose a nested-CES demand model to quantify the welfare impact of dollar store entry through these channels for households of different income levels. I find that between 2006 and 2019, on average, dollar store entry improved household welfare, albeit with large heterogeneity within and across household income groups. The variation in the welfare impact of dollar store entry across
households is driven by differences in household preferences (across income groups), their baseline retail conditions, and the number of dollar store entries. A decomposition of households' welfare change due to dollar store entry reveals the different channels sustaining the welfare gains of low-vs. high-income households. Low-income households benefit from both the change in retail variety and product characteristics at dollar stores, whereas the welfare gain enjoyed by high-income households comes entirely from their value for product characteristics at dollar stores. Furthermore, this paper highlights the declining appeal of dollar stores as they continue to enter local markets and corroborates the need for existing placed-based dispersal policies for dollar stores.

WORKING PAPER

Distributional Impacts of the Changing Retail Landscape
with Judith Chevalier, Jessie Handbury, Hayden Parsley, Kevin R. Williams

Much has been written about how the transition from manufacturing jobs to new economy jobs has “left behind” a cohort of dislocated workers. There is potentially a similar set of issues concerning how the transition from old-style brick-and-mortar retail to the current physical/online retail mix has “left behind” a cohort of dislocated shoppers whose consumption has been impacted by a slow transition. In this project, we use cell-phone geolocation data to understand these issues. Specifically, we seek to measure the differential impact of the changing retail landscape on households from different income categories and regions in the U.S. Our findings will have implications for local economic development policy and also for interpreting data on inequality.

WORK IN PROGRESS

Food Price Interventions for a Healthful Diet: Implications for Supplemental Nutrition Assistance Program

According to USDA Food and Nutrition Services, the average diet of Americans does not conform to dietary recommendations that are believed to reduce the risk of chronic diseases, the leading causes of death and disability in the U.S. In this project, I explore the possibility of aligning households’ diet quality with dietary recommendations through food tax and/or subsidy interventions. I estimate an Almost Ideal Demand System that allows flexible demand functions with heterogeneous tastes and price elasticities. Using estimates of the model, I simulate households’ diet quality changes in response to different price interventions. I find that subsidies for fresh fruits and vegetables improve households’ diet quality more than taxes on sugary drinks. In addition, price interventions are more effective in improving households’ diet quality than cash transfers. The results have implications for the reform of the Supplemental Nutrition Assistance Program.

U.S. Highway System and Residential Segregation

I explore the extent to which the changing residential pattern by household income between 1970 and 1990 is driven by the U.S. Highway system. I first show graphically how the residential locations of high- and low-income households changed from 1970 to 1990 relative to the locations of highways in the top ten most populous metropolitan areas. High-income households moved along highways toward the outlying metropolitan areas while low-income households clustered in the center of metropolitan areas. Measuring households' residential patterns using the Spectral Segregation Index introduced by Echenique and Fryer Jr (2007), low-income households became
more segregated from households with different incomes and high-income households became less segregated. Combining the changes in households' residential patterns between 1970 to 1990 with miles of highways constructed during the same period across metropolitan areas, I find that the highway system decreases residential segregation for both low- and high-income households in large metropolitan areas and increases low-income households' residential segregation in small metropolitan areas. In particular, the highway system accounts for a substantial portion of the decrease in residential segregation for high-income households in large metropolitan areas.

TEACHING EXPERIENCE

2022  Teaching Assistant for Prof. Scott McKeon, Stanford University, Econ 102B (Applied Econometrics)
2021  Teaching Assistant for Prof. Christopher Makler, Stanford University, ECON 51 (Economic Analysis II)
       Teaching Assistant for Prof. John Taylor, Stanford University, ECON 1 (Principles of Economics)
2020-21 Teaching Assistant for Prof. Scott McKeon, Stanford University, Econ 102A (Introduction to Statistical Methods (Postcalculus) for Social Scientists)

RELEVANT POSITIONS

2018-20 Research Assistant for Prof. Liran Einav and Pete Klenow, Stanford University
2014-17 Research Assistant for Prof. Joseph Gyourko and Jessie Handbury, the Wharton School of the University of Pennsylvania

SCHOLARSHIPS, HONORS, AND AWARDS

2022  Leonard W. Ely and Shirley R. Ely Graduate Student Fellowship, Stanford University
2017, 2018 Graduate Student Fellowship, Stanford University
2012, 2014 University Honors, University of Michigan
2012  James B. Angell Scholar, University of Michigan
2013  Undergraduate Research Opportunity Program Summer Research Fellowship in Social Sciences Humanities, University of Michigan
2013  Matthew David Jacobson China-Israel Study Scholarship, Global Scholar Program, University of Michigan

SKILLS

Python, Stata, Git, SQL, Apache Spark, Artelys Knitro, ArcGIS, R