

Research Statement

HeePyung Cho

I am an applied microeconomist with broad research interest in labor economics, urban economics and applied econometrics. Specifically, my current research focuses on the topics of immigration, minimum wages and survey refusals. My research goal is to provide new insights to the above topics and address questions that are policy-relevant. In this research statement, I highlight my research agendas on these three topics by briefly summarizing my previous and ongoing works, and future research plans.

1. Immigration

“Driver's License Reforms and Job Accessibility among Undocumented Immigrants.” *Job Market Paper*.

The consequences of limited job accessibility on labor market outcomes have been discussed extensively in the spatial mismatch literature, but its empirical evidence and the effectiveness of policies designed to address it remains scant. In my job market paper, “Driver's License Reforms and Job Accessibility among Undocumented Immigrants,” I fill this gap in the literature by analyzing the causal effects of improvement in job accessibility using recent policy reforms: allowing undocumented immigrants to legally obtain driver’s licenses. Undocumented immigrants are an important group to consider because they have especially lower job accessibility, which is exacerbated by additional legal barriers. They have been neglected in prior work due to the difficulty of identifying them in survey dataset, which I overcome in this paper by using an imputation method developed by Borjas (2017).

Using state- and nativity-level variation in reforms, I find that driver's license reforms resulted in economically meaningful improvements in labor market outcomes of undocumented workers. I first show that granting driving privileges to undocumented immigrants increases vehicle ownership and the probability of car commute by 2.5 percentage points. This improvement in accessibility leads to a 0.8 percentage point increase in employment rate of undocumented immigrants. The effects of license reforms on the undocumented are larger in low accessibility places, which are more rural and have longer commuting time particularly for undocumented workers. Undocumented immigrants also exhibit stronger positive employment effects in more car-dependent occupations, shifting away from less car-dependent occupations. In addition, there is suggestive evidence of labor substitution between undocumented and documented immigrants resulting from license reforms.

“Immigrants and the Pursuit of Amenities.” with David Albouy and Mariya Shappo. *Journal of Regional Sciences*. Forthcoming.

In “Immigrants and Pursuit of Amenities,” we examine whether amenities affect the location of immigrants within the United States. Pre-existing research has documented how immigrants sort towards places with high nominal wages and with deeper immigrant networks, or “enclaves,” where their predecessors went to. Instead, we consider how amenities affect the real wages immigrants earn, as amenable areas often have high costs-of-living that lower real wages. Many amenities are natural, such as warmth or hilliness, and are essentially fixed over time. Therefore, immigrant enclaves may themselves result from the continued attraction of some amenities.

We first find that immigrants in the United States live disproportionately in metropolitan areas where nominal wages are high, but real wages are low. This sorting behavior may be due to preferences over certain quality-of-life amenities. Relative to U.S.-born inter-state migrants, immigrants accept lower real

wages to locate in cities that are coastal, larger, and offer deeper immigrant networks. Also, they sort towards cities that are hillier, larger and networked. In addition, immigrants come more from origin countries that are more coastal, cloudy, and safer –conditional on income and distance. Moreover, they choose cities that resemble their origin countries in terms of winter temperature, safety, and coastal proximity.

“Instrumenting for Immigration Using Push Factors of Origin Countries” (work in progress)

Identifying the impact of immigration on local labor markets has faced significant challenges because of the evident “moving to opportunity bias,” where immigrants' locational choices are influenced by local labor demand shocks. Here, I introduce a novel instrument for immigration, which is the predicted number of immigrants from the push factors of origin countries that induce emigration. The construction of the instrument uses the fact that when a push factor “raises the tide of immigration” from a country of origin, it does not lift all “boats” of immigrants to given cities the same.

Using a mixed effects model that incorporates both fixed and random effects, the actual number of immigrants in each city of the United States is regressed on the push factors of the origin countries. Then, the predicted number of total immigrants in each city is obtained by the fitted values of the regression, which is used as an instrument for immigration. I show that the instrument strongly predicts current immigrant population and is less correlated with local labor demand shocks compared to the widely used shift-share instruments.

“Living Next to the 100-Mile Border Zone” (work in progress)

In “Living Next to the 100-Mile Border Zone,” I analyze the effects of immigration enforcement on sorting of Hispanics and commuting patterns. This quasi-experimental empirical approach is based on the “100-mile Border Zone” set by the Immigration and National Act in 1946 and the Attorney General’s regulation in 1953. According to the regulation, border patrols are permitted to conduct warrantless searches and operate checkpoints within 100 air miles from any external boundary of the United States. Using a regression discontinuity design based on distance from the border and this 100-mile cutoff, I estimate the causal effects of border patrols’ immigration enforcement on Hispanics.

I first document the first-stage relationship between the border zone and immigration enforcement, showing that border patrols mostly operate within the border zone. Also, resources and operations of the border patrols are largely concentrated in the Southwestern states. I then show that there is a discontinuity and kink in the sorting of Southwestern Hispanics around the 100-mile cutoff, where the share of Hispanics increases sharply right next to the border zone. The discontinuity in sorting remains large and significant even after excluding metropolitan areas with large Hispanic populations. Moreover, the share of workers in Southwestern states commuting closer to the borders drop significantly right next to the border zone, suggesting that workers outside the border zone avoid working inside the border zone.

2. Minimum Wages

“Minimum Wages and Retirement.” with Mark Borgschulte. *Industrial and Labor Relations Review*, 2019. Forthcoming.

In “Minimum Wages and Retirement,” we study the effect of the minimum wage on retirement in the United States. Our analysis focus on two common markers of transitions to retirement: employment of older workers and receipt of Social Security retirement income. We apply two methodologies commonly used in the recent minimum wage literature, the canonical state-panel model and a county border-pairs design, and the results are robust to alternative specifications. The probability of work at or near the minimum wage

increases substantially near retirement, and previous theories and policies suggest that older workers may be particularly vulnerable to any disemployment effects of the minimum wage.

We find no evidence that the minimum wage causes earlier retirements. Instead, estimates using the Current Population Survey (CPS) suggest that higher minimum wages increase earnings and may have small positive effects on the labor supply of workers in the key ages of 62 to 70. For the 1983 to 2016 period, we can rule out negative employment elasticities larger than -0.05 in our preferred specification. Consistent with increased earnings and delayed retirement, higher minimum wages decrease the number of Social Security beneficiaries and amount of benefits disbursed. Quantitatively, a 10% increase in the minimum wage is associated with a 0.11 to 0.33% reduction in the number of Social Security recipients. In sum, the minimum wage appears to increase financial resources for workers near retirement.

In future research, I plan to examine the effects of minimum wages on undocumented immigrants in the United States. Undocumented workers have significantly lower wages compared to documented immigrants and natives, so the probability of work at or near the minimum wage is substantially high. However, it is not clear whether minimum wage laws have actual impacts on them since they are working illegally in the United States. Thus, I will analyze the effects of minimum wages on labor market outcomes of undocumented immigrants, by using the methodology by Borjas (2017) to identify undocumented immigrants. Also, I plan to examine labor-labor substitution between undocumented immigrants, documented immigrants and natives resulted from increases in minimum wages.

3. Survey Refusals

“Partisanship and Survey Refusal.” with Mark Borgschulte and Darren Lubotsky. *Under Review.*

Survey refusal in the Current Population Survey (CPS) has tripled over the last decade, from 5 percent to 15 percent. This rise coincides with the emergence of rhetoric, largely from the political right, questioning the accuracy and integrity of government statistics. In “Partisanship and Survey Refusal,” we examine how support for the Tea Party and the Republican Party have affected CPS refusal rates and whether households are more likely to participate in the survey when their preferred political party holds the White House.

Using state and metro vote shares or an individual-level model based on the longitudinal structure of the CPS, we find no evidence that Republican or Tea Party supporters drive the long-term upward trend in refusals. We do find evidence of a political cycle in response rates. Refusal rates since 2015 exhibit polarization, with the fastest growth in refusals among those least likely to support president Trump and the Tea Party. Evidence from an analysis which generates exogenous variation in Tea Party support using rain on the day of the first Tea Party rally indicates that exposure to anti-survey rhetoric decreases refusal rates, consistent with the findings from our other analyses.

In our future work, we plan to examine the impact of political support on individual survey responses on employment and labor force status in the CPS. It is possible that CPS respondents will report more positively about their employment status (i.e., unemployed respondents reporting that they are employed) if their preferred party holds the White House. To show this possible bias in employment responses, we will first compare metropolitan-level unemployment rates calculated using the responses from the CPS with the actual unemployment rate taken from the Local Area Unemployment Statistics (LAUS). Next, we plan to link the individuals in the CPS with the administrative data to find out whether there is a discrepancy in the reported employment status from the CPS and the actual employment status taken from the administrative data. We will next show whether this discrepancy in the reported and actual employment status is related to individual’s political support.