



## Overview of the Minimum Wage Study at the University of Washington (MWS@UW)

The MWS@UW was launched in 2015 to explore the impacts of local minimum wage ordinances in Seattle and other cities. MWS research activities are funded through a mix of public and private funding, including multi-year support from the Laura and John Arnold Foundation and contracts with the City of Seattle. The team's investigators include seven University of Washington scholars and two researchers from the Washington Employment Security Department: Jacob L. Vigdor (Principal Investigator, Evans School of Public Policy and Governance, UW); Jennifer Romich (Co-Principal Investigator, School of Social Work, UW); Mark C. Long (Co-Principal Investigator, Evans School, UW); Scott W. Allard (Co-Investigator, Evans School, UW); Scott Bailey (Co-Investigator, Washington Employment Security Department); Heather Hill (Co-Investigator, Evans School, UW); Jennifer Otten (Co-Investigator, School of Public Health, UW); Robert Plotnick (Co-Investigator, Evans School, UW); Anneliese Vance-Sherman (Co-Investigator, Washington Employment Security Department). The project team also includes Ekaterina Roshchina (Post-Doctoral Research Associate, Evans School, UW), Emma van Inwegen (Research Analyst), Anne Althaus (Research Coordinator), and multiple graduate-level research assistants.

This multi-year, mixed-method study of local minimum wage laws includes five main components:

- 1) **quasi-experimental analysis of state administrative records** to estimate average and heterogeneous treatment effects on employment and public assistance receipt;
- 2) **quasi-experimental analysis of national surveys** to estimate average and heterogeneous treatment effects on income, poverty, and health status.
- 3) **surveys and in-depth interviews of firms** employing minimum wage workers;
- 4) the collection of **area price data** from service, food, and retail establishments; and
- 5) **longitudinal in-depth interviews with low-wage workers**.

Combined, these study and data elements are designed to offer a comprehensive assessment of the impact of local minimum wage ordinances on employment and earnings, income, and health; to generate insight into the responses of firms and nonprofits; and to illuminate mechanisms through which the minimum wage ordinances may affect low-wage workers and households. Below are brief summaries of each of the five MWS primary data collection and analytic components. Additional information, including reports, can be found at the project website: <http://evans.uw.edu/policy-impact/minimum-wage-study>.

## **Administrative Data Analysis**

As part of its study of the Seattle minimum wage ordinance, the MWS receives Unemployment Insurance (UI) administrative data from the Washington Employment Security Department (ESD). These administrative data contain information about quarterly work earnings, hours, and firm for each individual working a job in the UI system since 2000. The MWS is using ESD data to evaluate changes in jobs, wages, wage rates, and hours worked as the ordinance is phased-in by comparing the City of Seattle to multiple control or comparison groups. At the firm level, we use ESD data to consider whether the minimum wage ordinance has affected business birth/death rates, workforce size, and firm-level total hours and earnings paid. These data will be updated on a bi-yearly basis, to allow the Study to assess the impact of step-ups over time in the level of the Seattle Minimum Wage.

We will combine these data with Department of Licensing (DOL) and Voter Registration records to provide information on workers' residential addresses, which will allow us to put workers into housing units, and thus to see how wages and employment changed at the address level. The DOL records also include basic demographic information recorded on drivers' licenses; including birthdate, gender, height, weight, and eye color.

To investigate the effects of the change in minimum wage laws on public assistance use, the study will link UI administrative data to records from the Department of Social and Health Services (DSHS) Integrated Client Database (ICDB). This data merge will allow the Study to examine the relationships between changes in work hours, earnings, and firm with participation in several different public programs (e.g., SNAP, TANF). These linked UI and ICDB data will be available from 2010 and are to be updated yearly through 2021.

The statistical analyses of ESD and DSHS data employ difference-in-difference methods. Difference-in-difference approaches compare the difference in outcomes between Seattle and a comparison group. In addition to drawing comparisons to jurisdictions nearby metropolitan Seattle (e.g., suburban King, Snohomish, and Pierce counties), the MWS also creates synthetic control groups by using a weighted average of outcomes from zip codes across the State of Washington that have similar pre-policy labor market trends to Seattle's collection of zip codes. Characteristics to match on include labor force growth rates, industry mix, education levels, and unemployment rates. An initial report of ESD analyses, can be found at the MWS study website ([https://evans.uw.edu/sites/default/files/MinWageReport-July2016\\_Final.pdf](https://evans.uw.edu/sites/default/files/MinWageReport-July2016_Final.pdf)).

## **Analysis of National Surveys at the Northwest Federal Statistical Research Data Center (NWFSRDC)**

While ESD data provide detailed information on hours worked and earnings for the vast majority of employed workers, we have very little information about workers who disappear from employers' records or about the demographic characteristics of workers. We will access restricted use data from the American Community Survey (ACS), the Longitudinal Employer-Household Dynamics (LEHD), and the National Health Interview Survey (NHIS) through the NWFSRDC to connect changes in the minimum wage to changes in total family income, health status, and poverty. The ACS will permit the MWS team to categorize workers and their family

members by age, gender, race, Hispanic ethnicity, country of birth, education level, income, public benefit receipt, and occupation. LEHD combines data from UI, the Quarterly Census of Employment and Wages, additional administrative data, and data from censuses and surveys (e.g., Current Population Survey and the Survey of Income and Program Participation). These data would allow us to track impacts of changes in wages and business closures and relocation directly to families. Finally, we are using a geocoded version of the National Health Interview Survey (NHIS) to study the impact of minimum wage increases on topics including food security, health behaviors, health outcomes, and subjective well-being.

### **Employer Surveys**

The Minimum Wage Study has conducted telephone and web surveys with a representative sample of employers most likely to have low-wage workers within the City of Seattle, in the Snohomish, Pierce, and Greater King County region, and in metropolitan Chicago. Specifically, surveys capture information about changes in business practice, employment and staffing strategies, employee productivity and morale, benefits and compensation, and provision of goods or services. Surveys also capture information about how businesses and nonprofits understand the wage ordinances. Employer surveys were in the field at the time local ordinances were implemented (Spring 2015 in City of Seattle; Summer 2015 in metro Chicago). Surveys in suburban Seattle were completed in Spring 2016 and follow-up surveys with City of Seattle businesses were completed in Fall 2016. The Survey of Seattle Employers surveyed over 1,000 employers in metro Seattle. A similar survey included over 200 employers in metro Chicago. Complementing survey data, the MWS has completed in-depth interviews with roughly 30 nonprofit organizations and 30 for-profit firms in the City of Seattle. These in-depth interviews will provide additional insight into how businesses and organizations are modifying strategy and practice in response to the Seattle minimum wage ordinance.

### **Worker Interviews**

The Worker Interview study is a qualitative study that is following 55 low-wage workers and their families in Seattle over three years. The first and second wave of in-depth interviews were completed in spring 2015 and spring 2016 respectively. Interviews were conducted in English, Spanish, and live interpretation from English to Vietnamese, Cantonese, or Somali. This study component focuses on understanding workers' own perspectives on work, making ends meet, and caring for family in the midst of the policy change. Qualitative evidence from the worker interviews will provide insight into how work and family life is changing for individuals who were making the minimum wage as the Seattle minimum wage ordinance is implemented.

### **Price Study**

The MWS is engaging in a number of activities to track the existence and magnitude of price increases in the Seattle area. We have collected price data through a combination of online web scraping and in-person visits to area grocery stores, restaurants, and other retail locations. Starting before phase-in of the Seattle minimum wage ordinance, the MWS currently has gathered more than a year and a half worth of data to examine. These data complement ESD data, giving us more complete information about firm and consumer level effects of the minimum wage.