Hypothesis and Concepts

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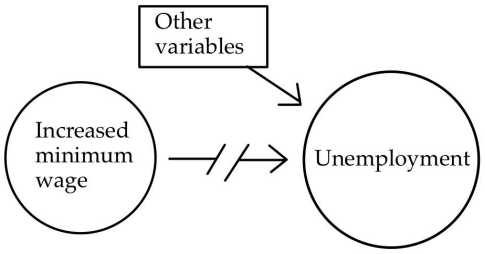
1. Path Diagram:



2. Hypothesis:
    a. Increases in the minimum wage result in no increases in unemployment. To the extent that we observe changes in unemployment, it can be explained by other variables. This is inferred to be so as we predict labor markets in the US to act as monopsonies with firms having higher price setting power than providers of labor. In other words, firms, the buyers of labor, have the ability to set prices in the labor market, that is wages, lower than the equilibrium price under perfect competition, than the sellers of labor, that is workers. Thus, raises in the minimum wage will bring wages closer to that of equilibrium.
3. Concepts:
    a. Unemployment Rate: The unemployment rate is a measure that looks to quantify how many individuals out of the total labor force are unemployed. The Bureau of Labor Statistics defines the unemployed, a definition used to file its various job reports, as individuals who are jobless, are currently looking for work or have looked in the past 4 weeks, and are part of the labor force. The labor force is conformed by everyone who is employed or unemployed and it excludes groups such as those under 16 years of age, institutionalized individuals, and military personnel (US Bureau of Labor Statistics 2015).
    b. Minimum Wage: The minimum wage is defined as the lowest permissible wage to be paid to workers under law. The US codified its latest minimum wage under the Fair Labor Standards Act (FLSA), which set the federal minimum wage at $7.25 an hour. States also have the freedom to set their own minimum wage. In this case, a worker is subject to the higher of the two (U.S. Department of Labor).
4. Ideal datasets:
    a. Our data set should include all states and their minimum wages for a particular year. It should also include the unemployment rate for each year. With these data,

we can look for a relationship between changes in the minimum wage and the unemployment rate. With these data, we can calculate the increase in the minimum wage from the previous year and the corresponding change in the unemployment rate. Our calculations would look at the effects of these changes across three time horizons—six months, one year, and two years—to account for any lag in effects.

					Our Calculations		
State	MW_{Yr-1}	MW_{Yr-2}	$Unemp_{Yr-1}$	$Unemp_{Yr-2}$	MW_{Change} (Binary)	MW_{Change} (Numeric)	$Unemp_{Change}$

b. Since there are so many confounding variables across states, the paper could potentially also look at metropolitan areas with similar economic conditions. Through this different approach, our analysis would control for intrinsic economic differences and trends across geographical regions that could be affecting the results observed. This would aid in truly identifying whether the raise in minimum wage was the main contributing factor for a change in unemployment.

5. Potential datasets:
   a. Changes in Basic Minimum Wages in Non-Farm Employment Under State Law: Selected Years 1968 to 2022 | U.S. Department of Labor
   b. State unemployment rates over the last 10 years, seasonally adjusted
   c. American Community Survey 5-Year Data (2009-2021)

Variable		Type
Outcome/ Response	Change in unemployment rate for low-wage workers after increase in min wage (state level)	Quantitative
Covariate/ Predictor	Whether there was an introduction of a new minimum wage in one part of a metropolitan area that has multiple rates set across city, county or state lines	Binary
	The amount of an increase in the minimum wage as a percentage of the previous period.	Numeric/ Continuous

Bibliography

"Elaws - Fair Labor Standards Act Advisor." Accessed October 21, 2023. https://webapps.dol.gov/elaws/faq/esa/flsa/001.htm?_ga=2.147877431.1889301516.1697940925-1397067501.1697940925.

"How the Government Measures Unemployment : U.S. Bureau of Labor Statistics." Accessed October 21, 2023. https://www.bls.gov/cps/cps_htgm.htm.