Intellectual Merit:
Over the past several decades, market power in the U.S. has concentrated, leading to a smaller number of companies across both labor and consumer-product markets (Autor et al., 2023). This trend is at the forefront of the policy debate because while large firms may benefits consumers – Amazon could not offer affordable, one-day shipping as a small company – they may also behave noncompetitively at the expense of workers or consumers, keeping wages lower or prices higher than in a perfectly competitive market. Product markets with a few large firms are called oligopolies; similarly, labor markets with a few large employers are called oligopsonies. While there is a robust literature on policy responses to oligopolies, a rapidly growing body of research has evaluated policies like minimum wages on improving worker welfare in oligopsonies. However, little is known about the effects of policies like minimum wage in the context of market power in both labor and product markets. This motivates my question: do minimum wage policies effectively improve household welfare when firms have market power in both labor *and* product markets?

Existing literature has identified important interactions between labor and product markets, especially in the presence of firm power. Empirical evidence suggests that 75% of the increase in labor costs due to minimum wage policies are directly passed on to consumers as price markups, indicating firms leverage their power in both markets to maximize profits (Harasztosi and Lindner, 2019). Eeckhout and De Loecker (2020) measure large welfare losses nationally from price markups, which they attribute to a declining national labor share. However spillover effects between these two markets go both ways: Nobel Prize winner Peter Diamond (2011) called attention to the lack of research on how changes in the product market affect labor outcomes such as unemployment. More recent research confirms this relationship by finding wage stagnation is driven by *oligopolies*, not oligopsonies, due to a decline in product demand from monopoly pricing (Deb et al., 2022). To design socially optimal policies, it is critical to understand the full welfare implications for a household due to market power. And a growing empirical literature suggests that in order to assess market power policy, it is critical to capture the spillover effects between labor and product markets.

While a few papers have studied interactions between product and labor market outcomes in the presence of market power, their analysis of spillovers is incomplete without endogenous market power. Most oligopsony models that evaluate a minimum wage policy assume a perfectly competitive product market and a fixed number of employers. These assumptions miss the key spillover effects from market responses such as price markups and increasing concentration, which are crucial economic channels for measuring policy effects on household welfare. My proposed modeling approach captures these market dynamics within a macroeconomic model to better measure the full welfare effects of minimum wages.

These spillovers create tradeoffs: on the one hand, higher minimum wages imply higher purchasing power for employed workers, allowing them to buy more goods in product markets and increasing welfare. On the other hand, firms can leverage their power in the product market to pass on the costs of a minimum wage, reducing household purchasing power, consumption, and welfare. Further, minimum wage schemes could affect not only worker and firm behavior but also the firm distribution itself, by forcing smaller firms out and concentrating power in both markets.

Methods: I will extend the macroeconomic model of labor market power introduced by Berger et al. (2024) to incorporate a frictional product market where firms with market power both employ households and produce goods for household consumption. I will use the model to structurally estimate county-level impacts of minimum wage policies across the U.S. on the welfare of households and distribution of firms across both labor and product markets.

The proposed model allows for endogenous firm power in both markets. Firms are heterogeneous in productivity that allow them advantages in the product market. Sales in the product market increase a firm's revenue, allowing them to post job vacancies to hire more workers and thus produce more products. This creates a natural tendency towards large firm power in both markets since productive firms can be welfare improving: productive firms can offer better wages and lower product prices allowing them to capture more workers and sell more goods. However, once these firms become large they may also suppress wages and mark up product prices since there are fewer alternatives for workers and

consumers. Welfare-improving market dynamics can therefore result in a welfare-reducing equilibrium. Households search in both markets. Following Berger et al. (2024), households face job search frictions in the labor market that allow oligopsonies to suppress wages while creating wage dispersion. Using the classic framework by Varian (1980) to generate a price distribution, consumers are either informed or uninformed about the distribution of prices when they search for consumption goods in the product market. With these core components, this model would allow me to measure the direct welfare impacts of minimum wages on worker welfare and unemployment, and additionally estimate the indirect welfare effects from spillovers into the product market and changes in firm concentration in local markets, dynamics that are overlooked in the existing literature.

By estimating the model using county-level data on wages, I can generate distributions of firm power and conduct normative policy exercises. Berger et al. (2022) use county-level data from the Census and Bureau of Labor Statistics of market concentrations to parameterize their model and generate an endogenous wage distribution. However, their resulting wage distribution does not capture the mass of low-wage workers seen in data. I will utilize the same data sources as the Berger model but parameterize my model using county-level wage distribution data to generate an endogenous market concentration and price dispersion. I will test the accuracy of my model's equilibrium results using market concentration data and purchase price data from the Bureau of Economic Analysis. Since the wage distribution is different in each county, each will have different market concentrations. This allows me to compare different optimal minimum wages for different counties, and the outcomes of those policies, namely the welfare benefits and differential effects on market concentration. By aggregating the effects on individual counties, I will capture national outcomes from minimum wage policy.

Broader Impacts:

My proposed model implies important welfare effects of regulating market power. At the micro-level, wages and prices will respond to changes in firm concentration, while at the macro-level, the distribution of wages, employment, and consumption will be affected. Determining the appropriate degree and approach to regulation in concentrated markets will therefore impact GDP, firm dynamism, and economic equality.

Standard quantitative models, like that proposed by Berger et al. (2022), indicate that welfare only improves with a non-zero minimum wage policy below the optimum. My model characterizes a price distribution informed by endogenous market power, which allows for non-monotonic changes in welfare from minimum wage policies. Small wage increases might concentrate the goods market and price pass-through, muting the positive effects of additional income, whereas large wage increases could decrease the efficiency loss due to employer power and lead to product market competition. These dynamics are new relative to the existing literature, and will have important implications for designing and measuring optimal policy.

Furthermore, this model incorporates economic dynamics relevant for other policy analyses. Firm growth is an essential component in models of oligopolies that explore monopoly-busting policies. However, these models abstract from labor market frictions and therefore are limited in their ability to explain changes in unemployment and wages. By endogenizing firm growth, my model would be the ideal laboratory to measure the effects of monopoly-busting policies in both labor and product markets.

Lastly, my model contributes to a broader understanding of the consequences of inequality. An influential literature has shown that initial conditions are strong predictors of household income later in life and across generations (Chetty, 2018). By affecting these initial conditions, labor and product market concentration is tightly linked to intergenerational inequality and economic mobility, with potential implications for educational and health outcomes that may differ by class and geography, among other factors. This model is a first step exploring policy responses to firm power, which could be built upon in order to better understand a variety of outcomes resulting from long-term, persistent inequality.

Resources

[1] Autor et al., (2023) NBER **[2]** Harasztosi and Lindner, (2019) AER **[3]** De Loecker and Eeckhout, (2020) QJE. **[4]** Deb et al., (2022) FFVA Lecture, JEEA **[6]** Diamond, (2011) AER **[7]** Berger et al., (2024) NBER **[7]** Varian, (1980) AER **[8]** Berger et al., (2022) NBER **[9]** Chetty et al., (2018) QJE