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DOES EMPLOYER CONCENTRATION REDUCE LABOR FORCE PARTICIPATION?

By Anqi Chen, Laura D. Quinby, and Gal Wettstein*

Introduction

The labor force participation of prime-age workers has been declining steadily over the past two decades. One possible factor in lower labor force participation may be the concentration of employers in local labor markets. An accumulation of evidence suggests that when firms possess greater bargaining power, they can drive down wages, which might, in turn, discourage labor force participation. The evidence has begun to filter through to policy, with a recent presidential executive order instructing the Federal Trade Commission to consider labor-market concentration, in addition to product-market concentration, when evaluating mergers.

This *brief,* which is based on a recent paper, examines whether markets with higher employer concentration are associated with lower labor force participation rates and whether the relationship is weaker for employees with more bargaining power, such as those covered by unions.[1] The analysis fills in a missing link between employer concentration and lower wages by directly estimating the correlations between concentration and labor force participation, and between concentration and employment.

The discussion proceeds as follows. The first section provides background on employer concentration. The second section describes the data and methods for the analysis. The third section presents the results. The final section concludes that employer concentration is strongly negatively correlated with labor force participation, but only weakly correlated with employment. Union coverage mitigates – but does not fully offset – the negative correlation between concentration and labor force participation.

Background

The impact of employer concentration on the labor market has gained traction among economists in recent years. Employers are on the demand side of the labor market, as workers are the suppliers of labor. The term for extreme concentration on the demand side of a market is "monopsony." Early models of monopsony envisioned a small company town characterized by a single employer facing an upward-sloping supply curve for labor.[2] The key insight from these

* The authors are all with the Center for Retirement Research at Boston College (CRR). Anqi Chen is a research economist and the assistant director of savings research. Laura D. Quinby and Gal Wettstein are both senior research economists.
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models – parallel to the standard view of monopoly in the product market – is that employers hire fewer workers than they would have in a perfectly competitive labor market and pay them a wage below their marginal revenue product. The resulting shortfall in wages is inversely proportional to the elasticity of labor supply, implying that the employer has more bargaining power when workers have a strong desire to work. Although company towns are increasingly rare, empirical studies have shown that certain labor markets behave as if employers face little competition, such as the markets for minimum-wage workers, nurses, teachers, and even software engineers in Silicon Valley.[3]

The Silicon Valley example highlights the fact that workers with industry-specific human capital may have many job prospects nationally but few in the commuting zone where they currently live. Hence, in a world where people are reluctant to move, labor market concentration at the local level is a potentially important issue.

Data and Methods

The goal of the project is to establish the relationship between employer concentration and labor market outcomes. The analysis proceeds in three steps. The first step is to construct a Herfindahl-Hirschman Index (HHI) of employer concentration. The HHI, a commonly accepted measure of market concentration on the product side, is calculated by squaring the market share of each firm's employment at the county and industry level and summing the squared values. The index varies between 0 (extremely diffuse) and 1 (a monopsony).

The tricky part of the exercise is getting the data to to link employers to each county and to link employees to each employer. The analysis relies on two datasets. Information to construct the HHI comes from the U.S. Census Bureau's restricted *Longitudinal Business Database,* which spans the years 1995-2013 and provides the most comprehensive information on firm-level employment within counties. Data on county labor force participation is acquired from Census's *Current Population Survey* (CPS). County population and demographic characteristics – such as education levels and unionization rates – also come from the CPS.

Once all the hard work is done, the second step is to estimate a regression to determine whether a high HHI is correlated with lower labor force participation rates and employment rates – the former is the share of the whole population that is employed or seeking a job, while the latter is the share of the labor force that is employed. The third step is to determine whether the correlation is weaker when workers have bargaining power to counteract employer bargaining power, by estimating the interaction effect of concentration and union coverage.

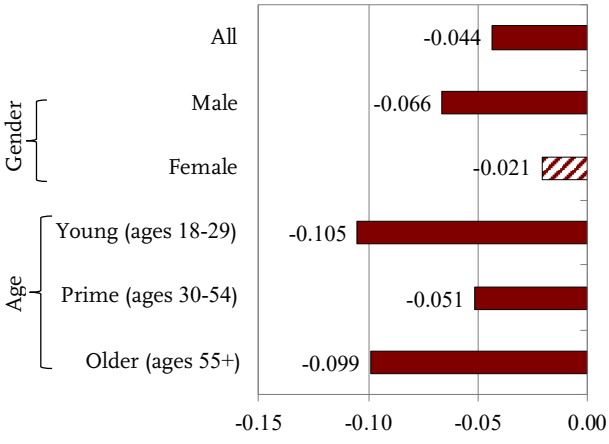
Results

The analysis produces three sets of results. The first and second pertain to the correlation between employer concentration and the two labor market outcomes: labor force participation rates and employment rates. The third explores the extent to which these correlations are modulated by union coverage. All the regression equations control for the year and the state and for the race, gender, and age of residents in the county.

Employer Concentration and Labor Force Participation

Figure 1 shows that the correlation between the HHI and the labor force participation rate across counties is negative, large, and statistically significant. That is, places where employers are more concentrated

Figure 1. Correlation of HHI Concentration Index and Labor Force Participation Rate



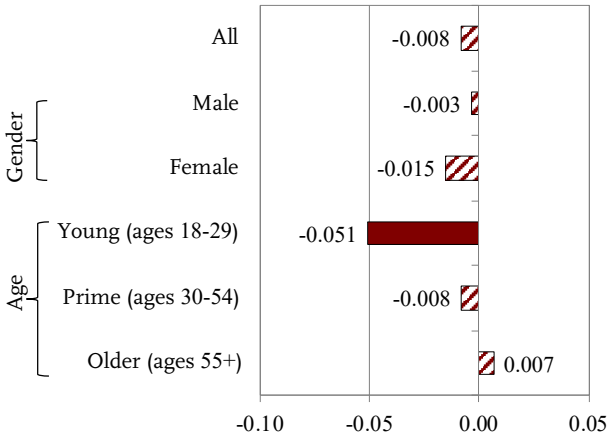
Note: Solid bars are statistically significant at least at the 5-percent level.
Source: Chen, Quinby, and Wettstein (2022).

tend to have lower labor force participation. For example, a move from perfect competition (an HHI of 0) to monopsony (an HHI of 1) is associated with a 4.4-percentage point decline in the labor force participation rate for all workers. This pattern holds in a variety of different cuts of the population: both for men and women (although not statistically significant for women) and among young, prime-age, and older workers.

Employer Concentration and Employment

Figure 2 shows the results of the regressions with the employment rate as the dependent variable. While the estimates are consistent with a negative correlation between the employment rate and employer concentration, only some of the specifications are statistically significant. For example, in the results by age, only young workers display a significant relationship between employment and concentration. For these workers, a move from perfect competition to monopsony is associated with a 5-percentage point decline in employment.

Figure 2. Correlation of HHI Concentration Index and Employment Rate



Note: Solid bar is statistically significant at the 1-percent level.
Source: Chen, Quinby, and Wettstein (2022).

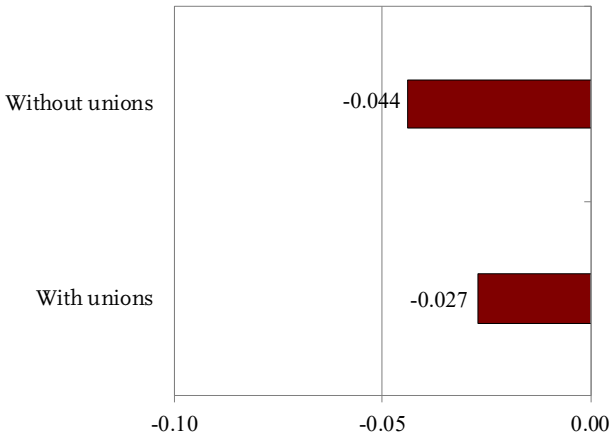
How can we reconcile the significant correlation between concentration and labor force participation with the weak correlation between concentration and employment? The effect must be driven by a decline in unemployment in highly-concentrated labor markets. One reason could be job search costs, which may be high when potential employers are numerous, but low when relevant employment options are few. In this environment, when employers consolidate, unemployment would initially increase as many workers search for fewer jobs. Once the existing jobs are filled, though, most of the remaining workers will drop out of the labor force, knowing the wages (which are relatively low in the absence of competition among employers) are not worth the effort of searching for a better job that simply does not exist.[4] Taken together, the weak associations between employer concentration and employment and the strong association with labor force participation suggest that the wage effects of concentration estimated in prior research serve to push marginally attached workers out of the labor force entirely.

Interaction with Union Coverage

Thus far, the facts are consistent with employer concentration conferring on employers a greater ability to reduce wages, leading to some decline in employment, and to a more substantial decline in labor force participation through the departure of marginal workers from the labor force. However, other interpretations are also possible. For example, places with low participation might have poor economic prospects, and thus few employers locate there. The interpretation of the facts as evidence of employer bargaining power would be bolstered if, when workers had more bargaining power, additional employer concentration had less impact.

Indeed, that is what we find (see Figure 3 on the next page). At the mean of HHI, the correlation between concentration and labor force participation is smaller by a statistically significant 0.17 percentage points. That is, the negative correlation between employer concentration and labor force participation in the absence of unions is 0.044 (see Figure 1); add unions and that correlation drops to 0.027.[5] One possible mechanism behind this result is that unions drive up wages, making more non-employed workers more willing to bear job-search costs, leaving them in the pool of the unemployed, versus out of the labor force.

Figure 3. Correlation of HHI Concentration Index and Labor Force Participation Rate, by Unionization



Note: Solid bars are statistically significant.
Source: Chen, Quinby, and Wettstein (2022).

Conclusion

Recently documented declines in wages when employer concentration increases have led to a presumption of declines in employment in concentrated markets, consistent with a monopsonistic model of labor demand. However, this relationship had not been explicitly documented. Neither had the possible negative relationship of concentration with labor force participation, as marginally attached workers leave the labor force when confronted with lower wages.

This study directly analyzed the relationship between employer concentration and employment rates and labor force participation rates. The main findings show a weak negative relationship between employer concentration and employment, and a more robust negative relationship with labor force participation. Furthermore, the analysis supported the interpretation of the results as evidence of employer bargaining power by finding that the negative association of employer concentration and labor force participation is reduced when workers have their own bargaining power through unions.

The implications of this analysis reinforce some of the conclusions of past work on employer bargaining power and wages. The results point toward noncompetitive labor markets as a real phenomenon, providing an explanation for the prevalence of measures to correct market failures, such as minimum wages and unionization. Other policy levers that have been suggested in the past, such as application of antitrust regulation to the labor market, are also possible responses to concentrated labor markets.

Endnotes

1 Chen, Quinby, and Wettstein (2022).

2 For a review, see Ashenfelter, Farber, and Ransom (2010).

3 Belman and Wolfson (2014); Council of Economic Advisers (2016); Merrifield (1999); Ransom and Sims (2010); Staiger, Spetz, and Phibbs (2010); and Quinby and Wettstein 2022 (forthcoming).

4 A similar hypothesis on search frictions is advanced by Prager and Schmitt (2021) to explain their null findings of the effect of monopsony on employment, even as they find a negative effect on wage growth. The findings in our analysis further flesh out the mechanism behind this theory.

5 The association between concentration and LFP is smaller by (0.998*0.1655)/100 = 0.17 percentage points. The main effect of union coverage on LFP is, itself, negative, with a one-percentage-point increase in unionization associated with a decline of 0.2 percentage points in LFP at an HHI of 0. This pattern, too, is consistent with a simple model of supply and demand for labor.

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Contact Information

Center for Retirement Research
Boston College
Hovey House
140 Commonwealth Avenue
Chestnut Hill, MA 02467-3808
Phone: (617) 552-1762
Fax: (617) 552-0191
E-mail: crr@bc.edu
Website: https://crr.bc.edu

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