

BY ABHIMANYU BANERJEE

Measuring Employers' Market Power

Chen Yeh, Claudia Macaluso, and Brad Hershbein. "Monopsony in the U.S. Labor Market." *American Economic Review*, July 2022, vol. 112, no. 7, pp. 2099-2138.

How competitive is the U.S. labor market? Is it highly competitive with few to no distortions, or do a few firms hold dominant market power? Answering this question quantitatively is helpful for understanding how wages are affected by labor market power, and thus for understanding how workers will be affected by labor policy choices.

In a perfectly competitive labor market, a worker receives his or her marginal revenue product, which is the additional revenue that the worker provides to the firm. On the other hand, when the firm enjoys monopsony power — the power that comes from being one of few buyers of a good or service (in this case, labor) — the worker is paid less. The ratio of the wage a worker would receive in a perfectly competitive labor market to what he or she actually receives is known as the "markdown." Measures of employer market power based on these markdowns have been scarce, however.

In an article in the *American Economic Review*, Chen Yeh and Claudia Macaluso of the Richmond Fed and Brad Hershbein of the W. E. Upjohn Institute for Employment Research have sought to close this gap in research. In particular, they derived a way to calculate the value of the markdown for any firm by exploiting characteristics of the firm's production function that can be estimated using Census Bureau data on

the firm's expenditures and revenue. They did so by assuming that at least one of the inputs is "flexible" — that is, the firm does not have monopsony power in it, and there are no adjustment costs, among other things; material inputs are often considered to fit this bill. In this way, they were able to control for another distortion that could bias the estimate of the markdown: monopolistic power that the firm might hold in the output market. Since the production function for the firm is not known, they then needed to estimate it, which they were able to do by adapting techniques from industrial organization literature.

The researchers applied the new technique to labor markets in manufacturing. They found that U.S. manufacturing labor markets are highly monopsonistic: Instead of being compensated fully for the firm's additional revenue that is attributable to their labor — a dollar for every dollar of revenue generated at the margin — workers at the average firm are paid 65 cents on the dollar at the margin. The researchers also examined the causes of variation in labor market power and determined that much of the variation is within industries, not across them; in particular, size — whether measured as employment share of the local labor market or as geographic scope — is positively correlated with markdowns.

Nevertheless, these are some sizable differences in markdowns across sectors as well. The researchers found that the highest markdowns were in the Petroleum Refining and Computer and Electronics sectors, where workers

are paid less than 40 cents on the dollar at the margin. Thus, industry-wide factors may also play a role, although within-industry variation appears more important.

The researchers suggested that to understand aggregate trends in labor market power, the markdowns of individual plants and firms need to be aggregated. But aggregation is not straightforward, and thus they also proposed a new aggregation technique that makes progress on this front.

Applying this technique to the data on manufacturing companies, the researchers reached two conclusions. First, when plotted over time, monopsony power in the U.S. manufacturing labor market follows a U shape: From the late 1970s to the early 2000s, the aggregate markdown actually decreased before starting to sharply increase after 2002. This pattern does not track that of labor's share of revenue, which decreased consistently through this period. Second, the aggregate markdown is only somewhat correlated with labor concentration — an index that attempts to quantify how dispersed or concentrated employment is among firms in a market. It is often used as a proxy for the concentration of market power and lack of competitiveness, but its theoretical connection with them, the authors note, is somewhat unclear. Both points potentially provide evidence contrary to some common economic views — namely, that monopsony power is the cause behind stagnating wages and that labor concentration is a good proxy for monopsony power. **EF**



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