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Wage Posting or Wage Bargaining? A Test Using Dual Jobholders

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EMPLOYMENT RESEARCH

Wage Posting or Wage Bargaining?

A Test Using Dual Jobholders

Marta Lachowska, Alexandre Mas, Raffaele Saggio, and Stephen A. Woodbury

ARTICLE HIGHLIGHTS

- *We propose a test to distinguish between wage posting and wage bargaining.*
- *Using dual jobholders in Washington State, we estimate the sensitivity of wages and separation rates to wage shocks in a secondary job, our measure of outside option.*
- *In lower parts of the wage distribution, improved outside options lead to higher separations rates but not to higher wages, consistent with wage posting.*
- *In the highest wage quartile, improved outside options lead to higher wages, but not higher separation rates, consistent with bargaining.*
- *In the aggregate, bargaining appears to be a limited determinant of wage setting.*

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How wages are set is a central question for research on unemployment, business cycles, and wage inequality. Two main frameworks for wage setting are wage bargaining and wage posting. Models of wage bargaining assume that workers have the ability to negotiate compensation with their employer, and that wages incorporate information about an individual worker's outside option. The alternative to bargaining is wage posting, whereby an employer offers a package of compensation that the worker must take or leave. Under wage posting, wages only respond to outside options measured at the market level—changes in an individual worker's outside option have no influence.

Hall and Krueger (2010, 2012) obtained direct evidence by surveying a representative sample of newly hired workers in the United States and found that one-third reported bargaining over pay before accepting their position. Hall and Krueger's work stimulated several studies using observational data: Faberman et al. (2017) found that workers who could have stayed in their jobs before accepting another position reported obtaining a higher wage, and Lachowska (2017) found that workers' subjective assessments of how easy it would be to find an alternative job or to be replaced in their current jobs are highly correlated with the wage received in their current jobs. This early research suggests a significant role for workers' outside options and bargaining in determining wages.

In this article, we summarize a different approach to understanding the relative importance of wage bargaining and wage posting. The approach is based on the experience of dual jobholders observed in linked employer-employee wage records from Washington State. We measure the change in a dual jobholder's outside option at the primary job as the change in the average wage of the worker's coworkers in the secondary job.[1] By using this worker-specific measure of the outside option, we can estimate how primary-job wages react to wage changes in secondary jobs while controlling other changes affecting all workers at the primary employer. Finding that primary-job wages respond to wage changes in the secondary job suggests wage bargaining; absence of a wage response suggests wage posting.

To more clearly distinguish wage posting from wage bargaining, we also examine whether separations from the primary job are related to wage changes in the secondary job. In a job where wages are posted and not negotiable, we expect workers to respond to a better outside option by leaving the job for that option. In our setting, the job offering the better outside option is the dual jobholder's secondary job.

Individual wage bargaining occurs only in the top one-fourth of the wage distribution. For other workers, wage setting is characterized by wage posting, or take-it-or-leave-it offers by employers.

Who Leaves and Who Bargains?

Figure 1 shows how the distribution of dual jobholding by industry in the sample we analyze compares to the industry distribution of single jobholders. Dual jobholding is concentrated in service sectors—health care, accommodation and food services, and retail trade—with these industries roughly equally represented among primary and secondary jobs. Workers in manufacturing, information, and finance and insurance are less likely to be dual jobholders.

Using this sample of dual jobholders, the analysis points to two main findings. First, changes in a worker's wage in the primary job are only weakly relative to changes in the wages of coworkers in the secondary job. Overall, then, bargaining plays a quite limited role in wage setting.

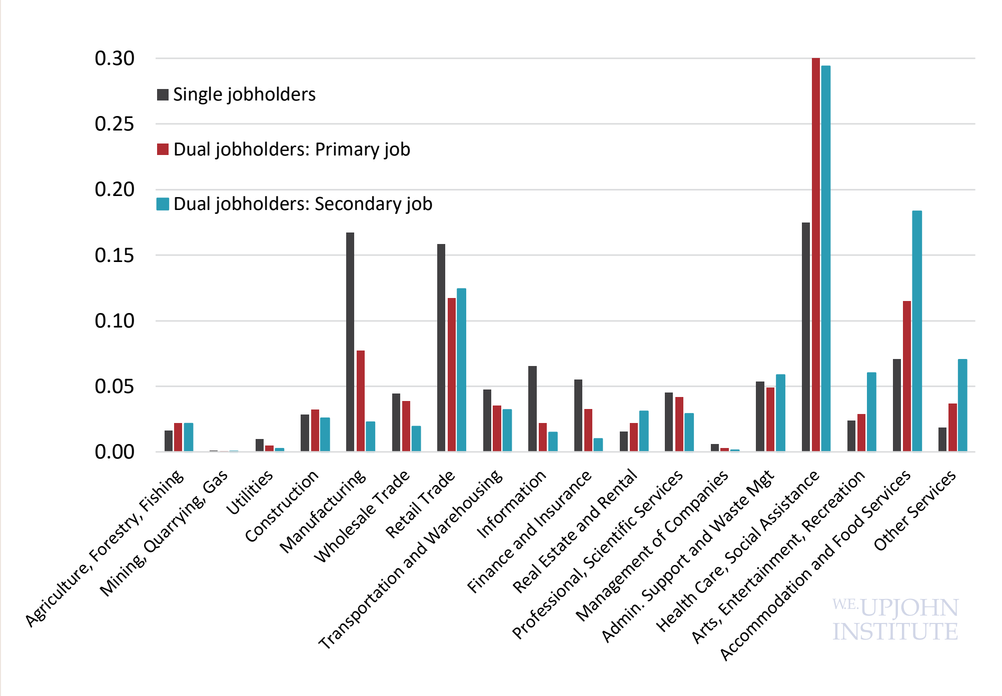
Consistent with previous research, we find that employers limit work hours on primary jobs, creating a motive to moonlight for workers who want additional income.

Rather, when wages on the secondary job improve, workers tend to leave the primary job for the secondary job. Specifically, a 10 percent increase in the outside option leads to a 4 percentage point increase in the probability of transitioning to the job offering the better outside option. Given the low baseline separation rates in our sample, this estimate represents a large increase.

Second, we find substantial differences in the prevalence of bargaining and posting among different groups of workers. Specifically, bargaining is more prevalent among workers in the top 25 percent of the wage distribution. For these high-wage workers, better outside options tend to result in higher wages on the primary job rather than separation and movement to the secondary job. But for workers in the lowest 25 percent of the wage distribution, we see no evidence of pay increases on the primary job from improved outside options. Instead, we see separation from the primary job, consistent with wage posting and an absence of bargaining.

Figure 2 elaborates on this point, showing that sectors of the economy where improved outside options lead to wage increases tend to be those where improved outside options lead to fewer separations. Specifically, the horizontal axis shows the estimated effect of a 1 percent improvement in the outside option on the primary-job wages, while the vertical axis shows the estimated effect of a 1 percent improvement in the outside option on the likelihood of separating from the primary job and moving to the secondary job. As indicated by the dashed, best-fit line, there is an inverse relationship: following an improvement in workers' outside options, employers either negotiate with them for better pay or the workers leave the employer for the job offering the better outside option. For example, in finance and insurance, employers tend to respond to improved outside options by negotiating a higher wage. In contrast, in health care and accommodation and food services, improved outside options tend to lead to a separation.

Figure 1: Where Do Dual Jobholders Work?



NOTE: The figure shows the proportion of single jobholders (black bars), of the primary job of dual jobholders (red bars), and of the secondary job of dual jobholders (blue bars), by industry. Observations of single jobholders and of dual jobholders' primary jobs in educational services and public administration are omitted.
SOURCE: Authors' calculations from Washington State wage records.

Effects of Changes in Hours on the Primary Job

The data also allow us to study how wage changes in one job affect hours worked in the other jobs. This feature helps us understand why workers choose to moonlight. There are two results. First, we find that work hours with the primary jobs are insensitive to the changes in the worker's outside option. This is consistent with a simple model, outlined in the working paper, where workaholics face limits on the hours they can work in their primary jobs and take a second job for extra income. In other words, people moonlight because they want extra income and their main jobs do not let them add hours.

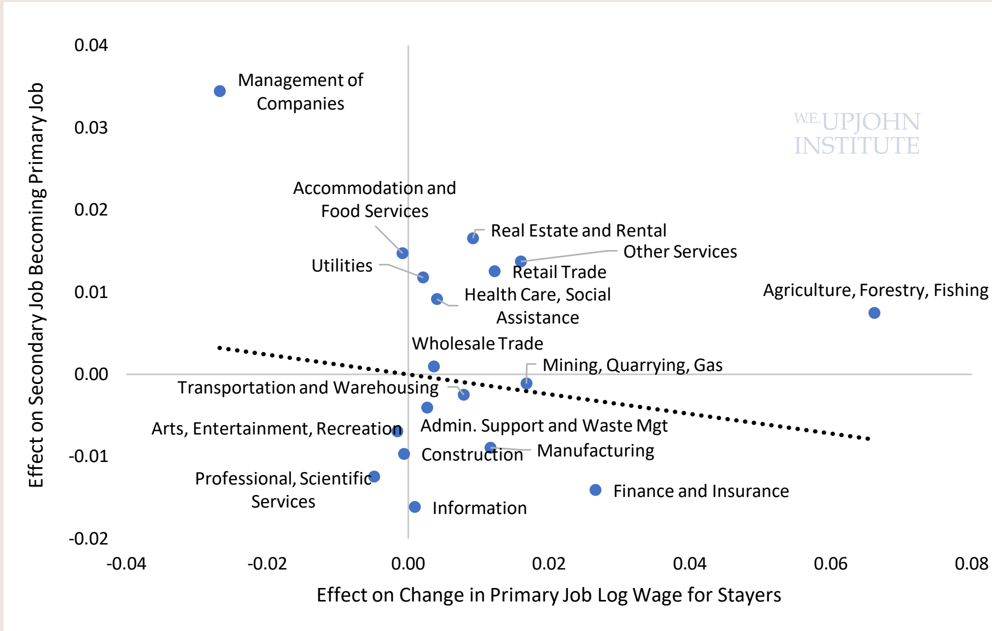
Second, we find moderate, but significant, effects of wage changes in a worker's primary job and the hours worked on the secondary job. Because hours on the primary job are essentially fixed, a change in the primary-job wage results in additional earnings without a change in work effort—what economists call an income effect. We find that this income effect is similar to those found in studies of individuals winning lotteries.

Conclusions

Our findings show that wage posting is a common feature of the labor market, and that separation is the main response to improved outside options, particularly for low-wage workers. On the other hand, wage bargaining is not as prevalent in the data, except perhaps when considering higher-wage workers.

Our approach to measuring the outside options of individual workers can be applied to any setting with linked employer-employee data and multiple jobholders. However, the results may not generalize to groups of dual jobholders working in nonstandard work arrangements. These nonstandard arrangements include electronically mediated "gig" jobs and other independent contractor positions that are not currently covered by administrative wage records. Future research may answer whether these workers have little power to negotiate wages or whether they bargain over wages.

Figure 2: How a 1 Percent Improvement in the Outside Option Affects Wages in the Primary Job and the Likelihood of the Secondary Job Becoming the Primary Job, by Industry



NOTE: This scatterplot shows the effect, by industry, of a 1 percent higher coworker average wage on the secondary job on the log wage of the primary job among stayers (horizontal axis) and on the likelihood of the secondary job becoming the primary job (vertical axis). The slope of the dashed, best-fit line is negative, indicating that sectors in which primary job wages rise are less likely to result in separations.
SOURCE: Authors' calculations from Washington State wage records.

Note

1. We describe our approach in greater detail in the accompanying W.E. Upjohn Institute working paper (Lachowska et al. 2022). Our approach is related to work by Caldwell and Harmon (2019), who examine how wages are affected by changes in the wages of former coworkers.

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For additional details, see the full working paper at https://research.upjohn.org/up_workingpapers/359.

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