

Economic Brief

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How Domestic Outsourcing Affects the Labor Market

By *[Claudia Macaluso](#)*

In this article, I focus on a few ways domestic outsourcing affects our understanding of the labor market. Jobs filled and emptied by temporary workers are never included in the official tally of job creation and job destruction, which leads to significantly underestimating the magnitude of labor market flows. Domestic outsourcing also changes the interpretation of firm reactions to productivity changes, as well as the magnitude and meaning of a secular decline in measures of labor market dynamism such as the job reallocation rate. Outsourcing is important for plants in modifying their workforces in response to productivity shocks. Plant-level outsourced employment adjusts more quickly and is twice as responsive as payroll employment to changes in productivity. These business-level implications have significant aggregate consequences.

Job creation and job destruction rates — and their difference, which is called the job reallocation rate — illustrate the labor market's ability to generate new employment opportunities, to terminate unproductive opportunities and to reallocate labor resources across productive uses. A relatively higher job reallocation rate (compared to other rich countries) has long been a hallmark of the U.S. labor market. A healthy labor market can reallocate labor to where it's most needed and better used: innovative, productive and growing firms rather than stagnant and shrinking ones. This is a positive phenomenon for many groups:

- Firms can grow to their optimal sizes.
- Workers reap the benefits of growing productivity and wages.
- Society as a whole benefits from innovation being nourished through the allocation of more resources.

Literature on Job Dynamism

A large literature has documented a downward trend in the pace at which jobs and workers move across workplaces in the U.S. in recent decades.¹ This decline in labor market dynamism has received considerable attention because less dynamic labor markets result in lower productivity growth through the misallocation of resources. Such labor markets are also associated with lower employment, especially for less educated and younger workers, as noted in the 2014 working paper "[Labor Market Fluidity and Economic Performance](#)."

Further scholarship has documented that reduced *plant-level* responsiveness to revenue productivity shocks underlies the *aggregate* decline in job reallocations.² This has been a drag on aggregate productivity, as noted in the 2020 paper "[Changing Business Dynamism and Productivity: Shocks Versus Responsiveness](#)."

However, the factors behind the decline both in business-level responsiveness to shocks and in aggregate labor market reallocation are not yet fully understood. My working paper "[Outsourcing Dynamism \(PDF\)](#)" — co-authored with Andrea Atencio and Chen Yeh — shows that domestic outsourcing is part of the puzzle. It is an important margin of adjustment at both the micro and aggregate level, and it accounts for almost 40 percent of the measured drop in aggregate labor market dynamism. This article explains how and why it is so.

Domestic Outsourcing

First of all, what is domestic outsourcing? Traditionally, firms have met their labor needs by hiring workers directly. However, since at least the early 1990s, U.S. firms have "rented" workers through third parties (basically, engaged in domestic outsourcing). This phenomenon of contracting other firms to meet labor demand is becoming increasingly important: The U.S. manufacturing sector increased the number of outsourced jobs per payroll job by at least 40 percent between 2006 and 2017. The average share of revenue the average manufacturer spends on staffing arrangements has increased by 85 percent in the same time period.

Key to investigating the economic consequences of domestic outsourcing is observing that outsourced workers in such arrangements (often called "temporary workers" or simply "temps") are *not* the manufacturing firm's employees, but the agency's. This is true even though (in a purely economic sense) they are no different than the firm's employees: They perform their job tasks at the manufacturing firm's premises, alongside the manufacturing firm's own workers and under the manufacturing firm's direction and supervision.

Still, the staffing agency (not the manufacturing firm) is the employer of record for these outsourced workers. For this reason, as they cycle through assignments, temporary workers change job titles, tasks, coworkers and place of work (basically, they change jobs), but they are never registered as job changers because they do not change employers. U.S. data on job flows are based on employer-level payroll books. As such, they capture

outsourced workers' labor market transitions across staffing agencies but not across client establishments. This omission gives rise to both a systematic undercount of aggregate job and worker reallocations and a misrepresentation of job reallocation across sectors.

Measuring Job Changes

The biggest challenge in empirically investigating the implications of these omitted reallocations lies in the very nature of the problem at hand: The creation and destruction of jobs filled and vacated by outsourced workers are unobserved in the data. Specifically, the client firm-outsourced employee relationship is not observable. Thus, empirically documenting the relationship between outsourcing and (client) business productivity has not been possible until now. We overcome this challenge by combining multiple datasets administered by the Census Bureau and the Bureau of Labor Statistics and by developing a framework to compute plant-level outsourced employment from plant-level information on staffing services expenses.

The Census and the Annual Survey of Manufacturers have collected plant-level information regarding expenses on different types of outsourced staff since 2006, including temporary help workers, leased employees, independent contractors and workers contracted through business service firms. We focus on temporary and leased employees because these workers typically perform tasks on the client's worksite in occupations at the core of the manufacturing business.

We begin by characterizing the type of manufacturing plants that use domestic outsourcing while documenting novel facts on the prevalence and growth of this phenomenon. First, we find that the share of revenue spent on outsourced workers decreases with the plant's age and payroll employment size, even though smaller and younger businesses are more likely to use staffing arrangements to begin with. Second, between 2006 and 2017, the share of revenue spent on outsourced labor grew by 85 percent at the average manufacturing plant, compared to a smaller 10 percent growth for the share spent on payroll labor. Third, the decision to use staffing arrangements — as well as the intensity with which businesses use them — varies systematically with revenue growth. The share of manufacturing plants using outsourced labor decreases when revenue growth is shrinking and increases when it is expanding. These three facts suggest that plants use domestic outsourcing strategically.

How Outsourcing Use Changes When Productivity Changes

Our findings indicate that outsourced employment is an important margin of adjustment for businesses. To investigate this hypothesis further, we build on the aforementioned "[Declining Business Dynamism](#)" paper and propose an empirical design to study the

responsiveness of both payroll employment and outsourced employment to revenue productivity changes. We define shocks as the paper's authors do: revenue productivity growth deviations from own-plant or detailed industry-year averages.

What do firms do when their productivity changes? We find that plant-level outsourced employment is twice as responsive as payroll employment to idiosyncratic shocks and adjusts more quickly. Plants tend to respond to shocks by adjusting outsourced employment growth within the same year of the shock, while payroll employment reacts in the following year.

This "immediate" response of outsourced employment reflects the flexible nature of these types of arrangements. Following negative shocks, plants shed outsourced jobs first and retain payroll workers in whom they have invested and who have acquired firm-specific skills. If the shock proves persistent, then payroll jobs are also destroyed. On the other hand, positive shocks prompt plants to outsource new hires and wait to see whether the shock lasts long enough to merit costly investments in recruiting, hiring and training new payroll employees. These patterns are consistent with the hypothesis that payroll employment adjustment costs are an important mechanism behind the use of staffing services.

Not only does domestic outsourcing affect micro-level firms' behavior, but it also has large implications for our understanding of aggregate labor market outcomes. As mentioned before, jobs filled and emptied by temporary workers are never included in the official tally of job creation and job destruction: Payroll at the manufacturing firm does not change when temporary workers arrive or leave, because they are *not* the clients' employees. Payroll also stays constant at the staffing agency when workers jump from assignment to assignment and company to company, since temp workers are on the W-2 books of the agency throughout. Because there are no payroll changes associated with the job changes of these temporary workers, the reallocations accounted for by temporary workers are absent in the official tally.

What seems static from the payroll books, though, masks a great deal of dynamism: Jobs filled and vacated by temporary workers are filled and vacated at a higher rate (three times as high, in fact) than payroll jobs. On average, every year, the equivalent to 14 percent of payroll job reallocations and 25 percent of new hires is omitted. Moreover, the creation or destruction of outsourced jobs can account for as much as one-fifth of the corresponding payroll job flow in a given year, implying that the drop in total reallocations — both outsourced and those involving payroll jobs — is about 60 percent of the measured one.

Omitting outsourced reallocation alters our understanding of labor markets' adjustment along the business cycle as well. For instance, in 2010, the manufacturing sector was creating jobs to be filled by outsourced workers at a higher pace than payroll jobs. The sector also was not destroying the existing outsourced jobs as quickly as payroll jobs. This evidence indicates that the U.S. economy recovered at a somewhat faster pace from the

Great Recession than previously documented. It also highlights that it recovered mostly by creating jobs that were filled by outsourced workers. Inasmuch as these provide different (often weaker) opportunities for workers to grow their wage and accumulate human capital,³ one may argue that the very meaning of economic recovery is changed by the use of domestic outsourcing.

Since outsourced employment churns at a much higher rate than its payroll counterpart and domestic outsourcing is becoming increasingly important, the omission of outsourced reallocations can rationalize a large part (37 percent) of the secular decline in the aggregate job reallocation rate. What seemed at first sight a *loss* of labor market dynamism is, in fact, a *change* triggered by employers' increasing and strategic use of staffing arrangements.

While our work documents the magnitude and significance of this change, current scholarship has only begun studying domestic outsourcing and the full extent of its impact on the labor market and on the welfare of workers. We hope that our work encourages both researchers and policy makers to investigate this phenomenon and ask further questions on the impact it has on American workers and businesses.

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¹ See, for example, the 2013 paper "[*The Recent Decline in Employment Dynamics*](#)" and the 2016 paper "[*Declining Business Dynamism: What We Know and the Way Forward*](#)."

² Revenue productivity refers to the dollar value of production not accounted for by remuneration to inputs. Said another way, it's the value of what is produced net of payments to labor, capital, land, etc.

³ See, for example, the 2021 working papers "[*Outsourcing, Inequality and Aggregate Output*](#)" and "[*Technological Change and Domestic Outsourcing*](#)."

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