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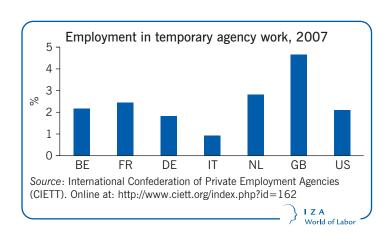
Temporary agency work

Temporary agency work is not generally a stepping-stone to regular employment

Keywords: temporary work agencies, temporary help employment, unemployment, earnings, low-skilled workers

ELEVATOR PITCH

Temporary agency work has expanded in most advanced economies since the 1990s, but its growth has been controversial. Some argue that these jobs offer experience and contact with potential employers, serving as a path to regular employment, particularly for low-skilled workers. Others view them as traps, fostering low-wage, unstable employment and providing little experience and few contacts.



KEY FINDINGS

Pros

- For some groups, such as immigrants, temporary agency work may give workers an opportunity to demonstrate their ability and so be a stepping-stone to regular employment, particularly during times of low unemployment.
- If the unemployed have few alternatives, signing up with a temporary agency may improve employment prospects and earnings in the short term.
- Temporary agencies may be a pathway for some to fairly high-paying jobs, such as those in manufacturing.

Cons

- Temporary agency work usually is associated with lower earnings and less stable employment.
- Temporary agency work generally is not a stepping-stone to regular, open-ended contracts, and it does not improve employment rates and earnings over the medium and long terms.
- Taking temporary agency work may hamper some workers' ability to make the transition to a regular job and may reduce subsequent employment and earnings.
- In Europe, fixed-term contracts provide workers with better opportunities for upward mobility than temporary agency work.

AUTHOR'S MAIN MESSAGE

Temporary agency work may lead to regular employment for some, particularly when the economy is strong, but it generally does not help workers move to regular, open-ended contracts. Thus, government reemployment programs should use it selectively only, and policymakers should be cautious about promoting temporary agency work as a way to improve worker incomes, reduce unemployment, and mitigate poverty.



MOTIVATION

Unemployment is among the most vexing problems facing advanced economies. The policy challenge is to find effective ways to help the unemployed, particularly those with weak skills and intermittent work histories, to move into stable jobs, off public benefits, and out of poverty. The growth of temporary agency work in advanced economies has sparked debate over whether these jobs can be part of the solution to persistent unemployment and low earnings among certain groups—or whether they are part of the problem.

Temporary work has long been viewed as exploitative or suitable only for those marginally attached to the workforce, such as housewives. But many academics, policymakers, and practitioners have recently contended that it is a viable path to regular employment (see **Three types of employment**). Indeed, workforce development programs in some countries have embraced this path and placed a high share of program participants through such agencies.

Three types of employment

Regular employment: Workers are directly hired in open-ended contracts by the company seeking their services. They are covered by a country's employment protection laws, which may specify notice periods or severance payments if the employee is dismissed. In the US, regular employees have few legal protections against dismissal.

Temporary agency employment: Workers are the legal employees of the temporary help agency but perform work for a client organization at the client's worksite and under its supervision. In some cases, but not most, temporary agency employees have open-ended contracts with the agency and have the same protections against dismissal as regular employees. Individuals placed into temporary positions with client organizations account for the large majority of employment in the temporary help industry, an estimated 95% in the US.

Fixed-term contract or direct-hire temporary employment: Workers are hired directly by the firm that uses their services and are the legal employees of that firm. They are hired for a fixed period of time specified in the contract and so are easily dismissed when the contract period is over.

DISCUSSION OF PROS AND CONS

The controversy over the recent growth of temporary agency work in Europe and the US

Many European countries banned all for-profit employment agencies in the early 20th century in response to concerns over exploitative practices that included misrepresenting wages and charging workers exorbitant fees for job placement. Although several European countries began relaxing restrictions on temporary work agencies in the 1960s and 1970s, legislation to legalize or liberalize such agencies has been particularly prevalent since the 1980s. This deregulation of temporary agency work, along with that of fixed-term employment contracts, was a response to concerns that strong employment protection laws were largely responsible for the high unemployment in Europe in the 1980s and 1990s. Allowing greater use of temporary work was widely viewed as a way to increase



flexibility in overly rigid labor markets. Typically, a rapid growth of temporary agency employment followed deregulation in Europe.

The temporary help industry also grew rapidly in the US, where employment protection laws are weak and industry was not regulated. During the 1990s—a decade marked by rapid employment growth and low unemployment in the US—employment in the staffing industry (firms placing their employees into temporary and permanent positions with clients, with temporary agencies accounting for more than three-quarters of staffing industry employment) grew from 1% of wage and salary employment to 2%, accounting for 10% of net employment growth. The similar trend in temporary work across countries with diverse labor market institutions and unemployment rates suggests that the industry's emergence since the 1980s reflects a fundamental shift in the way employers in advanced economies staff their workplaces.

Workers placed through temporary agencies are the legal employees of the agencies—not of the clients they work for. And because the permanent administrative staff in agencies is small, the temporary workers account for the overwhelming majority of employment in the industry.

The share of employment in temporary agencies in the US and in European countries is similar, and typically ranges from 1% to 3%. Although their share of average daily employment in advanced economies is relatively low, because the positions are short term temporary work agencies account for a considerably greater share of recruitment and constitute an especially important port of entry to employment for the unemployed.

In Germany in recent years, more than half of all temporary agency workers were previously unemployed, and temporary agency jobs have made up almost 40% of the vacancies listed with the public employment service [1]. Public employment services in some countries have promoted temporary agency work for the unemployed. In the US, participation in a public reemployment program is associated with a 50–100% increase in the incidence of temporary agency employment [2]. Germany has experimented with directly incorporating temporary work agencies into its reemployment services, and active labor market programs have been partly credited with the growth of temporary agency work there [3], [4].

The growth of temporary work and its use in public reemployment programs have nevertheless been controversial. Such jobs are typically associated with low pay and little job security, and are rarely regarded as "good" jobs. But temporary agency work can benefit workers if it gives them experience and connections that ease their transition to regular, direct-hire employment.

Why employers use temporary work agencies

Employers use temporary agencies mainly to meet a short-term staffing need. Although they may use temporary agency workers to fill in for staff who are absent, more often employers use them to accommodate seasonal or cyclical fluctuations in workloads. In some cases, employers use temporary agency workers when they are uncertain about future economic conditions. By staffing through agencies, employers hire workers only when they need them, and because temporary work agencies specialize in recruiting and screening workers, employers may be able to fill temporary positions at lower cost than



they could by hiring temporary workers directly. To increase flexibility in the workforce, industries facing relatively volatile demand conditions—most notably in manufacturing—have fueled much of the growth in temporary staffing over the last two decades.

Organizations also use temporary agencies to save on wage and benefit costs. While wages and benefits are not always lower for temporary agency workers than for their direct-hire counterparts, they often are. In the European Union, regulations that stipulate equal pay and benefits may be difficult to enforce, or differential pay may be permitted if direct-hire and temporary agency workers are covered under different collective agreements. In the US, employers sometimes hire workers through third-party intermediaries such as temporary help agencies to avoid providing certain benefits such as health insurance and retirement plans to workers.

In addition, employers sometimes use temporary help agencies to identify potential employees. The agencies may be more efficient at recruiting and screening job candidates. Recruiting potential employees through an agency may have other advantages, including lower wages and benefit costs during the probationary period. And if employers choose to terminate the contract rather than hire the worker, they may avoid layoff costs or reduce the risk of a lawsuit from a disgruntled employee.

The concern: Temporary agency jobs are "bad" jobs

The policy concern over the growth of temporary agency employment relates to the fact that workers in these arrangements generally earn considerably less than comparable direct-hire workers with open-ended contracts. Their compensation is lower because their hourly pay and benefits are generally lower and because their assignments tend to be shorter.

Low earnings would not be problematic if these workers had some preference for temporary work as a way to supplement their income. While some seek only short-term assignments, surveys of such workers in Europe and the US show that the majority desire regular employment. Moreover, although the temporary help industry has expanded into professional and technical occupations, workers in high-paying occupations still constitute a small share of all temporary agency employment. Low-skilled, low-wage workers are overrepresented in the temporary help industry, as are minorities. For these workers, stable employment is the key to improving earnings and, for many, to escaping poverty. Thus, making the transition out of temporary help employment into open-ended contracts is critical.

The debate: Are agencies stepping-stones or traps?

The fact that workers often take temporary agency employment hoping that it will be a way to find regular employment raises the question: Do temporary work agencies facilitate or hamper such transitions? There are plausible arguments on both sides.

Arguments by proponents

On the one hand, proponents of temporary agencies argue that the assignments give workers contact with potential employers and valuable experience. Many employers



screen new hires primarily through such agencies. Manufacturers, for example, use them intensively, generally offer relatively high wages for workers who lack post-secondary education, and sometimes recruit exclusively through agencies. So, to secure a high-paying job with some employers, it may be necessary to work first for a temporary help agency.

Temporary agency jobs may also give workers with patchy credentials or work histories an opportunity to demonstrate their ability. Employers, for example, may discriminate against immigrant workers or may have difficulty assessing their qualifications. Working through an agency could help these workers to get a foot in the door of a future employer.

Even if a permanent job does not materialize with the client organization, temporary work could provide on-the-job experience, making workers more attractive to potential direct-hire employers in the future. And many may be taking home more pay than if they were still unemployed.

Arguments by opponents

On the other hand, some are concerned that temporary workers may become trapped in unstable, low-paying jobs that offer few opportunities for career advancement and development. Although screening workers for permanent positions is a reason for some employers to use temporary agencies, by far the most common reason is to increase workforce flexibility. By using agencies to easily scale their workforce up or down as demand changes, employers effectively shift the economic risk to workers.

Most temporary workers are in low-skilled, often manual occupations that require little formal or on-the-job training. Indeed, low-skilled workers are particularly well suited to the temporary agency staffing model, in which workers are substitutable and can be hired only when needed. In this view, working through a temporary help agency provides little skills training that potential employers would value. At worst, temporary agency employment may even stigmatize workers, particularly if they work through agencies for extended periods.

Temporary agency work could also be detrimental to a worker's future employment and earnings if it crowds out productive job search and leaves little time to look for other employment. If it fails to enhance skills or provide contacts with other potential employers, a worker could be better off declining an offer from an agency and searching intensively for regular employment.

Do temporary help jobs serve as stepping-stones to permanent employment, and do the effects differ systematically for different types of workers?

Transition from temporary work to regular employment: Descriptive evidence

Temporary agency employment could help workers make the transition to regular, directhire jobs in two ways:

- The client organization hires the agency worker at the end of an assignment.
- The experience gained in the temporary job helps the worker find regular employment with a different organization.



As a descriptive matter, the limited evidence shows that the majority of individuals who make the transition from temporary agency to regular employment are not hired by the client following completion of their assignment. Instead they find employment with a different organization.

A number of European and US studies have tracked individuals holding a temporary agency job to observe their transition rates into regular employment, other types of temporary contracts, or unemployment. These studies generally find that transition rates into regular employment are greater during economic expansions than during contractions and are greater for high-skilled than for low-skilled workers. Transition rates vary considerably depending on the country and period. Some studies that compare the employment and earnings trajectories of the unemployed with those in temporary help jobs find that the latter are more likely to make the transition to regular employment. (See [1], pp. 97–115, for a summary of the evidence from Europe.)

Although these studies are intended to shed light on whether temporary agency jobs help workers move to regular employment, their results are difficult to interpret. For example, are the transition rates from temporary work to open-ended contracts—which ranged from 12% a year in the Netherlands to 30% in France in the 2000s—high or low? Answering this question requires answering its counterfactual: Would the transition rates to regular employment have been higher or lower if specific workers had not worked for a temporary agency?

Simple comparisons of the employment paths of different groups cannot shed light on whether temporary help employment is a stepping-stone to regular jobs for the unemployed or for certain types of workers. The likelihood that high-skilled workers will make the transition to regular employment is greater than that for low-skilled workers—irrespective of whether they take a temporary job. Similarly, the unemployed and temporary agency workers, on average, differ in their skills, motivations, and life circumstances.

These underlying differences affect not only the probability that an individual will take a temporary agency position, but also the probability that he or she will later move to regular employment. That temporary agency workers are more likely than the unemployed to move to regular employment does not mean that the temporary agency work is responsible for some or any of the difference. In fact, it is possible that transitions into regular employment would have been even higher if individuals had not taken temporary agency jobs.

In short, answering the question "Are temporary work agencies a stepping-stone to regular employment?" is challenging. Empirically, it is difficult to distinguish the factors that cause an individual to take a temporary agency job from the consequences of taking that job. Several rigorous studies in the US and Europe have used various methodologies to help untangle the effect of temporary agency employment on the subsequent employment and earnings outcomes of workers.

Do temporary work agencies help workers to make the transition to regular employment?

Several studies in Germany and the US found no evidence of a stepping-stone effect [2], [3], [5]. Because some employers that pay relatively high wages use agencies (in part, to screen workers for permanent positions), temporary agency work can be a path to good, regular jobs for some. On average, however, taking a temporary agency job does not



improve individuals' chances of moving into regular employment, but instead tends to lead to further temporary assignments.

Findings that temporary agency work is not a stepping-stone to regular employment do not, in and of themselves, imply that the unemployed would have been better off without the temporary agency job. If the unemployed have no alternative, temporary agency work may improve earnings, particularly in the short term. The German study found that agency work increases employment over the four-year follow-up period, but only because it leads to more temporary agency work, not because it facilitates a transition to regular, direct-hire employment [3]. The fact that a majority of German temporary agency workers hold open-ended contracts with the agency, and so are not as easily laid off between assignments as in other countries, may help explain this finding.

Evidence from US studies, however, shows unambiguously that moving to regular employment is crucial for gaining job stability and increasing earnings over the long term [2], [5]. Therefore, because temporary agency jobs generally do not help workers to move to regular jobs, the unemployed do not benefit over the medium to long term from taking them.

US research into a welfare-to-work program directly examined the policy question: Should government programs designed to place the unemployed in jobs channel them into temporary agency work? Using a quasi-experimental design, the research found that, on average, participants who are placed into temporary agency jobs fare no better than those who are not. Whereas placements into direct-hire jobs reduced unemployment, improved earnings, and reduced poverty rates among participants over a two-year follow-up period, placements into temporary agency jobs failed to improve worker outcomes [5], [6]. Among the disadvantaged population studied, placement in a temporary agency job actually harmed those with potential for higher earnings. For this group, a temporary job is likely to impede the transition to regular employment, so they may be better off continuing to search for regular, direct-hire employment [7].

In contrast to the German and US studies, another study from Denmark found evidence that temporary agency work is a stepping-stone to regular employment [4]. This effect is particularly strong for immigrants, whom employers may have difficulty evaluating and so choose to screen through agencies. The Danish study also found that temporary agency work is a more effective bridge to regular employment when the economy is strong; when unemployment is relatively high, workers may become locked into agency work.

The study's authors speculate that the relatively strong performance of the Danish economy may account for their finding that temporary agency work facilitates transitions to regular employment while other studies do not. One US study, however, found no evidence that temporary agency work is more effective in helping workers' transition to regular employment when labor markets tighten [2].

Deregulation of employers' use of fixed-term contracts accompanied the deregulation of temporary agency employment in Europe, with the former type of temporary employment more prevalent than the use of agencies. Several studies of Spanish and Italian labor markets compare the mobility of workers in agency and fixed-term employment [8], [9], [10]. These studies uniformly found that employment in fixed-term contracts provides workers with greater opportunities for upward mobility: Those in fixed-term contracts are more likely to be promoted to a higher occupation or to move to an open-ended contract



than those from temporary work agencies. As already noted, employers primarily use agency workers to accommodate temporary staffing needs, and the findings from these studies indicate, perhaps unsurprisingly, that employers have a greater attachment to temporary workers whom they recruit directly (see Figure 1).

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| - Figure | Ι. | IS | temporary | agency | emplo | yment a | stepping | stone to |) regulai | r work:- |

| Country | Summary of evidence | Source(s) |
|---------|---|--|
| Germany | No evidence of stepping stone effect. Temporary agency jobs may benefit unemployed workers in the short term by increasing their earnings. | Kvasnicka, M. "Does temporary help work provide a stepping stone to regular employment?" In: Autor, D. H. (ed.). Studies of Labor Market Intermediation. Chicago, IL: University of Chicago Press, 2009; pp. 335–372 |
| Spain | Workers in temporary agency jobs are less likely to transition to regular employment than those in fixed-term contracts. There is no evidence of a stepping-stone effect for low-skilled workers, whose long-term employment and earnings may be harmed by taking temporary agency jobs. | Amuedo-Dorantes, C., M. Malo, and F. Muñoz-Bullón. "The role of temporary help agency employment on temp-to-perm transitions." Journal of Labor Research 29:2 (2008): 138–161 García-Pérez, J. I., and F. Muñoz-Bullón. "Temporary help agencies and occupational mobility." Oxford Bulletin of Economic Statistics 67 (2005): 163–180 |
| Italy | Workers in temporary agency jobs are less likely to transition to regular employment than those in fixed-term contracts. | Ichino, A., F. Mealli, and T. Nannicini. "From temporary help jobs to permanent employment: What can we learn from matching estimators and their sensitivity?" <i>Journal of Applied Econometrics</i> 23 (2008): 305–327 |
| Denmark | Evidence of stepping stone effect, especially for non-Western immigrants and during periods of low unemployment. | Jahn, E. J., and M. Rosholm. Looking beyond the Bridge: How Temporary Agency Employment Affects Labor Market Outcomes. IZA Discussion Paper No. 4973, May 2010 |
| US | No stepping stone effect. Temporary agency jobs may lower earnings for certain groups, though on average working in the temporary help sector has little long-term negative effect on employment and earnings. Programs that place workers into jobs with open-ended contracts are more effective in promoting stable employment, improving earnings, and reducing poverty. | Heinrich, C. J., P. R. Mueser, and K. R. Troske. "The role of temporary help employment in low-wage worker advancement." In: Autor, D. H. (ed.). Studies of Labor Market Intermediation. Chicago, IL: University of Chicago Press, 2009; pp. 399–436 Autor, D., and S. Houseman. "Do temporaryhelp jobs improve labor market outcomes for low-skilled workers? Evidence from 'Work First." American Economic Journal: Applied Economics 2:3 (2010): 96–128 Autor, D. H., and S. N. Houseman. "Temporary agency employment: A way out of poverty?" In: Blank, R. M., S. H. Danziger, and R. F. Schoeni (eds). Working and Poor: Russell Sage Foundation, 2006; pp. 312–337 Autor, D., S. N. Houseman, and S. Pekkala Ken The Effect of Work First Job Placements on the Distribution of Earnings: An Instrumental Variable Quantile Regression Approach. NBER Working Paper No. 17972, April 2012 |



LIMITATIONS AND GAPS

It is hard for research to disentangle the factors that cause individuals to take temporary agency work from the consequences of taking such work. Findings can be sensitive to the methods used to control for the underlying differences between those who do and do not hold such jobs. Apparently contradictory results between studies may reflect different research methodologies or different effects of temporary agency work across countries, populations, and periods.

Although research generally finds no stepping-stone effect for temporary agency employment, future studies should explore whether it can lead to permanent work in certain countries or for certain workers.

This paper has focused on whether temporary agency work eases the transition into regular jobs, and the consequences for individuals' subsequent employment and earnings outcomes. It has not addressed the broader macroeconomic effects of the growth in such work on a country's aggregate unemployment, wages, and inequality, where the evidence is scant.

SUMMARY AND POLICY ADVICE

Temporary agency work tends to pay less and is short-term, with workers unemployed between assignments. Nevertheless, many view it as a way out of unemployment or a stepping-stone to better, direct-hire jobs.

Yet research finds little evidence that temporary agencies help workers gain regular employment; they may even impede it. The strongest evidence for the stepping-stone effect comes from Danish research, but that study's authors say this may be due to Denmark's low unemployment. With unemployment generally high in Europe and the US, temporary agency work may be a poor path to regular employment in most economies. Spanish and Italian studies suggest that fixed-term, direct-hire contract employment offers workers better opportunities to advance.

Although temporary agency work may sometimes lead to good jobs, government reemployment programs should use it selectively, and policymakers should be cautious about promoting it. Research does not support the use of temporary agency work as a broad strategy to reduce unemployment and improve worker incomes.

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Competing interests

The IZA World of Labor project is committed to the IZA Guiding Principles of Research Integrity. The author declares to have observed these principles.

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REFERENCES

Further reading

Andersson, F., H. J. Holzer, and J. Lane. "Temporary help agencies and the advancement prospects of low earners." In: Autor, D. H. (ed.). *Studies of Labor Market Intermediation*. Chicago, IL: University of Chicago Press, 2009; pp. 373–398. Online at: http://www.nber.org/chapters/c3595.

Jahn, E. J., and M. Rosholm. "Is temporary agency employment a stepping stone for immigrants?" *Economic Letters* 118 (2013): 225–228.

Jahn, E. J., and A. Windsheimer. *Personal-Service-Agenturen—Teil II: Erste Erfolge zeichnen sich ab.* IAB Working Paper No. 2/15.1.2004, February 2004.

Key references

- [1] Voss, E., K. Vitols, N. Farvaque, A. Broughton, F. Behling, F. Dota, S. Leonardi, and F. Naedenoen. *The Role of Temporary Agency Work and Labour Market Transitions in Europe: Institutional Frameworks, Empirical Evidence, Good Practice and the Impact of Social Dialogue*. Final Report for the Joint Eurociett/UNI Europa Project: "Temporary Agency Work and Transitions in the Labour Market." Hamburg: Eurociett, 2013.
- [2] Heinrich, C. J., P. R. Mueser, and K. R. Troske. "The role of temporary help employment in low-wage worker advancement." In: Autor, D. H. (ed.). *Studies of Labor Market Intermediation*. Chicago, IL: University of Chicago Press, 2009; pp. 399–436. Online at: http://www.nber.org/chapters/c3596
- [3] Kvasnicka, M. "Does temporary help work provide a stepping stone to regular employment?" In: Autor, D. H. (ed.). *Studies of Labor Market Intermediation*. Chicago, IL: University of Chicago Press, 2009; pp. 335-372. Online at: http://www.nber.org/chapters/c3594.pdf.
- [4] Jahn, E. J., and M. Rosholm. Looking beyond the Bridge: How Temporary Agency Employment Affects
 Labor Market Outcomes. IZA Discussion Paper No. 4973, May 2010. Online at: http://ftp.iza.org/dp4973.pdf
- [5] Autor, D., and S. Houseman. "Do temporary-help jobs improve labor market outcomes for low-skilled workers? Evidence from 'Work First.'" *American Economic Journal: Applied Economics* 2:3 (2010): 96–128.
- [6] Autor, D. H., and S. N. Houseman. "Temporary agency employment: A way out of poverty?" In: Blank, R. M., S. H. Danziger, and R. F. Schoeni (eds). Working and Poor: How Economic and Policy Changes Are Affecting Low-Wage Workers. New York: Russell Sage Foundation, 2006; pp. 312–337.
- [7] Autor, D., S. N. Houseman, and S. Pekkala Kerr. The Effect of Work First Job Placements on the Distribution of Earnings: An Instrumental Variable Quantile Regression Approach. NBER Working Paper No. 17972, April 2012. Online at: http://www.nber.org/papers/w17972
- [8] Amuedo-Dorantes, C., M. Malo, and F. Muñoz-Bullón. "The role of temporary help agency employment on temp-to-perm transitions." *Journal of Labor Research* 29:2 (2008): 138–161.
- [9] García-Pérez, J. I., and F. Muñoz-Bullón. "Temporary help agencies and occupational mobility." Oxford Bulletin of Economic Statistics 67 (2005): 163-180.
- [10] Ichino, A., F. Mealli, and T. Nannicini. "From temporary help jobs to permanent employment: What can we learn from matching estimators and their sensitivity?" *Journal of Applied Econometrics* 23 (2008): 305–327.

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