

The role of temporary employment agencies in welfare to work: Part of the problem or part of the solution?

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Although temporary-help agencies have supplied workers to American businesses since the 1940s, only relatively recently has the industry's explosive growth brought it sustained national attention. From 1972 to 2000, employment in the temporary-help industry increased five times more rapidly than employment economywide (see Figure 1).¹ The U.S. economy produced a record number of new jobs in the 1990s, and the temporary-help industry laid claim to fully 10 percent of all of this job creation.

The reactions of many to the rapid run-up in temporary employment were captured in a 1993 *Time Magazine* cover story entitled "The Temping of America."² In that article, *Time* opined that stable jobs were being rapidly replaced by a "fragile and frightening new order" of contingent work—substandard jobs, offering poor employment stability, low wages, meager fringe benefits,

and (at best) limited opportunity for advancement. Yet temporary agency jobs have also been heralded by some as providing important opportunities for disadvantaged workers to find a job, gain skills and experience, and move into traditional, more stable employment.

Against this backdrop, we consider the role that the temporary-help industry might play—or may already have played—in moving welfare recipients into jobs. Since the passage of the Personal Responsibility and Work Opportunity Reconciliation Act in 1996, the temporary-help industry has served as a major port of labor market entry for recipients of Temporary Assistance for Needy Families (TANF), the main cash welfare program created by the act. Whether this port has provided welfare recipients with safe harbor or merely led them onto the shoals of job insecurity is, at this point, unknown. The goal of this article is to point out these uncharted waters, argue that their exploration is central to welfare-to-work policy, and discuss how to conduct an expedition.

The consequences of temporary-help employment: Three views

How does a stint of temporary-help employment affect the labor market advancement of a temporary worker? This is a surprisingly hard question to answer. Three

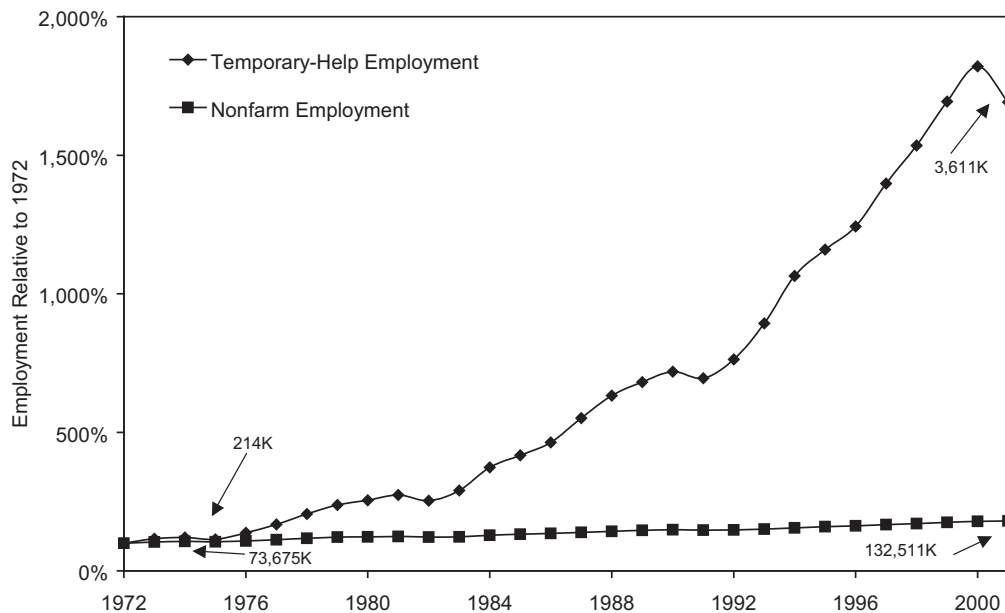


Figure 1. U.S. employment growth 1972–2001: Temporary-help and overall nonfarm employment.

Source: Bureau of Labor Statistics, National Current Employment Statistics, various years.

views may be gleaned from policy discussions, the economics and sociology literatures, and the popular press. We refer to these as the “secondary labor market,” “self-selection,” and “stepping stone” viewpoints.

The secondary labor market view, represented by (but not limited to) the *Time* article above, compares the wages, benefits, and job security of temporary workers to nontemporary workers and finds the comparison to be unfavorable.³ Indeed, as is evident in Table 1, temporary agency workers earn less, receive fewer benefits, and have less job security than workers in traditional arrangements. Moreover, the majority of temporary workers report that they would prefer a traditional job arrangement to their temporary employment.⁴ From these facts, some conclude that the temporary-help industry is responsible for the comparatively poor labor market status of temporary-help workers. By implication, were these workers *not* employed by the temporary-help industry, they would hold jobs with better remuneration and greater security.

Yet, as many social scientists will be quick to emphasize, correlation does not imply causation. An alternative reading of these facts—what we call the “self-selection” perspective—is that the negative characteristics associated with the temporary-help jobs reflect low skills and motivations of the average worker employed in the industry. From this viewpoint, there is *no* causal impact of temporary-help employment on the labor market outcomes of temporary-help workers; were these workers not employed in the tempo-

rary-help industry, they would be working in “traditional” jobs with equally unappealing characteristics. There is, indeed, evidence that workers who leave the temporary-help industry for traditional jobs experience modest initial pay gains on average, and in some cases no gains at all.⁵ The low pay that the average temp agency worker receives therefore may reflect low average productivity among those workers rather than the poor remuneration of temporary-help jobs *per se*.

Though these two viewpoints differ markedly, what they hold in common is the implicit assumption that were it not for their temporary-help employment, temporary workers would otherwise be employed in some other traditional job—perhaps with better working conditions or perhaps not. Yet this need not be the case. Because temporary-help firms are able to screen and terminate unsuccessful workers at extremely low cost, they may be willing to hire individuals who would otherwise have difficulty finding *any* employment. In this view, temporary-help firms may provide initial opportunities to marginally employable workers—those with limited skills, experience, and credentials—thereby serving as a “stepping stone” into the labor market and potentially into more permanent employment.

Which of these three viewpoints is correct? At present, there is little evidence that can demonstrate conclusively how temporary workers would have fared were it *not* for their temporary-help jobs—indeed, each viewpoint could be true in some cases. Yet the answer to this question has important implications for welfare-to-work policy.

The importance of the temporary-help industry to welfare recipients

Like the welfare-to-work population, the temporary-help workforce is concentrated in low-paying occupations and among less educated and minority workers. Whereas the prototypical temporary-help agency employee of the 1970s was a clerical worker (the “Kelly girl”), temporary agency employment has since expanded rapidly into other low-paying occupations. Today, substantially more than half of male temporary workers and over a third of female temporaries hold service, production, and laborer positions (Table 2). Though high school dropouts make up only 9 percent of the “traditional” workforce, they comprise 15 percent of temporary-help workers. Blacks comprise one-fifth of all temporary-help workers and only 11 percent of “traditional” workers.⁶ Even after statistically adjusting for differences in education, occupation, and potential experience among blacks and whites, we find that blacks remain approximately 65 percent more likely than comparable whites to hold temporary-help jobs.

Given the occupational, educational, and racial characteristics of temporary workers and given the rapid growth in this sector in recent years, it should come as no sur-

Table 1

Earnings, Health Coverage, and Job Security of Workers with Traditional and Temporary-Help Job Arrangements in 1999

	Temporary-Help Workers	Traditional Workers	Difference
A. Weekly Earnings			
Male	\$367	\$613	-40%
Female	331	474	-30
White	338	562	-40
Black	354	445	-20
Hispanic origin	296	396	-25
B. Health Insurance Coverage			
Male	36%	82%	-46%
Female	44	84	-39
White	43	84	-41
Black	31	77	-46
Hispanic origin	30	63	-32
C. Expect Arrangement to Last 1 Year or Less			
Male	25%	1%	24%
Female	23	2	22

Source: M. DiNatale, “Characteristics of and Preference for Alternative Work Arrangements, 1999,” *Monthly Labor Review* 124, no. 3 (March 2001): Tables 6, 8, and 9.

Table 2
Occupational Distribution of
Temporary-Help Agency Workers in 1999

	Males (42%)	Females (58%)
Executive, Administrative, and Managerial	4%	4
Professional Specialty	7	5
Technicians and Related Support	5	3
Sales Occupations	2	2
Administrative Support, Including Clerical	17	50
Service Occupations	5	10
Precision Production, Craft, and Repair	16	4
Operators, Fabricators, and Laborers	42	20
Farming, Forestry, and Fishing	2	0
Total	100%	100%

Source: M. DiNatale, “Characteristics of and Preference for Alternative Work Arrangements, 1999,” *Monthly Labor Review* 124, no. 3 (March 2001): Table 5.

prise that many welfare recipients have found employment in the temporary-help industry.⁷ How many? To gauge the extent of contact, we use administrative data from the state of Washington to study the temporary-help employment of welfare recipients from 1996 through 1999. For each individual who entered the state’s employment program for welfare clients (Work First) during this period, we track unemployment, temporary employment, and nontemporary employment over six calendar quarters after entry.

As is demonstrated in Table 3, the extent of contact between Washington state welfare recipients and the temporary-help industry is large indeed. The industry was the major employer for 7 percent of nonblack females and 11 percent of nonblack males during at least one out of the six quarters.⁸ And among blacks, these numbers are more than twice as high: 16 percent of black females and 22 percent of black males spent at least one quarter in temporary-help employment. These calculations include a substantial number of welfare recipients who did not work at all during six calendar quarters. If we restrict the sample to individuals who worked at least one calendar quarter in six, temporary-help employment shares are higher still. Most remarkably, among black males who found jobs, close to one-third spent at least one quarter in temporary-help employment.

Nor are these figures idiosyncratic to Washington state. Comparable data from Wisconsin, Georgia, and Missouri confirm that temporary-help employment is disproportionately prevalent among former welfare recipients, particularly among blacks and even more so among black

males.⁹ Indeed, one thing that appears unusual about Washington State is the relatively small fraction of welfare recipients who are black. In states with a larger share of black welfare recipients, we typically find a larger share of welfare recipients working in the temporary-help industry.

These patterns lead us to conclude that, outside of public sector agencies, it is unlikely that any other employment-related institution has greater contact with the welfare population than does the temporary-help industry. Moreover, this expanding contact is likely a recent phenomenon. Prior to the 1990s, the temporary-help industry had neither the scale nor the appropriate job opportunities (recall the recent expansion into blue-collar and service occupations) to provide employment to large numbers of welfare recipients.

At least some of the growth in temporary-help employment among welfare clients appears to have been fostered by public policy. Historically, welfare agencies had discouraged contact between welfare recipients and temporary-help agencies. Interviews with TANF case workers indicate, however, that programmatic policies appear to have shifted in recent years, and that some state agencies are directly involving temporary-help agencies in placing welfare recipients into “temp-to-permanent” positions.¹⁰ Though we are unable to estimate what fraction of the increased contact between welfare recipients and the temporary-help industry is due to intentional program policies, the current data make it abundantly apparent that the activities of the temporary-help industry and the process of welfare reform—knowingly or not—have become tightly linked.

Why the role of temporary help in welfare to work is controversial

Given this tight linkage, it is useful to consider why the involvement of the temporary-help industry in the welfare reform process is controversial. We begin with the negatives.

From the perspective of welfare case workers, temporary-help jobs offer a variety of unappealing features, beginning with low pay, minimal benefits, and poor job security. In addition, temporary-help firms face limited incentives to make substantial investments in training, since they have only brief contact with most workers.¹¹ Moreover, it is often alleged that temporary-help agencies “skim the cream”—taking only the best of the job applicants—although it is difficult to see how this behavior differs markedly from that of other employers.

Temporary-help arrangements also present particular challenges for the TANF population and the programs that serve it. Temporary jobs, with frequent changes in assignments, hours, and location, demand flexibility in

Table 3
Temporary-Help Employment among Washington State TANF Recipients over Six Quarters, 1996–1999

	Black Females	Black Males	Nonblack Females	Nonblack Males
Share of Those Employed in First Quarter Working in Temporary-Help Sector	11%	15%	5%	7%
Share Who Worked in Temporary-Help Sector during Six Quarters	16	22	7	11
Share Who Worked in Temporary-Help Sector, among Those Working at Least One Quarter	23	30	11	15

Source: Authors’ tabulations of unemployment and welfare data from Washington state. Individuals are classified as working in the temporary-help sector if the temporary-help industry is the highest-paying employer in the calendar quarter.

transportation and child care that welfare clients are especially ill equipped to handle. Moreover, the employment instability inherent in these positions creates administrative challenges. Welfare offices are structured by public mandate to close cases as recipients find reemployment. If these employment spells are temporary or sporadic, TANF recipients cycle through administrative portals repeatedly, generating complexity, irritation, and expense. In the near term, many recipients are denied benefits while they wait for their cases to reopen.

To compensate for these shortcomings, welfare program managers with whom we spoke discourage temporary firms from offering short-term assignments to their TANF clients. But informal agreements reached with temporary agencies are not enforceable and the agencies may face incentives to renege on them. Moreover, the length of temporary assignments ultimately is controlled by the temporary-help agencies’ customers, over whom they exercise limited control. Accordingly, even where welfare offices have explicitly contracted with temporary-help agencies to place workers in “temp-to-perm” positions, the results have been somewhat disappointing.¹²

Beyond these pragmatic concerns, many in the welfare community find the notion of for-profit intermediaries participating in a social welfare role repugnant. They view the 30–50-percent wage markup that temporary-help firms typically charge their clients as a form of “skimming” from the paychecks of workers whose earnings are already low. And they suspect that social service agencies implicitly, and perhaps unintentionally, subsidize temporary-help firms by providing TANF recipients with the skills, transportation, and child care that allow them to take otherwise unappealing jobs.

Given these many trenchant concerns, one must ask why welfare recipients seek temporary-help positions in increasing numbers, with the approval of social service providers in many cases. Clearly, one critical reason is that temporary-help firms are “where the jobs are.” By seeking temporary employment, many TANF recipients

will draw a paycheck sooner than if they had sought a traditional job—which may be reason enough. We suspect, however, that the temporary-help industry possesses several attributes that increase its appeal.

One advantage of temporary jobs stressed by the “port of entry” view is that traditional employers may be willing to employ workers at arm’s length through temporary arrangements whom they would be reluctant to hire directly. Accordingly, temporary assignments may provide TANF recipients with a toehold in the labor market. A series of such assignments may help them develop skill sets, workplace exposure, and résumés. Because temporary-help firms specialize in matching workers to tasks, the assignments are likely to be appropriate to TANF recipients’ skill levels and hence they face reasonable odds of success. As a result, temporary assignments will sometimes result in workers being hired directly. For example, extensive case studies of Massachusetts manufacturing show that many firms hire high school dropout and high school graduate production workers exclusively through temp-to-perm arrangements.¹³ In interviews with TANF case workers in Michigan and Georgia, we heard similar reports.

In the majority of cases, however, temporary-help positions will not end in direct hire. Paradoxically, this outcome may be advantageous for some TANF recipients. As several case workers and human resource managers we spoke with stressed, workers auditioning a job through a temporary-help arrangement are not formally dismissed if they are unsuccessful at their positions; rather, the temporary-help firm simply ends the assignment (sometimes offering a new assignment, sometimes not). For many TANF recipients—and indeed most workers—a documented termination can significantly impede labor market advancement. Hence, though temporary arrangements may make it “too easy” for employers to fire unsuccessful workers, they may also insulate workers from the scarring effect of firing.

Finally, although the notion of for-profit intermediaries participating in welfare placement may cause some

Table 4
Temporary-Help Employment among Washington State TANF Recipients over Six Quarters, 1996–1999

	Status in First Quarter	Earnings in Prior 5 Quarters (\$)	Distribution of Employment Outcomes over Quarters 2–6			Earnings in Next 5 Quarters (\$)
			Unemployed (%)	Temporary Employment (%)	Nontemporary Employment (%)	
Black Females	<i>Unemployed</i>	1,730	75%	3%	22%	2,280
	<i>Temp</i>	4,310	36	29	35	8,750
	<i>Nontemp</i>	5,450	30	5	66	9,350
Black Males	<i>Unemployed</i>	1,840	76%	5	19%	2,040
	<i>Temp</i>	2,840	43	20	37	6,600
	<i>Nontemp</i>	7,240	27	6	68	11,010
Nonblack Females	<i>Unemployed</i>	1,840	76%	1%	20%	2,190
	<i>Temp</i>	3,910	34	25	41	7,950
	<i>Nontemp</i>	4,820	29	2	70	8,850
Nonblack Males	<i>Unemployed</i>	3,120	76%	2%	22%	2,370
	<i>Temp</i>	4,920	31	23	46	8,510
	<i>Nontemp</i>	8,050	27	2	70	10,180

Source: Authors' tabulations of unemployment and welfare data from Washington state. Temporary Employment refers to employment in the temporary-help industry.

people discomfort, the profit motive also provides temporary-help firms with a particular advantage in fulfilling a staffing role: credibility with private sector employers. Because the financial success of temporary-help firms depends upon providing adequately screened and matched workers to their customers, employers place some confidence in the workers that these firms supply—even if those workers have a poor prior labor market history. By contrast, many employers are understandably skeptical of well-intentioned social service agencies seeking to place disadvantaged workers directly into jobs. As these employers correctly perceive, the social service role is often inimical to the profit motive. These observations bolster the case that employers who would not directly hire TANF recipients may nevertheless be willing to audition them through temporary assignments.

The consequences of temporary-help employment for welfare recipients: What we don't know and how we could know it

Because understanding how temporary-help employment aids or hinders TANF recipients' labor market advancement is crucial to welfare policy, we discuss how to study these consequences rigorously. Before we do, we ask briefly what the current TANF data *cannot* tell us.

What don't we know?

As underscored earlier, the data lend themselves to several interpretations. Consider a comparison of earnings and employment of TANF recipients from Washington state found in Table 4. From 1996 to 1999, on average, one in ten TANF recipients who took a job in the first

quarter of entering a welfare-to-work program took a temporary-help position (see Table 3). Those who took temporary jobs earned considerably less—from 10 to 50 percent less—than those who took nontemporary jobs among all four gender and race groups. Moreover, the TANF recipients who initially obtained temporary-help jobs spent a substantially greater fraction of the subsequent five quarters in unemployment than did those who took regular jobs. These facts can be readily taken to support the secondary labor market view, i.e., “bad jobs at bad wages.”

However, consider the *prior* (pre-TANF) earnings of individuals who found employment immediately after entering the welfare-to-work program (column 2 of Table 4). Even prior to their temporary-help employment, the individuals who subsequently took temporary-help positions typically earned substantially less than those who took nontemporary positions. Hence, the “self-selection” view is also supported.

Finally, consider the outcomes of TANF recipients who took temporary employment relative to those who remained unemployed in their first quarter of TANF receipt. Over the subsequent five quarters, the temporary employees earned two to three times as much as those unemployed in the first quarter and spent 50 percent fewer quarters in unemployment. Hence, if some TANF recipients who worked as temps would otherwise have remained unemployed, temporary-help employment may have served them well. Potentially supporting this view is the fact that those who took temporary-help employment rarely remained in these positions for an extended period. In the five quarters after taking a temporary-help position, TANF recipients typically spent one additional

quarter in temporary-help employment, two in unemployment, and two in nontemporary positions. Hence, it is plausible, but far from certain, that the temporary-help sector provided a “stepping stone” to some (clearly not all) TANF recipients.

Whichever of these three viewpoints the reader finds compelling, the contrast among them should underscore the difficulty in assessing the *causal* impact of temporary-help employment on the labor market advancement of welfare recipients. The fundamental obstacle is that we do not observe how TANF recipients who took temporary-help positions would have fared otherwise—both in the short term (i.e., the current quarter) and over subsequent months of potential labor market advancement or stagnation.

How could we know?

Two distinct approaches to surmounting this obstacle are feasible, both of which the authors of this article are currently undertaking.¹⁴ The first is to conduct a large-scale statistical study comparing the short- and long-term labor market advancement of TANF recipients who take temporary-help positions with otherwise similar TANF recipients who do not. There exists a voluminous literature assessing the efficacy of various reemployment programs for the labor market performance of disadvantaged populations. A general conclusion of this literature is that forming a sample of individuals whose labor market performance would otherwise be comparable to a disadvantaged population *but for* some “treatment”—in this case, a spell in temporary-help employment—is an exceedingly difficult problem.

A number of recent statistical advances, however, offer powerful and transparent tools for performing such comparisons credibly. Foremost among these are so-called “matching” methods used for identifying samples of individuals who appear in most important respects indistinguishable from those who take a treatment or, in our case, obtain a form of employment.¹⁵

These techniques are not without drawbacks. They make considerable demands of the richness and accuracy of demographic and labor market data and additionally require important assumptions, not all of which are testable. However, the matching approach is clearly the best near-term means to begin to understand how temporary-help employment affects the labor market advancement of the many TANF recipients who obtain it. Accordingly, with the support of the Russell Sage, Ford, and Rockefeller foundations, we are conducting, a large-scale, multistate “matching” study to evaluate the labor market performance of TANF recipients who obtained temporary-help employment relative to otherwise comparable TANF cases who sought other employment.

The second approach to assessing how temporary-help employment affects TANF recipients’ labor market per-

formance is to conduct a randomized experiment. Randomized experiments are a natural substitute (or complement) to statistical studies, and constitute the benchmark in social policy research. The hurdles to conducting experiments are different from, but at least as formidable as, the obstacles to conducting a convincing statistical study.

As a starting point, randomized experiments are invariably expensive. In the present case, however, the greater obstacles are methodological and institutional. Methodologically, it is essentially impossible (ethical considerations aside) to randomly assign individuals to stints of temporary-help employment. Such decisions are within the domain of the worker and of the employer, and any assignment achieved by compulsion would not replicate an actual employment situation. Hence, for an experiment to attain a degree of institutional verisimilitude, a more subtle approach is needed.

We are presently piloting an experiment that may overcome some of these challenges.¹⁶ Our design builds on the fact that there is considerable variation in the extent to which service providers encourage temporary agency employment among clients. For instance, some provide clients with little or no direct contact, whereas others make frequent referrals to temporary-help agencies and host mandatory meetings between agencies and welfare recipients. Although some of the cross-site differences reflect different opportunities for temporary-help employment, often they reflect philosophical differences in service providers’ views about temporary employment.

The planned experiment would provide the kind of variation in exposure to temporary-help agencies within participating sites that currently exists across sites. Specifically, the experiment will provide randomly chosen TANF recipients with enhanced services that may encourage temporary-help employment: additional exposure to temporary-help agency recruitment fairs; supplemental information about temporary-help job opportunities; information on the location of local temporary-help employers, etc. Provided this encouragement induces some TANF recipients to obtain temporary-help employment who otherwise would have either remained unemployed or sought traditional employment, this experiment will provide a valid foundation for causal inference.¹⁷

The advantages of randomizing *encouragement* versus randomizing temporary-help employment per se are several. First, as noted above, assigning workers to jobs with private sector employers is neither feasible nor in any sense a realistic simulation of policy. By contrast, encouraging TANF recipients to seek temporary-help employment is well within the bounds of institutional feasibility. Second, ethical concerns about denying service to one group of subjects while providing it to another—often an issue in experiments—are substantially dimin-

ished when the treatment provided is a small enhancement to existing services rather than the selective denial of access to certain benefits. Finally, an experiment where individuals are encouraged to seek temporary-help employment has the potential to answer *two* important policy questions simultaneously.

The proximate question is that identified above: How does temporary-help employment promote or hinder TANF recipients' labor market advancement? The second question, arguably of equal moment, is whether TANF programs are able, through plausible programmatic enhancements, to influence the extent of contact between TANF clients and the temporary-help industry. If public policy can have little effect on the amount of temporary-help employment among TANF clients, then, to some degree, the question of the effect of temporary employment on labor market advancement is moot. If, however, policy can significantly affect contact between temporary-help agencies and welfare clients, then understanding the labor market impacts of temporary employment is of even greater salience.

Conclusion and policy issues

A decade ago, the temporary-help industry might have seemed an unlikely participant in welfare reform. Our analysis indicates that, intentionally or otherwise, it has become a central actor. At present, the causal effects of temporary-help employment on the earnings, employment, and labor market advancement of welfare recipients are unknown. It is often presumed that these impacts are adverse, but there are cogent reasons to believe that they could be beneficial in many instances. What is unambiguous is that these impacts demand careful study.

Whether or not public policy significantly affects the incidence of temporary employment in the TANF population, it is clear that many welfare recipients will continue to gain employment with temporary agencies. And if research ultimately reveals that temporary employment promotes their labor market advancement, the relationship between welfare agencies and the temporary-help sector will receive further scrutiny. Accordingly, we close by considering how public policy could improve this interface.

Ushering welfare recipients into insecure temporary-help positions with limited benefits strains the administrative structure of welfare offices. How could states adjust the administrative structure to better accommodate these transitions? One means is to place TANF cases in a transitional holding status when recipients obtain employment rather than to close their cases immediately. Additionally, states might provide recipients with interim health or child care benefits while their cases are in transition. Indeed, some states already offer these services. These steps might both alleviate the administrative

burdens of "revolving door" cases and reduce the risk that TANF recipients suffer benefit lapses while taking fledgling steps into the workforce. Of course, any policy intended to provide a safety net to welfare recipients in insecure employment would have to be applied evenhandedly across employer types, both temporary and traditional.

A second approach to assisting the welfare-to-work transition may lie in a separate strand of the social safety net. As Alan Krueger noted in recent congressional testimony, the U.S. Unemployment Insurance (UI) system is structured to provide income security to full-time workers with stable employment. Consequently, the UI system may fail to cover many recent welfare recipients.¹⁸ This is particularly lamentable given that UI taxes are levied on all employees, even nontraditional workers who may later fail to qualify for UI benefits. Could the UI system offer additional security to the expanding share of workers who fall into these nontraditional categories?

The answer is uncertain. The UI system inherently faces a tradeoff between offering income security and providing incentives for displaced workers to seek reemployment rapidly. Expanding the inclusiveness of the UI system might weaken these incentives and encourage malingering. Moreover, any attempt at expanding the program would undoubtedly face strong opposition from employers. Nevertheless, because public policy has spurred many welfare recipients to reenter the labor force, it is worth considering whether the social safety net takes adequate account of their needs. ■

¹Temporary-help industry growth averaged 10.4 percent annually over these 28 years, versus 2.2 percent for other non-farm employment. Consequently, temporary employment increased by 1,700 percent while other non-farm employment increased by 80 percent. See D. Autor, "Outsourcing at Will: The Contribution of Unjust Dismissal Doctrine to the Growth of Employment Outsourcing," *Journal of Labor Economics*, forthcoming 2003.

²*Time Magazine*, "The Tempering of America," March 29, 1993.

³For example, see the General Accounting Office report, *Contingent Workers: Incomes and Benefits Lag behind the Rest of the Workforce*, GAO/HEHS-00-76, June 2000, available at < <http://www.gao.gov/> >.

⁴See, for example, M. DiNatale, "Characteristics of and Preference for Alternative Work Arrangements, 1999," *Monthly Labor Review* 124, no. 3 (March 2001): 28–49.

⁵L. Segal and D. Sullivan, "Temporary Services Employment Durations: Evidence from State UI Data," Working Paper #WP-97-23, Federal Reserve Bank of Chicago, December 1997, and "The Growth of Temporary Services Work," *Journal of Economic Perspectives* 11, no. 2 (Spring 1997): 117–36. However, this calculation makes no adjustment for workers' fringe benefits, which are likely to be higher in traditional jobs.

⁶Hispanics comprise 13.6 percent of temporary-help workers.

⁷Notably, the industry has contracted extremely rapidly during the current economic downturn, shedding 393,000 jobs between January

and October of 2001 (Bureau of Labor Statistics, National Employment, Hours and Earnings, available at < <http://stats.bls.gov> >).

⁸In our sample, the major employer is the industry that provides an individual with the greatest total pay in a quarter. Since workers in the temporary-help industry typically work less than full time and earn comparatively low wages, we are likely to significantly undercount the number of spells of temporary-help employment in the sample population.

⁹There are relatively few black males in our sample of welfare recipients, but the patterns of temporary employment we find for black male welfare recipients are also evident among other black male populations, such as Employment Service registrants.

¹⁰L. Pavetti, M. Derr, J. Anderson, C. Trippe, and S. Paschal, "The Role of Intermediaries in Linking TANF Recipients with Jobs," MPR Reference Number 8543-400, Mathematica Policy Research, Princeton, NJ, February 2000.

¹¹However, many temporary-help agencies do offer free computer skills training. See D. Autor, "Why Do Temporary Help Firms Provide Free General Skills Training?" *Quarterly Journal of Economics* 116, no. 4 (November 2001): 1409–48.

¹²See, for example, A. Bugarin, "Linking Welfare Recipients to Jobs: The Role of Temporary Help Agencies," Working Paper #CRB-98-017, California Research Bureau, California State Library, November 1998; L. Williams, "Study and Evaluation of W2 Workers and Temporary Employment in Milwaukee, Wisconsin," mimeo, Nine to Five: National Association of Working Women, January 1999.

¹³J. Ballantine and R. Ferguson, "Labor Demand for Non-College Educated Young Adults," unpublished paper, Harvard University, Kennedy School of Government, 1999.

¹⁴We are unable to present preliminary results at this time.

¹⁵See P. Rosenbaum and D. Rubin, "The Central Role of the Propensity Score in Observational Studies for Causal Effects," *Biometrika* 70 (1983): 41–55; R. Dehejia and S. Wahba, "Causal Effects in Nonexperimental Studies: Reevaluating the Evaluation of Training Programs," *Journal of the American Statistical Association* 94 (December 1999): 1053–62; J. Heckman, H. Ichimuro, and P. Todd, "Matching as an Econometric Evaluation Estimator," *Review of Economic Studies* 65, no. 2 (1998): 261–94.

¹⁶The study is also being conducted with the support of the Russell Sage, Ford, and Rockefeller foundations. Although pilot sites for the experiment have been selected, the authors are presently seeking additional states to participate in the final study.

¹⁷The experimental validity of randomizing encouragement to obtain treatment versus randomizing treatment per se is discussed in greater detail in G. Imbens and J. Angrist, "Identification and Estimation of Local Average Treatment Effects," *Econometrica* 62, no. 2 (1994): 467–75.

¹⁸A. Krueger, "The Economic Outlook and Policies in Light of Recent Events," testimony before the Budget Committee of the United States Senate, Washington, DC, October 2, 2001.