Pathways to Work for Low-Income Workers: The Effect of Work in the Temporary Help Industry

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Abstract

This paper provides new evidence to inform the policy debate about the effect of a newly important industry—the temporary help industry—on the labor market outcomes of low-income workers and those workers who are at risk of being on public assistance. The core issue of whether temporary help work harms the long-term prospects of disadvantaged individuals depends critically on the alternatives available to the worker. Temporary employment results in labor market outcomes that are better than not working at all. For example, while nonemployed public assistance recipients have only a 35 percent chance of being employed a year later, those who were in temporary employment have almost twice the likelihood of being employed in the same period. These findings, if correct, would support the use of temporary agencies by welfare programs. © 2003 by the Association for Public Policy Analysis and Management

INTRODUCTION

The growth of work in the temporary help industry has caught the attention of policymakers and academic researchers alike. Part of the attention is due to the number of workers in the sector—by 1999, Bureau of Labor Statistics (BLS) data indicated that temporary employment in temporary help was one fifth of employment in manufacturing (Bureau of Labor Statistics, 1995, 1997, 1999). Another reason is the growth of the industry. Employment in the temporary help services industry grew five times as fast as overall non-farm employment between 1972 and 1997—an average annual growth rate of 11 percent (Autor, 1999). By the 1990s, this sector accounted for 20 percent of all employment growth (Segal and Sullivan, 1997a).

The growth of temporary employment is important for another reason. The recent transformation of the nation's welfare system[1], combined with a strong economy, has resulted in more individuals, many of whom have little employment experience, entering the labor force. Placement agencies have turned to temporary help agencies as a source—indeed, New York City's official policy is to refer all workers

[1] The Temporary Assistance for Needy Families (TANF) block grant, which was authorized in 1996 under the Personal Responsibility and Work Opportunity Reconciliation Act, emphasizes temporary assistance and a relatively fast transition to employment.

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approaching time limits to the TempForce employment agency. This has met with resistance from union and worker action groups, who argue that the growth of temporary jobs threatens the creation of "good" jobs—and are pushing for legislation to disallow placement of welfare recipients in temporary employment. Despite the importance of this debate, there is little empirical evidence about either the quality of work in the temporary help industry for these at-risk workers or the subsequent effect of this work on their labor market outcomes.

This paper fills the gap in two ways. First it provides an environmental scan of the characteristics of the workers, jobs, and labor market outcomes associated with temporary help, and compares them with those associated with standard work. A particular focus is the interaction between temporary jobs and those workers at risk of welfare receipt. A model-based approach describes how employment in the temporary help sector affects subsequent labor market outcomes for different types of workers—particularly at-risk workers.

BACKGROUND AND LITERATURE REVIEW

Temporary Employment

Results derived from establishment-based data suggest that temporary employment grew from 1.4 percent of total employment in 1991 to almost 3 percent of total employment by 1999. The growth in the number of temporary jobs suggests that firms have responded to market stimuli on both the demand and supply side.

On the demand side, firms have developed alternative work arrangements because technological advances and the consequent job specialization make it possible for firms to hire employees for specialized tasks rather than relying on employees with broad, generalized job descriptions. Firms can then both respond to the needs of consumers by adjusting the size of the workforce and by changing the mix of skills of employees. Empirical evidence suggests that while firms use alternative work arrangements for many reasons, their staffing needs—primarily short term—are the main source of demand for agency temporaries. Increased government regulation of employment has also increased firms' demand for temporary workers (Autor, 2000; Lee, 1996). The past three decades have seen substantial changes to the common law doctrine "employment at will," which held that employers and employees have unlimited discretion to terminate the employment relationship unless a contract exists stating otherwise. By 1995, 46 state courts limited employers' discretion to terminate workers, thus opening employers to costly litigation. The effect of state courts' changes to the employment-at-will doctrine has been estimated to explain as much as 20 percent of the growth in the temporary help services industry, accounting for 336,000 to 494,000 additional workers daily in 1999, although a recent National Labor Relations Board (NLRB) ruling may change this (Autor, 2000).

On the supply side, women and young people have increased the total number of workers in the labor force available for flexible employment (Lee, 1996). In addition, the change in the nation's welfare system has led many state agencies to use temporary help agencies as a source of employment. A recent *New York Times* (Bernstein, 2002) article reported that all New York City welfare recipients approaching their time limits are referred to a temporary help agency. Chicago has developed a program called Suburban Job Link that uses temporary help agencies as a source of work experience for welfare recipients.

What are the consequences of this? Union and action groups have argued that these are dead-end jobs. In Massachusetts the Campaign on Contingent Work (2001, p.1) argues that:

> the expansion of the temporary help industry contributes to undermining the base of good jobs in Massachusetts. By creating an industrial infrastructure that allows firms to hire workers on an "as-needed" basis the temporary help industry is promoting a shift from permanent to temporary—and insecure—employment.

They conclude by recommending that the Commonwealth of Massachusetts require that unemployed workers and former welfare recipients be placed "in permanent jobs, with living wages, benefits, and a reasonable expectation of long-term employment" (p. 28). Similarly, an Economic Policy Institute report concluded by arguing that public policy should focus on the danger that temporary work develop into an institutional mechanism to pay workers substandard pay and benefits (Hudson, 1999).

Recent evidence confirms that temporary work typically pays less and provides fewer benefits than a standard work arrangement.[2] In 1999, for example, median pay for workers in traditional arrangements was $540 per week—almost $200 higher than the median pay of agency temporaries at $342 per week. In addition, the jobs were substantially less likely to provide either health insurance or employer-provided pension plans—only 9 percent of temporary workers have employer-provided health insurance versus 58 percent of workers in traditional arrangements. Similarly, while 54 percent of workers in traditional arrangements are eligible for an employer-provided pension plan and nearly half are included in their employer's pension plan, only 12 percent of agency temporaries are eligible for an employer-provided pension plan and 6 percent are actually included. Tenure is also (not surprisingly) lower. Segal and Sullivan's (1997b) research finds that temporary employment spells are dramatically shorter than permanent spells. Their estimates lead them to conclude that 32 percent of temporary employment spells for one employer last for only one quarter (compared with 11 percent of permanent spells), 78 percent last four quarters or fewer (compared with 35 percent of permanent spells), and the average is about two quarters. Finally, these jobs are not taken by choice. Agency temporaries were more than twice as likely to cite economic reasons (60 percent) as personal reasons (29 percent) for working in the arrangement. Temporary workers most often said that this was the only type of work they could find or that they hoped this job leads to a permanent position (Cohany, 1998).

These findings are reinforced by Houseman's (1997) analysis of the February 1995 Current Population Survey (CPS). She finds that workers in alternative work arrangements (i.e., those in temporary, part-time, or contract employment) are "much more likely to receive low wages, live in poverty, and have no benefits, than are workers in regular full-time jobs." Further evidence indicates that while workers in alternative work arrangements account for about 25 percent of wage and salary workers, they account for 57 percent of the bottom 10 percent of the wage distribution, 56 percent of those not eligible to receive employer-provided health insurance, and 42 percent of the working poor (Houseman, 1997).

However, it is not clear what the alternatives are for temporary workers. Agency temporaries are more likely than the average worker in a traditional work arrange-

[2] The source tables for this section are reported in Lane et al., 2001.

ment to be female (58 percent versus 48 percent), black (21 percent versus 11 percent), and Hispanic (14 percent versus 10 percent).[3] Agency temporaries are the least educated group of workers: temporary workers are much more likely to be high school dropouts and much less likely to be college graduates than are workers in standard employment. Indeed, in a study that controlled for some of these differences, Segal and Sullivan (1998)[4] find only a 15 to 20 percent wage differential between wages earned in temporary work and the wages expected from traditional work based on the work history of the individuals in the sample. This differential dropped to about 10 percent when wages were compared with those earned at the types of jobs the individuals would probably find if not involved in temporary work.

Although most jobs do not convert to permanent jobs, some firms do provide the opportunity. The Upjohn Institute's survey found that about 43 percent of employers using agency temporaries said they often, occasionally, or sometimes move employees into permanent positions. This is confirmed by a survey conducted by the National Association of Temporary Staffing Services, which found that more than one-third of temporary agency workers surveyed said they had been offered a permanent job by their employers (Houseman, 1997).

Literature on Temporary Help and Workers at Risk of Welfare Recipiency

TANF agencies, including those in New York and Chicago, have begun using temporary help agencies to place welfare recipients in jobs (Pavetti et al., 1999). This may become an important trend, as more former welfare recipients go to work and the caseload becomes harder to serve. Welfare agencies are likely to rely more heavily on intermediaries that either provide services to help clients with employment barriers (e.g., substance abuse treatment), assist with job search activities including teaching clients "soft skills" necessary to succeed in interviews, or help place clients directly into employment. While this may be helpful to some workers with few skills and little or no work history, there is concern that the temporary agency jobs into which clients may be placed are low paying and unlikely to become permanent positions (Houseman, 1999).

Although there is less evidence about the effect of temporary help work on this subgroup of workers, Unemployment Insurance (UI) wage record data suggest that temporary jobs for welfare recipients are not of high quality. Pawasarat (1997) examines more than 42,000 jobs held from January 1996 through March 1997 by more than 18,000 single parents who received Aid to Families with Dependent Children (AFDC) benefits in December 1995. He finds that temporary jobs were often part-time or short-term: of those hired by a temporary agency over the five quarters, only 30 percent used that agency as the sole source of employment. Additionally, earnings were low, with half of those employed by temporary employment agencies earning less than $500 per quarter in wages. However, Pawasarat finds that temporary agencies play an important role in the job experience of working recipients—42 percent of AFDC recipients who had a job were employed at least once by a temporary agency.

[3] For the CPS analysis, the category of traditional worker excludes temporary agency and on-call workers and independent contractors, who do not have a continuous employment relationship with a particular firm.

[4] The authors use Unemployment Insurance (UI) data from the State of Washington to examine wage differentials and employment duration, respectively, among workers in the temporary help supply services industry.

UI wage record data also suggest that few temporary jobs held by those at risk of welfare recipiency become permanent. In Washington, fewer than half of temporary employment spells (42 percent) resulted in a transition to a permanent job (Segal and Sullivan 1997b). In Wisconsin, only 5 percent of the single parents who worked for temporary agencies at any point in the five quarters studied had non-agency earnings in excess of $2500 during the first quarter of 1997. Roughly 6 percent of persons with temporary agency jobs may have obtained full-time traditional employment through a temporary job. Most of these successful persons had the characteristics of the population most likely to leave AFDC with or without a temporary job placement, i.e., 69 percent had 12 or more years of schooling and 57 percent were already employed in first quarter 1996 at the start of the study period (Pawasarat, 1997). Even after controlling for demographic characteristics as well as work and welfare histories, the Pawasarat study generally found significantly lower probability of working in all four quarters in the year after leaving welfare if a welfare recipient had worked in a temporary agency as compared with other industries.

JOB QUALITY FOR AT-RISK TEMPORARY WORKERS

Although temporary jobs have often been characterized as peripheral and marginal, little is known about whether these jobs are substantially different for workers at risk of welfare receipt than for the workforce in general. This section uses two different definitions of at-risk workers—namely, individuals who either had received public assistance or had a family income below 150 percent of the poverty line in the previous year.[5] The focus is on several aspects of job quality in temporary help employment—the quantity of work (hours and job duration), the price of work (the wage rate), and other measures of the quality of work (benefit information).

Although these job quality measures are of interest in any analysis of the labor market, they are of particular interest to those at risk of welfare receipt. It is self-evident that low wages are an important contributing factor to poverty—and it is well known that a key difference between low-wage workers below poverty and low-wage workers above poverty is the number of weeks and hours worked per year (Lane, 2000). In addition, work by Farber (1997) shows that the availability of health and pension benefits for low-skill workers is steadily decreasing, lowering the quality of jobs available to this group.

Data from the 1995, 1997, and 1999 February Contingent Workers Supplement to the CPS are matched to income data from the March Supplement for the same years. These data have the advantage of providing information on the types of work arrangements held by working respondents and on benefits provided by employers together with demographic characteristics, but the sample size for at-risk workers in temporary help is relatively small—from 50 to 100 in each year.

The proportion of workers in temporary help, particularly at risk workers, who work part-time, as well as their average job tenure are reported in Table 1. These data suggest some basis for the concern about the hours and duration of work for at-risk workers in temporary help. Differences in job tenure have already been well

[5] The definition of at risk of welfare recipiency is conceptually difficult to pin down. There are different types of public assistance—Aid to Families with Dependent Children/Temporary Assistance for Needy Families, Medicaid, and food stamps—and eligibility measures vary by state and family background. Thus, workers with identical earnings, but in different states and in different environments, might well be at different levels of risk of welfare recipiency. The advantage of our approach is that it is standardized across states.

Table 1. Part-time employment and job tenure.*

	1995			1997			1999		
	Part-Time	Job Tenure		Part-Time	Job Tenure		Part-Time	Job Tenure	
Work arrangement	% Part-time	% More Than 6 Months	% More Than 1 Year	% Part-time	% more Than 6 months	% More Than 1 Year	% Part-time	% More Than 6 Months	% More Than 1 Year
All workers									
agency temps	21.4%	54.5%	38.8%	19.2%	57.6%	39.1%	20.6%	59.9%	43.6%
regular workers	16.9	90.0	81.5	16.6	89.9	81.8	15.7	90.2	81.6
Public assistance recipients									
agency temps	22.8%	48.4%	37.4%	25.2%	54.0%	35.2%	29.3%	52.2%	32.4%
regular workers	24.3	81.0	67.4	23.2	82.4	69.7	23.4	82.7	69.4
Workers below 150% poverty									
agency temps	26.2%	52.2%	39.1%	20.2%	44.7%	31.3%	26.0%	50.7%	29.0%
regular workers	28.5	75.5	59.9	29.5	78.0	63.7	27.9	77.5	62.3

* Weighted percentage working part-time and with tenure over six months and 1 year.
Source: Current Population Survey, matched February to March.

documented by Polivka (1996), and are not surprising, given the inherently transient and part-time nature of temporary employment. However, job duration is even lower for at-risk workers in temporary help, with percentages of at-risk workers with job tenure longer than either six months or one year typically somewhat less than for all agency temps.

The second component of job quality is wages. Table 2 shows that earnings of all workers in temporary help, as expected, are substantially below those in regular work, although average earnings in this sector have shown a slightly stronger upward trend than overall earnings. At-risk workers have earnings about one-third less than the average for all temporary workers, who in turn make about one-third

Table 2. Wage levels.

Work arrangement	1995		1997		1999	
	Mean Wage	Median Wage	Mean Wage	Median Wage	Mean Wage	Median Wage
All workers						
agency temps	$9.32	$7.56	$10.84	$7.66	$10.58	$8.25
regular workers	13.34	10.80	13.14	10.72	13.96	11.40
Public assistance recipients						
agency temps	$6.81	$6.48	$7.73	$6.38	$8.39	$7.43
regular workers	9.05	7.56	9.16	7.66	9.66	7.93
Workers below 150% poverty						
agency temps	$7.15	$6.48	$7.87	$6.13	$7.75	$7.43
regular workers	7.58	6.48	7.80	6.64	8.20	6.94

* All wages in 1998 dollars.
Source: Current Population Survey, matched February to March.

less than regular workers. This is not surprising, given that the sample is based on income and program participation in the previous year. That said, at-risk workers in temporary help make about 50 percent less than regular workers for two, roughly equal, reasons—their at-risk status and their employment in temporary help. Indeed, the median at-risk worker who worked full-time year-round in this sector (which is unlikely, given the information on job duration and the incidence of part-time work) would just barely earn enough to be above poverty for a family of four.

The final piece of the puzzle in assessing job quality is the availability and coverage of employer-provided benefits—particularly health and pension benefits. Table 3 shows that, as expected, very few temporary agency workers are either covered by health insurance or have it available to them—roughly one in four have health insurance available; fewer than one in 10 are actually covered, compared with almost two of three regular workers. For at-risk workers, the availability is not markedly different, but the coverage is roughly half an already low rate—about one in 20 at-risk workers in temporary work are actually covered by health insurance. A very similar picture emerges for employer-provided pensions.

These relatively poor outcomes are not voluntary. Temporary workers at risk of welfare receipt are as likely as all temporary workers to be in these jobs for economic rather than personal reasons. Not surprisingly, given this information about the reason for work in the alternative sector, most workers in temporary work are not particularly happy with their job. Almost one in four is looking for new work, and about two-thirds report that they would prefer a different job, which is slightly higher for at-risk than for regular workers. This stands in marked contrast to regular workers, who are, by and large, satisfied with their job (95 percent of these workers are not looking for a new job). It also stands in marked contrast to at-risk workers in regular jobs, who are only marginally more likely to be looking for new work than are all workers.

Despite these results, which document the relatively disappointing labor market outcomes for temporary help workers at risk of welfare recipiency, it is not clear whether temporary help work "hurts" or "helps" such workers.

Table 3. Employer-provided health insurance availability and coverage.*

Work arrangement	1995		1997		1999	
	Available	Covered	Available	Covered	Available	Covered
All workers						
agency temps	21.1%	6.5%	24.8%	8.1%	25.6%	9.8%
regular workers	75.5	64.6	75.8	64.4	76.7	65.2
Public assistance recipients						
agency temps	21.3%	1.2%	19.7%	4.2%	26.7%	6.1%
regular workers	56.5	44.3	56.9	45.9	57.3	44.5
Workers below 150% poverty						
agency temps	18.3%	3.9%	17.7%	3.8%	15.9%	3.7%
regular workers	47.8	35.4	48.3	36.6	48.6	37.6

*Weighted percentages for whom health insurance is available from employer, and percentage covered.
Source: Current Population Survey, matched February to March.

WHAT HAPPENS TO AT-RISK WORKERS AFTER TEMPORARY HELP EMPLOYMENT?

To analyze the effect of work in temporary help on subsequent labor market outcomes of workers at risk of welfare recipiency, we constructed a model to capture two alternatives (or counterfactuals) to employment in temporary help: traditional employment and no employment. The model constructs comparison groups for each of these alternatives, controlling for demographic characteristics and employment histories using the Survey of Income and Program Participation (SIPP). The SIPP is used for this analysis, both because the sample size is more generous for examining the outcomes of at-risk workers[6] and because the SIPP has information on work history that is critical for the creation of a comparison group.

Setting Up the Analysis

Three issues are key to describing the effect of temporary work on at-risk disadvantaged workers. The first is to define the counterfactual; the second is, for each counterfactual, to develop a comparison group of workers possessing characteristics as similar as possible to those of workers who have experienced temporary employment; and the third is to describe the differences in outcomes between the temporary agency workers and those in each comparison group.

The effect of entering into temporary employment clearly depends on whether the worker was employed or not employed to start with. Thus, as shown in the Appendix, two separate groups of workers are defined for the base period: those who enter temporary employment from nonemployment (Treatment Group 1), and those who enter temporary employment from traditional employment (Treatment Group 2). For each group of workers, a comparison group in the base period was also constructed—and it is clear that there are two possible counterfactuals. One alternative to temporary work is traditional employment; the other is not having a job at all. Thus two sets of comparison groups must be constructed—each of which will be conditioned on the initial state. So the first treatment group—those who went into temporary work from nonemployment—will be compared with two possible counterfactuals—those who went from nonemployment to nonemployment (Comparison Group 1) and those who went from nonemployment to traditional employment (Comparison Group 2). The second treatment group—individuals who went into temporary work from traditional employment—will also be compared with two different possible counterfactuals—individuals who went from traditional employment to nonemployment (Comparison Group 3) and those who went from traditional employment to traditional employment (Comparison Group 4). Matched propensity score techniques based on both demographic characteristics and employment historics are used to match individuals in each treatment and comparison group as closely as possible.[7]

To define the effect of temporary work, several outcome measures—ranging from public assistance receipt, to employment and earnings—are measured for a year later. Finally, since the focus of analysis is on disadvantaged workers, results are given for both the full sample of workers, and workers within 200 percent of poverty in the initial period.[8]

[6] Just over 200 individuals in the SIPP have received public assistance in the previous month; and about 650 persons' family income is below 200 percent of the poverty level.
[7] See both the Appendix and Lane et al. (2001) for an in-depth discussion of this approach.
[8] We define at risk relative to 200 percent of the federal poverty level rather than 150 percent (our definition of at risk for the CPS analysis) to ensure an adequate sample size for the analysis.

Table 4. Outcomes 1 year later—means by comparison group and differences in means.

	Treatment Group 1: Not Employed to Temporary Employment				Treatment Group 2: Traditional Employment to Temporary Employment			
	Comparison Group 1: Not Employed to Not Employed		Comparison Group 2: Not Employed to Trad. Employment		Comparison Group 3: Trad. Employment to Not Employed		Comparison Group 4: Trad. Employment to Trad. Employment	
Outcome 1 Year Later	Full Sample	At-Risk	Full Sample	At-Risk	Full Sample	At-Risk	Full Sample	At-Risk
Job Outcomes								
Employment:								
comparison mean	35%	35%	73%	72%	57%	56%	88%	84%
temporary job differential	34%	33%	–5%	–4.3%	27%	20%	–4%	–8%
	(18.19)*	(13.33)*	(–2.07)*	(–1.36)	(11.75)*	(4.80)*	(–2.86)*	(–2.92)*
Hourly wages among those employed:								
comparison mean	8.23	7.60	8.72	9.00	9.68	8.28	11.45	8.57
temporary job differential	–0.080	0.182	–0.567	–1.220	1.535	1.092	–0.237	0.805
	(–0.24)	(0.73)	(–1.45)	(–2.43)*	(3.99)*	(1.82)	(–0.84)	(1.67)
Hours per week:								
comparison mean	11.67	12.10	25.95	25.66	19.95	20.65	33.14	30.58
temporary job differential	13.04	12.52	–1.24	–1.03	11.22	8.26	–1.97	–1.66
	(17.49)*	(12.61)*	(–1.28)	(–0.79)	(11.66)*	(4.62)*	(–2.89)*	(–1.29)
Job quality outcomes:								
Private health insurance coverage:								
comparison mean	57%	41%	63%	51%	59%	36%	77%	57%
temporary job differential	2%	5%	–4%	–5%	12%	20%	–5%	0%
	(0.90)	(1.78)	(–1.58)	(–1.48)	(4.79)*	(4.53)*	(–2.96)*	(–0.11)
Health insurance from employer:								
comparison mean	14%	13%	28%	27%	20%	15%	50%	38%
temporary job differential	11%	13%	–3%	–1%	17%	14%	–12%	–10%
	(6.50)*	(5.99)*	(–1.35)	(–0.27)	(7.31)*	(3.61)*	(–6.40)*	(–3.13)*
Welfare recipiency/poverty status								
Public assistance:								
comparison mean	18%	28%	13%	18%	15%	27%	7%	14%
temporary job differential	–4%	–6%	2%	4%	–7%	–12%	1%	0%
	(–2.31)*	(–2.71)*	(1.08)	(1.25)	(–3.93)*	(–3.28)*	(1.24)	(0.12)
Medicaid receipt:								
comparison mean	15%	23%	10%	14%	11%	21%	4%	9%
temporary job differential	–4%	–7%	1%	2%	–7%	–12%	0%	–1%
	(–2.81)*	(–3.31)*	(0.86)	(0.89)	(–4.57)*	(–3.82)*	(0.47)	(–0.37)
Less than 200% poverty:								
comparison mean	50%	74%	42%	61%	45%	73%	32%	68%
temporary job differential	–9%	–12%	–1%	0%	–13%	–12%	0%	–7%
	(–4.53)*	(–4.73)*	(–0.45)	(0.08)	(–5.03)*	(–2.77)*	(–0.04)	(–2.02)*

T-statistics in parentheses. * $p < .05$.
At risk defined as below 200% of family poverty level in month prior to reference month.
Source: SIPP 1990–1993 panels, calculations by the Urban Institute.

WHAT IS THE EFFECT OF TEMPORARY HELP WORK ON AT-RISK WORKERS?

The results are striking. In sum, it matters whether the alternative to temporary work is employment or nonemployment. Workers who get temporary jobs fare much better in terms of job and job quality outcomes a year later than do workers who were not employed during the same period; but they fare slightly worse than those who were employed in traditional employment.[9] The effect of temporary work on reducing the likelihood of welfare receipt and poverty is unambiguously positive. Most importantly for this study, these results hold true for the full sample and for at-risk workers, both in terms of the direction and the order of magnitude of the effects.

Another important result is that work history clearly matters in determining the comparison groups. Although we were unable to fully control for work histories, it is likely that our efforts allow a better match than would be possible using cross-sectional data—suggesting that simple tabulations of outcomes for different groups of workers may be misleading.

The effects of temporary work a year later were examined through three different dimensions: employment and earnings outcomes, job quality, and welfare receipt. The first set—work-related outcomes—consists of the likelihood of employment, earnings levels if the individual gets a job, and the hours worked. The second set—job quality—is measured by whether the worker has private health insurance or, more specific to job quality, employer-provided health insurance. Finally, the effect is examined for the worker's welfare receipt and poverty status a year later.

Job Outcomes

Turning to the specifics, the first column in Table 4 (Comparison Group 1) shows the results of comparing workers who were initially not employed and then took temporary work with those who were not employed in either month. The latter had only a 35 percent chance of being employed a year later. By contrast, the group that moved from nonemployment to temporary employment had almost twice the likelihood of being employed, at 69 percent.[10]

Temporary work appears to have positive effects even when the set of workers who moved from traditional employment to temporary employment is compared with similar workers who moved initially from traditional employment to nonemployment (Comparison Group 3). Again, while the comparison group has a 57 percent chance of being employed a year later, temporary work is estimated to improve these odds by 27 percentage points to an 84 percent chance of having a job a year later. These probabilities were quite similar for the at-risk groups of initially not employed and initially employed temporary workers, sitting at 69 percent (35 percent + 34 percent) and 76 percent (56 percent + 20 percent), respectively.

This situation changes markedly when the cohort of workers who moved from nonemployment to temporary work is compared with similar workers who went from nonemployment to traditional employment in the initial period (Comparison Group 2). Nearly three-quarters (73 percent) of the latter group were employed a year later, compared with 68 percent of the temporary work group. The same is evi-

[9] Although the results that are presented here reflect the simple quintile approach discussed in the Appendix, the results are substantively unchanged when additional controls are added, or when a difference-in-difference approach is used.

[10] The predicted probability for temporary workers can be calculated from Table 4 by taking the estimated 35 percent for the comparison group plus the temporary worker differential of 34 percent.

dent when the group that moved from traditional employment to temporary work is compared with those who stayed in traditional employment (Comparison Group 4). The movement to temporary work dropped the probability of being in employment a year later from 88 percent to 84 percent. It is worth noting that the drop is about twice as large for the at-risk group of workers—their employment probability drops from 84 percent to 76 percent

The story is very much the same for earnings outcomes. Temporary employment generally improves earnings outcomes among those employed when the comparison group is those who were not employed (although this is not statistically significant). However, workers who went into temporary help have lower earnings than similar workers who got traditional jobs. The sole group of temporary help workers that actually increased earnings relative to those in traditional work is the group of at-risk workers who moved from traditional employment to temporary employment rather than stay in traditional employment—their earnings gain was substantial (about 10 percent) although not statistically significant.[11] This may, however, be a result of using earnings as a selection criterion for the at-risk group.

The third set of rows shows the effect of temporary work on hours worked (including the effect of non-work). Again, the results differ strikingly, depending on which comparison group is used. Workers who were not employed in both initial periods or transitioned from traditional employment to nonemployment had few hours one year later—ranging from 12 to 20 hours a week. Those who transitioned into temporary employment worked almost twice as many hours as those who were not employed in both of the initial periods, and half as many again as those who transitioned into nonemployment from traditional employment. The effect is slightly lower for at-risk workers, however.

The negative effects of temporary work when compared with traditional employment are quite small. They were just over one hour a week when the comparison group is workers who moved from nonemployment to traditional employment, and slightly less than two hours a week when compared with those who stayed in traditional employment.

Job Quality Outcomes

Another important dimension is the quality of the jobs held a year later, captured by examining whether the worker has health insurance. The levels of coverage certainly vary substantially—private health insurance coverage is lowest for those not employed in either of the initial months (Comparison Group 1) and highest for those employed in traditional work in both months (Comparison Group 4). However, temporary work had no significant effect on overall insurance coverage relative to most of the comparison groups examined.

Job quality can be focused more narrowly by examining employer-provided health insurance. Although workers who took a temporary job had a better chance of receiv-

[11] The standard errors of the estimates reflect the size of the samples available for each model, but do not reflect the regression models used for matching. The samples of temporary workers contain 738 previously nonemployed persons with 425 at risk, and 648 previously employed persons and 234 at risk, while the comparison groups range in size from 1005 to 49,449 for the full sample and 600 to 9867 for those at risk. The models used for matching include a broad set of explanatory variables that generally show their expected relationships to the outcomes. However, as can be seen in the Appendix B of Lane et al. (2001), the start of a spell of employment, unemployment or temporary work is inherently difficult to predict. This difficulty undoubtedly leads to less precision in the differences here than is reflected by the standard errors.

ing insurance from their employer than did those who went to nonemployment (Comparison Groups 1 and 3), they fared no better or worse than those who went into traditional employment (Comparison Groups 2 and 4). While the at-risk group did worse than the full sample in terms of their job quality outcomes, their gains from temporary work, when they were to be had, were greater in percentage terms, and often even in relative terms than for the full sample.

The second group of rows in Table 4 provides more detail. While 57 percent of those workers who were not employed in both initial periods (Comparison Group 1) had private health insurance a year later (41 percent of at-risk workers), about 14 percent had employer-provided health insurance. In both this case, and the case where workers had moved from traditional employment to nonemployment (Comparison Group 3), however, similar workers who had moved into temporary work did better—almost doubling their chances of getting employer-provided health insurance. In both cases, the effects reflect large effects of temporary work on the probability of employment.

Outcomes for temporary workers compared with those who had regular employment in the second month of the initial period, show that temporary workers do significantly worse in getting a job with employer-provided health insurance than those who were continuously employed in traditional positions (Comparison Group 4). However, among those initially not employed, temporary workers show no significant difference in their rates of employer coverage compared with those who moved to traditional employment (Comparison Group 2).

Public Assistance Receipt and Poverty Status

Temporary work appears to substantially reduce the likelihood of a worker receiving public assistance or having low income a year later as compared with nonemployment—sometimes by more than a third. These gains are particularly marked for at-risk workers. For example, individuals who were not employed for both of the months in the initial period (Comparison Group 1) have an 18 percent chance of getting public assistance (28 percent if they are at risk), a 15 percent chance of Medicaid receipt (23 percent if at risk), and a 50 percent chance of being below 200 percent of the poverty level (74 percent if at risk). These odds drop substantially if an individual with similar characteristics were to go from nonemployment to temporary work. Public assistance receipt would drop by 19 percent (22 percent if at risk); Medicaid by 25 percent (29 percent if at risk), and the incidence of income below 200 percent of the poverty level by 18 percent (17 percent if at risk). This effect is more pronounced for individuals who move from regular employment to nonemployment as opposed to temporary work (Comparison Group 3).

Contrary to expectation, there was generally no significant effect of temporary work as compared with traditional employment. Program recipiency rates and poverty rates are typically not significantly greater than for those in traditional employment. This may be due in part to the relatively modest sample sizes, particularly for at-risk temporary workers who were previously in traditional employment.

SUMMING UP

This research was motivated by the policy controversy generated by the confluence of three events: the surge in importance of temporary help in the overall workforce, the policy decision on the part of states to place individuals "at risk of welfare recipiency" in temporary jobs, and the resultant debate about the quality of such work.

This paper provides some empirical evidence to inform the policy debate on two core policy questions: the importance of temporary help to workers at risk of welfare recipiency and the effect of these jobs as compared with both employment and nonemployment. Some answers have emerged, but data restrictions have limited the scope of the analysis.[12]

The initial overview using CPS data provided some evidence that workers at risk of public assistance receipt fare worse in temporary employment than other workers in such arrangements. This held true across a variety of dimensions: wages, incidence of part-time work, job duration, and employer-provided benefits. The CPS analysis also demonstrated that at-risk workers are less happy with their work, and more likely to be in the job for reasons of necessity than are other temporary help workers.

However, this analysis also found that at-risk temporary workers, by and large, had much lower levels of education than did other workers—suggesting that the alternative to temporary employment for this group might well be nonemployment rather than employment.[13] This finding led to use of SIPP data to make comparisons between individuals who were in temporary work and those who were not employed as well as between individuals who were in temporary work and regular employment.

The results of the SIPP analysis were quite striking. Temporary employment results in much better outcomes relative to no employment and in only slightly worse outcomes relative to traditional employment. In addition, while individuals who had a spell in temporary work had worse earnings and employment outcomes than did those who worked in the traditional sector, in general they did much better than similar persons who had a spell in nonemployment. The incidence of welfare receipt and income below twice the poverty line for temporary workers was generally similar to that of individuals in traditional employment, but was reduced as compared with nonemployed individuals.

These results raise important questions for the policy debate about the effects of the increasingly important temporary help sector. The core issue is whether temporary work harms or helps the long-term prospects of disadvantaged persons. Our research suggests that the answer depends critically on the alternatives available to the worker. Temporary employment results in labor market outcomes that are better than not working at all. In addition, and in contrast to the concerns expressed by the union and action groups noted above, few significant differences can be found between the subsequent outcomes of nonemployed persons who go into temporary work and those who enter traditional employment. If correct, this would support the use of temporary agencies by welfare programs.

[12] In particular, small sample sizes and inadequate work history information in the CPS meant that the data set could only be used for tabular purposes. While the SIPP provided better work history information, the definition of temporary work was not nearly as rich as the one provided by the CPS, and, again, insufficient sample size meant that only one definition of at-risk workers could be used, rather than many alternative measures. Furthermore, although the work history data in the SIPP improve our ability to obtain good matched comparison groups, the match remains problematic for some of the comparisons. In addition, the differences between temporary help employment estimates derived from household surveys, such as the CPS, and establishment surveys, such as the CES, are troublingly large. Such restrictions will be reduced by research in the near future with new, very rich state-level wage record data for 18 states that are currently being enhanced with Census Bureau data. These data, which will have the advantage of being longitudinal in nature, and hence able to capture transitions into and out of employment in the temporary help industry, have the additional advantage of a much more generous sample size than the SIPP—because the data cover almost the universe of employment in each state.

[13] This is consistent with the high rates of previous nonemployment among temporary workers in our sample.

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APPENDIX: DATA AND METHODOLOGY

Data

We analyzed the 1990, 1991, 1992, and 1993 SIPP panels. In each wave, the basic questionnaire provides data on the primary jobs held during the previous four months. Questions focus on the two jobs held for the largest number of hours. For these jobs, we know earnings or wage rate, months the job was held, usual hours worked per week, industry, and receipt of health insurance coverage. These variables, together with measures of income and public assistance receipt, are our primary outcome. The SIPP supplements the basic survey in each wave with detailed topical modules that provide information including employment and welfare recipiency history. These modules are used to select comparison groups with relatively similar work histories.

We categorize a person as being employed in the temporary help services industry if he/she reports that either of the two reported jobs for a given wave is in SIC 736. SIC 736 includes those working for temporary help agencies and employment agencies. Our sample of temporary agency workers includes all instances in which persons begin work for an agency (as either their primary or secondary job) as measured by the SIC code. The focus on the start of spells of temporary work simplifies the modeling of comparison groups and fits naturally with our interest in the effect of decisions to take temporary work rather than other options.

The samples are matched based on propensity scores. Roughly put, we estimate a regression model that describes the probability of starting a job with a temporary agency. The predicted probability from such a model is known as a propensity score. We follow recent research (Berk and Newton, 1985; Dehejia and Wahba, 1998; and Rosenbaum and Rubin, 1984) in choosing comparison group members who match members of our sample of temporary agency workers in their likelihood of becoming a temporary worker, as measured by their propensity score. An alternative would be to match on many characteristics of the individuals (e.g., those included in the regression model). Rosenbaum and Rubin (1984), however, argue

that matching on the propensity score, which is a single variable, is nearly as effective as matching on all of the many variables used in the regression model to predict propensity score.

Using the matched comparison groups, we estimate the effect of entering temporary work on several outcomes measured a year later. The outcome measures include employment status, wages, hours worked, health insurance coverage, and receipt of public assistance. These subsequent outcomes are then compared to those for each of the comparison groups, with the differences in outcomes interpreted as the effects of entering temporary work relative to the counterfactual; that is, working at a traditional job or not working.

Methodology

To obtain a sample of persons beginning temporary work, we select all workers in temporary work (SIC 736) from each month who were not in temporary work in the previous month. The sample is limited to workers between ages 18 and 45. Only those temporary workers whose employment begins at least 12 months before the last month of a panel are included in the analysis, as this allows us to observe outcomes one year later.[14] We include all spells of temporary employment, including multiple spells from the same individual, in our analysis and adjust our model standard errors for correlations among the observations.

This group of temporary workers is further divided into two groups. Prior to entering a temporary job, a person is either employed in traditional work or not employed. Since we believe that these two groups may be entering temporary jobs for different reasons, we divide the temporary worker groups into two groups. Treatment Group 1 includes temporary workers who were not working in the month prior to taking a temporary job (either unemployed or out of the labor force). Treatment Group 2 includes temporary workers who were working in traditional employment in the month prior to taking a temporary job.

The comparison group contains data for all persons who are not observed in temporary work in any wave of the SIPP.[15] We then create comparison groups whose transitions are similar to the treatment groups. Comparison Group 1 includes persons who were *not* working in either the current or the prior month. Comparison Group 2 includes persons who were not working in the month prior but have traditional employment in the current month. Comparison Groups 3 and 4 are analogously defined. Table 4 describes the six treatment and comparison groups.

After defining our treatment and comparison groups, the next step is to construct matched comparison groups. That is, we select persons from the comparison group who most closely resemble members of the treatment group on key factors (e.g., demographic characteristics, work and welfare history, family structure). We also control for the timing of the survey interviews, so that the labor market conditions faced by temporary agency workers and the comparison groups will be roughly similar. Samples are matched separately for those who start temporary work following

[14] We include in our logit analysis of temporary work observations that are missing data a year later in an attempt to include as many cases as possible in predicting who is likely to be employed in temporary work. These cases are excluded from the matching procedure and from the analysis of the effects of temporary work because they lack the outcome information from a year later.

[15] To make the sample sizes manageable (and to ensure that they reflect the distribution of survey months), we include data for only one month chosen at random per household in the comparison group. The month is chosen from all months that occur at least 12 months before the end of the panel to ensure a sufficient follow-up period.

employment and nonemployment, since the relationships in the model are likely to vary with work status.[16]

The basic approach is to use a non-linear regression model to describe who becomes a temporary worker, and then use the predicted probabilities of temporary work from that model as the basis for matching samples. Separate models of the probability of starting a temporary agency job are estimated for those with and without employment in the previous month, allowing the factors affecting the probability to differ for these groups. A multinomial logit model is used for the estimation, to allow for joint estimation of temporary work as compared with the two alternatives: employment and nonemployment. Independent variables for the logit models include:

1. Human capital variables, including measures of age, education, consistency of labor market attachment, recentness of time out of the labor market, and recent job training;
2. Indicators of a need and ability to work an irregular work schedule, such as number of children, age of youngest child, marital status, number of adults in the household, and measures of recent changes in these variables;
3. Other demographic variables that tend to be linked to quality of job such as sex, race, and ethnicity;
4. For those employed in the prior month, indicators of employment in a low-wage occupation or industry based on data constructed from the CPS, and a recent wage rate; and
5. Measures of the wave and panel of the interview on which the data are based.

The specific measures used are somewhat different for those employed and not employed in the month prior to when we measure temporary work.

We then use a two-step matching procedure. First, using the first multinomial logit model described above, we predict a propensity score for each person in the sample. We then compare the mean characteristics of temporary workers with probabilities in each quintile to those in traditional employment and nonemployment. After attempting to make the characteristics of the temporary agency workers and the two comparison groups similar within each range of predicted probabilities, we use the predicted probabilities to create a matched sample. We thus re-weight the data for the comparison group so that a weighted one-fifth of the

Table 5. Treatment and comparison group definitions.

	Prior Month	Current Month
Treatment Group 1	not employed	employed in temporary work
Treatment Group 2	traditionally employed	employed in temporary work
Comparison Group 1	not employed	not employed
Comparison Group 2	not employed	traditionally employed
Comparison Group 3	traditionally employed	not employed
Comparison Group 4	traditionally employed	traditionally employed

[16] Separate analyses by previous employment status are also expected to make the experiences of those categorized as temporary workers more homogeneous within a grouping.

comparison group members have propensity scores between the cutoffs for each quintile of scores for the temporary agency workers.

The matching procedure generally worked well in grouping like individuals based on demographic characteristics.[17] There is little significant difference between either set of treatment and comparison groups on the basis of age, sex, race, and education. There is also little difference between the two groups in terms of household structure—marital status, number of children—or changes in the household structure. The only set of characteristics in which the matching procedure consistently performed poorly was on the work history variables: particularly the measures of long- and short-term work history and unemployment duration. This suggests that the models fail to capture the full process by which individuals select into each group, and hence that our estimates are likely to be biased by the degree to which this failure occurs. This is not surprising; it would be difficult to argue that individuals take temporary jobs without the existence of work history factors that affect that choice. The construction of more detailed work histories might well be a solution to controlling for the differences we observe, but this is not possible with the current SIPP dataset. These results, however, reinforce our suspicion that datasets that are unable to control for such work history measures (such as the CPS) would not be appropriate for use in such an analysis.

[17] The test statistics for these comparisons can be seen in Appendix B in Lane et al. (2001).