

# **Temporary Employment and Welfare-to-Work**

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### Policy Question

One issue in the current debate over welfare reauthorization is whether state welfare offices should encourage or discourage the use of temporary help agencies as part of their job placement activities. Substantial minorities of welfare recipients do work at “temp” jobs as they move from welfare to work, but there is disagreement over whether or not welfare agencies should encourage this (Autor and Houseman 2002). On the one hand, “temp” work may give difficult-to-employ current/former welfare recipients the chance to develop the skills and work records necessary to obtain work in a permanent job and to move up the economic job ladder. “Temp” agencies may provide individuals with little work experience training in standards of appropriate workplace behaviors – for instance, appropriate dress, getting to work on time, not arguing with customers, etc. And, some employers report using “temp” agencies to “try out” workers with spotty employment records for permanent jobs (Houseman 2001). If these positive factors are common, state welfare offices should utilize temporary help agencies as part of their overall job placement strategies.

On the other hand, critics of temporary help agencies argue that typical “temp” placements are low paid, unstable jobs that do not provide health benefits, offer few opportunities to learn new job skills, and do not provide links to regular work (see, for instance, Campaign on Contingent Work 2001; United States General Accounting Office 2000; Hudson 1999; Autor and Houseman 2002). If “temp” work traps workers into an unstable, dead-end job ghetto, and recipients cycle between “temp” jobs, unstable regular jobs, and the welfare system, then a strategy that promotes “temp” jobs may actually increase the long-term administrative burdens on state welfare programs (Autor and Houseman, 2002). “Temp” workers may also be

more vulnerable to on-the-job discrimination, sexual harassment, and arbitrary dismissals than are permanent workers (Autor 2003, Rogers and Hanson 1997). “Temp” work may thus increase risks for an already disadvantaged group of women.

Advocates and opponents of the use of temporary help agencies for placing Temporary Aid to Needy Families (TANF) recipients would likely agree that “temp” jobs pay less, are more unstable, and offer fewer benefits than regular jobs, and that a long-term goal of welfare reform is that recipients and ex-recipients move into stable jobs that provide benefits and an escape from poverty. They disagree, however, over whether “temp” jobs do or do not lead to better wages, more stable employment, and more benefits in the future for welfare recipients. In this paper, we use panel data on a sample of TANF recipients in Michigan to track the use of “temp” work over a roughly four-year period. We assess the longer-term consequences of “temp” work for wages, time employed, employment continuity and job benefits using fixed-effects models to control for time-invariant, unmeasured differences in these women’s talents, training, preferences, ambitions, and constraints.

## Background

Some state and local welfare agencies already use temporary help agencies as part of their job placement strategy. According to Lane et al. (2003: 281-282), New York City refers all workers approaching time limits to the Temp Force employment agency, and Chicago’s Suburban Job Link Program uses temporary agencies as a source of work experience for welfare recipients. Pavetti et al. (2000) report that several state TANF agencies refer some clients to temporary help agencies. Even in states which do not officially utilize temporary help agencies, “temp” jobs are part of many TANF recipients’ employment packages as they move from welfare to work. For instance, Autor and Houseman (2002) examined the employment of Washington State TANF recipients over the first six quarters after they had enrolled in TANF

and report that a sizeable minority of recipients who had worked at all over these six quarters had worked for a temporary help agency at some point.

The typical “temp” job pays less and provides fewer benefits than does the typical regular job (General Accounting Office 2000, Hudson 1999, Segal and Sullivan 1997, 1998). Lane et al. (2003) used the 1995, 1997, and 1999 February Contingent Workers Supplements to the Current Population Survey (CPS) and the corresponding March CPS Supplements to compare the pay, benefits, and job tenure of agency temps to those of regular workers. They report that in 1999, the median hourly wage for agency temps was \$8.25, only 9.8 percent of agency temps had employer-provided health coverage, and only 43.6 percent had a job tenure of more than one year. In comparison, the median hourly wage of regular workers was \$11.40, 65.2 percent had employer-provided health benefits, and 81.6 percent had worked for the same employer more than one year.

These differences are not surprising given that regular workers likely are more skilled, better educated, and have more prior work experience than do agency temps. Lane et al. (2003) also compared job outcomes of agency temps to those of regular workers in two “at-risk” populations – workers who had received public assistance in the prior year and workers whose last-year family income was less than 150 percent of the poverty line. Even in these restricted comparisons, agency temps fared badly. For instance, in 1999 the median hourly wage for temps who had received public assistance in the prior year was \$7.43, 6.1 percent had health coverage, and 32.4 percent had tenure of one year or more. The median wage for regular workers who had received public assistance in the prior year was \$7.93, 44.5 percent had health coverage, and 69.4 percent had job tenure of a year or more.

But as Lane et al. (2003) and Autor and Houseman (2002) point out, these comparisons overstate the economic costs associated with temp work if some workers choose to work as temps because they cannot obtain regular employment. Autor and Houseman’s (2002) finding

that new TANF recipients who took temporary jobs had lower earnings in the five quarters prior to entering TANF than did new TANF recipients who took regular jobs suggests that recipients who take temp jobs may be less skilled or less job ready than recipients taking regular jobs.

Lane et al. (2003) used 1990-1993 panel data from the Survey of Income and Program Participation (SIPP) to make comparisons between the later job outcomes of low-income individuals who were in temporary work and those who were not employed over a period as well between individuals who were in temporary work and regular employment over a period. Lane et al. (2003:593) find that: “Temporary employment results in much better outcomes relative to no employment and only slightly worse outcomes relative traditional employment.” Based on this finding, they conclude that the answer to the question of whether working at a “temp” job benefits or hurts an individual’s employment prospects will depend on the employment options available to that individual. Both Autor and Houseman’s (2002) and Lane et al.’s (2003) results demonstrate that we need to know more about the skills and personal situations of recipients who “temp” in order to adequately assess the consequences of “temp” work for their *future* earnings and employment trajectories. As Autor and Houseman (2002) conclude, “the causal effects of temporary-help employment on the earnings, employment, and labor market advancement of welfare recipients are as yet unknown.”

Autor and Houseman (2002) state that the primary argument in favor of temp work is that it is a stepping stone to better jobs – that temp jobs provide poorly educated women who have few job skills and spotty work records the chance to learn workplace norms, develop more stable employment records, learn new skills on the job, and try out for permanent jobs. Houseman’s (2001) finding that roughly one in five private employers who have hired temps report that they did so to screen for candidates for regular jobs provides some support for this claim. If the stepping stone argument were true, then the incidence of temp work should decline over time as recipients move into regular jobs. A second argument is that temping provides some welfare

recipients the flexibility to move into and out of the labor market in response to family crises, health problems, and childcare issues. To the extent this occurs, we would expect lower declines in “temp” work over time, and a higher incidence of temp work among individuals with health problems and young children.

The primary argument against temping is that it offers low paid, unstable jobs which provide little or no training, no benefits, few links to permanent jobs, and few protections against discrimination and sexual harassment. If temp workers do not gain the skills and connections needed to move out of unstable, dead-end jobs and experience little improvement in earnings and benefits over time, we should see little decline in the incidence of “temp” work over time as women cycle between welfare, “temp” jobs and low paid regular jobs. As Autor and Houseman (2002) put it, temp work is then a “revolving door”, not a stepping stone

Autor and Houseman (2002) identify three deficiencies in the research on the effects of “temping”. First, most studies have analyzed data collected from temporary help agencies, not from samples of “temp” workers. Agencies have incentives to exaggerate the extent to which “temp” jobs provide training and links to regular work. In this paper, we document temp workers’ own reports of the extent to which temp work provides training and links to regular jobs.

Second, most studies use cross-sectional data. If “temp” work improves economic mobility, then it may take several years for longer-run benefits to materialize. By following the same person over several years, we can examine whether time employed, employment stability, wages, and benefits improve over time.

The most serious problem in assessing the causal effects of “temp” work on employment outcomes is the selectivity issue (Autor and Houseman 2002, Lane et al. 2003). As we note above, analysts typically compare outcomes of women who have “temped” to those of similar women who have worked at permanent jobs. This overstates the adverse effects of “temp” work

if women who “temp” are less skilled and/or have more personal barriers to work (i.e. depression, lack of good child care, health problems, less knowledge of work place norms, domestic violence) than do women who do not “temp”. Most past analyses of the impacts of “temping” on TANF have little information on these women’s individual characteristics. The dataset we analyze has more detailed data on women’s skills, health problems, work norms and family problems than has been available to other researchers (See Danizer et al. 2000; Corcoran et al. 2002 for descriptions of these measures). As a result, we can directly test whether recipients who take temp jobs are less skilled, have more barriers to work, and have more family constraints than recipients who work in regular jobs and whether it is these differences in measured characteristics that lead to poor work outcomes for temp workers. Furthermore, we can use multi-year data to control for time-invariant *unmeasured* differences in women’s skills, preferences, ambition, values, and constraints by estimating fixed-effects models predicting work outcomes.

### Research Questions

We use panel data from the Women’s Employment Survey (WES) to address a number of questions about the role played by “temp” work as TANF recipients move from welfare to work:

- 1) How pervasive was the use of temporary help agencies among current/former TANF recipients between 1997 and 2001? How many were repeat users? Did the use of “temp” agencies decline over time as would be predicted from the “stepping stone argument”?
- 2) How many “temps” reported that they had received training or learned new job skills? What kinds of training did they receive from temporary help agencies? How many women attained a regular job from an employer after temping for that employer?

- 3) Who worked at “temp” jobs? Are current/former TANF recipients who “temp” less work ready than those who do not? Do temps have less work experience, fewer job skills, lower levels of schooling, and higher rates of illiteracy and learning disabilities? Are “temps” more likely to have physical health, mental health, alcohol, drug, and domestic violence problems and less likely to know workplace norms? Do “temps” have more young children?
- 4) Does “temp” work have adverse, positive, or no effects on employment, wages, employment continuity, and other work outcomes once we control measures of skills, barriers to work, and family situations? Does “temp” work have bad, good or no effects on work outcomes when we control for time-invariant, unmeasured, individual values, abilities, tastes, and constraints on work?

### Dataset, Sample and Variables

The Women’s Employment Survey (WES) has collected data on women’s personal characteristics, families, and work situations at four interviews conducted over a roughly four-year period for a representative sample of single mothers who received TANF from an urban Michigan county in February 1997. WES interviewed these women in fall 1997, fall 1998, fall 1999/winter 2000 and fall 2001/winter 2002. The response rates were 86% for wave 1 (N=753), 92% for wave 2 (N=693), 91% for wave 3 (N=632) and 91% for wave 4 (N=577) for a cumulative response rate of 66%. The fourth wave occurred between 56 and 61 months after the sample was drawn and roughly four years after the first interview.

Our sample consists of women who present at all four waves. We drop from analyses nine women who reported they had neither worked nor looked for work between the first and

fourth interviews, we also drop 34 women who were receiving Supplemental Security Income (SSI) at waves 1, 2, 3, or 4 since these women are no longer subject to TANF work requirements.

In each wave, women were asked whether they used a temporary help agency in their job searches. In waves 2, 3 and 4, women were asked whether they had worked for a temporary help agency between that wave and the prior wave. We use these multi-year data to examine the dynamics of work in “temp” jobs.

In fall 1998, 1999, and 2001, respondents were asked a series of questions about their experiences with temporary help agencies – whether they had worked for a temporary help agency in the past year, whether a “temp” job ever led to a regular job, whether they received training or learned new skills when working as a “temp”, and the number of weeks they had worked as a “temp”. In fall 1998, respondents were asked a lengthy series of questions about the screening methods used by temporary help agencies and about the kinds of skills and training provided to them by temporary help agencies.

At each wave, WES asked about schooling, work experiences, job skills, physical health problems, drug and alcohol use, mental health problems (major depression, post-traumatic stress syndrome, social phobia), children’s health problems, access to transportation, domestic violence experiences, marital status, number of children, and pregnancies. Respondents were asked about nine workplace norms at wave 1, completed a literacy test at wave 3, and were asked a set of questions about learning disabilities in wave 4. Thus, WES allows us to look directly at the selection issue – i.e., whether women who “temp” have more family responsibilities, fewer skills and more employment barriers than women who do not “temp”. Appendix A lists the individual characteristics we examine and describes how each was measured.

WES has extensive data on multiple work outcomes over time: e.g., whether employed, months employed between waves, number of job losses between waves, work hours, hourly wage, job benefits, job quality, job tasks/skills, and experiences of discrimination/harassment.

We use these data to examine the short-run and long-run consequences of “temp” work for multiple aspects of women’s labor market prospects. Appendix B describes how these measures of work outcomes are constructed. These job outcomes measures are straightforward with one exception -- job quality. The key disagreement between critics and proponents of temp work is whether temp jobs provide the kind of work experience that leads to work in full-time jobs that allow a woman to escape from poverty. In order to test this, we define a “good job” as one that is full-time or voluntary part-time and that either pays \$7.00 per hour and provides access to health benefits or pays \$8.50 per hour if it does not provide health benefits (See Johnson and Corcoran 2003 and Appendix B for details). If a woman works 2000 hours per year at these wage rates, she will earn enough to support a family of three at slightly above the poverty level once Food Stamps and the Earned Income tax credit are added in, and out-of-pocket health care costs and payroll taxes are subtracted out. All other jobs are defined as “bad” jobs.

Finally, because WES provides multi wave-measures of the use of temporary help agencies and labor market outcomes, we estimate the extent to which changes in “temp” work are associated with changes in employment outcomes using fixed effects models. This allows us to control for unmeasured individual characteristics (e.g., unmeasured values, abilities, and constraints) which are constant over time and which affect employment outcomes.

### Descriptive Results

Table 1 reports the percentages of women at each wave who reported that they used a temporary help agency to search for work in the past twelve months and the percentages who reported using an agency at multiple waves. The first row reports percentages for all respondents: the second row reports percentages only for respondents who had searched for jobs within the past 12 months.

Temporary help agencies are an integral part of current/former welfare recipients' job search strategies. Almost half used a temporary agency to search for work at some point; one in five used a temporary agency for job search at 2 or more waves; and 7.5 percent used a temporary agency at 3 or more waves. As would be predicted by the stepping-stone argument, the percentage of *all* respondents using a temporary agency dropped across waves from 25.1 percent at wave 1 to 12.7 percent at wave 4, primarily because the number of women searching for work had dropped. At each wave, roughly 20 to 30 percent of women *who had searched for work in the prior year* reported having used a temporary agency.

How many respondents actually worked at a "temp" job between the fall of 1997 and the fall of 2001? When we examine the incidence of "temp" work, we find that temp work was common: over 36 percent of women held a "temp" job at some point between waves 1 and 4. As predicted by the stepping-stone argument, the incidence of "temp" work declined across time, from 20.6 percent between waves 1 and 2 to 14.6 percent between waves 3 and 4.

Long-term work in "temp" jobs was not the norm. Thirty-five percent of women who had temped between waves 1 and 4 did so for only 6 or fewer weeks, and almost 60 percent did so for 13 or fewer weeks. But 22 percent of women (roughly 8% of the full sample) had temped for more than one-half year.

The revolving door argument asserts that "temp" jobs do not provide training or links to regular jobs. But WES respondents' own reports about skills learned on the job and job connections contradict these assertions and provide some support for the stepping stone argument. Three out of four women who had worked for a temp agency between waves 1 and 4 reported that they did receive training and/or had learned new skills while temping, and 27.8 percent reported that a temp job had led to a regular job.

Although the majority of women who temped reported having received training from agencies, agencies were more likely to provide behavioral training or training in blue collar skills

than to provide training in white collar skills. At wave 3 we asked women who had temped between waves 2 and 3 about the kinds of training they received from agencies. Roughly one in two reported training in workplace rules and general conduct; almost one in four reported training in how to dress for a job interview; and almost two in five reported training in industrial skills and/or safety. In contrast, only 3.3 percent reported training in computer skills, and only 6.6 percent reported training in other business skills.

According to the stepping-stone argument, temporary help agencies provide entry jobs for women whose low skills deficits and employment barriers make it difficult to obtain regular jobs. In Table 2 we compare the skills, barriers to work, and family situations of women by their work experiences between two successive waves to see if “temps” are less work ready than workers in the sample who have not temped and to see how “temps” compare to non-workers. Workers are split into three groups: those who temped between waves t-1 and t (current temps), those who had temped only prior to wave t-1 (prior temps), and those with no prior temp work (non-temps)<sup>1</sup>. We examine the 14 potential skill deficits and other barriers to work shown in Table 2. We include three measures of family situations – marital status, pregnancy, and number of young children.

Non-workers (women who looked for work but did not find jobs) are very different from current temps. Non-workers are less likely to be high school graduates or have a GED; are less likely to have multiple job skills; have a higher rate of illiteracy; have less work experience; have higher rates of physical limitations, PTSD, and social phobia; are more likely to report transportation problems; are more likely to report severe domestic abuse; are more likely to have been pregnant; and have more total barriers to work. These differences are large and significant. These large differences between the skills and barriers of women who “temp” over a period

versus those who experience a period of nonwork are consistent with Lane et al.'s (2003:593) finding that “temporary employment results in much better (future) outcomes than no employment...”

But we are most interested in how workers who temped during a period differ from workers who did not temp over that same period. Advocates for the use of temporary help agencies in job placement claim that temp jobs provide women with labor market disadvantages a chance to develop skills and work records (the stepping-stone argument) and that temp jobs provide flexibility. Do current temps have fewer skills, more barriers, and more family demands than workers who have not temped? Current temps have significantly higher rates on 6 of our 14 measures of skill deficits and other barriers to work than do non-temps. Current temps are less likely to have four or more work skills; are more likely to meet the screening criteria for PTSD, major depression, and social phobia; have higher rates of learning disabilities and transportation problems; and are more likely to have 5 or more barriers to work. This is consistent with the stepping stone argument.

But not all comparisons are consistent with the stepping stone argument. There are no significant differences between current temps and non-temps on the other eight measures of skill deficits and barriers – lack of a high school diploma, illiteracy, physical limitations, child health problems, domestic violence, work norms, and alcohol and drug dependence. There are also no significant differences in the family situations of current temps and workers who have not temped. This casts doubt on the flexibility argument.

Past researchers typically find that women who temp have worse employment outcomes than women who work in regular jobs. In Table 3, we compare the mean work outcomes of women between successive waves (t-1 and t) by whether they had temped prior to wave t. The

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<sup>1</sup> A woman can enter the sample 0 to 3 times depending on how many times she worked or looked for work between  
Footnote continued on next page.

first panel of Table 3 reports on whether employed at the end of a period, the average percent months worked over the period, and whether employed in a good job at the end of the period for women who had worked or looked for work between waves  $t-1$  and  $t$ . The second panel of Table 3 compares the employment instability of temp workers to that of other workers. Instability of employment is measured by the number of job losses followed by four or more weeks of non-work between two successive waves. We restrict analysis to workers because only workers can lose jobs.

The descriptive results in Table 3 are consistent with the revolving door arguments. Temps fared worse than non-temps on all four work outcome measures, and three of these four differences are significant. Across successive waves, 68 percent of workers who had temped and 80 percent of non-temps were employed at the end of the period. Temps worked in 75 percent of the months over that period; the comparable figure for non-temps was 83 percent. The employment of workers who had temped was more intermittent than that of workers who had not. Over half of temps, but only one-third of non-temps, experienced at least one job loss between successive waves. Almost 20 percent of temps, but only 8 percent of non-temps, experienced multiple job losses.

We explore job characteristics in Table 4, which reports the average wages, benefits, work hours, union membership, and task/skill requirements of the current or most recent main job held by a worker classified by experience of temping. The sample for these analyses is women who were employed between waves  $t-1$  and  $t$ , since job characteristics are only measured for women who worked.<sup>2</sup>

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*waves.*

<sup>2</sup> We ran the same analysis on the characteristics of the current job for women who were employed at the wave  $t$  interview. Substantive results were similar, and can be obtained by request from the authors.

Workers who had temped fare worse than other workers in several respects: They have lower hourly wages (\$7.59 vs. \$8.00), are less likely to have paid sick leave (21% vs. 27%), and are less likely to work at union jobs (10% vs. 16%). On the plus side, women who “temped” are more likely to work full time (72% vs. 63%). Of course, part-time work is not necessarily a disadvantage, since some mothers may choose to work part-time in order to accommodate family responsibilities. When we combine full-time workers and workers who voluntarily work part-time, the gap between temps and non-temps becomes small and insignificant. Overall, these results, like those reported in Table 3, tend to support the revolving door argument

On the plus side, there is little evidence that temps are more likely than other workers to end up stuck in low-skilled jobs. Women who temped are more likely than others to work at jobs that require them to watch/check instruments or gauges and are less likely to work at jobs involving math/arithmetic or talking to customers on a daily basis (Table 4). But, on average, jobs held by women who have temped require just as many “hard” skills – reading/writing, use of computers, math/arithmetic – as did jobs held by non-temps.

Some worry that temp workers will experience more on-the-job discrimination than do regular workers. Table 5 shows the percentages of workers who report having experienced discrimination between two successive waves by their “temp” status between waves<sup>3</sup>. Workers who temped were no more likely than other workers to report that coworkers made disparaging remarks or that they had experienced general discrimination in the workplace on the basis of gender, race, or welfare status. In fact, workers who temped between waves are significantly less likely than are other workers to report that customers make insulting remarks about racial groups, women, or welfare mothers. This is because temps work at jobs that are less likely to

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<sup>3</sup> We compare “current temps”, those who temped between waves t-1 and t to all other workers during that period, regardless of whether these workers had temped prior to wave t-1. We are testing the hypothesis that discrimination is more common in temp jobs than in regular jobs, and temp experience prior to the current period is irrelevant.

involve customer contact. When we restrict the comparison of the incidence of customer slurs to women who work in jobs involving customer contact, there are no significant differences between temps and other workers.

On the other hand, women who had “temped” were more likely to report having experienced discrimination in promotions, pay, or firings, on the basis of race, sex or welfare status. It may be that their temporary status makes them more vulnerable to such discrimination (Autor 2003).

### Multivariate Analysis

Results in Tables 3, 4, and 5 show that women who had temped are less likely to be employed, work fewer months, have a higher rate of job losses, have lower wages, are less likely to have paid sick leave, and are more likely to report having experienced discrimination than are women who have not temped. While this is consistent with the revolving door argument, we would expect the same pattern of results if temps were less work-ready than other workers. The policy question is “Do temps’ employment outcomes improve at a lower rate, or at the same rate, or at a higher rate than those of non-temps when we control for differences in individuals’ talents, training, and barriers to work?”

We investigate whether the observed negative associations between temping and work outcomes at a point in time could be due to differences in individual characteristics by estimating the following multivariate model which expresses the work outcome of individual  $i$  at wave  $t$  ( $E_{i,t}$ ) as a function of whether she had temped ( $Temp_{i,t}$ ), of fixed individual characteristics ( $X_i$ ), and of time-varying individual characteristics ( $Z_{i,t}$ ).

$$E_{i,t} = \beta_0 + \beta_1 X_i + \beta_2 Z_{i,t} + \beta_3 Temp_{i,t} + e_{i,t}$$

Where:

$E_{i,t}$  = labor market outcome of respondent  $i$  at time  $t$

$X_i$  = individual characteristics of respondent  $i$  that are fixed over the period of the study (e.g., schooling, values, race)

$Z_{i,t}$  = changing individual characteristics of respondent  $i$  at time  $t$  (number of young children, job skills, health problems, etc.)

$\text{Temp}_{i,t} = 1$  if individual  $i$  “temped” between waves 1 and  $t$ , 0 if otherwise<sup>4</sup>

We estimate this equation in two steps. First, we regress the work outcome measure on the “temping” measure and on the *measured* fixed and time-varying individual characteristics. Measures of characteristics that are fixed over the period of the study include race, less than high school, illiteracy, learning disability, low knowledge of work norms as of wave 1, low work experience as of wave 1. Time-varying measured characteristics include: less than four job skills, physical limitations, PTSD, depression, social phobia, child health problems, severe abuse, lack of access to transportation, marital/cohabitation status, number of young children, whether pregnant between waves, and alcohol/drug dependence (Appendix A describes how measures are constructed). The coefficient on the “temping” variable in this first regression measures the effect of temping on work outcomes controlling for *measured* differences in women’s attributes. In the second regression, we control for *all* individual characteristics, *measured and unmeasured*, that do not change across time ( $X_i$ ) and that affect work outcomes by estimating fixed-effects models. If part or all of a negative association between temping and a work outcome were due to differences in unmeasured time-invariant characteristics between temps and non-temps (e.g., in

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<sup>4</sup> We use a different measure of temping when examining discrimination at temp jobs. This measure equals 1 if temped between waves  $t-1$  and  $t$ , 0 if otherwise. We do this because we are testing the hypothesis that discrimination is more common in temp jobs than in regular jobs. Thus, prior temp experience is not relevant.

their values), then the coefficient on “temping” measure should become smaller, drop to zero, or even change sign in the fixed-effects regressions.

Table 6 reports estimated coefficient on the “temp” measure from multivariate models predicting whether currently employed, months worked, whether currently employed at a good job, number of job losses, wages, benefits, and discrimination experiences. Models predicting current employment, months worked, and whether currently employed in a good job are estimated for women who were labor force participants (i.e., worked or looked for work between waves  $t-1$  and  $t$ ). Non-workers who are looking for work are included in the analyses of these outcomes since the stepping stone argument is that temp jobs provide non-working recipients who want jobs chances to try out for regular jobs. Models predicting employment stability, wages, benefits, and discrimination are estimated only for women who worked between waves. The first column in Table 6 reports coefficients on temping from regressions where measured individual characteristics are controlled; and the second column reports coefficients from fixed-effects regressions.

When race and measures of skills, barriers to work and family characteristics are controlled, the revolving door argument appears correct. Temps are significantly less likely to be currently employed, experience significantly more job losses and have significantly lower wages than do non-temps with the same measured characteristics. Temps also work fewer months, are less likely to be currently employed at good jobs (versus not employed or employed in “bad” jobs), and have fewer benefits than do non-temps, but these associations are not significant. But when we control for *unmeasured* time-invariant characteristics using fixed-effects models, results change and become consistent with the stepping stone argument. Temps now are more likely to be currently employed (not significant), work more months between waves (significant), are more likely to be currently working at a good job (significant), have higher hourly wages (significant), and have more benefits (insignificant) than do non-temps. The apparent negative

impacts of temping on employment status, time worked, whether currently employed in a “good” job (versus a “bad” job or no job), wages, and benefits were likely due to unmeasured, time-invariant individual characteristics. One negative effect of temping remains. Temps experience more job losses, even after controlling for time-constant, unmeasured heterogeneity.

We saw in the descriptive tables that women who temped over a period were more likely than other women who worked over that period to report having experienced discrimination in pay or promotion or having been unfairly fired over that period. In the fourth panel of Table 6, we show that the associations of temping with these forms of discrimination do not disappear when we control for measures of worker skills, barriers to work, and family situations or for time-invariant unmeasured characteristics. Workers who temp during a period are more likely than other workers to report having had unfair pay, promotion, or firing experiences during that period.

Table 7 presents estimates of the predicted change in a work outcome “due to” temping based on the fixed-effect regression coefficients reported in column 2 of Table 6. When computing predicted changes using coefficients from logistic regressions, we set the values of the independent variables to their mean values. The first column of Table 7 reports the sample mean for an outcome variable, in order to show how the magnitude of the estimated changes in that outcome “due to” temping compares to the means of that outcome. The second column reports the estimated change in an outcome “due to” temping based on coefficients from the fixed-effects regressions. For example, row 1 of Table 7 shows that 73.1 percent of respondents were employed at the wave  $t$  interview; and that having temped is associated with a 10.7 percentage point increase in the chances of employment, when measured time-varying characteristics and unmeasured time-invariant characteristics are controlled.

There is support for the stepping stone argument in Table 7. Controlling for measured time-varying and unmeasured time-invariant characteristics, temping is associated with a 10.7

percentage point increase in the predicted chances of current employment, a 10.7 percentage point increase in percent months worked, a 16.3 percentage point increase in the predicted chances of currently holding a good job; a \$.39 or 7.5 percentage point increase in hourly wages, and a 4.7 percentage point increase in the predicted chances of having health benefits. But there is a negative side. Temping is associated with an increase of .27 in the average number of job losses between waves and with a 10 percentage point increase in the chances of having reported experiencing either discrimination in pay/promotion or having been unfairly fired.

### Conclusion

Temping is an integral part of TANF recipients' job search strategies and employment packages as they establish themselves in the labor market. Over a roughly four-year period, almost one in two WES respondents used temporary help agencies to search for work, and over one in three worked at a "temp" job. The use of temp agencies declined over time, but 15 percent of women still reported having worked as a "temp" four years after they first were observed on the welfare rolls.

Critics claim that temp jobs provide little or no training and few links to regular jobs. The WES respondents who had temped report differently. The vast majority claimed that they had learned new work skills either while working as a temp or from agency-provided training; and one in four reported that the temping at a firm had led to a regular job at the firm. Critics also argue that temps will cycle between dead-end regular jobs, temp work, and the welfare system. In contrast, we find that the majority of women who had temped did so briefly. Sixty percent of women who ever temped over the four years between waves 1 and 4 did so for 13 or fewer weeks.

One shortcoming of the empirical literature on temping is that many of the negative employment outcomes attributed to or associated with temping may actually be due to

unmeasured differences in temps' and non-temps' abilities, training, and other attributes that were not measured in past research. One advantage of the WES data is that it provided a rich set of measures of skill deficits and employment barriers not typically available in prior studies. There were both similarities and differences between temps and non-temps on these measures of skill deficits and barriers. On the one hand, women who had temped were less likely than women who had not temped to have multiple job skills and were more likely to have a learning disability, to be depressed, to have PTSD, to have social phobia, to lack access to a car or license, and to have 5 or more work barriers. On the other hand, rates of high school graduation, literacy, knowledge of work norms, number of young children, physical limitations, alcohol/drug dependency, domestic violence, pregnancy and marriage/cohabitation did not significantly differ for temps and regular workers.

The results from both the direct comparisons of work outcomes and in the regressions that control only for measured characteristics such as race, skills, employment barriers, and family structure show that temping was associated with lower employment rates, fewer months worked, a lower chance of working at a “good” job, less employment continuity, lower wages, lower benefits, and more experiences of pay, promotion and firing discrimination – exactly what would be predicted by the revolving door story. But the pattern of results reverses for many outcomes when time-invariant *unmeasured* individual differences in skills, preferences, and constraints are controlled using fixed-effects models. Temping now has large, positive associations with current employment, months worked, job quality, wages, and benefits - exactly what would be expected under the stepping stone model. The only negative associations of temping with work outcomes that remain are those with work continuity and discrimination.

Women who temp see at least the same and sometimes greater gains in employment rates, months worked, job quality, wages and benefits as do other workers. For the most part, it appears that temporary jobs are stepping-stones, not revolving doors, and we recommend that

welfare agencies actively incorporate temporary help agencies as part of their job placement strategies.

But caution is warranted. A significant minority of women who temped reported having experienced discrimination in pay, promotion, and firing over the period during which they temped; and a significant minority had persistent problems with establishing continuous employment. The reports of discrimination could arise either because temp employers do discriminate or because temp workers have an incomplete understanding of the work contracts between themselves, the temp employer, and the temporary help agency. In either case, temporary help agencies may need to intervene, either to protect the workers or to better inform them about the terms of their employment contracts. The issue of employment continuity suggests a need for supportive services to help ex-recipients either to keep jobs or to find new jobs more quickly. Such services will be useful for ex-recipients who have not temped as well as those who have temped, since a sizeable minority of non-temps also experienced job losses.

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## Appendix A: Measures of Individual Characteristics

**Family characteristics** are measured by a dummy variable indicating whether **married/cohabitating**; a dummy variable indicating whether **pregnant** between waves or pregnant at the wave interview; and a variable measuring **number of children aged 0-2 years**.

**Schooling** is measured by a dummy variable indicating if the respondent lacks a high school diploma or GED. **Work experience** is defined as the number of years worked between age 18 and the wave interview date. A dummy variable indicating whether an individual has worked in less than 20 percent of the years since turning 18 measures **low work experience**.

**Job skills** are measured by a dummy variable that indicates the skill content of all jobs held by the respondent between two successive waves. Based on a set of work skills adapted from Holzer (1996), a respondent was coded as having low work skills if on previous jobs she had performed fewer than four of nine listed tasks, such as having written letters or memos, filled out forms, used math, worked with electronic machines, talked with customers, worked with computers, supervised people, etc. A woman is classified as not knowing **work norms** by a dummy variable that indicates that she did not know at least five of a set of nine norms adapted from Berg, Olson and Conrad (1991). (See Danziger et al., 2000 for more detail on the job skills and work norm measures).

**Literacy** is assessed using the Wide Range Achievement Test-3 (WRAT-3). A raw score of 36 or below on the WRAT-3 reading test is 5<sup>th</sup> grade equivalent. WES didn't include 15 points for letter identification, so a woman is classified as having literacy deficiency if her score is 21 or lower.

**Learning disabilities** are assessed using the Washington State Learning Disability Measure. We weighed and then summed positive responses to the 13-item screener. A total score of 12 represents high risk for learning disability.

A woman is defined as having a **transportation problem** in a wave if she reports that she did not have a valid driver's license or did not own or have regular use of a car.

Women's physical health was assessed using items from the Physical functioning subscale of SF-36 (Ware et. al 1993). Respondents who scored in the lowest age-specific quartile (based on population norms) at a wave are defined as having a **physical limitation** in that wave.

A respondent is defined as having a **child with a health problem** in a wave if she reports that one of her children had a physical, emotional, or learning problem.

Measures of mental health diagnoses (**depression, post-traumatic stress syndrome, social phobias, and alcohol/drug dependence**) are based on diagnostic screening batteries for 12-month prevalence using the Composite International Diagnostic Interview derived from National Co morbidity Survey (Kessler et. al, 1994). (See Corcoran, Danziger and Tolman, 2003 for more detail on how the mental health and drug/alcohol dependence measures were created). "Dependence" on drugs or alcohol is more restrictive than a use or abuse measure, because the respondent has to meet criteria of likely needing treatment and having functional impairment due to her use of substance (see also Jayakody, Danziger, & Pollack, 2000).

Domestic violence was assessed with a modified version of the Conflict Tactics Scale, (Straus 1979). **Severe abuse** is measured by a dummy variable indicating whether experienced one or more of the following in the 12 months prior to the wave interview; being hit with a fist, being hit with an object that could hurt, being beaten, being choked, being threatened with or hurt by a weapon, being forced into sexual activity against her will.

## Appendix B: Measures of Work Outcomes

**Employment status** is measured by a dummy variable, indicating whether employed as of the wave interview date. **Months worked** is measured as percent of months between waves in which respondent worked. Employment instability is measured by the **number of job losses** between waves that are followed by a month or more of non-work.

A woman is defined as **working full-time** if she works 35 or more hours per week on her main job. Women who work less than 35 hours per week on their main jobs are defined as **voluntary part-time** if they reported that they would not work more hours if it were offered to them. A dummy variable indicates whether a woman's main job provides eligibility for **health insurance**. **Total benefits** are the number of the following four benefits - eligibility for health benefits, paid sick leave, paid vacation, or a retirement plan - provided on a woman's main job. **Hourly wage** is defined as hourly earnings on a woman's current or most recent main job. A woman is defined as working in a **unionized job** if her job is covered by a collective bargaining agreement.

A **good job** is defined as a main job that is full-time or voluntarily part-time, and either pays \$7.00 per hour and provides health benefits or pays at least \$8.50 per hour if it does not provide health benefits. (See Johnson and Corcoran, forthcoming). If a woman works 2000 hours per year at these pay minimums, then she will earn enough to support a family of three at slightly above the poverty level once Food Stamps and The Earned Income Tax Credit are added in, and payroll taxes are subtracted out.

The measures of **employment discrimination** experiences are based on self-reports of discrimination. At each wave women were asked whether they had experienced any of 5 types

of discrimination on jobs held between waves – losing pay or promotion, firing, hiring, disparaging remarks, or general discrimination – on the basis of race, sex, or welfare status. They were also asked about sexual harassment. At waves 2 and 3, they were asked whether customers or coworkers had made disparaging remarks about racial groups, women, or welfare recipients. These questions were modeled on those used by Bobo (1995).

Table 1. Percentage of Women Who Reported Using a Temporary Help Agency for Job Search

	<u>Wave 1</u>	<u>Wave 2</u>	<u>Wave 3</u>	<u>Wave 4</u>	<u>Never</u>	<u>Once</u>	<u>Twice</u>	<u>3 Times</u>	<u>4 Times</u>
<b>All Respondents<sup>a</sup></b>									
Percent using a temp agency for job search	25.1%	18.5%	20.2%	12.7%	52.4%	27.5%	12.5%	6.0%	1.5%
N	534	534	534	534	534	534	534	534	534
<b>Respondents Who Searched for Work<sup>b</sup></b>									
Percent using a temp agency for job search	25.9%	27.7%	31.2%	21.5%	--	--	--	--	--
N	517	358	346	316	--	--	--	--	--

Notes:

<sup>a</sup> Sample includes all individuals who were present at waves 1, 2, 3, and 4, did not receive SSI for themselves at wave 1, 2, 3, or 4, and were labor force participants at each wave.

<sup>b</sup> Sample includes all individuals who were present at waves 1, 2, 3, and 4, did not receive SSI for themselves at wave 1, 2, 3, or 4, were labor force participants at each wave, and looked for work at wave 1, 2, 3, or 4.

Table 2. Individual Characteristics by Whether Temped between Waves t-1 & t

	<b>"Current-Temps" Temped between Waves t-1 &amp; t</b>	<b>Workers (Wave t-1 to t) "Prior-Temps" Temped between Waves 1 &amp; t-1</b>	<b>"Non-Temps" Did Not Temp between Waves 1 &amp; t</b>	<b>Non-Workers (Wave t-1 to t)</b>
<b>Barriers</b>				
Physical Limitation (as of Wave t)	42.1%	41.2%	40.2%	57.1%
PTSD (as of Wave t) *	17.6%	13.9%	12.1%	28.6%
Major Depression (as of Wave t) *	21.3%	15.8%	15.8%	20.6%
Social Phobia (as of Wave t) +	8.8%	7.3%	5.9%	25.4%
Alcohol/Drug Dependence (as of Wave t)	4.8%	5.5%	3.4%	6.4%
Child Health Problem (as of Wave t)	14.7%	11.5%	13.3%	23.8%
DV Severe (as of Wave t)	16.1%	14.6%	12.5%	27.0%
Transportation Problem (as of Wave t) **	34.8%	33.3%	24.3%	55.6%
Less than High school (as of Wave 1)	29.7%	35.8%	27.0%	46.0%
Literacy Deficiency (as of Wave 3)	19.4%	15.8%	17.8%	34.9%
Learning Disability (as of Wave 4) +	11.4%	10.9%	8.0%	19.1%
Less than 4 Skills (as of Wave t-1) +	13.2%	1.8%	9.4%	38.1%
Less than 5 Work Norms (as of Wave 1)	7.3%	5.5%	9.2%	7.9%
Low Work Experience (as of Wave 1)	11.0%	10.9%	11.0%	27.0%
Number of Barriers to Work (out of 14) **	2.44	2.22	2.05	4.17
0 - 1 barriers	38.1%	43.6%	43.2%	11.1%
2 - 4 barriers	46.9%	44.2%	48.3%	44.4%
5 - 6 barriers	11.7%	8.5%	6.3%	30.2%
7 or more barriers	3.3%	3.6%	2.2%	14.3%
<b>Demographic and Family Characteristics</b>				
Race (Black) **	69.2%	66.1%	51.2%	68.3%
Married/Cohabited (as of Wave t)	33.0%	35.2%	37.4%	39.7%
Number of Dependent Children Age 0-2 (as of Wave t-1)	0.47	0.32	0.41	0.41
Had a Pregnancy (between Wave t-1 & t)	18.0%	18.2%	17.3%	30.2%
N	273	165	996	63

Notes:

<sup>a</sup> Sample includes all individuals who were present at waves 1, 2, 3, and 4, did not receive SSI for themselves at wave 1, 2, 3, or 4, were labor force participants between wave t-1 & t, and did not have any missing data on independent variables in the employment status regressions.

<sup>b</sup> Barriers to Work include Physical Limitation, PTSD, Major Depression, Social Phobia, Alcohol/Drug Dependence, Child Health Problem, DV Severe, Transportation Problem, Less than High School, Literacy Deficiency, Learning Disability, Less than 4 Skills, Less than 5 Work Norms, and Low Work Experience.

<sup>c</sup> Significance tests were conducted between the group of 'Current-Temps' and the group of 'Non-Temps'.

<sup>d</sup> Significance tests were also conducted between the group of 'Current-Temps' and the group of 'Non-Workers'. There are significant differences at 5% level between these two groups on Physical Limitation, PTSD, Social Phobia, DV Severe, Transportation Problem, Less than High School, Literacy Deficiency, Less than 4 Skills, Low Work Experience, Number of Barriers to Work, and Had a Pregnancy.

T-test/Chi-square Test: + significant at 10%; \* significant at 5%; \*\* significant at 1%.

Table 3. Employment Outcomes across Waves by Whether Temped  
Pooled Time-Series Data

	<u>Workers (Waves t-1 to t)</u>	
	<b>"Temps" Temped between Waves 1 &amp; t</b>	<b>"Non-Temps" Did Not Temp between Waves 1 &amp; t</b>
<b><u>Employment</u></b>		
Currently Employed at Wave t **	68.0%	79.9%
Percent of Months Worked between Wave t-1 & t **	75.3%	82.7%
Currently Employed at Good Job (vs Bad Job or No Job)	23.2%	27.3%
<b><u>Job Stability</u></b>		
Number of Job Losses **	0.76	0.40
No job loss	47.5%	67.9%
1 job loss	32.7%	25.5%
2 job losses	16.9%	5.9%
3 or more job losses	3.0%	0.7%
N	438	996

Notes:

<sup>a</sup> Sample includes all individuals who were present at waves 1, 2, 3, and 4, did not receive SSI for themselves at wave 1, 2, 3, or 4, ever worked between wave t-1 and t, and did not have any missing data on independent variables in the employment status regressions.

T-test/Chi-square Test: + significant at 10%; \* significant at 5%; \*\* significant at 1%.

Table 4. Characteristics of Current/Most Recent Jobs Held by Whether Temped for Workers  
Pooled Time-Series Data

	<u>Workers (Waves t-1 to t)</u>	
	"Temps" Temped between Waves 1 & t	"Non-Temps" Did Not Temp between Waves 1 & t
<b><u>Job Characteristics</u></b>		
Hourly Wage (in 2001 \$'s) *	7.59	8.00
Mean Number of Benefits	1.14	1.24
Proportion with:		
Health benefit	32.5%	32.6%
Paid sick leave *	20.8%	26.5%
Paid vacation	35.2%	39.2%
Retirement plan	25.9%	25.7%
Proportion Full-time or Voluntary Part-time	79.0%	77.0%
Proportion Full-time (>35 hrs) **	71.9%	63.1%
Proportion Who Are Union Member **	9.9%	15.6%
<b><u>Skill Requirements of Jobs</u></b>		
Mean Number of Hard Skills (Read/Write, Computer, Math)	1.43	1.47
Proportion Whose Jobs Require:		
Read/Write	60.3%	58.4%
Computer	29.7%	30.0%
Math/Arithmetic *	53.0%	58.8%
Watch Instruments +	51.1%	46.2%
Talk Customers **	67.4%	82.4%
Supervise Others *	26.0%	32.7%
N	438	996

Notes:

<sup>a</sup> Sample, see Note a in Table 3.

T-test/Chi-square Test: + significant at 10%; \* significant at 5%; \*\* significant at 1%.

Table 5. Experiences of Discrimination across Waves by Whether Temped across Waves

		<u>Workers (Waves t-1 to t)</u>		<u>Workers with Customer Contacts (Waves t-1 to t)</u>	
		<u>"Current-Temps" Temped between Waves t-1 &amp; t</u>	<u>"Current Non-Temps" Did Not Temp between Waves t-1 &amp; t</u>	<u>"Current-Temps" Temped between Waves t-1 &amp; t</u>	<u>"Current Non-Temps" Did Not Temp between Waves t-1 &amp; t</u>
<b><u>Customer Slurs</u></b>					
Customers use racial slurs	a	11.56%*	18.33%	18.18%	21.22%
Customers make insulting remarks about women	a	8.54%**	16.20%	12.40%	18.42%
Customers make insulting remarks about welfare mothers	a	6.53%+	10.62%	8.26%	12.34%
Ever experienced customer slurs	a	17.09%**	27.89%	25.62%	31.74%
<b><u>Coworker Slurs</u></b>					
Co-workers use racial slurs	a	12.56%	12.62%		
Co-workers make insulting remarks about women	a	11.06%	14.21%		
Co-workers make insulting remarks about welfare mothers	a	11.56%	11.42%		
Ever experienced co-worker slurs	a	19.10%	23.77%		
<b><u>Slurs from Supervisors</u></b>					
Supervisor use racial slurs		4.40%	4.57%		
Supervisor make insulting remarks about women		5.86%	5.60%		
Supervisor make insulting remarks about welfare mothers		4.40%	4.48%		
Ever experienced slurs from supervisors		10.99%	9.73%		
<b><u>General Discrimination</u></b>					
Discriminated against because of race or ethnic origin		4.03%	5.68%		
Discriminated against because of gender		4.03%	4.57%		
Discriminated against because of welfare	b	2.80%	1.11%		
Ever experienced discrimination		7.69%	8.44%		
<b><u>Pay/Promotions</u></b>					
Others got promotions/raises faster b/c of y our race/ethnicity		13.92%	11.20%		
Men got promotions/raises faster		12.82%*	8.61%		
Others got promotions/raises faster b/c you were a welf.mom	b	4.67%+	1.66%		
Ever experienced discrimination in pay/promotion		21.25%*	16.11%		
<b><u>Firings</u></b>					
Were unfairly fired because of race/ethnicity		7.33%**	2.67%		
Were unfairly fired because of gender		4.76%**	1.64%		
Were unfairly fired b/c you were on welfare	b	2.80%*	0.55%		
Ever unfairly fired		10.62%**	3.62%		
N		273	1161	121	608

Notes:

<sup>a</sup> Between W1 IW and W3 IW only. No data available from W3 IW to W4 IW. Total N = 952. Temp N = 199. Work N = 753.

<sup>b</sup> Between W1 IW and W2 IW only. No data available from W2 IW to W4 IW. Total N = 468. Temp N = 107. Work N = 361.

T-test/Chi-square Test: + significant at 10%; \* significant at 5%; \*\* significant at 1%.

Table 6. Multivariate Analyses of Work Outcomes on Temping

	<b>Coefficients on "Temp" Variable</b>	
	<b>Pooled Cross-Section<sup>e</sup></b>	<b>Fixed-Effects<sup>f</sup></b>
<b><u>Employment (Full Sample)<sup>a</sup></u></b>		
Currently Employed at Wave t	-0.261 (0.137)+	0.543 (0.342)
Percent of Months Worked between Wave t-1 & t	-0.011 (0.017)	0.107 (0.032)**
Currently Employed at Good Job at Wave t <sup>b</sup> (vs. not employed or employed at bad job)	-0.114 (0.144)	0.871 (0.478)+
<b><u>Employment Stability (Ever Employed Sample)<sup>c</sup></u></b>		
Number of Job Losses between Wave t-1 & t	0.312 (0.041)**	0.274 (0.096)**
<b><u>Job Characteristics (Ever Employed Sample)<sup>d</sup></u></b>		
Hourly Wage on Current/Most Recent Job (in 2001 \$'s)	-0.370 (0.170)*	0.389 (0.349)
Ln(Hourly Wage) on Current/Most Recent Job (in 2001 \$'s)	-0.015 (0.020)	0.075 (0.043)+
Number of Benefits on Current/Most Recent Job (Maximum=4)	-0.125 (0.087)	0.163 (0.181)
Health Benefit on Current/Most Recent Job	-0.052 (0.128)	0.214 (0.415)
<b><u>Experiences of Discrimination (Ever Employed Sample)<sup>e</sup></u></b>		
Experienced Discrimination in Pay/Promotion	0.311 (0.174)+	0.488 (0.329)
Ever Unfairly Fired	1.045 (0.262)**	0.471 (0.438)
Either Experienced Discrimination in Pay/Promotion or Ever Unfairly Fired	0.450 (0.163)**	0.644 (0.299)*

Notes:

<sup>a</sup> Sample, see Note a in Table 2.

<sup>b</sup> Sample size is smaller due to missing data on hourly wage, work hours and benefits.

<sup>c</sup> Sample, see Note a in Table 3.

<sup>d</sup> Sample, see Note a in Table 3. Sample sizes are smaller due to missing data on dependent variables, i.e. hourly wage, number of benefits, and health benefit.

<sup>e</sup> Models include control variables, Blacks, Physical Limitation (as of wave t), PTSD (as of wave t), Major Depression (as of wave t), Social Phobia (as of wave t), Alcohol/Drug Dependence (as of wave t), Child Health Problem (as of wave t), DV Severe (as of wave t), Transportation Problem (as of wave t), Less than High School (as of wave 1), Literacy Deficiency (as of wave 3), Learning Disability (as of wave 4), Less than 4 Skills (as of wave t-1), Less than 5 Work Norms (as of wave 1), Low Work Experience (as of wave 1), Married/Cohabitated (as of wave t), Number of Dependent Children Age 0-2 (as of wave t-1), and Had a Pregnancy (between wave t-1 & t), in addition to "Temps" (Temped between waves 1 & t) in models for Employment, Employment Stability, Job Characteristics, and "Current-Temps" (Temped between waves t-1 & t) in models for Experiences of Discrimination.

<sup>f</sup> Six variables, Black, Less than High School (as of wave 1), Literacy Deficiency (as of wave 3), Learning Disability (as of wave 4), Less than 5 Work Norms (as of wave 1), and Low Work Experience (as of wave 1), were dropped out due to no variance.

<sup>g</sup> The equations which generated these coefficients are shown in tables in Appendix C.

+ significant at 10%; \* significant at 5%; \*\* significant at 1%.

Table 7. Estimated Changes due to Temping on Job Outcomes

	Sample Mean	Estimated Changes due to Temping <sup>a</sup>
<b><u>Employment (Full Sample)</u></b>		
Currently Employed at Wave t	73.1%	10.7%
Percent of Months Worked between Wave t-1 & t	77.1%	10.7%**
Currently Employed at Good Job at Wave t (vs. not employed or employed at bad job)	24.9%	16.3%+
<b><u>Employment Stability (Ever Employed Sample)</u></b>		
Number of Job Losses between Wave t-1 & t	0.51	0.27**
<b><u>Job Characteristics (Ever Employed Sample)</u></b>		
Hourly Wage on Current/Most Recent Job (in 2001 \$'s)	7.88	0.39
Ln(Hourly Wage) on Current/Most Recent Job	2.00	0.08+
Number of Benefits on Current/Most Recent Job (Maximum=4)	1.21	0.16
Health Benefit on Current/Most Recent Job	32.6%	4.7%
<b><u>Experiences of Discrimination (Ever Employed Sample)</u></b>		
Experienced Discrimination in Pay/Promotion	17.1%	6.9%
Ever Unfairly Fired	5.0%	2.2%
Either Experienced Discrimination in Pay/Promotion or Ever Unfairly Fired	19.4%	10.1%*

Notes:

<sup>a</sup> Estimated changes were computed at the mean values of the independent variables using the coefficients from Table 6, column 2.

+ significant at 10%; \* significant at 5%; \*\* significant at 1%.