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**TRAINING WITHOUT “JOBS”:
ACCESS TO AND OUTCOMES OF
TRAINING FOR TEMPORARY WORKERS**

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ABSTRACT

Training Without “Jobs”: Access to and Outcomes of Training for Temporary Workers

Does temporary work provide a way for individuals to improve their skill levels? Using a sample of over 4,000 employees of U.S. temporary staffing agencies, we analyze whether blue, white and pink-collar temps get access to company training, and the impact of skill development on wages and employee retention. We find that less than 25% of temps take part in training. More educated and experienced individuals are more likely to be offered training, but lower-skilled individuals are more likely to take training when it is offered and spend more hours in it. Office workers who took part in training are more likely to remain with the agency a year later and experienced significant wage growth, while training had no effect on wage growth for blue-collar workers. Skill development that took place on the job was associated with greater wage-growth for all types of temps.

Key words: temporary workers, training, career objectives

Training Without “Jobs”: Access to and Outcomes of Training for Temporary Workers

Introduction

Temporary staffing agencies have been a rapidly growing segment of the service sector across the advanced industrial countries over the last fifteen years (Ward et al., 2001; Peck and Theodore, 1998; Koene, 2004). There are two opposing views of the impact that this trend is having on skill development for service workers. Conventional wisdom views temps as “contingent” workers, implying that their jobs are insecure, marginal, and hence ones for which employers are unlikely to provide training (Polivka, 1996; Economic Policy Institute, 1997). Human capital theory reinforces this argument, predicting that firms will be unwilling to invest in general skills-training: the skills developed reside with the individual not the company, and make their employees more attractive to other firms (Becker, 1964). This logic would appear to apply particularly strongly to temp agencies given, as the name suggests, that “temporary” workers change firms at a very high rate. In contrast, Autor (1999) and others argue that temporary agencies can help individuals develop a range of transferable skills – typing, introductory office-skills, advanced computer-programming – in today’s relatively insecure, highly mobile labor market. Similar to the medieval guilds, these agencies may provide a mechanism for individuals to develop, and be paid for using, a specialized set of skills across a variety of work settings without holding a traditional job at a single firm.

This article will attempt to shed light on the role of temporary agencies in skill development using a unique data-set consisting of five years of payroll records from US temporary agencies that employ hundreds of thousands of individuals. We match these data with a survey of a nationally representative sample of over 4,000 workers at these agencies that allows us to examine both the antecedents and the outcomes of training. We use the data to answer a series of questions regarding skill development of temporary workers:

- How much training do staffing agencies provide to temporary workers?

- What are the main antecedents that predict which temps will receive opportunities for skill development? Are temps in higher-skilled positions (technical and professional work) more likely to be offered training than those in clerical or industrial positions? What types of temps are most likely to take part in training if offered?
- Are temp workers' career objectives – for example, wanting to move into a permanent job as rapidly as possible versus a preference to work as a temp – related to the likelihood that temps are offered, and participate in, training?
- Is there a relationship between temp workers' attachment to their staffing agency – i.e. their commitment to the agency and willingness to engage in extra-role behaviors – and the likelihood that temps are offered, and participate in, training? Are temps who receive training more likely to remain with the staffing agency?
- Do training or other forms of skill development enhance the labor-market outcomes for temps, such as growth in the hourly wage level or total earnings?

Growth in the Service Sector and Temporary Work

The growth in temporary-staffing agencies has contributed to the more general growth in service work across the advanced industrial economies over the last century by facilitating the separation of “core” and “periphery” workers (Purcell and Purcell, 1999; Abraham and Taylor, 1996; Atkinson, 1984; Doeringer and Piore, 1985). When manufacturing firms outsource jobs (i.e. support services or cyclical assembly-line positions) to temp agencies, these positions are often reclassified as part of the service sector, even if the work being performed hasn't altered. While our sample of agency temps can thus all be considered to be service workers, in our analysis we will distinguish between temps in blue-collar (manual) work, white-collar (managerial, technical and professional) occupations, and pink-collar (clerical and administrative) jobs to see if there are differences among occupations in training participation and outcomes.

Temporary jobs traditionally have been concentrated in clerical and lower-skill, low-wage industrial occupations. A significant shift occurred within temporary employment between 1989 and 1994, with pink-collar positions dropping from 58 to 49 percent of total US temporary jobs, while blue-collar occupations grew from 30 to 40 percent; the largest growth occurred among laborers and electronic assemblers (Bjurman, 1995). The concentration of temporary work in lower-skilled occupations began to change in the 1990s, as firms moved away from traditional full-time, long-term employment toward the use of more flexible staffing arrangements, including part-time workers, job-sharing, consultants, and independent contractors (Abraham and Taylor, 1996; Houseman, 2000; Purcell and Purcell, 1999). Temporary agencies expanded recruitment of more highly skilled technical, professional, and managerial workers in order to meet new demands (American Staffing Association, 2001; Peck and Theodore, 1998). Europe has seen similar trends with a general growth in temporary agency employment, including more outsourcing of knowledge work (Bergstrom and Storrie, 2003; Koene et al., 2004; Mallon and Duberley, 2000) and the growth of exclusive partnerships between temp agencies and client companies, where agencies may do all the hiring for particular types of jobs and/or run whole parts of the client's operations, like call centres (Purcell, Purcell and Tailby, 2005). The growth in temporary agency employment has been most dramatic in Japan – increasing from just over 250,000 to more than 2 million between 1997 and 2003 – as the government removed restrictions on temporary work and companies have sought to increase labor flexibility by gradually replacing those who were part of the old lifetime employment model with temporary and part-time workers (Pilling, 2004).

Prior Research and Hypotheses

Training Participation

There is ample evidence that lower-skilled workers are less likely to receive training from their employers (i.e. Frazis et al. 2000: 459; Brown, 1989). Most studies, however, have not examined whether this is because companies are less likely to offer training to lower-skilled workers or because lower-skilled individuals are more reluctant to participate in training when offered. This gap in research is

caused in part by the fact that most national labor force or establishment databases record only training incidence, failing to distinguish between access to training and individuals' desire to participate. It may also reflect the fact that many company training programs are either legally mandated for all employees (e.g. health and safety training) or required of some or all employees as part of a corporate initiative. In contrast, the staffing agencies we studied had free, computer-based training available, but not all temporary workers were encouraged to participate. Thus, we distinguish between whether temporary workers were offered training (by their temporary agency) and whether they participated in that training.

Human capital theory and prior training-research suggest that firms will be more likely to offer training where they receive a higher return on their investment (Becker, 1964). The return to the firm from providing training will likely be greater the more "trainable" individuals are – i.e. those with higher levels of prior knowledge will be better prepared to learn new skills (Wexley and Latham, 1981; Robertson and Downs, 1979; Noe and Schmitt, 1986: 498). In addition, because training carries an up-front cost and the returns come only after individuals have acquired new skills, and because temporary workers typically only spend a limited time with the agency, firms are more likely to offer training to the temps who they believe will produce the most immediate return to training participation. Thus we predict:

H1: Lower-skilled temps will be less likely to be offered training

Once individuals have been offered training, the primary factor determining whether they participate is their motivation to enhance their skills (Hicks and Klimoski, 1987; Noe and Schmitt, 1986). The motivation to learn is likely to be particularly important for the temps in our sample, since in contrast to most employees receiving company-provided training, they are not paid for the time they spend in training. Individuals who join the firm with relatively low levels of education and training are likely to perceive more personal benefit from a marginal increase in their skills through training and fewer options to acquire those skills than those who already have high levels of education or experience. Likewise, individuals who engage in career-planning, and therefore have a sense of how training may help them

attain desired career objectives while temping, are more likely to take time to participate in self-development activities (Gould, 1979; Super and Hall, 1978). Therefore we predict:

H2: Lower-skilled temps will be more likely to take part in training if offered.

H3: Individuals who view temping as a longer-term career option will be more likely to participate in training if offered.

Outcomes of Training

In today's highly volatile and competitive labor markets it is difficult for employers to offer job security. This is particularly true for temporary workers, who represent the epitome of a "transactional" psychological contract between individuals and the firm, where neither side is committed to a long-term relationship (Koene, et al. 2004; Rousseau, 1995). In the absence of job security, firms may offer an implicit learning contract in which the company seeks to retain and gain commitment from workers by investing in the ongoing development of their skills and hence increasing their employability (Finegold, 1999). Under this form of social exchange, training can be seen by employees as a valuable benefit that firms offer to differentiate themselves from competing employers (Frazis et al. 2000; Nordhaug, 1989; Maurer, Pierce & Shore, 2002). Employees can be expected to reciprocate by displaying greater attachment to the firm. Thus we predict:

H4: Individuals who receive training will be more likely to engage in extra-role behaviors and display commitment to the agency.

H5: Training participation is positively related to greater subsequent work with the agency.

Human capital theory treats general skills-training as an investment that will enhance individual productivity at a variety of firms (Becker, 1964). The greater output individuals are capable of producing should in turn be reflected in higher wages. While the evidence for temps is limited (Autor et al., 1999), a large body of empirical research has found that training and other forms of on-the-job skill development are associated with higher subsequent earnings (e.g. Arulampalam and Booth, 2001; Lynch, 1992;

Loewenstein and Spletzer, 1995; Parent, 1999). While we are unable to assess the effects of training on earnings once individuals leave the agency, we can predict that:

H6: Skill development is related to higher subsequent wage growth with the staffing agency.

Methods

We analyze matched survey and archival data from multiple temporary agencies in the U.S. that account for a small but significant fraction¹ of all U.S. temps for 1995-2001. The agencies cover every state and all major metropolitan areas, ensuring a geographically diverse picture of the industry.

The payroll data contain no information on temp demographics. To obtain this and data on motivations, work experience, and attitudes, we surveyed a sample of all employees at these agencies. We surveyed people most likely to be impacted by temping, i.e. those who had temped for at least 80 hours in a six-month period. This excluded about one-third of temps at these agencies. This introduced a bias because people who temp for longer durations are more likely to have had positive outcomes.

The surveys were mailed two months after the end of the qualifying period – i.e. when the period was August through January, the survey was mailed at the end of March. A total of 27,098 surveys were mailed in 2000-01: 20,598 to industrial and clerical temps and 6,500 to professional/technical temps.² Included among the industrial and clerical group is an oversample of 5,250 temps who likely had fast wage increases during the qualification period.³ The remainder of the industrial and clerical sample was drawn from a random national sample (from among all temps working at the agencies) and two-stage random sampling using a representative group of offices.⁴ In order to induce as high a response rate as possible, all survey respondents were entered in a drawing for a bonus payment.⁵

In all, 4,500 usable surveys were returned, for a 16.6 percent response rate.⁶ Among those who returned surveys, over 70 percent worked for the agency at which they were surveyed in the two months before the survey mailing-date; only about 55 percent of those not responding worked for the agency during this period. Thus the transient nature of temp employment contributed to the low response-rate. This conclusion is bolstered by the results of follow-up phone calls made to a subset of the industrial and clerical temp non-respondents. The calls were made about eight weeks after the survey mailing date. The results suggested an additional 22.5 percent of the survey non-respondents should be excluded from the total because they were not at the address to which the survey had been mailed. Doing so yields an adjusted response rate of 21.4 percent (4,500/21,001) for the entire sample. See Levenson and Finegold (2001) for details.

Because the surveyed temps were sampled from archival wage records, we can use those records to compare the respondents and non-respondents. During the preceding four and a half years, the respondents had greater numbers of hours worked (1,568 versus 1,137), higher total-income (\$21,540 versus \$14,910), higher average hourly wages (\$12.32 versus \$11.18), and greater growth in base pay (13.17 percent versus 11.03 percent).⁷ Thus respondents were better-paid and temped more hours than non-respondents.

The survey data were matched with archival payroll and job-assignment data to construct a history of work at the agency for each temp. The archival data were also used to classify each temp as blue, pink or white collar, based on the closest temporary assignment to the survey.

Variables –Temporary Employee Skills

The variables used in the analyses are summarized in Table 1. Our data contains three different ways of measuring temps' skill level prior to training: level of education, work experience, and wages. Each of these is a proxy for individuals' general skills and abilities. The

first skill-measure is based on formal educational qualifications, and compares those with a high-school diploma or less to those with some college, and to those with a BA or advanced degree. In our sample, almost one-third have a high-school diploma or less; about one-quarter have at least a four-year college degree. In addition, 18 percent also were students at the time of the survey.

INSERT TABLE 1

The second measure of individuals' competencies is the amount of work experience the temps had prior to joining the agency. We use two measures: the fraction of time the person worked in the three years prior to joining the agency (self-report, ranging from zero to one hundred), and the extent of computer experience the person had before joining the agency (self-report, ranging from 1 = "no experience" to 5 = "advanced experience").

The third way of operationalizing skills is based on wages. We use the archival wage-data and construct a measure of the average hourly wage received as a temp while working at the agency in the year prior to the survey. Note that many of the temps worked with the agency for less than the full year before the survey. The average hourly wage provides a proxy-measure of skills that allows us to compare people with very different amounts of work experience.

Employment Objectives

We classify the survey-respondents' motivations for temping based on whether their outlook when joining the agency was immediate ("short-term") or more open-ended ("long-term/selective"). The long-term group includes both those who say their original motivation was to find good temp assignments on an ongoing basis, and those who were looking for the right permanent positions to meet their needs. It is important to recognize that while individuals' goals in entering temporary work vary that their ability to satisfy their goals will be heavily influenced by what types of temporary positions are available and their often weak position in the labour market. Because the survey asked retrospectively about the person's reason for becoming a temp, there is a potential for bias due to *ex post* updating. This is a concern for those who signed up looking to temp for only a short time yet who ended up temping longer than they

expected. We address this by controlling for the total number of hours worked prior to the survey in the analyses.

Results – Training Provision

The agencies in our sample, like others in the sector (Autor, 1999), provide free training in a range of transferable skills – typing, introductory office-skills, advanced computer-programming, etc. One reason they do so is the returns to the firm from such training appear to be high: the costs are low (the training is all computer or video-based and individuals are not paid while training) and the payback is rapid (the firm can charge a higher margin on more qualified individuals). Agencies also offer free training to prepare people for positions where there is a shortage of qualified individuals, including the specific skills requested by an employer (e.g., Microsoft Office 2000), and to provide an inducement for individuals to sign on with their agency. In our study, however, only four percent of temps indicated that training was their “main reason” for signing on.

Only about one quarter of the sample took part in training, roughly comparable to the 21 percent of the US workforce who reports receiving training from their employer in a given year (National Center for Education Statistics, 1995). The level of participation can be explained in two stages (Table 2): less than half report that they were offered free training, and only just over half of those offered training elected to take it. Less-educated individuals were less likely to be offered training, but were more likely to take it when offered; they also took significantly more training per year. A similar pattern holds for lower-wage workers. Individuals in industrial positions also were much less likely to be offered training and were less likely to participate when it was offered. Yet industrial temps who received training spent significantly more hours in training than either office or professional temps. Within specific occupations we found that the more advanced workers – whether data entry, secretaries or computer operators – were more likely to be offered training and recorded significantly more hours of training.

INSERT TABLE 2

The regression results are presented in Tables 3, 4, and 5. Tables 3A and 3B examine the factors that are related to whether temps are offered and participate in training. The relationships between training and our three measures of skills are explored in Table 3A (education and experience) and Table 3B (wages). Table 3B also shows the relationship between training and motivation for temping, controlling for prior hours worked as a temp (columns three and six). The regression results confirm support for H1: lower-skill temps are less likely to be offered training, although the relationship is modest and the R^2 is low. Less educated temps were less likely to be offered training (Table 3A, columns one through three). Those with greater work experience and those with greater computer experience were more likely to be offered training (Table 3A, columns two and three). The relationship between wages and temps being offered training has an inverted-U shape: highest for those in the middle of the hourly wage distribution (Table 3.B, second column). The tipping point is around \$18.50 / hour. This is above the mean for the pink-collar sample, and below the mean for the white-collar sample.

INSERT TABLE 3.A

INSERT TABLE 3.B

The results on participation in training when offered are in the fourth through sixth columns of Tables 3.A and 3.B. Neither education nor work experience differentiate participation (Table 3A). Those with greater computer experience were less likely to take the training, conditional on being offered training. The relationship between training participation and wages is negative. While there appears to be an inverted U shape, based on the results in the fifth column of Table 3.B, the tipping point for that quadratic is approximately \$10.50 / hour, toward the lower end of the wage distribution. Moreover, when estimating the relationship separately by occupation (results not reported), there is no relationship between wages and training participation among the blue-collar sample – those at the lowest end of the hourly wage distribution. We conclude that training participation is highest for those with low wages and declines for those in the middle and upper ends of the hourly wage distribution. The results provide partial support for H2: lower-skill temps, on some measures, are more likely to participate in training, conditional on being offered training.

The results in Table 3.B for training participation and the motivation for temping are consistent with H3: those who want to temp for longer periods get more training. This may partly be an access, not screening, issue: given the barriers to using the free training erected by the agency, even if training were randomly made available to all temps in a given period, working longer would increase the probability of gaining access. Yet the positive correlation between temping motivation and training participation holds even when controlling for total numbers of hours worked at the agency. We interpret this as showing a link between motivation for longer-term temping and the use of training. We found in subsequent analysis (results not reported in Table 3.B) that this link applies exclusively to pink-collar temps.

The evidence for the relationship between training and the temps' attitudes to the agency is shown in Table 4. Providing partial support for H4, there is a positive correlation between being offered training and commitment, but no relationship between taking training and commitment (first column). The relationship for each of the three occupation groups is essentially the same. In addition, both being offered training and taking training are positively correlated with individuals willingness to engage in extra-role behaviors in the overall sample (second column), with each having about the same level of correlation. (Note that for those taking the training, the total relationship with extra-role behaviors is equal to the sum of the relationships for being offered training and for taking training.) The relationship differs substantially, though, for the occupation groups. Both the blue and pink-collar groups exhibit a positive correlation for being offered training, but not for taking training. The opposite is true for the white-collar group: taking training is positively correlated with extra-role behaviors, whereas being offered training is not correlated.

INSERT TABLE 4

The labour-market outcomes of training are reported in top half of Table 5, again providing mixed support for the hypothesis that training enhances employee retention. In the overall sample, taking training increases the probability that a temp will still be working with the agency one year later by 8.7 percent. This average, however, masks very different relationships for the different occupation groups. There is no impact on retention for blue-collar temps. Pink-collar temps are more likely to keep working

for the agency if they take the training. And white-collar temps are *less* likely to remain with the agency after taking training. Table 5 (first and second columns) shows that there is no relationship between training and subsequent average hours worked, conditional on continuing to work as temp.

INSERT TABLE 5

Finally, our results provide partial support for H6: that training enhances subsequent wage growth. In the overall sample there is a positive correlation between being offered training and subsequent wage growth, but not for taking training (Table 5, bottom panel). This suggests that training is targeted toward those who are more likely to progress, but that the limited amount of training most temps undertake does not aid that progression. For the different occupational groups (Columns 4-6 of Table 5) we find that taking training provided by the agency helps the pink-collar temps – the group for whom the training on offer was most appropriate – but not the others. This suggests a complementarity between the skills a person might already have and the economic return to enhancing those skills through training. For the blue-collar and white-collar temps, in contrast, the free computer-based training has no impact on subsequent wage growth, but on-the-job development plays a significant role in boosting wages, whereas it has no impact on subsequent wage growth for the pink-collar temps.

Discussion

The results of our analysis of a survey of over 4,000 temporary workers in the United States paint the clearest picture to date of the opportunities for skill development as well as the benefits of such opportunities to this growing segment of the service sector. We now return to the questions guiding this inquiry into skill development for temporary workers.

How much training do staffing agencies provide to temporary workers?

With growing demand on staffing agencies to deliver an adequate supply of qualified temporary workers, many agencies offer some type of formal skill-development. These skill development opportunities are intended not only to recruit more higher-quality temporary employees, but also to

provide existing temporary employees with the possibility of enhancing their current skills. Our analyses reveal, however, that despite the low marginal costs of delivering training, these skill development opportunities have been limited. Of all of the temporary employees in this study, only slightly more than 4 out of every 10 indicated that they had been offered training at *any point* during their tenure with their staffing agency. Even among the group of temps who were offered training, only just over half of those chose to participate. As a result, only about one-quarter of all temporary employees received training through their staffing agency. We suggest that several factors in how training was structured in the agencies may have contributed to the relatively low participation rate in free training:

- Temps had to train on their own time, in contrast with most permanent employees who train on company time; as Forde (2001) notes, this is part of a broader trend in which firms are using staffing agencies to pass the costs and risks of employment onto individuals.
- Some offices had an unwritten policy that temps had to work at least 40 hours before being eligible for training.
- Access was often limited because smaller offices typically had only one computer available for training. That computer was also used for skill assessments and other office tasks. Internet-based training could have expanded access, but it was only just being introduced by one agency at the time of the study.
- Much of the CBT curriculum was not modularized, requiring individuals to complete a full or half day of training in order to be certified as having passed the course.
- Many lower-skilled individuals may not have been able to afford the transportation costs of getting to the training and the opportunity cost of spending full days in training without pay, although the slightly higher training take-up by those earning under \$8/hour suggests this is not a principal barrier.

What are the main antecedents that predict which temps will receive opportunities for skill development?

What types of temps are most likely to take part in training if offered?

At first glance, we observe a fair amount of similarity between the skill-development patterns of temporary employees and those found in previous research on company training for permanent employees (Frazis et al. 2000). There is strong evidence, for instance, that lower-skilled temporary employees are significantly less likely to be offered training by their staffing agency. This conclusion was supported across all of the proxies for skill that we examined: education, amount of experience, and wage levels. More detailed analyses, by major occupational group, demonstrated that this relationship only held for blue-collar and pink-collar temps; none of the skill measures predicted whether professional/technical temps would be offered training.

Temporary firms may be less willing to provide skill development to lower-skilled temps because they believe the potential return on this investment is smaller, for both them and the employee. Elsewhere we have shown that lower-skilled individuals, for instance, are less likely to experience high wage growth while temping (Finegold et al, 2003). However, our current results also suggest that temporary agencies may underestimate the value of the training they provide to lower-skilled employees. We find evidence that lower-skilled employees, when measured by amount of computer experience and previous wage-levels, are actually more likely to engage in the training offered by their staffing agency than higher-skilled employees. In fact, those earning the lowest wages were the most likely group to take this training when it was offered to them despite the fact they were not paid during the training. We believe that these temps see training as an important means of increasing their wages. Further analysis showed that when lower-skilled temps take training offered by their staffing agencies, it offsets their customary wage growth disadvantage *vis a vis* higher-skilled employees (ibid).

Are temp workers' career objectives – i.e. wanting to move into a permanent job as rapidly as possible versus a willingness or preference to remain as a temp for the long-term – related to the likelihood that temps are offered, and participate in, training?

Temporary workers are often treated as an undifferentiated group of contingent workers who would prefer to move into permanent jobs as quickly as possible. Our research indicates however, that a

substantial portion of temporary workers (38%) are interested in either remaining temps for the long-term or using agencies to screen employers until they find the right permanent job. We find that temps' career orientation is significantly related to their training activity: people who view temping as a longer-term career option tend to participate in training to a greater degree than short-term temps, regardless of how long they have been with their staffing agency. Yet our occupation-specific findings indicate that this relationship between long-term temping and training participation did not apply to blue-collar or professional/technical temps. This comes as little surprise because much of the training that the staffing agencies provide is largely oriented to pink-collar (i.e. clerical) temps.

Is there a relationship between temp workers' attachment to their staffing agency – i.e. their commitment to the agency and willingness to engage in extra-role behaviors – and the likelihood that temps are offered, and participate in, training? Are temps who receive training more likely to remain with the staffing agency?

Although more likely to be a short-term, transactional employment relationship, temporary work still entails some form of psychological contract between the employee and the staffing agency (Koene et al. 2004; Rousseau, 1995). In this context, training may be viewed as either a payment/reward to temps who display an attachment to their agency or as an incentive to encourage temps to lengthen their relationship with the agency. Our results reveal that, regardless of whether temps have long- or short-term temporary career aspirations, temps who engage in more extra-role behaviors are not only more likely to be offered training, but also to be more likely to participate in the training when offered. We also find evidence that the offer of training is positively linked with temp worker's commitment to the agency, regardless of an individual's career aspirations.

The fact that in some cases the link was observed only with the offer of training, but not participation in training, suggests that the symbolic power of the training offer—rather than the actual training—can on its own elicit greater commitment from temporary employees. We suspect that temps

perceive this offer to be an important signal of their agency's commitment to them, and thus reciprocate with their commitment and extra-role behaviors.

The association between agency-provided training and the attachment of temps to their agencies apparently translates into longer-term relationships. On the whole, temps who participated in training exhibited longer subsequent tenures with their staffing agency. Yet, this conclusion was tempered by the occupation-specific results. While pink-collar temps experienced longer tenures with their agencies as a result of taking agency-provided training, training participation had no influence on the tenure of blue-collar temps. By contrast, we discovered that the tenure of professional/technical temps actually decreased when they participated in training. We believe that, due to the high demand for their skills at the time of the study, professional and technical workers may have used the training from their agency as a springboard for jobs as independent contractors. These results vividly illustrate how variations in the nature of occupational labor markets can translate into very dissimilar labor-market outcomes for different types of temporary workers.

Does training or other forms of skill development enhance the labor-market outcomes for temps, such as growth in the hourly wage level or total earnings?

The returns to individuals who engage in employer-sponsored training are well documented (Parent, 1999). The present study extends this finding to skill development provided to temporary workers by their staffing agency. The results provide evidence that staffing agencies target the training they offer to temps that will benefit from it most, but in general the formal training that temps take has no impact on their subsequent wages. Given the relatively limited amount of training – an average of 21 hours/trainee – the lack of an overall effect on wages across all occupation types is not too surprising. When we examined the types of skill development that different types of temps received, however, we find some clear exceptions and distinctions to this pattern. In contrast to other temps, pink-collar workers experienced significant levels of wage growth after taking their agency's formal training. Blue-collar and professional/technical workers, on the other hand, experienced wage gains as a result of on-the-job

development opportunities. Elsewhere, we have published detailed case studies of temporary service employees in three companies that extensively use temps which also illustrate how the skills temporary workers acquire through their job assignments at their work site also influence their wage growth patterns (Finegold et al, 2003).

Study Limitations and Areas for Future Research

While our quantitative analyses are based on data from a very large sample of US temps, it is drawn from only a small number of agencies. Although we believe these agencies are typical of most US temporary-staffing agencies, caution is needed in generalizing our results within the US or more globally. It would be useful to replicate the research in Europe and Asia to see if the same relationships hold.

Our survey results are also only applicable to understanding the experiences of individuals who spent a significant time (two weeks or more) temping. This group is far more likely to have wage growth or be trained than the approximately one-third of individuals who signed on with an agency but then temped with that agency for less than two weeks. Because those who had positive outcomes were more likely to return the questionnaire, this introduced additional positive bias in our survey results. Finally, we believe that finer-grained measures of skill development, both formal and informal, than the ones at our disposal in this study would yield an even more precise understanding of the breadth and variability of its impact on temporary workers' labor-market outcomes.

Some of our findings also suggest fruitful areas for further research. The differences among temporary workers in career objectives and expected timeframes for temping, along with the relatively large proportion of highly educated temps in technical, professional or managerial occupations, suggest the need to rethink stereotypical images of temporary work as undesirable, and to explore in more depth individuals' motivations for entering temporary work. Furthermore, the greater role of on-the-job skill development for blue-collar temps suggests the need for research that provides a more thorough assessment of the nature of their assignments and opportunities for skill development inherent in the work itself. If temporary agencies were to structure the sequence of blue-collar temporary assignments

appropriately, these temps could experience substantial skill development over time, as well as sizeable labor market returns.

Conclusions and Lessons for Practitioners

Temporary employment presents a unique opportunity to identify how training and skill development function in today's service-driven, highly uncertain economy. Temporary employment has become a "big business" in many countries throughout the world, and as competition among temporary agencies for higher quality workers has grown, temporary workers are increasingly being presented with opportunities to develop their skills. Yet, key questions remain about the evenness of these opportunities and the extent to which they result in meaningful, practical returns to temporary employees in service work.

The conclusions of the research closely parallel the broader research on the opportunities for, and benefits of, skill development in permanent jobs or manufacturing employment with one important exception: we were able to differentiate between the company providing *opportunities* for skill development and individuals' decision to *participate* in these training opportunities, a distinction typically not found in most research on training. This distinction is vital because we find that a majority of temporary employees are not offered training by their agency, and, like employees in other types of work, those who could benefit most from the training—lower skilled, lower wage workers—are the least likely to receive the chance to train. Yet, these employees are the very workers who most readily engage in this training when it is offered. Despite bright spots for certain occupational groups, such as pink-collar employees, the demand for skill development from a considerable portion of the temporary workforce remains largely unmet. Thus, while the growth in temporary employment has the potential to provide significant amounts of skill development to service sector employees, the current state of skill development falls far short of this potential.

Our research suggests a number of ways in which the skill development opportunities for temporary workers could be enhanced, some of which were already underway at the agencies. These include developing:

- More modular training options that allow workers to take courses in shorter time intervals
- Web-based training that will allow individuals to train without having to travel to the agency office
- A greater range of skill development opportunities – both formal training and on-the-job -- for blue- and white-collar employees
- Opportunities for temps to train during paid-working hours

A key to convincing agencies and their client firms to broaden skill development opportunities for temps is convincing them that there is an economic return to this investment. Forde (2001, 635) identifies three strategies that temporary staffing agencies have been using in the UK to build closer, higher value-added relationships with customers: individualizing service, providing repeat workers, and offering temp-to-perm options. Our findings suggest that providing workers with ongoing opportunities for skill development may be a useful addition to agency strategies. As with other research on training outcomes, we find that temps and the agencies who employ them stand much to gain from developing their skills when it is targeted to their needs (Purcell, Purcell and Tailby, 2005; Brinkerhoff, 1987). This includes lower-skilled temps whose wage trajectories benefit more from the training than other temps. Skill development, when tailored to the type of work (as in the case of pink-collar jobs) or embedded into the actual work of the employee, results in significant wage growth for temporary employees, and with it, more revenue to the agencies who sell their labor. The wage benefits from skill development are only one part of the business case for further investment in training; training can also facilitate matching individuals to client skill needs, particularly if targeted at skills that are in short supply in the local labor market. And general skill development, in contrast to the predictions of human capital theory (Becker, 1964), appears to foster greater attachment by lower-skilled temporary employees to their staffing agency. Thus, not only do these employees become more skilled, but, by remaining in the temporary employment pool longer, they can serve as a proven and tested source of revenue to their agency for a longer period. The relationship between work-related skill development and employee satisfaction and retention, which

has been observed for employer-provided training (Van Buren, 2002), are the critical links in a value chain leading to real financial returns for employers that invest in employee development. We believe that ultimately a similar value chain, with skill development at its root, may be established for staffing agencies. This study is an initial step in demonstrating the value of skill development for temporary workers and the firms who employ them.

End Notes

¹ Unfortunately, we cannot report the precise percentage for confidentiality reasons.

² The proportion of professional/technical versus industrial/clerical temps is not necessarily indicative of their proportions among the population of temps at these agencies. The 6,500 number for the technical/professional group was chosen to ensure a sufficiently large enough set of returned surveys to facilitate statistical analysis.

³ For technical reasons, we could only construct the difference between the maximum and minimum wage. We included all those with at least a five percent difference in wages. This includes both those whose wages *fell* by at least five percent and those whose wages *rose* by at least five percent.

⁴ First a representative sample of 100 offices specializing in industrial and clerical assignments was selected. A random sample of 7,500 temps from within those offices was then drawn. The total number of temps sampled from these offices totaled 8,441 (national plus over-sample). The response rate for the two samples was virtually identical.

⁵ The amount of the payment varied across agencies. The results from two different pilot tests of the survey at one agency suggested that the bonus alone likely increased the response rate by three to four percentage points.

⁶ We excluded 329 respondents that we were unable to match with payroll records, dropping the N to 4,171.

⁷ These are all averages conditional on working (i.e., hours greater than zero).

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Table 1
Regression Variable Descriptions and Summary Statistics

Variable name in table	Variable description	Mean (Std. Dev.)	Minimum-Maximum
Offered Training	“Have you been given the opportunity to take any training offered by (the agency)?”	0.4 (.49)	0-1
Training Participation	“Have you taken any training offered by (the agency)?” [missing if not offered]	0.5 (.50)	0-1
Training Taken	Respondents who took training (no missing values)	0.2 (.42)	0-1
Commitment to agency (1 = <i>Strongly Disagree</i> ; 3 = <i>Neither Agree or Disagree</i> ; 5 = <i>Strongly Agree</i>)	6 item scale: (a) I would be very happy to spend the rest of my career with this organization; (b) This organization has a great deal of personal meaning for me; (c) I do not feel like “part of the family” in this organization (reverse coded); (d) I really feel as if this organization’s problems are my own; (e) I do not feel a strong sense of belonging to this organization (reversed); (f) I do not feel “emotionally attached” to this organization (reversed). Alpha = .78.	3.1 (.89)	1-5
Extra-role behaviors – agency (1 = <i>Strongly Disagree</i> ; 3 = <i>Neither Agree or Disagree</i> ; 5 = <i>Strongly Agree</i>)	4 item scale: (a) I volunteer to do things for this organization; (b) I help others at this organization with their responsibilities; (c) I assist others working for this organization to the firm’s benefit; (d) I get involved to benefit this organization. Alpha = .84.	3.6 (.95)	1-5
On-the-job development (1 = <i>Strongly Disagree</i> ; 3 = <i>Neither Agree or Disagree</i> ; 5 = <i>Strongly Agree</i>)	4 item scale: (a) Extent to which temping provided opportunity to learn new things through training; (b) opportunity to learn from other people at the work place; (c) opportunity to learn new things on the job; (d) work that is closely matched to my skills and abilities. Alpha = .82.	3.7 (.95)	1-5
Computer Experience	Respondent’s level of prior computer experience (ranging from no experience to advanced experience)	3.3 (1.25)	1-5
Age	Age of respondent	37.9 (13.14)	17-82
Female	Female respondents	0.6 (.50)	0-1
Long-term	Reason for joining temp agency was to find long-term temporary work or the right permanent job	0.62 (.48)	0-1
Wage growth	Growth in hourly wage as a temp: post-survey average wage relative to pre-survey average wage	4.4 (10.3)	-50.9 – 94.7
Hours per week post	Average hours worked per week as a temp in the three quarters following the survey	13.5 (16.6)	0-60
Hours per week pre	Average hours worked per week as a temp in the four quarters preceding the survey	32.4 (8.2)	3.5 – 62.3
Retention	Positive hours worked as a temp one year after the survey	.27 (.45)	0-1
% Time working in 3 years prior to joining Agency	% Time respondent was in paid work in the 3 years prior to joining the agency	77.1 (29.21)	0-100
HS education	High school graduate, no high school education, or trade school	.31 (.46)	0-1
Some college education	Some college education:	.42 (.49)	0-1
Bachelor degree or higher	Bachelors, Masters, Ph. D.	.26 (.44)	0-1

Table 2: Training Participation

	Total sample	EDUCATION			OCCUPATION			WAGE	
		Some HS or HS diploma	Trade certification, some college or Associate degree	Bachelor degree or higher	Industrial	Clerical	Professional or Technical	\$8/ hour or less	\$8/ hour or more
Number of Respondents	4171	1006	2042	1093	1105	1870	1169	1277	2867
Offered Training (%)	42.9	37.1	45.0	44.1	30.9	50.0	42.6	38.1	44.9
Took Training (%)	53.7	54.0	55.6	50.6	52.3	59.2	44.4	55.6	53.0
Mean Hours of Training	21.0	25.7	20.7	18.5	30.4	17.3	21.3	29.6	17.1

Table 3.A: The Relationship between Temps' Education, Experience and Training

	Offered Training	Offered Training	Offered Training	Participated in Training	Participated in Training	Participated in Training
Education						
High School degree	.04	.03	.01	.045	.044	.078
Trade certification	.05	.04	.01	.038	.033	.082
Some college	.11***	.10**	.07	.062	.063	.115*
Associate degree	.16***	.15***	.11**	.039	.034	.094
College / university degree	.12***	.11**	.06	.029	.022	.087
Graduate / professional degree	.07	.05	.01	-.081	-.078	-.012
% time working in the three years before joining the agency		.001*			.0001	
Extent of computer experience before joining the agency			.03***			-.030***
Female	.09***	.10***	.09***	.079***	.075***	.082***
Pseudo R²	.012	.013	.014	.008	.007	.011
N	4141	4058	4124	1762	1732	1754
The offered training and training participation results are from binary probits; the values are changes in the probability of the dependent variable from a one unit change in the independent variable. The participation regressions are conditional on being offered training.						
Key: * = (p ≤ .10), ** = (p ≤ .05), *** = (p ≤ .01)						

Table 3.B: The Relationship between Temps' Wages, Motivation for Temping, and Training

	Offered Training	Offered Training	Offered Training	Participated in Training	Participated in Training	Participated in Training
Log average wage prior to survey	.062***	.824***		-.078***	.634***	
Log average wage squared		-.141***			-.134***	
Long-term			.069***			.080***
Log total hours temped at agency prior to the survey			.027***			.024**
Female	.106***	.099***	.096***	.069***	.063**	.091***
Pseudo R²	.009	.015	.014	.009	.013	.013
N	4115	4115	3950	1746	1746	1684
<p>The offered training and participated in training results are from binary probits; the values are changes in the probability of the dependent variable from a one unit change in the independent variable. The participation regressions are conditional on being offered training.</p> <p>Key: * = (p ≤ .10), ** = (p ≤ .05), *** = (p ≤ .01)</p>						

**Table 4: Training and Temps' Relationship with the Agency:
Commitment and Extra-Role Behaviors**

	Commitment	Extra-Role Behaviors			
	Entire sample	Entire sample	Blue collar subsample	Pink collar subsample	White collar subsample
Offered training	.291 ***	.157***	.286***	.180***	.080
Took training	.030	.153***	.067	.066	.298***
Education controls	Yes	Yes	Yes	Yes	Yes
Gender control	Yes	Yes	Yes	Yes	Yes
Adjusted R²	.064	.052	.033	.031	.061
N	4118	4105	1107	1850	1148
Key: * = (p ≤ .10), ** = (p ≤ .05), *** = (p ≤ .01)					

Table 5: Labor Market Outcomes of Training

	Outcome: Hours worked per quarter		Outcome: Retention			
	Entire sample		Entire sample	Blue collar subsample	Pink collar subsample	White collar subsample
Offered training		.535	-.013			
Took training	.176	-.223	.087**	.040	.129***	-.154*
Hours worked per quarter prior to the survey	.817***	.816				
Education controls	Yes	Yes	Yes	Yes	Yes	Yes
Gender control	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ² (columns 1-2) Pseudo R ² (columns 3-6)	.457	.457	.006	.006	.014	.019
N	1806	1806	1832	541	1024	267

Outcome: Wage Growth						
	Entire sample			Blue collar subsample	Pink collar subsample	White collar subsample
	Offered training	1.03 **		1.07*		
Took training		.73	-.07	-1.41	1.39 **	-1.34
On-the-job development				1.12 **	.30	1.40 **
Education controls	Yes	Yes	Yes	Yes	Yes	Yes
Gender control	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	.001	.000	.000	.019	.000	.000
N	1806	1806	1806	515	1021	266

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