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**ORGANIZING CONTINGENT WORK:
THE ROLE OF TEMPORARY EMPLOYMENT AGENCIES AND
PROFESSIONAL EMPLOYER ORGANIZATIONS**

**Alison Davis-Blake
The University of Texas at Austin**

**Joseph P. Broschak
University of Illinois at Urbana-Champaign**

**Lei Wang
Daniel Chng
The University of Texas at Austin**

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ALISON DAVIS-BLAKE

The University of Texas at Austin
McCombs School of Business
Department of Management
1 University Station B6300
Austin, TX 78712-0210
Tel: (512) 471-0826
Fax: (512) 471-3937

E-mail: alisondb@ccwf.cc.utexas.edu

JOSEPH P. BROSchAK

University of Illinois at Urbana-Champaign
Department of Business Administration
350 Wohlers Hall
1206 South 6th Street
Champaign, IL 61820
Tel: (217) 265-0649
Fax: (217) 244-7969

E-mail: broschak@uiuc.edu

LEI WANG

DANIEL CHNG

The University of Texas at Austin
McCombs School of Business
Department of Management
1 University Station B6300
Austin, TX 78712-0210
Fax: (512) 471-3937

E-mail: lei.wang@bus.utexas.edu

HanMing.Chng@phd.bus.utexas.edu

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Abstract

Despite the growing importance of labor market intermediaries, the nature, structure, and functions of these intermediaries have rarely been examined empirically. We develop hypotheses about the health and stability of different types of labor market intermediaries, the frequency and range of services offered by intermediaries, and the determinants of the number of services offered by intermediaries. We test these hypotheses on two samples of professional employer organizations (PEOs) and temporary staffing agencies in the United States. We find that PEOs are younger and more “frail” (in terms of size, creditworthiness, and support from parent establishments) than temporary staffing agencies. Also, the core services of both PEOs and temporary staffing agencies are those that have historically been most legitimate to put outside the boundaries of their client firms (administrative services in the case of PEOs and staffing services in the case of temporary staffing agencies). Finally, membership in professional associations, organizational age, and corporate affiliation are positively associated with the proliferation of services by both types of intermediaries. PEO density within a Metropolitan Statistical Area (MSA) is positively associated with service proliferation among PEOs in the MSA but negatively related to service offerings by temporary staffing agencies in the MSA. Similarly, higher temporary staffing agency density increases service offerings among staffing agencies and depresses PEO service offerings. Among temporary staffing agencies, the least creditworthy establishments located in the most sparsely populated MSAs are most likely to proliferate services. We explore the implications of these results for the organization of work.

During the 1990s, employment in contingent work arrangements grew more rapidly than more standard forms of employment (Kalleberg, 2000). This increase in contingent work represents a dramatic and important shift in the organization of work. As Barley and Kunda (2001: 80) have noted, the rise of contingent work suggests that “firms are less figural than mediators who broker information and match individuals to positions.” Similarly, both Abraham (1990) and Kalleberg and Schmidt (1996) have argued that the growing demand for contingent employment is partly driven by growth in the number of labor market intermediaries. Thus, the structures and practices of labor market intermediaries play a critical role in determining when, where, and how contingent work will occur.

Despite the growing importance of intermediaries such as temporary staffing agencies and professional employer organizations, researchers have focused very little attention on the nature, structure, and impact of labor market intermediaries that match contingent workers with employers. The limited existing research on labor market intermediaries is largely conceptual and relies on very small convenience samples to support its theoretical arguments. For example, Abraham (1990) described flexible staffing arrangements as being market-mediated work arrangements in which the compensation and allocation of labor are determined in direct response to market forces rather than the administrative rules and procedures of internal labor markets. She identified four types of market-mediating work arrangements and highlighted the role labor market intermediaries play in administering employment relationships. Davis-Blake and Broschak (2000) focused specifically on relationships between temporary staffing agencies and their clients. They argued that the relationship between clients and agencies was an important determinant of the success of flexible staffing. They identified four distinct types of client-agency relationships and argued that the type of relationship determined the effectiveness of flexible staffing.

The research presented here is an initial attempt to understand both the functions that labor market intermediaries are currently performing and the factors that shape how labor market intermediaries operate. We examine two important types of intermediaries: temporary staffing agencies and professional employer organizations (PEOs). Temporary staffing agencies traditionally recruit and screen individuals who are then assigned to work at clients' sites, "generally to support or supplement the workforce to cover employee absences, temporary skill shortages, special assignments or projects of finite duration" (SHRM, 1998: 23). As the oldest and most frequently used source of contingent workers (SHRM, 1998), temporary staffing agencies are an important influence on the market for contingent work. Also, the ongoing movement of these agencies into services other than staffing is likely to make a variety of alternatives to the traditional employment relationship more widely available.

PEOs "administer the payroll [of their client firms], provide the benefits and benefits administration, maintain personnel records, and perform most of the functions normally handled by an HR department" (SHRM, 1998: 24). Often, long-term employees are transferred from the payroll of the client firm to the PEO's payroll and the PEO leases the employees back to the client. Although PEOs are used less frequently than most other labor market intermediaries (SHRM, 1998), they represent the most radical departure from traditional employment arrangements and thus have the most potential to change the organization of work.

Our research explores three issues. First, because the ability of intermediaries to reliably deliver client services depends on their health and stability, we examine some key indicators of the health and stability of both PEOs and temporary staffing agencies. We also compare the overall health and stability of these two types of intermediaries. Second, we document the frequency and range of services offered by both types of intermediaries and draw some preliminary conclusions about the functions of the two types of intermediaries in the labor market. Finally, we examine the

determinants of the number of services offered by intermediaries. We conclude by exploring the implications of the growing use of labor market intermediaries for the organization of work.

THEORETICAL BACKGROUND

Several theories have proposed that long-term, stable employment relationships lead to a number of important benefits for organizations. For example, theories of strategic human resource management argue that “certain combinations of human resource programs, policies, and practices [including practices that foster long-term employment] lead to specific employee attitudes, such as trust in management or organizational commitment, that in turn lead to specific employee behaviors beneficial to effectively implementing a given business strategy” (Arthur, 1994: 684). Similarly, theories of implicit contracts assume that employees form a psychological contract with their employers regarding the reciprocal obligations of employment (Argyris, 1960; Rousseau, 1989; Rousseau & Parks, 1992). For many employees, this contract implies a long-term attachment between employee and organization (Robinson, Kraatz, & Rousseau, 1994). Violations of the psychological contract by organizations have been linked to increased turnover and to decreased employee commitment (Robinson, Kraatz, & Rousseau, 1994). Similarly, there is some evidence that when organizations keep the psychological contract by maintaining long-term employment, employees engage in higher levels of extra-role behaviors (Robinson, 1996).

Despite the evidence about the benefits of long-term employment, employers are increasingly relying on flexible work arrangements. Houseman (1999) reported steady increases in the use of most types of flexible staffing arrangements during the 1980s and 1990s. As noted by Belous (1989), organizations have attempted to increase their flexibility by decreasing their use of “core workers” (workers with a strong affiliation with a specific employer and a long-term psychological contract) and increasing their use of “contingent workers” (workers with a weak affiliation to a specific employer and lacking a long-term psychological contract). Temporary

workers, contract workers, and employees leased from PEOs now commonly work side-by-side with regular full-time employees, often performing the same tasks (Davis-Blake & Broschak, 1997; Davis-Blake, Broschak, & George, forthcoming; Kalleberg & Schmidt, 1996). This increased use of flexible staffing arrangements represents a dramatic shift in organizational human resource management systems and employment practices.

Flexible staffing arrangements typically involve two firms: the client firm and the labor market intermediary that links the client firm with workers. Although both client and intermediary jointly develop flexible staffing arrangements, most research on organizations involved in flexible staffing has focused on client firms. For example, one question addressed by this research is: what organizational, social, and labor market factors are associated with an organization's use of contingent workers? In an empirical examination of flexible staffing, Davis-Blake and Uzzi (1993) found that organizational and job characteristics, such as the level of organizational bureaucracy, existence of multiple sites, organizational size, unionization, and the informational and technical complexity of jobs, predicted the use of temporary and contract workers by U.S. organizations. Uzzi and Barsness (1998) reported similar determinants of the use of temporary workers by British firms.

Surprisingly, researchers have focused very little attention on the organizations that provide contingent workers to employers and the contribution of these intermediaries to the design of flexible staffing arrangements. However, the growth and practices of these intermediaries play a large role in determining the options firms have for structuring the employment relationship (Hannan, 1988). In any realm of social activity, a diversity of organizations reflects the capacity of society to respond to uncertain future changes (Hannan & Freeman, 1989). Thus, diversity among labor market intermediaries provides alternative societal solutions to the problem of how to

structure the employment relationship. Below, we develop and test hypotheses about the nature and determinants of this diversity.

HYPOTHESES

We develop hypotheses about (1) differences in key characteristics of temporary staffing agencies and PEOs, (2) the types of services offered by temporary staffing agencies and PEOs, and (3) determinants of the services offered by both types of intermediaries.

Characteristics of PEOs and Temporary Staffing Agencies

It has been well documented across many types of organizations that firms typically suffer from a “liability of newness” (Stinchcombe, 1965, Hannan & Freeman, 1989). Younger organizations are more likely than older organizations to have difficulties securing resources from the external environment and to experience problems developing stable working relationships between employees (Baron, Burton, & Hannan, 1996). Thus, young organizations are more likely to fail than older firms. Although the exact functional form of the relationship between organizational age and failure rates has been debated (Bruderl & Schussler, 1990), the general idea that younger organizations are more frail than older firms, particularly once size is controlled, has substantial empirical support (Barron, West, & Hannan, 1994; Hannan and Freeman, 1989). Given that, as a group, PEOs entered the business of providing contingent work later than temporary staffing agencies, we expect that PEOs will be more frail, as assessed across a variety of dimensions, than temporary staffing agencies. Thus, we predict:

Hypothesis 1a: PEOs will be younger than temporary staffing agencies.

Hypothesis 1b: PEOs will be smaller (in terms of both sales and number of employees) than temporary staffing agencies.

Hypothesis 1c: PEOs will be more likely to be single-site establishments than temporary staffing agencies.

Hypothesis 1d: PEOs will have less favorable credit ratings than temporary staffing agencies.

Given that PEOs typically organize many more aspects of the employment relationship than temporary staffing agencies, these differences between PEOs and temporary staffing agencies may have important societal consequences. If confirmed, these hypotheses suggest that the proliferation of PEOs may increase the number of individuals whose employment relationship is managed by relatively new, small, and potentially unstable firms.

Types of Services Offered by Intermediaries

The way that firms organize employment is substantially affected by prevailing norms about socially legitimate employment practices (Baron, Dobbin, & Jennings, 1986; Dobbin & Sutton, 1999). Historically, firms have kept most employment related activities in-house (Pfeffer & Baron, 1988). Administrative activities (e.g., activities related to record keeping and information processing) were historically the first employment-related activities to be outsourced on a large scale followed by staffing for temporary positions (Morse, 1998). Activities related to the ongoing management of the organization's core workforce have historically been less legitimate to outsource and thus are likely to be outsourced with less frequency than staffing and other administrative activities (SHRM, 1998). Thus, we predict:

Hypothesis 2: Both PEOs and temporary staffing agencies will offer administrative services (e.g., payroll, benefits administration) and staffing related services (e.g., recruitment, pre-employment testing, selection) with greater frequency than other services (e.g., performance management, compensation design, employee relations).

Predictors of Intermediary Service Offerings

Organizational size is a predictor of many aspects of organizational design (Kimberly, 1972), and we expect that establishment size will be positively related to the number of services offered by intermediaries. Because establishment size is correlated with some of the predictors in

which we are interested, all of our analyses control for establishment size, and all of our hypotheses are net of organizational size.

We expect that the number of services offered by intermediaries will be affected by the resources an establishment has to develop service offerings, by the establishment's age, and by conditions in the establishment's external environment.

Establishment resources. We expect that establishments with greater levels of material resources will have the capacity to develop and offer more services than establishments with fewer material resources. These resources could derive from the establishment's own financial health. Alternatively, the establishment could develop services by utilizing the resources of a parent company. An establishment could also draw on the resources of other establishments operating under the same organizational umbrella, perhaps copying or slightly modifying services developed by sister establishments operating in other geographic locations. Thus, we predict:

Hypothesis 3a: PEOs and temporary staffing agencies that belong to multi-site establishments will offer more services than PEOs and temporary staffing agencies that are single-site establishments.

Hypothesis 3b: PEOs and temporary staffing agencies with more favorable credit ratings will offer more services than PEOs and temporary staffing agencies with less favorable credit ratings.

Material resources are not the only important resources that can help an establishment develop new services. As Aldrich and Fiol (1994) have argued, the ability to work with other firms to set the institutional parameters of an industry is an important resource, particularly for organizations operating in new industries. Organizations that participate in shaping an industry's institutional environment can reap two important benefits. First, they can shape the environment so that it is more favorable to the kinds of material resources they already have in place. And, second, the early information they gain about the likely institutional structure of the industry can help them tailor their services to fit the industry's emerging institutional parameters (Scott, 2001).

Participation in professional associations (particularly those that set industry standards and accredit or otherwise certify participating organizations) is one important method through which firms can influence their industry's institutional environment (Scott, 2001). Given the advantages that are likely to accrue to organizations that participate in these types of professional associations, we predict:

Hypothesis 3c: PEOs and temporary staffing agencies that are members of professional associations that set standard for their industries will offer more services than PEOs and temporary staffing that are not members of such professional associations.

Establishment age. Hannan and Freeman (1977) argued that organizations can be meaningfully grouped into two basic types: generalists and specialists (see also Carroll & Hannan, 2000). Carroll (1985: 1266) refined this distinction and stated that “generalist organizations compete in a variety of domains simultaneously, whereas specialists focus on only one or a limited few.” Within a given resource space, both generalists and specialists are typically founded. However, over time, a process of resource partitioning typically occurs. Generalists grow and tend to dominate the market, intruding into the market domain of specialists and causing some specialists to fail. The failures of specialists and the growth of generalists leads to increasing industry concentration (Carroll, 1985). Eventually, as the industry becomes more concentrated, new specialists emerge in the specific markets not tapped by generalists (Carroll & Hannan, 2000). The temporary help industry is showing some signs of consolidation and increasing concentration, with several mergers of large firms such as Adia/Ecco and Vedior/Select Appointments (Schellhardt, 1997). Some of these large firms have also begun entering the market for PEO services. Therefore, if resource partitioning is occurring among intermediaries, newer entrants typically will be more specialized than older firms (as previously discussed, net of organizational size). Thus, we hypothesize:

Hypothesis 4: Younger PEOs and temporary staffing agencies will offer a more limited number of services than older establishments.

Environmental munificence. The birth and survival of organizations is dependent on an adequately rich resource niche (Carroll & Hannan, 2000). The resources available in a particular niche also affect the growth potential of organizations in that niche (Carroll, 1985). Most PEOs and temporary staffing agencies are still relatively new organizations with limited resources. Thus, we expect such firms to be founded and grow in areas where key resources, particularly clients and potential contingent workers, are plentiful. Thus, we predict:

Hypothesis 5: PEOs and temporary staffing agencies located in more densely populated metropolitan statistical areas (MSAs) will offer more services than PEOs and temporary staffing agencies located in less densely populated MSAs.

Because temporary staffing agencies have historically focused on low skill, low wage workers, we expect that they will be disproportionately located and grow in areas where these types of workers are abundant. Thus, we predict:

Hypothesis 6a: Temporary staffing agencies located in lower wage MSAs will offer more services than temporary staffing agencies located in higher wage MSAs.

Although PEOs offer a diverse product mix, as a group, they are still relatively new organizations with more limited resources than more established temporary agencies. Thus, we expect PEOs to proliferate services in areas where potential margins are higher. Because the fees of PEOs are tightly linked to the compensation of the contingent workers that they recruit and place, we predict that:

Hypothesis 6b: PEOs located in higher wage MSAs will offer more services than PEOs located in lower wage MSAs.

If confirmed, these hypotheses imply that the flexibility provided by labor market intermediaries will not be equally available to all firms. Rather, intermediaries providing this flexibility will be concentrated in geographic locations with certain resource characteristics.

Potential client firms outside of these locations will be less able to use employment flexibility to respond to environmental changes. These hypotheses also suggest that, in regions with certain characteristics, the presence of large numbers of intermediaries may alter the mix of employment opportunities for low-wage, low-skill workers so that the mix includes more of the kinds of short-term insecure jobs that are often provided to low-skill workers by intermediaries.

In addition to the absolute resource levels in a particular niche, the service offerings of intermediaries are also likely to be affected by the number of similar organizations in the niche. There is substantial evidence that the density of potential competitors (i.e., the number of competitors in the resource space) has two types of effects on organizations. In the early stages of an industry, organizations offering similar services help legitimate each other (Aldrich & Fiol, 1994) and enhance each other's life chances (Carroll & Hannan, 2000). PEOs are a relatively new organizational form offering services that, until recently, have typically not been placed outside of the boundaries of the employing organization. Therefore, the presence of PEOs in a particular geographic location may help legitimate additional service offerings by both PEOs and temporary staffing agencies. Thus, we predict:

Hypothesis 7a: PEOs and temporary staffing agencies located in MSAs where the density of PEOs is larger will offer more services than PEOs and temporary staffing agencies located in MSAs where the density of PEOs is smaller.

If confirmed, Hypothesis 7a suggests that the population dynamics among PEOs may accelerate the unbundling of various aspects of the employment relationship. At this stage in the development of the PEO industry, the proliferation of PEOs may make it easier for additional PEOs to be founded and to offer services that facilitate the outsourcing of many aspects of the employment relationship by client firms.

Although the density of potential competitors has salutary effects on similar organizations in the early stages of the development of an industry, as the industry becomes more mature and

socially acceptable and more competitors enter the resource space, the impact of density is on organizational life chances is negative (Carroll & Hannan, 2000). Once the industry and its products are legitimated, higher density levels increase competitive pressure in the industry and make it more difficult for any specific organization to survive. In contrast to PEOs, temporary agencies are a relatively mature and legitimate organizational form. Thus, we expect that, unlike the impact of PEO density, the impact of temporary staffing agency density will be competitive rather than legitimating. Specifically, the presence of many temporary staffing agencies in a particular geographic location will make it more difficult for competitors to successfully offer new services. Thus, we predict:

Hypothesis 7b: PEOs and temporary staffing agencies located in MSAs where the density of temporary staffing agencies is larger will offer fewer services than PEOs and temporary staffing agencies located in MSAs where the density of temporary staffing agencies is smaller.

METHODS

Data Sources

We used four major sources of data:

- 1) Data from the U.S. Business Directory (2001) on the location, revenues, number of employees, and creditworthiness of PEOs and temporary staffing agencies in the United States. The intent of the directory is to provide basic information about all establishments in the United States. The directory includes approximately 12 million listings. The publisher of the directory uses listings in all yellow pages in the United States to identify establishments. From there, the publisher adds information from telephone contact with the establishment, government records, news media, annual reports (if applicable) and other publicly available data. The directory contains the following information about each establishment: organization size (both sales and

number of employees), organizational location, credit rating, corporate affiliation (if any), and primary and secondary SIC codes.

2) Data from the 2000 U.S. Census on the population, occupational mix, and wage level (by occupation) in each Metropolitan Statistical Area where intermediaries are located.

3) Membership data from the two major professional and accrediting associations for PEOs and temporary staffing agencies: the National Association of Professional Employer Organizations (NAPEO) and the American Staffing Association (ASA). These associations not only provide information to members; they also accredit PEOs and temporary staffing agencies.

4) Detailed coding of all services offered by 1317 PEOs and temporary staffing agencies in the nine states with the largest numbers of labor market intermediaries (California, Florida, Georgia, Illinois, Michigan, New York, Ohio, Pennsylvania, and Texas).

Samples

We used two different samples to test the hypotheses. First, we tested hypotheses about most of the basic attributes of intermediaries (e.g., size, creditworthiness) on a sample of 24,201 intermediaries obtained from the U.S. Business Directory (2001). We included in our sample all establishments that reported operating in one of the following 6-digit SIC codes in January 2001: 7363-02 (Truck Driver Leasing), 7363-03 (Employee Leasing Services), 7363-04 (Temporary Help Services), or 7363-05 (Temporary Medical Services). This sample includes 1,326 PEOs and 22,875 temporary staffing agencies.

Second, from the U.S. Business Directory (2001) sample, we created a subsample of establishments for which we collected detailed data about the services provided by each establishment. To allow us to control for differences in local institutional environments, we sampled establishments within states, selecting the nine states with the largest number of labor market intermediaries as indicated above. Within each state, we took a census of PEOs and a

stratified (by size) random sample of temporary staffing agencies. Because the size distribution of temporary staffing agencies is extremely skewed toward small establishments, we oversampled large establishments to ensure adequate representation of this size stratum. The sample of temporary staffing agencies included 10% of all establishments with 9 or fewer employees, 20% of all establishments with more than 9 but fewer than 20 employees, 50% of all establishments with more than 19 but fewer than 50 employees, and all establishments with 50 or more employees.

This procedure resulted in an initial sample of 944 PEOs and 1363 temporary staffing agencies. Of these establishments, 89 (9.4%) PEOs and 38 (2.8%) temporary staffing agencies were no longer in business at the time the data were collected. Also, 436 (46.2%) PEOs and 427 (31.3%) temporary staffing agencies did not have codable websites. This resulted in a final, usable sample of 419 PEOs and 898 temporary staffing agencies. To control for any potential effects of this case loss, we use the method described by Heckman (1979) to control for sample selection bias.

Measures

Services provided. Coding of services was based on information provided on the website of each intermediary. This coding was conducted during the summer and fall of 2001. At each website, coders coded whether or not (via a binary code) the establishment offered each of 100 distinct services in 12 categories. The Appendix lists these categories and the number of services coded in each. Initially, two coders coded 20 websites together during a training period. After the training period, the percentage agreement between coders was .90. After the training period, only one coder coded the information on each website.

Intermediary characteristics. We assessed several intermediary characteristics using data from the U.S. Business Directory (2001). The directory provided categorical data on the

number of employees in each establishment (11 categories ranging from 1-4 employees to 10,000 or more; these categories were much more numerous at the lower end of the size range). *Number of employees* was measured as the median of the size category. The Directory also provided data on 11 sales categories, and *establishment sales* was coded as the median of the category. Establishment *credit rating* was measured on a 3-point scale reported in the Directory (1=satisfactory, 2=good, 3=very good).

Two variables based on the membership directories of the professional associations described earlier were used to assess association membership. *NAPEO membership* was coded 1 if the establishment belonged to NAPEO and 0 otherwise. *ASA membership* was coded 1 if the establishment belonged to the ASA and 0 otherwise.

Multi-site establishments were identified by a binary variable based on information provided on the establishment's website. This variable was coded 1 for establishments that belonged to a larger multi-establishment firm and 0 for single-site establishments.

Establishment age (in years) was coded based on information provided on the establishment's website. We were unable to obtain age data from 31% of the establishments for which we performed detailed service coding. To avoid deleting these cases in the regression analyses, we substituted the mean age (by type; PEO or temporary staffing agency) for establishments with missing age data. We also included in all regression analyses an indicator variable identifying those establishments for which we imputed age.

We assessed the *PEO density* and the *temporary staffing agency density* in each MSA as the number of establishments of each type operating in each MSA, as reported in the U.S. Business Directory (2001).

We used data from the 2000 U.S. Census to assess the population and labor force characteristics of each MSA. We calculated *MSA population density* as the number of people per

square mile in each MSA. We calculated the *mean MSA wage level* as the mean wage across all occupations reported in the 2000 Census, weighted by the number of individuals in the MSA employed in each occupation.

RESULTS

Table 1 reports the means, standard deviations, and correlations between all variables. We should note that, although Table 1 reports a mean establishment size of 141 employees, this is somewhat deceptive as the size distribution of intermediaries is highly skewed. There are a few very large, relatively resource rich intermediaries (e.g., Manpower). However, the majority of intermediaries are very small (52.9% have less than five employees and an additional 25.8% have between five and nine employees).

Table 2 reports the results of t-tests on differences in key characteristics of PEOs and temporary staffing agencies. As predicted by Hypothesis 1a, PEOs are substantially younger than temporary staffing agencies. After accounting for the skewness of the size distribution by removing a few large outlier establishments, Hypothesis 1b received partial support. PEOs have fewer employees than temporary staffing agencies, but there was no evidence of a significant difference in the level of sales reported by the two types of establishments.

As predicted by Hypothesis 1c, PEOs are more likely than temporary staffing agencies to be single-site establishments. Nearly a quarter of all PEOs in the sample were single-site establishments compared to 18% of temporary staffing agencies. Finally, there was strong support for Hypothesis 1d; the credit ratings of PEOs are significantly lower than the credit ratings of temporary staffing agencies. Overall, the means in Table 2 support the idea that PEOs are younger and more “frail” (in terms of size, creditworthiness, and support from parent establishments) than temporary staffing agencies.

Table 3 reports the mean number of services offered by PEOs and temporary staffing agencies in three broad categories: administrative services (payroll and tax record keeping, information processing, and provision of insurance and other benefits); staffing (recruitment and selection) services, and all other services. Table 3 also reports the results of two separate ANOVAs (one for PEOs and one for temporary staffing agencies) on the number of services offered in each category. In general, the ANOVAs provided partial support for Hypothesis 2. As predicted, PEOs offered more administrative services than other services. However, PEOs offered fewer staffing services than other services. Among temporary staffing agencies the pattern was reversed; temporary staffing agencies offered fewer administrative services and more staffing services than other services. Overall, these results are consistent with the idea that the core services offered by both PEOs and temporary staffing agencies are those that have historically been most legitimate to put outside the boundaries of their client firms (administrative services in the case of PEOs and staffing services in the case of temporary staffing agencies). Our data do not allow us to assess the temporal order in which intermediaries started providing various services. However, our results are consistent with the idea that intermediaries establish an early base in more legitimate services and later expand into less legitimate services. Future research should examine this possibility.

Table 4 reports the results of OLS regressions predicting the total number of services offered by an establishment. Model 1 examines PEOs and temporary staffing agencies together while Models 2 and 3 report separate results for PEOs and temporary staffing agencies, respectively. All models control for the effects of establishment size (number of employees). The results provide strong support for Hypothesis 3a; both PEOs and temporary staffing agencies that are part of multi-establishment firms offer more services than single-site intermediaries of either

type. The results also provide strong support for Hypothesis 4; older PEOs and temporary staffing agencies provide more services than younger establishments of both types.

In general, the results also provide strong support for Hypothesis 3c. Both PEOs and temporary staffing agencies that were members of the ASA offered more services than nonmembers. Interestingly, membership in the NAPEO increased service offerings only among temporary staffing agencies and not among PEOs. The NAPEO is not the primary professional association of staffing agencies. Perhaps those temporary staffing agencies that joined the NAPEO did so as a means to learn about increasing their non-staffing service offerings so that they could compete more effectively with PEOs.

In order to gain some preliminary insight into the operation of these professional associations, we examined the predictors of membership in both the NAPEO and the ASA. Specifically, we performed two logistic regressions, one on NAPEO membership and one on ASA membership. The results of those regressions indicated that NAPEO members were larger, less creditworthy, and younger than nonmembers. Conversely, ASA members were smaller, more creditworthy, and older than nonmembers. ASA members were also likely to be part of multi-establishment firms than nonmembers. These results suggest that the dynamics of the two professional associations may be quite different with the NAPEO being dominated by newer, frailer firms while the ASA is dominated by older, more stable firms.

There was some support for Hypotheses 7a and 7b. As predicted, high PEO density increased the number of services offered by PEOs. However, high temporary agency density decreased the number of services offered by PEOs. Conversely, for temporary staffing agencies, high PEO density decreased the number of services offered while high temporary agency density increased service offerings. These results provide strong initial support for the idea that PEOs and temporary staffing agencies are competing populations. High densities within a given population

increase service offerings of establishments within that population but decrease service offerings of establishments in the other population. The positive effects of population density on service offerings by establishments within that population also provide strong initial evidence that higher population densities legitimate establishments within the population. However, complete testing of these ideas will require dynamic data.

Contrary to the prediction of Hypothesis 3b, temporary staffing agencies with higher credit ratings offered fewer services than less creditworthy agencies. However, creditworthiness did not have a significant effect on service offerings among PEOs. Contrary to the prediction of Hypothesis 5, temporary staffing agencies located in more densely populated MSAs offered fewer services than agencies located in less densely populated areas. Population density did not affect PEO service offerings.

Finally, there was no support for Hypotheses 6a or 6b; MSA wage levels did not have any significant effects on the service offerings of either type of intermediary.

DISCUSSION

In a standard employment arrangement, all aspects of employment (e.g., the work itself, socialization, training, supervision, evaluation, compensation, and mobility opportunities) are bundled together and provided by the employing firm. The emergence of labor market intermediaries allows the unbundling of various components of employment, and creates the possibility for one or more of key aspects of employment to be provided outside of the boundaries of the firm. Our results provide three important insights into how this unbundling is likely to occur and its probable impact on the organization of work.

First, the proliferation of intermediary services does not appear to be an attempt by established firms to achieve economies of scope but rather appears to be an attempt to attract new business to fragile firms. Also, the services most closely linked to employees' ongoing

productivity and commitment are offered by the least experienced and most fragile firms, thus compounding any instability inherent in unbundling different aspects of the employment relationship. We documented that temporary staffing agencies generally provide only staffing, benefits, and payrolling services but that PEOs are more likely than staffing agencies to provide a broad range of services (e.g., training, evaluation, employee relations, compensation design). However, PEOs are younger, smaller, less creditworthy, and more likely to be single-site establishments than temporary staffing agencies. The results predicting the number of services offered by temporary staffing agencies provide further support for the idea that the proliferation of services is an attempt to attract clients to relatively fragile firms. The temporary staffing agencies most likely to proliferate services had relatively low credit ratings and were located in less densely populated areas where economies of scale are difficult to achieve.

Second, the emerging institutional dynamics associated with labor market intermediaries suggest that these intermediaries will work together to legitimate the unbundling of various aspects of employment. Researchers in the institutional theory tradition have established a clear positive relationship between membership in associations that set industry standards and organizational health (Casile & Davis-Blake, 2002). However, the direction of causality is unclear. This positive relationship could exist because healthier firms establish and gain control of standard setting associations or because membership in standard setting associations gives firms additional legitimacy that helps them secure resources. We found that, in general, intermediaries that are members of professional associations offer a broader range of services than nonmembers. However, our results also suggest that the dynamics of the standard setting organizations may be substantially different for PEOs and temporary staffing agencies. The standard setting agency for PEOs appears to be dominated by more fragile firms interested in service proliferation (as evidenced by the positive impact of NAPEO membership on service offerings among temporary

staffing agencies). However, the standard setting agency for temporary staffing agencies is dominated by more stable, mature establishments that may have different institutional interests.

Third, the proliferation of PEOs has the potential to affect the institutional norms surrounding the organization of work. Specifically, the way that firms organize employment is substantially affected by prevailing norms about socially legitimate employment practices (Dobbin & Sutton, 1999). The frequency with which various employment practices are used affects the legitimacy of those practices (Scott, 2001). PEOs offer a much broader range of services than temporary employment agencies. PEOs are also proliferating more rapidly than temporary employment agencies (SHRM, 1998). Thus, the rise of full-service intermediaries such as PEOs may be a vehicle for legitimating and institutionalizing new forms of work. Our findings about the impact of population density provide further support for these arguments; larger numbers of PEOs in a geographic appear to legitimate the services offered by PEOs and lead to the proliferation of services by PEOs.

Taken together, our results suggest that the institutional and population dynamics associated with PEOs and temporary staffing agencies are likely to encourage both the formation of new intermediaries and the proliferation of services by existing intermediaries. However, our results also suggest that this proliferation may not be beneficial to the employment relationship as key determinants of employee commitment, productivity, and satisfaction are moved outside employer boundaries and shifted to relatively small, unstable, and inexperienced firms.

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TABLE 1
Descriptive Statistics and Correlations^a

Variable	Mean	s.d.	1	2	3	4	5
1. Total services offered	16.57	12.85					
2. Multi-site establishment (1 = yes)	0.80	0.40	0.14				
3. Credit rating	2.19	0.69	-0.04	0.10			
4. NAPEO member (1 = yes)	0.15	0.36	0.45	-0.06	-0.06		
5. ASA member (1 = yes)	0.32	0.46	-0.07	0.25	0.19	-0.20	
6. Establishment age (years)	22.77	16.22	-0.19	0.14	0.002	-0.27	0.23
7. MSA population density	1070.00	1388.00	-0.11	-0.03	0.03	-0.07	0.05
8. MSA PEO density	18.65	15.03	0.03	-0.02	0.001	0.007	-0.007
9. MSA temporary staffing agency density	279.45	244.33	-0.12	-0.04	0.008	-0.13	0.08
10. MSA mean hourly wage	15.38	2.02	-0.18	-0.07	0.05	-0.15	0.06
11. Type of establishment (1 = PEO, 0 = Temporary staffing agency)	0.32	0.47	0.63	-0.06	-0.12	0.54	-0.33
12. Number of employees	141.38	941.24	0.03	0.04	0.17	0.0009	-0.02

^aN = 1317 (establishments), except for age where N=908.

Correlations greater than 0.06 are significant at $p < .05$.

TABLE 1 (continued)
Descriptive Statistics and Correlations^a

Variable	Mean	s.d.	6	7	8	9	10	11
1. Total services offered	16.57	12.85						
2. Multi-site establishment (1 = yes)	0.80	0.40						
3. Credit rating	2.19	0.69						
4. NAPEO member (1 = yes)	0.15	0.36						
5. ASA member (1 = yes)	0.32	0.46						
6. Establishment age (years)	22.77	16.22						
7. MSA population density	1070.00	1388.00	0.06					
8. MSA PEO density	18.65	15.03	-0.05	0.16				
9. MSA temporary staffing agency density	279.45	244.33	0.04	0.29	0.82			
10. MSA mean hourly wage	15.38	2.02	0.10	0.58	0.14	0.38		
11. Type of establishment (1 = PEO, 0 = Temporary staffing agency)	0.32	0.47	-0.45	-0.13	0.03	-0.17	-0.22	
12. Number of employees	141.38	941.24	0.09	0.10	0.002	0.03	0.06	-0.02

^aN = 1317 (establishments), except for age where N=908.

Correlations greater than 0.06 are significant at $p < .05$.

TABLE 2
Characteristics of PEOs and Temporary Staffing Agencies
(including t-tests for differences between means)^a

Characteristic	PEO Mean	Temp. Staffing Agency Mean	t-statistic ^d
Age (years)	13.09	26.57	15.33***
N Employees (all)	37.75	32.23	-0.47
N Employees (larger outliers deleted) ^b	13.29	16.76	2.16*
Sales (all)	\$434,000,000	\$186,000,000	-1.75
Sales (large outliers deleted) ^c	\$630,500	\$718,104	-1.70
Single-site establishment (1 = yes)	0.24	0.18	2.24*
Credit rating	1.93	2.04	5.62***

^a N = 24,201 for all variables except age where N = 908, and single-site where N = 1317.

^b Establishments with more than 250 employees not included (1.1% of sample).

^c Establishments with more than \$10 million in sales not included (1.39% of sample).

^d *p<.05, **p<.01, ***p<.0001.

TABLE 3
Mean Number of Services Offered by
PEOs and Temporary Staffing Agencies^a

Establishment Type	Administrative services^b	Staffing Services	Other Services^c	F-statistic^{d,e}
PEO	13.42	3.02	11.92	377.87***
Temporary Staffing Agency	2.53	5.21	3.36	150.18***

^aCells in the same row are significantly different from each other (as indicated by post-hoc Student-Newman-Keuls tests).

^bAdministrative services include benefits administration, insurance benefits, other benefits, and payroll and tax administration.

^cOther services include administration of the human resource function, compensation design, compliance/legal assistance, employee relations, discipline and termination, performance management, risk management, training and organizational development.

^d*p<.05, **p<.01, ***p<.0001.

^eFrom ANOVA predicting number of services of different types.

TABLE 4
OLS Regressions on Total Number of Services Offered^a

Variables	Model 1 ^b	Model 2 ^c	Model 3 ^d
Establishment type (1 = PEO, 0 = Temporary staffing agency)	15.67*** (17.79)		
Multi-site establishment (1 = yes)	4.63*** (6.48)	7.36*** (4.51)	2.58*** (3.82)
Credit rating	-0.27 (-0.66)	0.19 (0.18)	-0.66* (-1.70)
NAPEO member (1 = yes)	2.15 ⁺ (1.62)	-1.04 (-0.46)	6.00** (2.68)
ASA member (1 = yes)	3.87*** (5.99)	10.10*** (3.75)	3.46*** (6.65)
Establishment age (years)	0.09*** (3.91)	0.14 ⁺ (1.57)	0.09*** (5.02)
Imputed age (1=yes)	-1.05* (-1.74)	0.14 (1.57)	-1.20* (-2.12)
MSA population density	-0.0005* (-1.82)	-0.0007 (-0.74)	-0.0004* (-1.72)
MSA PEO density	0.04 (1.20)	0.17** (2.41)	-0.08** (-2.43)
MSA temporary staffing agency density	-0.002 (-0.79)	-0.01* (-1.98)	0.005** (2.54)
MSA mean hourly wage	-0.02 (-0.13)	0.08 (0.16)	0.03 (0.20)
Number of employees	-0.0004 (-1.19)	-0.0003 (-0.34)	-0.00004 (-0.11)
Sample selection bias indicator	-33.80*** (-3.97)	-62.92*** (-3.82)	-11.37 (-1.11)
Intercept	38.08*** (4.34)	74.59*** (4.43)	12.73* (1.68)
R ²	0.48	0.20	0.16
N	1213	381	831

^aParameter estimates are shown, with t-statistic in parentheses.

^bModel includes all establishments.

^cModel includes PEOs only.

^dModel includes temporary staffing agencies only.

⁺p<.10, *p<.05, **p<.01, ***p<.0001.

All p-values are based on one-tailed tests except for the number of employees and the sample selection bias indicator, which are based on two-tailed tests.

APPENDIX

Categories of Coded Services

(including the number of services coded in each category)

Category	Number of Services Coded
Administration of the Human Resource Function	9
Benefits Administration	4
Compensation Design (not payroll)	3
Compliance/Legal Assistance (not compensation/benefits related)	7
Employee Relations, Discipline, and Termination	11
Insurance Benefits	11
Other Benefits	7
Payroll and Tax Administration	11
Performance Management	2
Recruitment and Selection	16
Risk Management	11
Training and Organizational Development	8

