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Determinants of Preference for Contingent Employment

Janet H. Marler
Cornell University

George T. Milkovich
Cornell University

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Determinants of Preference for Contingent Employment

Abstract
This paper explores the determinants of preference for contingent employment using a national probability sample of temporary workers and independent contractors. A multi-level model of preference and multivariate analyses indicate that the opportunity cost of contract work, number of job opportunities, prior experience, human and financial capital, access to health benefits, prior experience, and work-family factors predict preference for contingent employment. These results are moderated by gender and by type of contingent work arrangement. Temporary workers differ from independent contractors and men differ from women with respect to which factors are associated with preference. The implications for organization human resource policy and social policy are discussed.

Keywords
work, contingent employment, alternative work arrangements, employment, job, men, women

Comments
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CAHRS
Center for Advanced Human Resource Studies

CAHRS / Cornell University
187 Ives Hall
Ithaca, NY 14853-3901 USA
Tel. 607 255-9358
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Janet H. Marler
George T. Milkovich

Working Paper 00 – 03

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Determinants of Preference for Contingent Employment

Janet H. Marler
School of Industrial and Labor Relations
393 Ives Hall
Cornell University
Ithaca, NY 14850
jhm15@cornell.edu

George T. Milkovich
School of Industrial and Labor Relations
Center for Advanced Human Resource Studies
393 Ives Hall
Cornell University
Ithaca, NY 14850
gtm1@cornell.edu

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This paper has not undergone formal review or approval of the faculty of the ILR School. It is intended to make results of Center research available to others interested in preliminary form to encourage discussion and suggestions.

ABSTRACT

This paper explores the determinants of preference for contingent employment using a national probability sample of temporary workers and independent contractors. A multi-level model of preference and multivariate analyses indicate that the opportunity cost of contract work, number of job opportunities, prior experience, human and financial capital, access to health benefits, prior experience, and work-family factors predict preference for contingent employment. These results are moderated by gender and by type of contingent work arrangement. Temporary workers differ from independent contractors and men differ from women with respect to which factors are associated with preference. The implications for organization human resource policy and social policy are discussed.

KEY WORDS: Contingent employment, Alternative Work Arrangements

Most people who work outside the home in the United States are employees of an organization. This was not always the case, but since the nineteenth century a gradual shift away from self-employment toward organizational employment meant that by 1970 estimated self-employment had fallen below 7 percent (Aronson 1991). Over the last twenty-five years this trend has reversed. Over the same period, temporary employment arrangements have been growing at rates much greater than the growth of the overall workforce (Segal 1996). Given these trends, many wonder if the U.S. is becoming a nation of contingent workers and what this portends for employment practices and policies (Barker and Christensen 1998; Belous 1989; Pfeffer 1988; Segal and Sullivan 1996).

Some scholars think that these changes indicate that internal labor markets are changing and that organizations may be moving back (ward) to nineteenth century market-mediated structures (Capelli et al. 1997; Pfeffer 1988). They warn of greater employee exploitation, elimination of job security, and reduced incentives to develop skills and train employees (Barker and Christensen 1998; Cappelli and Sherer 1991). Others view these developments as the inevitable outcome of a post-industrial service-based economy which is making it possible for individuals to have greater career freedom and autonomy (Albert and Bradley 1997; Bradach 1997; Miles and Snow 1996; Rousseau 1995). New organizational structures reflect the evolution of organizations away from control oriented bureaucracy toward more agile flexible structures based on a wider variety of employment relationships. Rather than a group of exploited workers, many are empowered, the ultimate in “employability,” no longer dependent on organizations for careers and job security.

Are people outside organizational employment relationships struggling to survive in this postindustrial era or are they embracing freedom and flexibility? Recent studies have addressed this implicit debate, going beyond espousing one perspective or another. Kunda, Barley & Evans (1999) in a qualitative study, interviewed 52 technical contractors and found that contractors both valued their independence from organizational politics, incompetence and inequity but were also concerned about the external economy, job security, and employability. Lautsch (1999) showed how organizational choice of cost containment or flexibility strategies in two high technology organizations shaped the experiences of temporary workers, some positively and others not. Jurik (1998) using a sample of self-employed home based workers found advantages and trade-offs were often related to an individual’s social location and resources. These studies point to a number of environmental contingencies that influence how various types of contingent employees experience their contingent work arrangements. While

they address the question of why individuals choose to operate outside organizational boundaries they have done so using small sample qualitative research methodologies.

This paper applies a quantitative methodology using a national sample of contingent workers to examine the question of preference for contingent employment. It systematically examines factors associated with preference for contingent work and compares two main groups of contingent employees, independent contractors and temporary workers. It expands existing research by studying a broader sample of contingent work arrangements, across all occupations and skill levels.

We find that despite significant differences in the demographic profiles of temporary agency employees and independent contractors many of the same underlying factors, opportunity wage, gender norms, work and family, human and financial capital, access to health benefits and prior experience predict preference for contingent work. Independent contractors and temporary workers do differ, however. Independent contractors resemble the "empowered" perspective on contingent work and temporaries illustrate the concerns raised by the "exploited" perspective. Gender also moderates the effect of these factors on preference. Implications for organizational practice and social policy are discussed in the conclusion.

Definition of contingent employment

There are several definitions of contingent employment in the literature, which makes research in this area problematic. Early scholars defined the contingent work force very broadly. For example, Belous (1989) defined contingent employment to include the self-employed, temporary workers, part-timers, and business services. Using this definition, he estimated 30% of the total civilian labor force was in contingent employment. Another more recent definition developed by the Bureau of Labor Statistics (BLS) is "any job in which an individual does not have an explicit or implicit contract for long-term employment" (Polivka 1996: 4). Using this definition, in 1995 and 1997 about 2.2 - 4.9 percent of the work force were contingent.

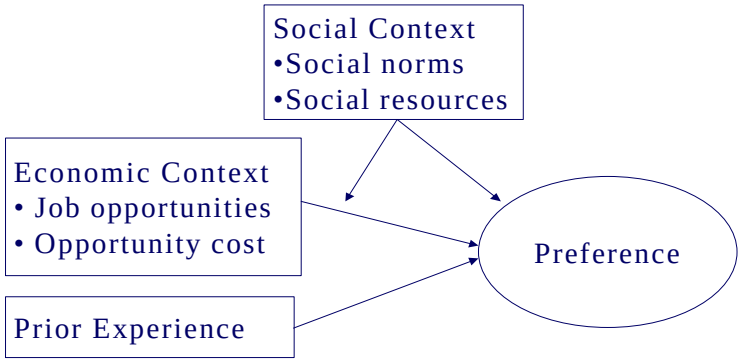
With the BLS definition the duration of the employment contract is the defining characteristic rather than whether the employment is internal or external to the organization. A third definition, one the BLS labels alternative work arrangements, "AWA" (See Polvika 1996 for a complete discussion) is consistent with earlier conceptions of contingent work. The BLS defines AWA as " individuals whose employment is arranged through an employment intermediary such as a temporary help firm, or individuals whose place, time, and quantity of work are potentially unpredictable (Polivka 1996 p.7). About 30% - 40% of individuals in AWA also fall within the BLS definition of contingent work.

In this study the definition of contingent work is the same as the BLS's definition of AWA. Using this definition, about 10% of the workforce is in contingent employment, of which about two-thirds are independent contractors and 10% are temporaries (Cohany, 1998).

Preference for Contingent Employment: A Theoretical Model

To identify factors associated with preference for contingent employment, we draw on three theoretical models: organizational withdrawal (Hulin 1991), the social information processing model (Salancik & Pfeffer, 1979), and utility of self-employment (Blanchflower & Oswald 1992). In the work attitude literature Hulin's (1991) work on organizational withdrawal and Salancik & Pfeffer's social information processing model both identify factors external to the organization that affect work attitudes. These two models are particularly appropriate for contingent workers who work outside the organizational core. Hulin, Rozniosky & Haichya (1985) propose that economic context and prior experiences form frames of references against which an individual evaluates their current work experience. Economic context influences the frame of reference because it forms a baseline or adaptation level against which actual outcomes of work are compared. Salancik and Pffeffer (1979) propose that social context influences how individuals evaluate their work. Drawing from social comparison theory (Festinger 1957; Singer 1981) and self-attribution (Bem 1972), they argue that group norms and prior behavior provide cues from which individual infer their own attitude. Finally, from a rational economic perspective, Blanchflower and Oswald (1992) propose that most individuals do not have the capital necessary to support self-employment and therefore those that do have less competition and can earn higher returns to their labor, resulting in greater satisfaction. The model in Figure 1 integrates these three models. It depicts preference for contingent work as a function of economic context, social norms, prior behavior and capital.

Figure 1
Model of Determinants of Preference for Contingent Employment



Economic Context

Smith et al. (1969) and Hulin et al. (1985) both propose that economic context, particularly the number of job opportunities in the external labor market and the opportunity cost of work, act as a frame of reference which effects how information is processed and thus directly influences attitude toward work. The relationship between these two factors and preference for contingent employment as depicted in Figure 1 is discussed below.

First, as the number of job opportunities increase employees expect better outcomes because they see increased demand affecting others outcomes favorably. Those in traditional work arrangements, however, are likely to become dissatisfied because internal labor markets do not respond rapidly to changing external labor demand (Levine 1993;Osterman 1994). The empirical evidence seems to support the negative relationship with samples of employees in traditional work arrangements (See Hulin et al. 1985 for a review). It is not clear, however, whether the latter relationship exists for contingent employees who operate outside internal labor markets.

In the external labor market the opposite relationship between job opportunities and work satisfaction should exist. For those in contingent work, increases in the number of job opportunities should represent job security because it signifies more assignments. Further, if poor economic conditions result in a limited number of traditional jobs then the probability of transitions into traditional jobs decline and the likelihood of being involuntarily in contingent work increased. As economic conditions improve, however, more traditional positions become available, making it easier for these people to find traditional jobs. Those remaining in contingent work are likely to be more satisfied. Van Dyne & Ang (1998) make this argument regarding contingent work, suggesting in Singapore where labor demand is extremely high and labor markets very tight, contingent workers are more likely to prefer their contingent status. They do not, however, test this premise. Thus the following relationship is proposed:

<u>Proposition 1</u>

There will be a positive relationship between the number of job opportunities and individual has and their preference for contingent employment.

Economic theory predicts that information about the external labor market, i.e. what others are earning or what others are prepared to pay, determines behavior. Information about job alternatives and wages in the external labor market provides individuals with relevant information for making decisions about how to maximize returns to their labor inputs. March & Simon (1959) suggested that individuals regularly compare organizational rewards against what could be earned elsewhere. Individual satisfaction or attitude toward their work is influenced by

how returns to outside job opportunities compare to returns currently experienced. The opportunity cost of being in contingent employment represents the work returns that that individual could earn in traditional employment. As March & Simon's model suggests the greater the opportunity cost in relation to the returns earned from contingent employment the lower the likelihood of preference, which leads to the following hypothesis:

Proposition 2:

The greater the opportunity cost in relation to the returns earned from contingent employment the lower the likelihood of preference for contingent employment.

Social Context and Preference for Contingent Work

Salancik & Pfeffer (1978) in their social information-processing model argue that social context plays a primary role in attitude formation. According to the social information processing model, individuals construct their own reality, and in particular they "construct" what they perceive as job tasks and environmental characteristics. They do this by using information others provide as a guide for deciding what to attend to and recall, and in this way individuals make sense of the job they are in. The more complex and uncertain the environment, the more individuals rely on others for information. Thus, the social environment in which the contingent worker operates influences what information is noticed encoded or retrieved. Social information comes from family, co-workers, or those in proximal social networks, those that are similar to the individual and can provide the most relevant information. These "similar others" influence attitudes by drawing attention to certain aspects of the environment and making particular information/beliefs more salient than others. Hence, the influence of social context on preference for contingent work is depicted in Figure 1.

Cultural norm theories (see Kiecolt 1988) from which the social information processing model is derived assume attitudes are transmitted during group socialization and through group values. These theories adduce social learning, social acceptance, and association with groups as determinants of attitudes (Kiecolt 1988). The cultural view focuses on social roles and depicts attitudes as a product of social norms and values that are built into and enacted in social roles. Individuals learn about social roles through a socialization process that begins at birth. Through this process individuals selectively acquire skills, knowledge, attitudes, values and motives from the groups in which they are or will become members (Mitsch & Simmons 1981). These norms, values, and attitudes eventually become so internalized they are no longer noticed (Stryker & Statham 1985). In this way they become institutionalized and thus society and social roles are reproduced with each succeeding generation (Mitsch & Simmons 1981).

Gender roles[1] and norms are widespread influences on beliefs, attitudes and behaviors (Gutek, Searle & Klepa 1991; Moen 1992). According to the social information processing perspective and cultural norm theory even "non-traditional" work structures should reflect deeply embedded gendered social norms. Some scholars have pointed to the dramatic increase in part-time work, temporary work and self-employment among married women as an example of non-traditional structures that have emerged to accommodate working women (Belous 1989; Blau Ferber & Winkler 1997; Giele 1998; Feldman 1990; Feldman, Doerpinghaus & Turnley 1995). But other scholars argue, these arrangements reproduce gendered and racial/class stereotypes (Barker & Christensen 1998). Further, research on work and family conflict have shown that in traditional employment arrangements, men and women who do not conform to traditional gendered roles, where the man has a salient work role and the women a salient family role (e.g. role specialization) experience greater stress, greater work- family conflict, lower job satisfaction and life satisfaction (Bailyn 1993; Clarkberg and Moen 1998; Duxbury and Higgins 1991; Gutek, Searle & Klepa 1991; Moen and Yu 1998; Wickrama et al. 1995). What is unclear is whether these non-traditional work arrangements facilitate conformity with gender roles regarding work and family or whether they promote change by accommodating women who want to work. Culturally based role theory predicts social sanctions deter challenges to group norms. In this perspective even "non-traditional" work structures should reflect deeply embedded gender norms.

Gender norms regarding work and family roles are most strongly experienced by married men and women (Moen 1992; Moen and Yu 1998; Moen and Yu 1999). Thus the following proposition is proposed:

<u>Proposition 3a</u>

There will be differences between married men and women with regard to rationales for being in contingent work. *Married women will be more likely have family-centered reasons and married men will have work-centered reasons*.

Some theorists assert that social structures are not immutable because they are subject to modifications by the individuals who enact the roles that constitute them (See for example Barley 1989; Giddens 1984). Individuals create and change social structures, although often slowly, which gives the impression that culture and social norms exert strong influences on

[1] There are several other roles that could illustrate this. For example, those involved in the study of aging and the life-course view age and, cohort as affecting social roles, behavior and attitude (Moen, Dempster-McClain & Williams 1989; Riley 1996). Similarly race and class (Shu & Marini 1998) are also social phenomena, which have effects on behavior and attitude. In this study, gender will be examined in detail and other social roles will be held constant and treated as control variables. Their effect on attitude formation as it relates to this model awaits future research.

attitudes, beliefs and behavior. For example, it took over a hundred years before lawmakers addressed obvious structures that disadvantaged women in the domain of work. Despite these structural changes, women still remain in female dominated occupations (Shu and Marini 1998) or in the lower rungs of male occupied high status occupations (Blau Ferber & Winkler 1997). These positions continue to reward dropping the work role in favor of the family role because the likelihood of role renegotiations in the work domain is low and the costs of leaving the role are typically still lower for married women than men. The reward for dropping the work role is also higher for women than men because married women still spend many more hours, as much as three times more per week, fulfilling their family roles than men (Daphne & Shelton 1994; Blau, Ferber & Winkler 1998). Because overt behaviors support the prevalent norms, rational explanations for the behavior often involve invoking attitudes and values supportive of the social role and creating reinforcing feedback effects (Bem 1972; Salancik and Pfeffer 1978). Thus if social structure and social roles are reinforcing then contingent work arrangements should continue to reflect gendered attributes similar to traditional work arrangements. For example, traditional work arrangements are occupationally segregated by gender even though the gap has decreased in the last decades (Blau et al. 1997; Goldin 1991). The following is therefore hypothesized:

Proposition 3b

There will be gender differences with respect to the occupational distribution of contingent workers. Women will be clustered disproportionately in occupations, typically considered female occupations (e.g. clerical, service) and men will be disproportionately clustered in other occupations, typically considered male occupations (construction, executive administration).

Finally, if proposition 3 a (married women are more family-centered, thus influenced by gendered work-family norms) and proposition 3b (but work in occupations that reflect gendered norms) are true then married women are no more likely to prefer contingent work than traditional work arrangements. They are likely to face the same degree of work and family conflict.

Proposition 3c

Married women are no more likely to prefer contingent work to traditional work than others.

To the extent these untraditional work arrangements do, however, provide family-centered benefits, such as flexibility and reduced hours of work, then these would be associated with preference for contingent work. If these are perceived as attributes of contingent work they should be associated with preference because they help reduce work-family conflicts. Indeed in

a meta-analysis of the work-family literature, Kossek et al. (1998) found a strong association between reduced work-family conflict and job satisfaction. Thus the following is also proposed:

Proposition 3d

Married women who perceive contingent work as providing greater flexibility to balance work and family are more likely to prefer contingent work.

Social resources and preference for contingent work

Blanchflower & Oswald (1992) assert that self-employed entrepreneurs have higher utility than traditional wage and salary workers because capital constraints prevent the equalization of utility between the marginal wage and salary employee and the self-employed. To test their proposition they use job satisfaction as proxy for utility and use data from the General Social Survey 1972-1990 in the U.S. and from the 1981 National Child Development Study in Britain. They found that the self-employed were significantly more satisfied than all other employees after controlling for gender, age, marital status, location, occupation, industry and education[2].

Applying neoclassical theory of labor supply from labor economics to contingent work suggests that contingent workers who have more resources or capital are more likely to obtain better job matches and therefore maximize their well-being. Hence, financial capital is depicted in Figure 1 as a determinant of preference for contingent work and the following relationship is proposed:

Proposition 4

Contingent workers with greater capital are more likely to prefer contingent work than traditional work.

Gender as a Moderator of Preference for Contingent Work

Earlier we proposed that the beliefs about contingent work would vary by gender . Here we propose that men and women may also vary in how they evaluate the costs and benefits of their work arrangement. There is an extensive literature documenting gendered job preferences. In general these studies have shown that men express greater concern for pay and promotion while women are interested in social relations, meaningful work and flexibility (Tolbert & Moen 1998). Even though recent studies have shown that these gender differences have diminished over time or after occupation is controlled, Tolbert & Moen (1998) still found in a longitudinal

[2] They deliberately excluded income data because they argued that utility was a function of monetary and nonmonetary factors and they specifically did not want to control for monetary factors.

study of married men and women's job preferences from 1973 - 1994 that gender differences exist.

Changing economic conditions affect labor demand and wages more rapidly than they affect other aspects of job design and benefits. These changes therefore are likely to affect men more than women. The following moderated relationship is proposed:

Proposition 5

The effect of economic conditions on preference for contingent work will vary by gender. There will be a stronger relationship between preference and economic conditions for men than women.

Individual Behavior as a Context for Preference

Applying a behavioral paradigm[3], Bem (1972) and Salancik & Pfeffer (1979) suggest that individuals infer an attitude by observing their own behavior. The longer they perform this work, the more public it is, the more they become invested, and the more likely they will infer a positive attitude from the behavior. Thus the following is proposed:

Proposition 6:

Individuals with greater tenure in contingent work are more likely than those just beginning contingent work to prefer it to traditional work arrangements.

Data

Data for this study consist of temporary agency employees and independent contractors surveyed in the CPS Contingent Worker Supplement in 1995 and in 1997, who were employed at the time of the survey. The Current Population Survey (CPS), Contingent Work Supplement is a monthly survey series collected by the Bureau of the Census for the Bureau of Labor Statistics (BLS) and is the source for official government statistics on employment. Households are scientifically selected to represent the nation as a whole and household participants are surveyed once a month for four consecutive months a year and again for the corresponding time period a year later (U. S. Dept. of Commerce 1995). The 1995 and 1997 Contingent Work Supplement consists of a set of additional questions asked of household participants who had a job or were looking for a job and were available for work during the month of February. The

[3] A cognitive perspective predicts the same relationship but for different reasons. For a discussion see (Marler 1999).

sample used in this study consisted of 421 temporary workers and 3063 independent contractors with no missing data[4].

Temporary agency workers and independent contractors were chosen for several reasons. First, these two types of contingent worker are the most frequently studied in the literature. Second, independent contractors are the largest category of contingent worker, two-thirds of contingent workers are independent contractors. Temporary workers, while a small category, about 9% of contingent workers, are the fastest growing segment of the work force (Segal 1996) and independent contractors after a period of decline appear to be growing (Aronson 1990; Kalleberg et al. 1997). Finally, temporary agency workers and independent contractors[5] are more likely to also be classified as "contingent" workers under the BLS definition.

Measures

Dependent variable

In this study, preference for contingent work is measured with a single-item attitude measure[6]. The question asks the respondent to make a judgement (do they prefer or not) about their work arrangement. Those who worked for temporary help agencies were asked "Earlier you said you were paid by a temporary help agency. Would you prefer a job with a different type of employer?" Response choices were bi-polar categorical response categories: yes, depends, or no. These were coded as 0 for yes, 1 for depends, and 2, for no. Those who were categorized as independent contractors were asked, " Would you prefer to work for someone else rather than being an independent contractor/self-employed?" The same response choices were provided. Although separate questions, each captures the level of satisfaction with a particular contingent work arrangement.

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[4] An analysis of those cases with missing data show that there were no significant differences in preference for contingent work, marital status, race, location or reasons for contingent work. Independent contractors who had missing data were more likely to have lower family income, be male and be older. Temporary workers with missing data were more likely to be part-time and be in occupations with a higher rate of unemployment. These differences do not indicate any obvious pattern of bias that would affect the validity of the results.

[5] Independent contractors are more likely to be in the BLS contingent work force based on absolute size compared to the other alternative work arrangements. As a proportion, however, they are the least likely, and temporary workers the most likely.

[6] Several recent studies of single item measures have shown that some have very acceptable reliability, particularly, one-item job satisfaction measures (Fishbein and Ajzen 1980; Scarpello and Campbell 1983; Wanous, Reichers, and Hurdy 1997). Wanous and colleagues, in a meta-analysis of one-item job satisfaction measures estimated reliabilities of .70, which is highly acceptable. Similarly, in an earlier study of a single item job satisfaction, Scarpello and Campbell (1983) reported the same results. Fishbein & Azjen (1980), social psychologists, suggest that one-item attitude measures are adequate if they capture the essence of attitude, which is an individual's evaluative response toward the attitude object. Finally, Ellinson and colleagues (1998) compared a more complex measure of preference for temporary work to a simple dichotomous measure of preference and found no significant difference in their relationships to outcomes.

Independent variables

Alternative Job Opportunities.

Two measures of job opportunities are used. One follows Hulin and colleagues (1985) who suggest occupational unemployment as a measure alternative job opportunities. The measure is a ratio of the number of unemployed and looking for employment divided by the number of employed, categorized by two-digit occupation code. The measure represents current unemployment as of the time of the survey, February 1995 or 1997, and was matched to each respondent based on their stated occupation. Prior studies using unemployment data in relation to work attitudes have used BLS data but not had the benefit of using contemporaneous or as detailed measures (c.f. Shikiar and Freudenberg 1982).

Projections of occupational employment growth are also used to measure occupational opportunity. Similar to Dreher & Dougherty (1980) who developed a scale that represented the supply-demand characteristics of specific occupations reported by the U.S. Department of Labor in their Occupational Outlook Quarterly, this measure is based on the same data source. The U.S. Department of Labor's projected employment growth by two-digit occupational code is used. The projected growth is arrived at based on detailed projections of supply and demand changes by industry, by occupation, within the U.S for the period 1996-2006 and then reported both in terms of absolute change in employment numbers and in percentage change (See Labor 1998). In this study the percentage change is used.

Opportunity Cost

Opportunity cost is measured as the difference between what the contingent worker is currently earning and the wage of an equivalent traditional work arrangement. Opportunity wage is measured as the difference between actual and predicted log hourly wages based on co-worker characteristics which include human capital attributes of individuals. The following equation depicts how this measure was derived based on wage equations used by Krueger & Summers (1988)

$$\mathbf{W_{pi} = X_i\beta + Y_i\beta + Z_i\beta \qquad + \varepsilon_i}$$

where W_{pi} is the predicted log hourly wage for employed individual i, X_i a vector of human capital variables for individual i that include education, age and its square; Y_i is a vector of geographic variables including region of the country and dummies indicating central city, mixed or rural location; Z_i is a vector of social variables including gender, race, number of children, marital status, marital status x gender, and gender x age ; ε_i is an error term, and are

parameters to be estimated based on a national sample population of employed men and women,

$$R_I = A_i - Wp_i$$

where R_i is the difference between the individual's actual log hourly wage, A_i and the predicted outcome, W_{pi}, The residual, R_i represents a measure of relative outcome.
Large positive residuals indicate better relative performance and should be related to positive attitude, whereas, negative residuals indicate poorer relative outcome, a high opportunity cost, creating a sense of relative deprivation and increasing the probability of a negative attitude to ward the work arrangement.

Social Roles: Gender and Work and Family

Measures of social roles include several demographic variables typically used to measure these embedded influences. They include sex, marital status, and an interaction of marital status and sex to capture the gendered role expectation for married women. These variables are represented as categorical, 0 or 1, indicators. Gender is a variable that has the value 1 if male and 2 if female. Marital status is a dummy variable that has the value of 1 if married, spouse present and 0 if not married, divorced or separated.

Capital

Capital can consist of financial wealth and human capital. An individual's wealth is often measured by family assets or income and socio-economic status (Kammeyer, Ritzer & Yetman 1994; Kiecolt 1988) such as education, occupational prestige, and family income measure the level of social resources and privilege an individual has in society. In economics, education is a measure of human capital and human capital theory posits a positive relationship between education and earnings (Becker 1993).

A three-item scale is created to measure capital: education, family income, and occupational prestige are described below. Each variable is standardized with a mean 0, and standard deviation 1 and then summed. The inter-item correlation of these three variables is .434 and the alpha coefficient of the scale is .70. Each variable measured is described below.

Education is a categorical scale that indicates 16 levels of educational attainment. It is ordinal with the lowest attainment level being less than first grade and the highest, a doctorate degree. The actual measure converts this scale into number of years of education. Less than 9th grade educational attainment is treated as an average of 8 years of education. A high school diploma represents 12 years, a college degree represents 16 years and a doctorate 21 years.

Occupational prestige is measured by assessing the social standing of occupations identified in the 1980 census code of occupations (See Nakao and Treas 1990).

Family income is defined as the combined income of all family members during the last 12 months. It includes money from jobs, net income from business, farm or rent, pensions, dividends, interest, social security payments and any other money income received by family members who are 15 years of age or older. The response scale represented 14 categorical ranges. The lowest range representing less than $5,000 and the highest range defined as $75,000 or more. Each range was converted into a dollar amount, which represented the average of the two endpoints in each category range. For example, the lowest range represented 0 to 5,000. The average of these two amounts is 2,500. The highest range was estimated as the average of 75,000 and 250000, a conservative estimate given the high end is highly skewed.

Access to health insurance in the United States is primarily available through employer benefits. Both Houseman (1997) and Abraham & Taylor (1996) indicated that a major reason employers used contingent work arrangements is to avoid providing costly employee benefits. Included in the model is a one-item measure that indicates whether the individual has access to health insurance. The dummy measure has a value of 1 if the individual answered yes to the question, “Do you have health insurance from any source?”

Economic and Family Reasons for Contingent Work

In the CPS survey individuals in alternative work arrangements were asked “What is the MAIN reason you (have a temporary job/ are an independent contractor)?” The response choice consisted of sixteen attributes of these work arrangements. The 16 possible responses can be placed in four groups: work-centered, involuntary-economic, other personal and family-centered. Work related dimensions include “own boss”,” money is better” and” training”. Involuntary-economic reasons represented those who indicated: “this was only type of work could find”, “hope leads to a permanent job”, “laid-off and rehired as contingent worker”, “other economic”, which Kalleberg et al. (1998) categorize as “economic reasons”. Other voluntary personal reasons included health limitations, social security limitations, in school, and other personal Family-centered reasons included child-care, other family/personal obligations, and flexible schedule, following the classification used by Kalleberg et al. (1998) and Splater-Roth et al. (1998). Another variable, part-time status was also included in this group. Part-time status was an indicator with a value of 1 if the individual worked more than 35 hours and a value of 2 if the individual worked less than 35 hours.

Prior Behavior

In this study tenure represents the number of months that the individual has worked in the contingent work arrangement.

Control Variables

Several studies have shown that age is significantly and positively related to job satisfaction (Cherrington, Condie & England 1979; Glen, Taylor & Weaver 1977; Lorence 1987; Mitchell 1998). There are various explanations for this relationship, including a cohort effect in that older generations might value work differently(Glen, Taylor & Weaver 1977; Lorence 1987), developmental effects and socialization (Cherrington, Condie & England 1979; Lorence 1987), job rewards tied to seniority (Cherrington 1979; Lorence 1987) and finally a self-selection effect because those who age and remain in the work force are those who are satisfied with work (Mitchell 1998). Each explanation has received empirical support. Consequently age, measured as number of years from birth is a control variable to account for these possible effects.

Race is also considered a control variable. Blacks experience wage discrimination (Johnson and Neal 1996), have lower quality of education (Card & Krueger 1996) and experience greater unemployment (Blau, Ferber & Winkler 1997) compared to whites. These significant economic differences by race should affect an individual's beliefs about alternative work arrangements and therefore attitude indirectly. They may also affect attitude directly through comparison of outcomes and also through the fewer job opportunities available to those who are not white.

A dummy indicating whether the individual is located in a downtown metropolitan area is used to control for variation in contingent work opportunity.

Method

Ordered logistic regression was used to test the model and propositions because the dependent variable consisted of an ordered categorical response (Long 1997). While an ordered logistic regression model is of general linear form (Agresti 1996), the relationship of the explanatory variables to the dependent variable is not linear and depends on the levels and relationship magnitudes of the other variables[7].

To test the propositions, the independent variables are entered separately as blocks, after the control variables to assess their contribution to likelihood of preference. The data are

also analyzed separately by contingent work type. This is done for several reasons. First, each type is asked separate questions about their preferences. Second, Cohany (1998) established that individuals in these two types of contingent work vary substantially on a number of demographic characteristics and also in the frequency with which they indicated a preference for their work arrangement. Finally, if combined the sample would consist of an unequal weighting of 3,063 (88%) independent contractors and only 421 (12%) temporary workers and skew the estimated parameters. Consequently the same model was tested on separate samples of independent contractors and temporary workers.

Results

The variable means and correlations appear on Table 1 for temporary agency employees and Table 2 for independent contractors. About 28% of the 421 temporaries reported they preferred their work arrangement, 5% answered it depends, and 67% who reported they preferred a traditional employment arrangement. In contrast, of the sample of 3,063 independent contractors who reported preference, 88% preferred their contingent work arrangement, 5% were undecided, and only 9% wanted a traditional employment arrangement.

The means of the independent variables for both temporary workers and independent contractors depict similar differences. Independent contractors have lower occupational unemployment, 4.7% compared to 4.8% for temporary workers. Independent contractors are in occupations with higher projected growth, 17% compared to 11%, and report little opportunity wage difference compared to traditional workers, -2% versus –11% for temporary workers.

Independent contractors were more likely to be older (44 years vs. 35 years) married (68% versus 40%), and male. They were more likely to have health care benefits, 75% compared with 49% for temporary workers. They are also had greater socio-economic resources, about 10% of a standard deviation above the mean compared with 20% of a deviation below the mean for temporary workers.

[7] This aspect of the model makes it more complex to interpret the results beyond noting relationship significance. The sign of the parameter estimates do not necessarily indicate the direction of the marginal effect, although they do suggest the overall general direction of the relationship such as increasing or decreasing (See Greene 1997; Long 1997)

Table 1

Variable Means and Correlations

Temporary Employment

		Mean	S.D.	1	2	3	4	5	6	7	8	9
1	Preference	0.62	0.89									
2	Unemployment	0.05	0.03	-0.08								
3	Occupational growth	10.87	16.15	0.06	-0.38 *							
4	Opportunity wage-coworker	-0.15	0.43	0.11 *	-0.10 *	0.07						
5	Opportunity wage-other	-0.12	0.46	0.12 *	-0.23 *	0.17 *	0.89 *					
6	Prior experience	15.50	30.50	0.19 *	-0.10 *	0.10 *	-0.05	0.01				
7	Marital status	0.40	0.49	0.12 *	-0.11 *	0.08	0.03	-0.03	0.01			
8	Gender	1.58	0.49	0.09	-0.14 *	-0.08	-0.07	0.06	0.02	0.07		
9	Married woman	0.25	0.43	0.15 *	-0.10 *	-0.01	-0.04	-0.02	0.00	0.71 *	0.49 *	
10	Resources	-0.22	0.66	0.13 *	-0.63 *	0.46 *	0.20 *	0.24 *	0.12 *	0.21 *	-0.04	0.12 *
11	Health benefits	0.49	0.50	0.15 *	-0.19 *	0.15 *	0.15 *	0.15 *	0.03	0.25 *	0.05	0.22 *
12	Flexible schedule	0.16	0.37	0.36 *	-0.07	-0.05	0.05	0.06	0.17 *	0.13 *	0.16 *	0.20 *
13	Family obligations	0.03	0.17	0.11 *	-0.03	0.07	0.03	0.04	-0.02	0.08	0.10 *	0.12 *
14	Independence	0.02	0.13	0.16 *	-0.03	0.15 *	-0.06	-0.05	-0.02	0.12 *	-0.04	0.05
15	Experience/Training	0.01	0.11	0.00	0.01	-0.01	-0.04	0.01	-0.03	0.00	0.05	0.04
16	Part time status	1.15	0.36	0.20 *	0.02	0.10 *	0.05	0.03	-0.05	0.05	0.06	0.06
17	Age	35.02	12.03	0.10 *	-0.17 *	0.07	-0.14 *	-0.18 *	0.25 *	0.36 *	0.10 *	0.20 *
18	Race	0.18	0.39	-0.10	0.13 *	-0.03	-0.08	-0.04	-0.04	-0.15 *	0.00	-0.13 *
19	Metropolitan location	0.37	0.48	0.02	0.04	0.00	-0.03	-0.04	-0.01	-0.09	0.01	-0.05

*** = p <.05 N=421**

Table 1 Continued

Variable Means and Correlations

Temporary Employment

		10	11	12	13	14	15	16	17	18
1	Preference									
2	Unemployment									
3	Occupational growth									
4	Opportunity wage-coworker									
5	Opportunity wage-other									
6	Prior experience									
7	Marital status									
8	Gender									
9	Married woman									
10	Resources									
11	Health benefits	0.31 *								
12	Flexible schedule	0.08	0.04							
13	Family obligations	0.03	0.08							
14	Independence	0.08	0.09							
15	Experience/Training	0.04	-0.02							
16	Part time status	-0.03	0.08	0.08	0.15 *	0.05	-0.05			
17	Age	0.19 *	0.09	0.13 *	-0.01	0.12 *	-0.04	0.03		
18	Race	-0.23 *	-0.18 *	-0.04	0.13 *	-0.06	-0.05	0.04	-0.04	
19	Metropolitan location	-0.09	-0.11 *	0.00	0.06	0.02	-0.04	0.08	-0.02	0.29 *

*** = p <.05 N=421**

Table 2

Variable Means and Correlations

Independent Contractor

		Mean	S.D.	1	2	3	4	5	6	7	8	9
1	Preference	1.76	0.61									
2	Unemployment	0.05	0.03	-0.08 *								
3	Occupational growth	17.09	16.19	0.01	-0.39 *							
4	Opportunity wage-coworker	0.01	0.78	0.06 *	0.01	0.00						
5	Opportunity wage-other	-0.02	0.80	0.06 *	-0.03	0.02	0.96 *					
6	Prior experience	117.00	116.40	0.15 *	-0.05 *	-0.07 *	0.07 *	0.07 *				
7	Marital status	0.68	0.47	0.07 *	-0.06 *	0.01	0.04 *	0.01	0.06 *			
8	Gender	1.36	0.48	-0.01	-0.10 *	0.10 *	-0.07 *	-0.04 *	-0.18 *	-0.01		
9	Married woman	0.24	0.43	0.02	-0.09 *	0.08 *	-0.05 *	-0.04 *	-0.14 *	0.39 *	0.75 *	
10	Resources	0.09	0.82	0.11 *	-0.55 *	0.31 *	0.08 *	0.12 *	0.07 *	0.12 *	-0.06 *	0.00
11	Health benefits	0.75	0.43	0.11 *	-0.22 *	0.10 *	0.08 *	0.07 *	0.14 *	0.20 *	0.06 *	0.10 *
12	Flexible schedule	0.23	0.42	0.05 *	0.01	0.02	-0.03	-0.02	-0.10 *	-0.02	0.20 *	0.16 *
13	Family obligations	0.04	0.20	-0.05 *	-0.01	0.05 *	-0.04 *	-0.08 *	-0.10 *	0.04 *	0.23 *	0.23 *
14	Independence	0.38	0.49	0.19 *	0.00	-0.05 *	0.03	0.03	0.18 *	0.05 *	-0.18 *	-0.14 *
15	Experience/Training	0.00	0.07	-0.03	-0.02	0.02	0.01	0.01	-0.03	-0.02	-0.01	-0.01
16	Part time status	1.28	0.45	-0.05 *	0.00	-0.03	0.07 *	0.07 *	-0.08 *	0.03	0.33 *	0.32 *
17	Age	44.22	12.31	0.12 *	-0.13 *	0.00	-0.02	0.00	0.54 *	0.11 *	-0.09 *	-0.08 *
18	Race	0.05	0.21	-0.09 *	0.04 *	0.01	-0.01	-0.01	-0.08 *	-0.09 *	0.02	-0.03
19	Metropolitan location	0.25	0.43	-0.067 *	-0.07 *	0.10 *	0.02	0.02	-0.06 *	-0.14 *	0.03	-0.04

*** = p <.05 N=3063**

Table 2 Continued

Variable Means and Correlations

Independent Contractor

		10	11	12	13	14	15	16	17	18
1	Preference									
2	Unemployment									
3	Occupational growth									
4	Opportunity wage-coworker									
5	Opportunity wage-other									
6	Prior experience									
7	Marital status									
8	Gender									
9	Married woman									
10	Resources									
11	Health benefits	0.32 *								
12	Flexible schedule	-0.04 *	-0.02							
13	Family obligations	-0.07 *	0.00							
14	Independence	0.03	0.04 *							
15	Experience/Training	0.04	0.01							
16	Part time status	-0.07 *	0.01	0.16 *	0.14 *	-0.17 *	-0.03			
17	Age	0.12 *	0.18 *	-0.04 *	-0.14 *	0.12 *	-0.02	0.05 *		
18	Race	-0.10 *	-0.12 *	0.02	0.01	-0.05 *	-0.01	0.00	-0.03	
19	Metropolitan location	0.10 *	-0.04 *	0.03	0.00	-0.07 *	0.04 *	0.00	-0.04 *	0.18 *

*** = p <.05 N=3063**

Economic Context

Hypothesis 1 stated that those contingent workers experiencing favorable economic conditions would be more likely to prefer contingent work. As shown on Tables 3 and 4, hypothesis 1 is supported for independent contractors but not for temporary workers. When the two measures of economic conditions: occupational unemployment and projected occupational growth are entered as a block,[8] model fit improves significantly for independent ($\Delta \chi 2$ (2) = 11 $p<.01$) as shown on Table 5.4 but not for temporary workers shown on Table 3.

Opportunity Cost

The second hypothesis stated that preference for contingent work is negatively related the opportunity wage calculated as the difference between an individual's contingent wage rate and those in traditional work arrangements. Large negative differences, indicating a high opportunity cost, would be associated with a lower probability of preference, whereas large positive differences, indicating no opportunity cost, would be associated with a high probability of preference. The opportunity wage varied significantly within and across work arrangements. Temporary employees earned about 14% less than those in traditional employment even after controlling for education, experience, geographic location, gender, marital status and race. In contrast, independent contractors earned about the same as those in traditional work arrangements.

The data support hypothesis 2 for both temporary workers and independent contractors. As shown on Table 3, model fit improves significantly with the addition of this variable. The likelihood ratio test and Z statistics both indicate that model fit improves with the addition of the opportunity wage ($\Delta\chi 2 = 7$ $p< .05$; $\beta = .61$ $p<.01$). The same results occur for independent contractors shown on Table 4. The likelihood ratio test and Z statistics both indicate that model fit improves with the addition of the opportunity wage ($\Delta\chi 2 = 10$ $p< .001$; $\beta = .21$ $p<.001$).

The opportunity cost of being in contingent work clearly affects preference for contingent work, both for temporary workers and independent contractors. The greater the opportunity cost of being in contingent work the lower the likelihood of preference.

[8] Control variables (age, race and metropolitan status) are entered first.

Table 3

Logistic Regression of Preference on Economic Factors and Prior Experiences

Temporary Agency Employment

	Job Alternatives		Opportunity Wage		Prior Experience	
	β	se	β	se	β	se
Economic Factors						
Occupational unemployment	-3.41	4.68	-0.35	4.83		
Occupational growth	0.01	0.01	0.00	0.01		
Opportunity wage-others			0.61	0.23 ***		
Prior experience					0.01	0.00 **
Control variables						
Age	0.02	0.01 +	0.02	0.01 *	0.01	0.01
Race	-0.52	0.30 +	-0.53	0.30 +	-0.53	0.29 +
Metropolitan status	0.20	0.22	0.23	0.22	0.20	0.23
Log Likelihood	-326.15		-322.66		-321.40	
Degrees of Freedom	5		6		4	
χ	10 +		17 ***		19 **	
$\Delta\chi$	2.14		7 ***		12 ***	
Pseudo R^2	2%		3%		3%	
N	421		421		421	

*** p <.001 ** p <.01 * p <.05 + p <.10

Table 4

Logistic Regression of Preference on Economic Factors and Prior Experience

Independent Contractor

	Job Alternatives			Opportunity Wage			Prior Experience		
	β	se		β	se		β	se	
Economic Factors									
Occupational unemployment	-5.93	1.78	***	-5.88	1.78	***			
Occupational growth	0.00	0.00		0.00	0.00				
Opportunity wage-others				0.21	0.07	***			
Prior experience							0.00	0.00	***
Control variables									
Age	0.03	0.00	***	0.02	0.00	***	0.01	0.01	*
Race	-0.71	0.20	***	-0.53	0.21	***	-0.64	0.21	**
Metropolitan status	-0.29	0.12	**	0.23	0.12	**	-0.24	0.12	*
Log Likelihood	-1502			-1497			-1486		
Degrees of Freedom	5			6			4		
χ	77	***		86	***		110	**	
$\Delta\chi$	11	**		10	***		45	***	
Pseudo R^2	3%			3%			4%		
N	3063			3063			3063		

*** p <.001 ** p <.01 * p <.05 + p <.10

Social Context

If culture and role socialization have a large influence on behavior and attitude then we should see evidence of embedded gendered roles and beliefs, even though contingent work arrangements are considered in some sense "untraditional". Proposition 4a stated married men and women would have different reasons for being in contingent work: married women more likely to have family-centered reasons and married men to have work-centered reasons. Table 5 summarizes frequencies of beliefs about contingent work compared across gender and work arrangement. A test of independence indicate that beliefs and gender are not ($\chi 2 = 616$ $p<.001$) independent.

As predicted in proposition 4a, women are more likely to be in contingent work to accommodate family rather than for work- centered reasons. Over 50% of women cited family or personal reasons compared to about 27% of men. For example, 33% of married women chose their work arrangements to have flexible schedules compared to only 15% of married men. A similar gendered pattern emerged for other explanations. Only 1% of males in both work arrangement types chose "other family or childcare problems" as a reason, in contrast to 11% of the women. The results also show that over 50% of men but less than a third of married women chose their arrangements for financial or work-centered reasons. Men were much more likely to cite "enjoys being own boss" (46%) than women (25%). Similarly more men (10%) chose "money is better" than women (5%).

In addition to gender, type of work arrangement affected the distribution of beliefs held by individuals. Temporaries (35%) were more likely to cite this was the "only type of work they could find", whereas IC (40%) cited "enjoys being own boss" as the primary reason for their work arrangement. Thus gendered role is one potential influence on beliefs but type of contingent work arrangement appears to be another important factor as well.

Table 5

Cross Classification of Beliefs of Married Men and Women in Contingent Work Arrangements

	Married		Contingent Work Type		Married Men		Married Women	
	Men	Women	Temporary	Independent Contractor	Temp	IC	IC	Temp
Only work could find	0.05	0.05	0.35	0.03	0.44	0.03	0.02	0.30
Lead to traditional job	0.01	0.02	0.14	0.00	0.14	0.00	0.01	0.15
Other economic reasons	0.05	0.03	0.05	0.05	0.07	0.04	0.03	0.04
Flexible schedule	0.15	0.33	0.20	0.21	0.09	0.15	0.34	0.28
Family/ Personal obligations	0.01	0.11	0.04	0.04	0.01	0.01	0.11	0.07
Money is better	0.10	0.05	0.02	0.08	0.03	0.10	0.05	0.01
Be own boss	0.46	0.25	0.04	0.40	0.06	0.47	0.28	0.02
Other personal	0.11	0.10	0.04	0.11	0.04	0.11	0.11	0.04
Training/experience	0.01	0.01	0.02	0.01	0.00	0.00	0.00	0.02
Other reasons	0.07	0.05	0.10	0.06	0.11	0.09	0.06	0.08
χ^2	616 ***		1083 ***				1,721 ***	
Degrees of Freedom	15		15				45	
N	4,667		4,667				4,667	

Source: Current Population Survey, February 1995 & 1997, married spouse present, employed temporary and independent contractors

Social Structure and Occupational Segregation

Proposition 4b stated that there will be gender differences with respect to the occupational distribution of contingent workers. As shown on Table 6 the segregation index comparing the distribution of males and females across occupations in all work arrangements is quite high. The index for traditional work arrangements, using occupations at the two-digit level of aggregation, is 45, for independent contractors it is 49 and temporary work, 50. If there were no occupational segregation, that is gender and occupation were independent, then the index would approach zero. If there were complete segregation it would approach 100 (Blau, Ferber, and Winkler 1997). Both independent contract and temporary work arrangements exhibit substantial gender difference. The results support proposition 4b. Contingent work arrangements are occupationally segregated.

The cross work arrangement segregation indexes, shown on the last three rows of Table 6, compare occupational distribution across work arrangements by gender. The segregation index for male independent contractors compared against females in traditional work arrangements is 63 compared to 45 for traditional occupations, which indicates that the male independent contractor occupational distribution is significantly more gendered compared to traditionally employed males. Similarly, the segregation index for female temporaries compared with the distribution of male occupations in traditional work arrangements is 64, also significantly higher than traditional work arrangement segregation index of 45. Female temporaries are in occupations that are significantly more gendered than women are in traditional work arrangements.

Table 6

Occupation Distribution and Segregation Index by Work Arrangement

	Traditional		Temporary		Independent Contractors	
	Male (%)	Female (%)	Male (%)	Female (%)	Male (%)	Female (%)
Executive, administrative and managerial	15.0	14.0	7.0	8.0	23.0	15.0
Professional specialty	14.0	17.0	9.0	6.0	15.0	22.0
Technicians and related support	3.0	4.0	7.0	4.0	1.0	1.0
Sales occupation	11.0	12.0	1.0	3.0	16.0	21.0
Clerical	6.0	26.0	14.0	49.0	1.0	9.0
Service occupation	11.0	17.0	9.0	9.0	2.0	24.0
Precision production, craft, and repair	17.0	2.0	9.0	2.0	26.0	3.0
Operators, fabricators and laborers	19.0	7.0	42.0	19.0	9.0	3.0
Farming, forestry, and fishing	4.0	1.0	2.0	-	7.0	2.0
Total employed	100.0	100.0	100.0	100.0	100.0	100.0
Segregation indices						
By sex		45		50		49
Skilled occupations		14		11		17
Unskilled occupations		31		39		32
By work arrangement (compared to traditional)			58	64 *	63 *	51
Skilled occupations			23 *	19	24 *	18
Unskilled occupations			35	44*	39	33

* = p<.05 on paired t-test with traditional occupational distribution.

These results suggest that social structure such as occupational distribution appear to reinforce gendered social roles, within traditional and alternative work arrangements. The differences are quite marked for male independent contractors and female temporaries. For example, male independent contractors are concentrated in managerial, professional and craft occupations, whereas female temporaries are concentrated in clerical occupations. It appears that male independent contractors and female temporaries tend to be in occupations that have structures that are more consistent with their gendered social roles than those in traditional employment.

Proposition 4c posits that married women are not more likely to prefer contingent work to traditional work than others are because they will still experience work-family conflict within an occupationally gendered workplace. The results shown in the first column on Tables 7 and 8 provide mixed support for proposition 4c. While married female temporaries are more likely than other temporaries are to prefer temporary work ($\beta = .69$ s.e. = .444) married female independent contractors are not ($\beta = .10$ s.e. = .22). Therefore proposition 4c is supported for independent contractors not for temporary workers. As shown on the first column on table 8, married female independent contractors are no more likely to prefer contingent work than other independent contractors.

These results are consistent with the occupational segregation index that shows that the occupational distribution of female independent contractors is similar to traditional work whereas the female temporaries are more occupationally segregated into “female” jobs, such as secretary or other clerical support. The advantage of being in a female occupation is that the work norms are consistent with gender norms regarding work and family and there should be less work/family conflict. Thus it is not surprising that married female temporaries are more likely to prefer their contingent work. On the other hand, these positions are also associated with lower upward mobility and wages (Blau, Ferber & Winkler 1997; Goldin 1991; Shu & Marini 1998).

As one final test to determine whether gender influence preference for contingent work, the second column shows the effect on married women’s preference of adding family-centered reasons to the model. Proposition 3d states that married women who perceive contingent work as providing greater flexibility to balance work and family are more likely to prefer contingent work. The results on table 7 and 8 show proposition 3d is supported, although weakly, for temporary workers but not for independent contractors. The three work family variables once entered into the model attenuate the relationship between preference and married women temporaries ($\beta = .54$ s.e.= .48), and suggest that gendered norms or beliefs about work mediate

preference for contingent work for female temporaries. This pattern does not occur for married female independent contractors and if anything the work and family variables seem to have the effect of increasing the relationship between married women and preference, although these are not significant. It suggests, however, that women independent contractors, particularly married women, are less affected by gender norms.

Table 7

Ordered Logit Regression of Preference on Social Factors

Temporary Agency Employment

	Social Norms		Work/Family Reasons		Social Resources	
	β	se	β	se	β	se
Social Context						
Marital status	-0.14	0.37	-0.28	0.39	-0.28	0.38
Gender	0.04	0.28	-0.19	0.30	0.05	0.28
Married Woman	0.69	0.44 *	0.54	0.48	0.69	0.45 *
Flexible schedule			1.93	0.30 ***		
Family obligations			1.43	0.61 *		
Part time status			0.99	0.30 ***		
Socio-economic resources						
Resources					0.24	0.17 +
Health benefits					0.42	0.23 *
Control variables						
Age	0.01	0.01	0.01	0.10	0.01	0.01
Race	-0.49	0.30 +	-0.67	0.32 ***	-0.34	0.30
Metropolitan status	0.20	0.22	0.11	0.24	0.24	0.23
Log Likelihood	-324		-293		-320	
Degrees of Freedom	6		9		8	
χ^2	15 *		77 ***		22 ***	
$\Delta\chi^2$	7 +		63 ***		7 +	
Pseudo R^2	2%		12%		3%	
N	421		421		421	

*** p <.001 ** p <.01 * p <.05 + p <.10

Table 8

Ordered Logit Regression of Preference on Social Factors

Independent Contractor

	Social Norms		Work/Family Reasons		Social Resources	
	β	se	β	se	β	se
Social Context						
Marital status	0.26	0.14 +	0.24	0.14 +	0.15	0.14
Gender	-0.07	0.17	-0.03	0.18 +	-0.09	0.17
Married Woman	0.10	0.22	0.21	0.23	0.11	0.22
Flexible schedule			0.45	0.14 ***		
Family obligations			-0.20	0.23		
Part time status			-0.46	0.12 ***		
Socio-economic resources						
Resources					0.28	0.08 ***
Health benefits					0.31	0.12 **
Control variables						
Age	0.03	0.01 ***	0.03	0.00 ***	0.02	0.00 ***
Race	-0.70	0.30 ***	-0.72	0.21 ***	-0.52	0.21 *
Metropolitan status	-0.23	0.22 *	-0.24	0.12 *	-0.30	0.12 *
Log Likelihood	-1504		-1491		-1489	
Degrees of Freedom	6		9		8	
$\chi 2$	73 *		98 ***		102 ***	
$\Delta\chi^2$	7 +		26 ***		30 ***	
Pseudo R^2	2%		3%		3%	
N	3,063		3,063		3,063	

*** p <.001 ** p <.01 * p <.05 + p <.10

Proposition 4 posits that contingent workers with greater capital are more likely to prefer contingent work than traditional work because they have the resources to negotiate better job matches. The proposition is supported for both temporary workers as shown on column 3 on table 7 and for independent contractors, shown on column 3 on table 8. Two variables that measure resources, a resource scale (alpha =.70) and an indicator of access to health insurance, when entered to the model increase model fit for both temporaries ($\Delta\chi 2 = 7.2$ $p< .10$) and independent contractors ($\Delta\chi 2 = 30$ $p< .001$).

The z statistics for each variable suggests that for temporary workers the resource scale is only weakly related to preference for contingent work (β =.24 z=1.4 p=.08, one-tailed) and the benefit variable more strongly related (β= .42 z =1.85 p = .03, one-tailed). This is in contrast to independent contractors where the z statistic for the resource scale is highly significant (β=.28 z = 3.76 p<.001) as is the benefit indicator (β=.31 z= 2.53 p<.001). These contrasting results perhaps reflect the different socio-economic characteristics of temporary workers and independent contractors. Temporary workers are less likely to have the resources necessary to negotiate ideal job matches. If they had these resources they would not need an intermediary who essentially performs this service for a fee. There is also an indication that there is less variance in this variable than for independent contractors and it may be that social resources are uniformly low for temporaries.

As the results show gender norms do influence preference for contingent work but appears to be moderated by socio-economic status. Temporary workers who have fewer resources were more affected by gender norms than independent contractors who had resources to negotiate better work arrangements.

Proposition 5 extends this moderating effect to the effect of economic conditions on preference for contingent work. Proposition 5 states that the effect of job alternatives and the opportunity wage on preference for contingent work will vary by gender. There will be a stronger relationship between preference and job alternatives and opportunity wage for men than for women.

To test this hypothesis, two gender interaction terms, gender x occupational unemployment and gender x opportunity wage, are entered, one at a time, into the full model for temporaries and then for independent contractors. These results appear on Table 9. For temporary workers gender moderates the effect of job alternatives and opportunity cost on preference. The interaction terms are significant, weakly for unemployment (β=12.61 p<.10) and robustly for opportunity costs (β = -1.03 p<.05). For independent contractors the interaction term for number of job alternatives is significant (β = 11.57 p<.01) but not for the opportunity wage. Both interaction terms indicate that the slope of the relationship between the two economic variables and preference are flatter for women. The flatter slope indicates that the relationship between job alternatives and opportunity wage and likelihood of preference is stronger for men than for women.

Table 9
Full Model Ordered Logit Regression

	Temporary Employment				Independent Contractors			
	β	se	β	β	β	se	β	β
Occupational unemployment	2.12	6.09	-17.00	1.53	-2.81	2.18 +	-16.50 **	-2.91 +
Occupational growth	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Opportunity wage	0.60	0.27 *	0.59 *	2.15 **	0.14	0.07 *	0.16 *	0.23
Prior experience	0.01	0.00 **	0.01 **	0.01 **	0.00	0.00 ***	0.00 ***	0.00 ***
Married	-0.49	0.42	-0.52	-0.49	0.06	0.15	0.05	0.06
Gender	-0.23	0.31	-0.86 +	-0.32	0.01	0.18	-0.54 *	0.00
Married woman	0.67	0.50	0.73 +	0.62	0.28	0.23	0.30	0.28
Socio-economic Resources	0.10	0.25	0.08	0.05	0.26	0.09 **	0.30 ***	0.26 **
Health benefits	0.32	0.25	0.32	0.33	0.28	0.13 *	0.27 *	0.28 *
Flexible schedule	1.97	0.31 ***	1.98 ***	2.05 ***	1.06	0.14 ***	1.06 ***	1.07 ***
Family obligations	1.45	0.61 *	1.51 **	1.51 **	0.41	0.24 +	0.42 +	0.40 +
Independence/own boss	3.07	1.11 **	3.20 **	3.24 **	1.65	0.15 ***	1.67 ***	1.65 ***
Experience/training	0.82	0.91	0.73	0.77	-0.44	0.61	-0.44	-0.43
Part time status	1.03	0.32 ***	1.05 ***	1.10 ***	-0.30	0.13 *	-0.34 **	-0.30 *
Genderx Unemployment			12.61 +				11.57 **	
Genderx Opportunity wage				-1.03 *				-0.06
Log Likelihood	-277		-276	-275	-1379		-1375	-1379
Degrees of Freedom	17		18	18	17		18	18
$\chi 2$	108 ***		109 ***	112 ***	323 ***		331 ***	323 ***
$\Delta \chi 2$	--		1.80 +	3.98 *	--		-7.53 **	-0.22
Pseudo R^2	16%		17%	17%	10%		11%	10%
N	421		421	421	3063		3063	3063

*** p <.001 ** p <.01 * p <.05 + p <.10

Included but not shown are control variables: age, race and metropolitan location.

To gain a better insight into these gendered effects, both interactions are graphed. Beginning with temporary workers, Figure 2 depicts gender as a moderator of the effect of job alternatives on preference for temporary work. As the graph shows the direction of the relationship between job alternatives and preference is not simply muted for women, but rather is opposite to the one predicted. Rather than preference associated with lower unemployment, for women preference is associated with greater unemployment while for male temporaries, changing unemployment has little marginal effect. The same effects occur for female independent contractors, shown in Figure 3 but the contrast is more marked. As unemployment increases preference increases for women temporaries but decreases for male independent contractors.

There are three possible explanations for these results. First, as unemployment increases women may move voluntarily *into* the workforce on a temporary basis to supplement declining family income, whereas for men as unemployment increases they move involuntarily *from* traditional work into temporary work. Second, women may be crowded into certain “female” occupations that are structured as contingent work arrangements with the consequence that even as unemployment declines there are still barriers to movement into traditional work. Finally, it may be that the women who prefer their contingent work are clustered in occupations that have higher unemployment rates. Further research is needed to resolve this.

Gender also moderated the effect of opportunity costs on preference for temporary employees but not for independent contractors. Figure 4 illustrates the moderating effect. It shows that men’s preference is positively related to the difference in the opportunity wage as hypothesized and also as predicted women have a muted relationship. In fact, there appears to be no relationship between preference and opportunity wages for women. These results are not mirrored for independent contractors, where gender did not moderate the effect of opportunity wages on preference. Both male and female independent contractors were equally likely to prefer their work the lower the opportunity cost.

Figure 2
Change in Preference over Unemployment
Temporaries

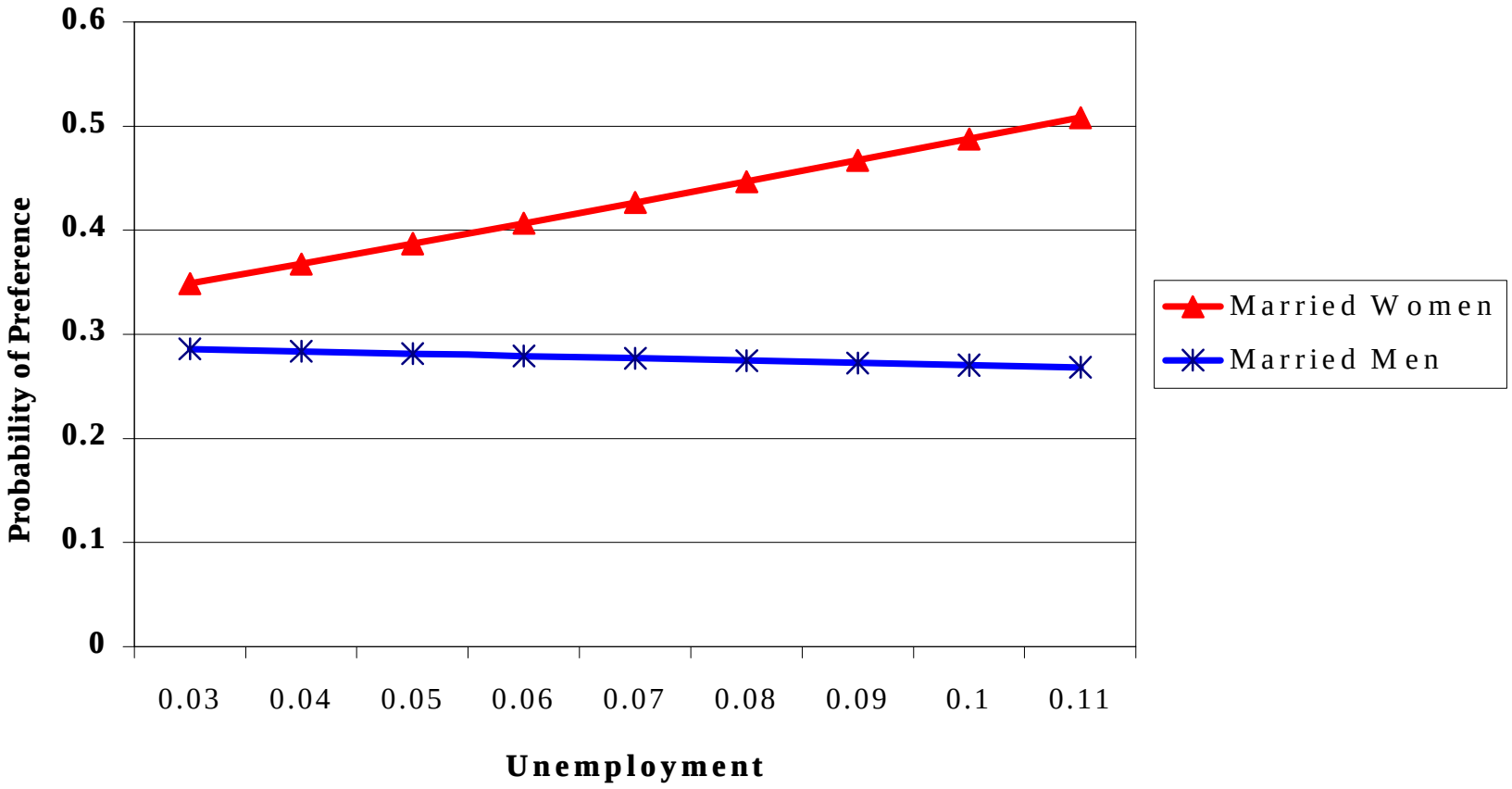


Figure 3
Probability of Preference as Unemployment Independent

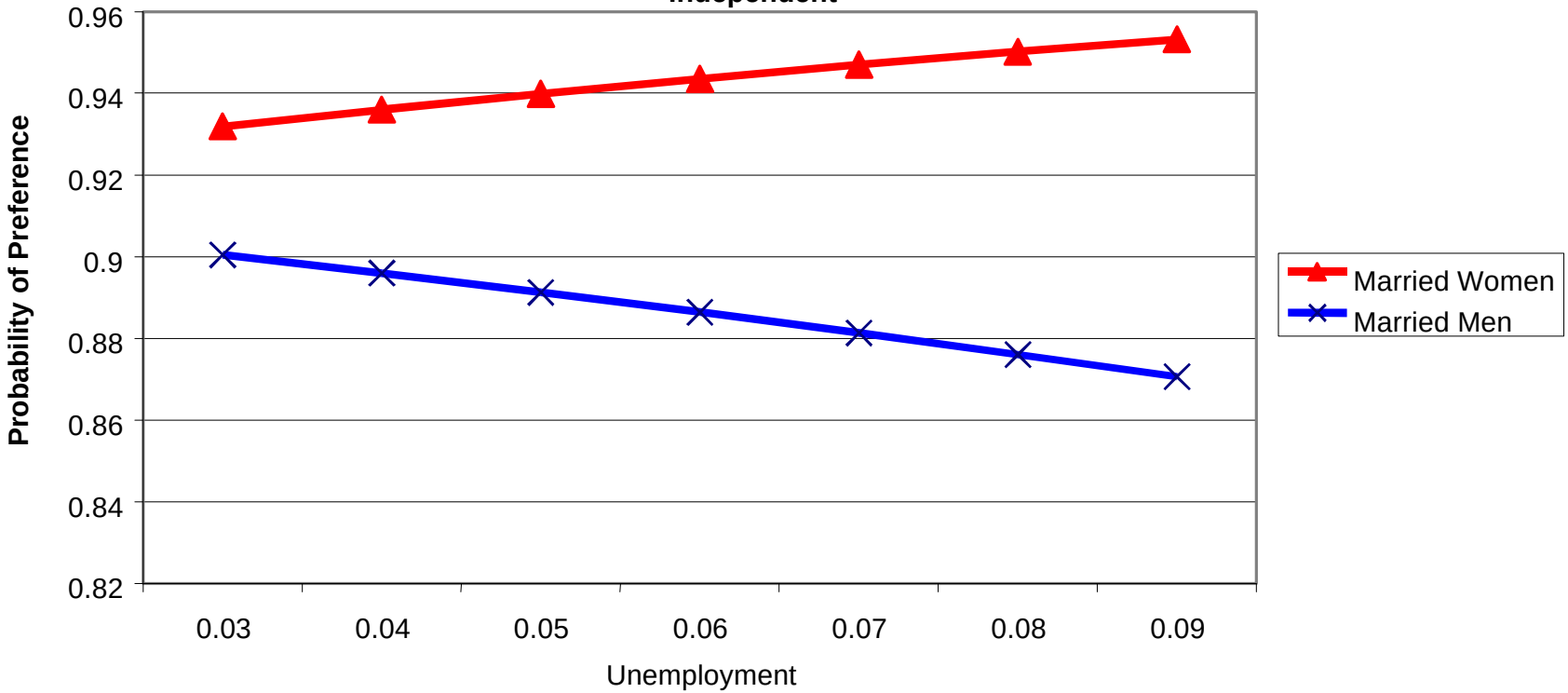
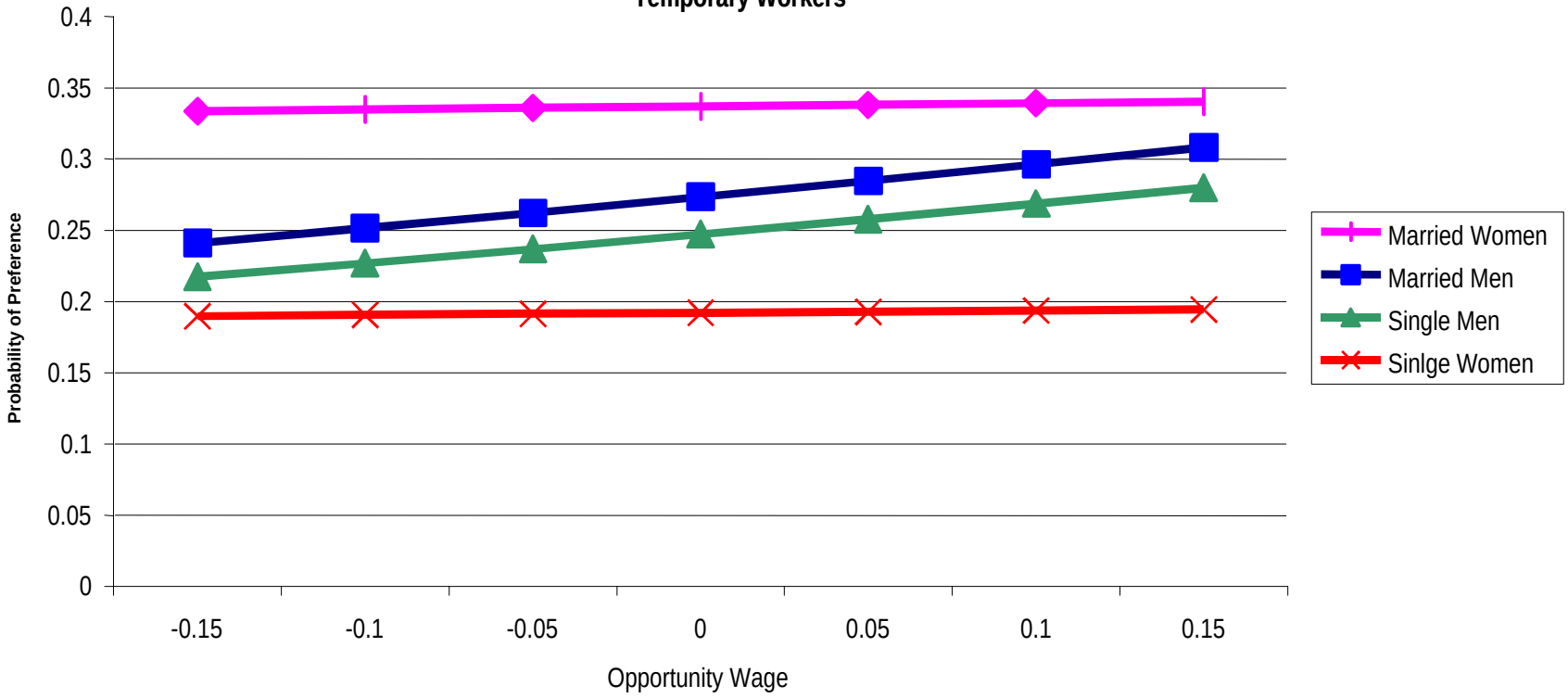


Figure 4
Change in Preference over Opportunity Wage
Temporary Workers



Prior Experience/Behavior

Hypothesis 6 stated that those with greater tenure in contingent work arrangements are more likely to prefer alternative work arrangements to traditional work arrangements.

The results shown on table 3 and 4 support this for both temporary workers and independent contractors even after controlling for age. There is a strong positive relationship between tenure and preference for contingent work arrangement. For both the longer the individual continues in the contingent work arrangement the more likely they prefer contingent work.

Discussion

Independent contractors are significantly different from temporary workers. These differences also largely explain differences in preference across and within type of contingent work arrangement. Independent contractors overwhelmingly prefer their work arrangement. Over 88% reported they would not prefer a traditional work arrangement to their current arrangement compared to 28% of temporary workers.

There are several explanations for these findings. The first has to do with social context and access to resources. Independent contractors have greater human and financial capital than temporary employees. They are better educated, have higher family incomes and wages and are in more prestigious occupations (professionals, consultants, and precision crafts). They are also more likely to be married and in dual earner marriages. Over two-thirds were married, of which three-quarters were dual earners. In summary, independent contractors had multiple resources with which to operate outside contemporary normative employment structures and as Blanchard & Oswald (1992) argue this gives them a competitive advantage. They face less competition and are able to create work roles that are more satisfying.

If independent contractors are at one end of the social resources continuum, temporary workers are at the other end. They have less human and financial capital than independent contractors and traditionally employed individuals. In general, they were younger, less educated and therefore likely to have lower wages and productivity. They were less likely to be married and accordingly had lower family income and they earned less. Both temporary men and women earned significantly less than to independent contractors and traditional employees, even after controlling for differences in human capital, occupation and industry. The opportunity wage for male temporaries, after controlling for education, experience, occupation, industry and location was still 11% lower than those working in traditional work arrangements[9]. Temporary

[9] These relative wage differences may also reflect a "fee" imposed by the temporary help agency for finding work. Temporary agencies maintain that the client pays the fee because the individual's wages are marked up. The results here

men and women appear to operate on the fringes of the labor market with less skill, experience, and socio-economic resources. Interestingly and consistent with being less committed to temporary work, part-time status was significantly related for both temporary men and women to preference. In summary, temporary workers appear to be at a competitive disadvantage, with lower human and financial capital. Thus it is not entirely surprising that they do not prefer their work arrangements. They may well be left with the jobs that no one else wants (perhaps because these jobs are not the norm).

In the context of these overarching capital differences, the proposed model of preference for contingent work was supported. An individual's economic and social environment predicts preference within contingent work arrangement. The number of job opportunities, the opportunity wage, prior behavior, gender norms and capital all influence how an individual judges their work arrangement. Which, and to what extent, these factors were associated with preference varied somewhat by type of contingent work arrangement. The variance was more marked across gender.

Independent contractors were more likely to prefer their work arrangement in a context of low unemployment whereas the level of unemployment had no effect on temporary employee preference. Thus it appeared that type of contingent work arrangement moderated the effect of external labor market conditions on preference for contingent work. Independent contractors appeared to be more sensitive to changes in demand for their skills than temporary employees. This difference may be related to the fact that temporary employees are buffered by the temporary agency, which takes on the task of finding work assignments. Although temporary employees still bear the risk of not finding work because temporary agencies only pay their temporary employees when they work, the increasing use of temporary employees and the number of temporary agencies now available in the U.S. has diminished this risk substantially. Independent contractors on the other hand deal directly with their customers, hence their job security is directly related to the number of assignments they find. Working individually, however, their network for finding work assignments is probably less expansive than temporary help agencies. The burgeoning temporary help industry is trying to capitalize on this aspect of independent contracting and marketing themselves as specialized human resource marketing companies (see for example www.cdicorp.com).

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suggest that the individual is also bearing a fee. This finding is also consistent with an historical account of temporary help agencies, which traces their roots back to turn of the century job placement shops that charged fees to immigrants in return for finding them work. Abuses in this industry lead to their tight regulation in the early part of this century and ultimately many went out of business (See Gonos 1994 for a detailed account).

Another explanation for the differing effect of the external labor market on independent contractors and temporary workers may have to do with job mobility. Temporary employees may have less mobility to move into preferred traditional jobs as economic conditions improve. This may be the case if for example they are in occupations that are typically being externalized (Barker & Christensen 1998; Pfeffer 1988). As table 5.6 showed, male and female temporaries are concentrated in clerical and low skilled manufacturing occupations. Both these occupations are the most likely to be outsourced (Abraham & Taylor 1996; Barker & Christensen 1998; Capelli et al. 1997; Houseman 1997; Lepak & Snell 1999; Pfeffer 1988). It is also possible, that most temporary employees are only loosely attached to the labor force and work only when needed rather than in step with a business cycle. Segal & Sullivan (1997) found using unemployment information from the State of Washington over a 10 year period that only 57% of temporary employees transition into traditional jobs. The rest are either loosely attached to the labor force or subject to unemployment.

Gender also moderated the effect of external labor market conditions on preference. When unemployment is low women were less likely to prefer their contingent work arrangement. There are several possible explanations for this result as previously discussed. First, as unemployment increases women may move voluntarily *into* the workforce on a temporary basis to supplement declining family income, whereas for men as unemployment increases they move involuntarily *from* traditional work into temporary work. This explanation supports the social information processing, cultural norm perspectives, and the theory of the added worker effect. Women are socialized to have secondary careers and prefer to stay at home but if family needs require they move into the labor force, the additional worker effect (Blau, Ferber & Winkler 1997). While over two thirds of female independent contractors were married and had husbands who earned on average two times their wage rate, the same effect occurred for <u>single</u> women too. Thus this explanation can only be a partial one. A second explanation is that similar to temporary employees, women in contingent work arrangements may be crowded into certain "female" occupations that are structured as contingent work arrangements with the consequence that even as unemployment declines there are still barriers to movement into traditional work. For example, a women who writes software programs may want to find a traditional job as an employee but finds that most work arrangements in this occupation are structured as independent contract arrangements. Finally, it may simply be that the women who prefer their contingent work are clustered in occupations that have higher unemployment rates. Further research is needed to resolve these interesting results.

Another measure of economic context is the opportunity cost of being in contingent work, the difference between actual wage and the wage of those in traditional work arrangements. The data showed that for both temporary employees and independent contractors, relative wages were important. The lower the opportunity cost of being in contingent work the more likely both types of contingent workers were to prefer their work arrangement.

Type of work arrangement did not moderate relationship between this variable and preference but gender did, for temporary work. Female temporary worker's preference was not sensitive to variation in relative wages. On the other hand preference was significantly related to non-monetary aspects such as flexible and part-time schedules. These findings are consistent with other studies of temporary worker attitudes that have found that flexible schedules are positively associated with being voluntarily in temporary work (Hipple et al. 1999; Ellingson et al. 1998; Feldman 1995). Once these factors are controlled, relative wage contributes little to explaining variation in preference for temporary work for women. For temporary men, however, even after controlling for non-monetary aspects of work relative wages still explained variation in preference. These gender patterns were not evident among independent contractors. After controlling for non-monetary reasons for being in their work arrangements, the contribution of relative wage to explaining additional variation in preference remained weakly positive for both male and female independent contractors. These results suggest three possible conclusions. First, *non-monetary factors of work may be more important* than how much female temporaries and independent contractors are making relative to those in traditional jobs. Second, for male temporaries, temporary work arrangements are preferable only if they earn more money. These differences may be related to the nature of the work and also to differences in human and financial capital Temporary males are clustered in lower-skilled occupations that are likely to have less desirable work characteristics and have significantly lower resources than independent contractors. Finally, the opportunity wage measure for women is subject to greater measurement error because it is often hard to estimate the effect of experience and human capital on wages for women (Killingsworth & Heckman 1986). Women are not consistently in the labor market and this may be particularly true for women in temporary work.

The data also showed that reasons for engaging in contingent work were gendered. Men were more likely to be in contingent work arrangements for work-centered reasons and women for family-oriented reasons. Factors related to financial rewards of work were more often associated with men. For male independent contractors, favorable labor conditions, low opportunity costs, socio-economic resources, health care were significantly related to preference, whereas for women opportunity costs was the only clearly financially related factor

associated with preference. Marital status and non-monetary factors were better predictors of preference for female independent contractors. A similar gendered pattern emerged for temporary men and women.

At a more embedded level, the data also showed that the distributions of occupations within and across work arrangements were gendered. Higher skilled white-collar male independent contractors were located in occupations that were more gender segregated than traditionally employed men suggesting they were more likely to be in situations that would be supportive of meeting gender expectations, e.g. male provider role. In contrast, for women, unskilled female temporaries tended to be more occupationally segregated than traditionally employed women. Temporaries, however, were also more likely to be in their work arrangement involuntarily, suggesting occupational segregation was not voluntary even though married female temporaries were more likely to prefer their work arrangements.

Implications and Future Research

The results of this study have implications for organizations and their human resource strategies, for social policy, and theory. From an organizational perspective, the results of this study suggest that the challenges to managing contingent work arrangements will differ depending on the type of work arrangement.

Independent contractors prefer their contingent work arrangement because they have the human and financial capital to sustain their non-traditional arrangement. Consequently, organizations may have less control when they use independent contractors and should consider deploying different recruiting and incentive strategies. For example, understanding that independent contractors value their independence but are also concerned by their marketability and the number of job opportunities they have, organizations can attract top talent if they contribute to the enhancement of independent contractors' human capital. Thus assignments which increase their skill base and marketability will be attractive (Baker and Aldrich 1996).

According to Lepak & Snell (1999), the fruits of joint collaboration with independent contractor work arrangements should be shared. Consequently, these relationships may benefit from creative compensation arrangements that encourage mutual gain, knowledge transfer and project loyalty. When independent contractors are in great demand because they are more aware of their opportunity costs, compensation agreements will have to adjust more quickly to the market wage than is typical for traditional employees. Non-monetary compensation may also be more highly valued by independent contractors. Because they operate outside employment norms and therefore do not have access to many benefits offered to traditional employees, non-monetary compensation such as health care, profit sharing and stock purchase

plans are becoming part of the total compensation offered many contingent employees (Hardy 1998; Milkovich & Newman 1998). For women, in particular, flexibility appears to be highly valued. Organizations that do not need to monitor physical presence may have an advantage because they can trade lower monetary compensation for more highly valued non-monetary benefits.

In strategic staffing, the challenge for organizations is to know when to enter into an external relationship or when to convert an external relationship into an internal one. The decision depends on organizational contingencies such as degree of competitiveness, need for flexibility, potential for knowledge enhancement and value creation (Lepak & Snell 1999) or risks of knowledge dissemination (Matusik & Hill 1998). For example, when the risk of dissemination outweighs the value of knowledge creation, it may better to convert the contractor to a traditional employee. From an individual perspective, however, the results of this study show that many independent contractors prefer their work arrangements and prefer the independence. They are not likely to want to convert their employment relationship, particularly when they are in a strong economy. In contrast, temporary employees who are the most likely to welcome an opportunity to convert their work arrangement to a traditional one are also less likely to have the value enhancing skills that make them so valuable to organizations.

From a social policy perspective this study's results suggest that many temporary workers are likely to be left behind in a flexible employment model. They earn significantly less than those in traditional work arrangements, are less likely to have health insurance and therefore not surprisingly, a significant proportion, 61%, would prefer a traditional employment relationship. The temporary help industry claims that most temporary workers ultimately find traditional employment and develop skills while working in temporary assignments. While the median tenure of a temporary worker is 6 months compared to 7 years for independent contractors, it is not clear that all temporaries move on to traditional work. Segal & Sullivan (1997) found in a study of Washington State's unemployment insurance data that only 58% of temporary employment moved into traditional work arrangements. The rest moved into unemployment. The temporary help industry claims that temporary workers develop skills that make them more marketable. This study shows that most temporary workers are in occupations that require minimal skill such as factory laborers or assemblers and clerical occupations and that very few, less than 1% indicated training was a reason for choosing temporary work. These are precisely the occupations that are at most risk for organizational outsourcing because they are less likely to add value to justify bureaucratic overhead (Abraham and Taylor 1996; Lepak

and Snell 1999). Thus the growth of the temporary help industry is concern because the jobs they provide are not desirable by many that are in them.

Limitations and Future Research

This study, while based on a nationally representative sample has data limitations. First, it does not contain information about the organizations at which these individuals worked beyond industry, occupational classification, and wages. In my analyses, industry[10], occupation and occupational prestige had no direct impact of contingent worker preference. Indirectly, however, there was an effect because independent contractors who were overwhelmingly more likely to be satisfied were also more likely to be in more prestigious occupations and earned higher relative wages.

We were not able, however, to investigate the direct effect of organization variables, such as job characteristics, size or profitability on contingent worker attitude. Hackman & Oldham (1976) suggest that job content is a predictor of work attitude and performance. Baker & Aldrich (1996) theorize that individuals in boundaryless careers will respond positively to organizations that provide an opportunity to learn and accumulate marketable knowledge. Anecdotal accounts and qualitative research (Kunda, Barley & Evans, 1999) suggest that in the high technology industry, assignment type affects an independent contractors attitude toward their work (Wysocki 1996). There is no systematic evidence, however, concerning the relationship of job and organizational characteristics to contingent worker attitude or performance. Consequently, this is a fruitful avenue for future research.

The data contained limited attitudinal data. The attitude measure in this study is a one-item measure and therefore its reliability is untested although Ellingson, Gruys & Sackett (1998) found little difference between using a one-item measure of preference and a multi-item one.

Conclusions

The contingent work force comprises two groups. One prefers a non-traditional status and has the resources to sustain and flourish outside normative employment structures. Independent contractors and entrepreneurs are self-employed individuals who have above

[10] Industry variables were not included in these analyses for two reasons. First, using industry classifications for temporary workers was problematic since there is an industry for temporary workers, therefore, I was not able to get at the industries of their clients. Cohany (1998) does show industry of temporary worker by industry of most recent assignment but temporaries can work across multiple industries. Cohany's evidence does suggest however that temporaries are centered in manufacturing industry, which is consistent with their occupational distribution. Second, I could not include industry dummies in my model due to sample size limitations. In my analysis (not shown), which is consistent with analyses by Cohany (1998), independent contractors appear to be concentrated in the construction and service industries. Temporary workers are concentrated in manufacturing and service. A chi square test of independence for preference and industry suggests preference is not independent of industry for independent contractors and male temporaries.

average human, and financial capital to be independent of bureaucratic organizations. The second group is on the outside looking in angling to join the mainstream. Within each group, however there still exists considerable variance over preference for contingent work. In this study we sought to explain this variance by identifying social and economic contextual factors that influence how an individual might evaluate their work arrangement. These factors appear to be robust predictors of preference both across and within contingent work types. To increase our understanding of these work arrangements we need to consider these contextual factors when studying contingent employees and the outcomes associated with these non-traditional work arrangements.

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