WHY DO CONTRACTORS CONTRACT? THE EXPERIENCE OF HIGHLY SKILLED TECHNICAL PROFESSIONALS IN A CONTINGENT LABOR MARKET

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This study examines 52 highly skilled technical contractors' explanations, in 1998, of why they entered the contingent labor force and how their subsequent experiences altered their viewpoint. The authors report three general implications of their examination of the little-studied high-skill side of contingent labor. First, current depictions of contingent work are inaccurate. For example, contrary to the pessimistic "employment relations" perspective, most of these interviewees found contracting better-paying than permanent employment; and contrary to optimistic "free agent" views, many reported feeling anxiety and estrangement. Second, occupational networks arose to satisfy needs (such as training and wage-setting) that employing organizations satisfy for non-contingent workers. Third, regarding their place in the labor market, high-skilled and well-paid technical contractors cannot be called—as contingent workers usually are—"secondary sector" workers; and their market is not dyadic, with individuals selling labor and firms buying it, but triadic, involving intermediaries such as staffing firms.

For most of the twentieth century, institutions of bureaucratic employment dominated the social organization of work. Bureaucratic employment was built on a simple bargain: as long as firms remained profitable, they would provide employees with secure jobs in return for effort and loyalty. Although there were notable exceptions on the economy's periphery (Doeringer and Piore 1971; Baron and Bielby 1984; Piore 1979; Friedland 1975), until the 1980s most middle-class Americans believed that working for a reputable company would guarantee life-long employment, as long as they performed conscientiously and the economy remained strong.

In recent years, three developments have shaken this belief. First, in the name of efficiency, firms in the economy's core have repeatedly laid off large numbers of employees independent of economic cycles. For the first time in history, layoffs have

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targeted significant numbers of managers and professionals (Heckscher 1994; Osterman 1996; Cappelli 1999). Second, despite inconclusive data (Diebold, Neumark, and Polsky 1997; Bureau of Labor Statistics 1997), many people believe that job tenure has become shorter and labor markets more volatile. Finally, perhaps the most radical break with the system of bureaucratic employment has been the expansion of the so-called "contingent labor force" (Barker and Christensen 1998).

The term *contingent labor* has been applied to a wide range of short-term employment arrangements, including part-time work, temporary employment, self-employment, contracting, outsourcing, and home-based work. Estimates of the size of the contingent labor force vary widely. The most conservative data come from the Bureau of Labor Statistics. Under the most liberal of its restricted definitions, the BLS estimates that 13.3% of Americans were contingently employed in 1995 (Polivka 1996a, 1996b; Cohany 1996; Cohany et al. 1998).[1] Estimates for 1997 were nearly identical.[2] More liberal estimates suggest that the number may be as high as 30% (Dillon 1987; Belous 1989; Kalleberg et al. 1997).

Estimates of the spread of contingent work are hampered by the absence of longitudinal data. However, data on the temporary service industry suggest two significant trends (U.S. Department of Commerce 1997). First, between 1986 and 1996 there was spectacular growth in the relative size of the temporary service industry: in those years, employment in temporary services grew 10.3% while total employment in the United States grew by only 1.7%. Second, there has been a change in the distribution of contingent jobs. Between 1991 and 1996, the percentage of the temporary service industry's payroll represented by office, clerical, and medical work declined, while the industrial, technical, and professional segments (which include managers) became more important (Staffing Industry Report 1997).

Thus, three conclusions seem reasonable on the basis of available data: a significant proportion of Americans are contingently employed; this proportion has increased over the past decade; and technicians, professionals, and managers represent a larger portion of the contingent labor force than in the past.

Although researchers have begun to attend to contingent work, they have yet to explore all of its facets fully. The largest body of research, conducted primarily by social scientists and management scholars, addresses the issue of how firms use contractors to respond flexibly to increasingly competitive environments (Handy 1989; Mangum, Mayall, and Nelson 1985; Abraham 1988; Abraham and Taylor 1996; Pfeffer and Baron 1988; Harrison and Kelley 1993; Davis-Blake and Uzzi 1993; Matusik and Hill 1998). Because this literature takes the firm's perspective, it focuses more or less exclusively on the demand for contractors and ignores both the contractors' experience and the significance of contracting as an employment relationship. Scholars who have studied contingent labor from the worker's perspective have usually focused their attention on relatively low-skilled occupations long associated with

[1]Under its most liberal, restricted definition, the BLS defines the contingent work force as the sum of (a) all wage and salary workers who "do not expect their employment to last," except for those who planned to leave their jobs for personal reasons, (b) all "self employed (both the incorporated and the unincorporated) and independent contractors who expect to be and had been in their present assignment for less than 1 year," and (c) temporary help and contract workers who "expected to work for the customers to whom they were assigned for one year or less" (Cohany et al. 1998:43–44).

[2]The BLS repeated its assessment of the contingent work force in the February 1997 supplement to the CPS. The number of workers in the BLS's broadest definition of contingent labor declined by .5%, while the percentage of Americans in each of the four alternative employment relations remained constant. Since two data points do not make a trend, it is difficult to determine whether the decline represents random variation or an actual shift away from contingent labor. The BLS's data also cannot tell us whether contingent labor increased prior to 1995, as most commentators contend.

temporary labor. Although traditional temporary work remains an important aspect of contemporary labor markets, unless researchers also take highly skilled contingent work into account, they risk developing theories of contingent employment that are of limited scope.

This paper takes a step toward broadening our image of contingent work by exploring the experiences of highly skilled technical contractors. By documenting how technical contractors view their world, we hope to facilitate comparisons with traditional contingent work and to illustrate how theories of contingent employment can be profitably developed. We begin by reviewing two literatures that speak to the significance and experience of contracting. After highlighting their limitations, we turn away from received notions of what contingent work means and ask: how do highly skilled, technical contractors make sense of their situation? We develop our answer by turning to what contractors say about why they became contractors and how their subsequent experiences altered their perspective. We conclude by exploring the implications of our study for existing theories of contingent work.

Perspectives on the Implications of Contingent Labor

Journalists, consultants, lawyers, and social scientists have interpreted contingent work from two points of view, what we shall call the "employment relations" and the "free agent" perspectives. Each offers a distinct account of contingent work and its implications.

The Employment Relations Perspective

Analysts who adopt an employment relations perspective situate contingent employment in its institutional context. They are concerned with the experience of employment, the collective welfare of employees, and, by extension, the welfare of society as a whole (Osterman 1988; Cappelli et al. 1997; Parker 1994; Smith 1998; Cappelli 1999). In this view, bureaucratic employment is not only a prescription for stable employment; it is the foundation for America's unique system of social welfare, which hinges, to some degree, on employers fulfilling legally prescribed obligations to a permanent work force.

Employment relations researchers view the expansion of the contingent labor force as a threat to the stability of the system and have historically framed the threat from the perspective of dual labor market theory. This theory holds that industrial economies are composed of two sectors: "primary" and "secondary" (Piore and Sable 1984; Osterman 1984; Baron and Bielby 1984). Primary labor markets provide stable employment, career ladders, job security, high wages, and attractive benefit plans. Secondary labor markets are, by comparison, less stable and marked by lower wages. Participants are more likely to be members of minority groups and to work for employers who provide few benefits. Because scholars have viewed secondary labor markets as peripheral, they have treated them as a social problem to be controlled within the framework of existing institutions (for example, minimum wage laws), rather than as a threat to bureaucratic employment.

Scholars in this tradition, however, fear that the growth of contingent work represents the spread of secondary labor market dynamics into the economy's core. Moreover, it appears that permanent jobs are themselves no longer secure (Osterman 1996; Cappelli 1999). Many fear that these developments are undermining the well-being of workers and their families (Hipple and Stewart 1996a, 1996b; Osterman 1988; Christensen 1998). Others have argued that contingent work's spread may result in growing demand for government assistance (Dillon 1987) and suggest that contingent employment facilitates the oppression of marginal groups (Martella 1991; Polivka 1996b; Spalter-Roth and Hartmann 1998; Banegin 1998). Finally, some critics charge that the shift to contingent labor is part of an attempt to undermine unions (Aronowitz and Defazio 1994; Rifkin 1995). In short, the employment relations scholars view contingent labor as an unraveling of the

system of employment established by the New Deal and a return to laissez-faire capitalism. Consequently, they argue for either strengthening New Deal institutions or searching for new institutions that will provide enhanced security (Benner 1997; Carre and Joshi 1997).

The employment relations view of contingent work as exploitative is most vividly articulated by ethnographies of temporary work in clerical or industrial settings (McAlester 1998; Parker 1994; Henson 1996; Rogers 1995; Smith 1996, 1998). Informants in these studies report being forced into temporary employment by circumstances that make it difficult to find full-time jobs. They subsequently experience a continuing sense of insecurity and uncertainty.[3] Poor working conditions are often described: low wages and high work-related expenses; disputes between clients, agencies, and workers over payment and hours; antagonism from permanent employees and a sense of isolation, exclusion, estrangement, and dissatisfaction with work. In comparison to these disadvantages, informants report few advantages. Some claim to enjoy the flexibility of scheduling their work and the freedom of being able to reject jobs that are particularly unpleasant. Others say they prefer to receive their compensation as "fast cash" rather than wait for a monthly paycheck. Still others report obtaining satisfaction from knowing that their services are "really needed" by companies in crisis. Overall, however, the disadvantages of contingent work clearly outweigh its advantages.

Although the exploitation and social problems that concern employment relations researchers deserve close attention, one can question whether their view validly describes all contingent work. With few exceptions (Barker and Christensen 1998; Jurik 1998), the employment relations image of contingent work relies on studies of low-skilled occupations. Even labor economists and industrial relations researchers, who acknowledge the changing composition of the contingent work force, quickly lose sight of the highly skilled sector in their analysis because they rely on aggregate data, which is weighted toward the responses of traditional temporary employees (Cappelli 1999; Kalleberg et al. 1997; Spalter-Roth et al. 1997). Yet, students of work have long understood that there are substantial differences in social organization between low- and high-skilled work. Permanent professional, technical, and managerial jobs are usually more secure, more remunerative, more varied, and more intrinsically involving than lower-skilled service and industrial jobs. It stands to reason that low- and high-skilled contingent work should vary in similar ways. By overlooking highly skilled contingent work, the employment relations perspective risks confounding the effects of contracting with the correlates of low-skill occupations.

Free Agent Perspective

In sharp contrast, the free agent perspective focuses almost entirely on the experience of highly skilled contractors. Most advocates of free agency are futurists, human resource consultants, or staffing industry experts who write books aimed at the general public or publish articles in popular magazines. Nevertheless, their point of view is consistent with more academic versions of "agency theory" in that both stress the advantages of free labor markets.

Advocates of free agency agree that bureaucratic employment and its supporting institutions are unraveling, but, unlike those who adopt the employment relations perspective, they endorse this development. They portray organizational employment as constraining and unjust and view "jobs" and "careers" as outmoded inventions of the industrial revolution that were designed to meet the needs of large organizations (Bridges 1994; Pink 1998; Beck 1992; Caulkin 1997; Darby 1997). In the unraveling of bureaucratic employment they see a

[3]Jurik (1998) is a notable exception in that only 20% of her self-employed, home workers felt forced into their home businesses. Nevertheless, Jurik fixed on the perceptions of that 20% in assessing how home workers felt about their work arrangements.

return to craft-based models of employment centered on marketable skills that release people from the confines of bureaucracy.

Advocates of free agency promote a post-industrial vision of economic individualism in which entrepreneurial workers regain independence and recapture from employers a deserved portion of their surplus value. The free agent literature is replete with stories of contractors who vacation when and where they choose, who live in exotic places because they can telecommute, and who successfully integrate the demands of their work with the needs of their family. Although professional and technical workers typically populate such stories, proponents contend that people in all socio-economic strata could benefit by adopting a similar attitude to work (Bridges 1994). In short, free agency's emphasis on self-reliance and individualism echoes the rhetoric of Social Darwinism popular at the turn of the twentieth century (Bendix 1956).

The free agent perspective paints an optimistic picture of contingent labor that contrasts sharply with the employment relations literature point by point. Advocates of free agency argue that contingent status is a choice rather than a necessity; that it represents liberation rather than isolation from the workplace; that uncertainty about employment is actually minimized and that flexibility enhances personal control; that contractors receive more money than permanent employees because they are paid for every hour that they work at rates that reflect a premium for skills; and that full use of their skills results in a sense of self-actualization rather than estrangement. Although it is plausible that some of free agency's claims are consistent with the experiences of contractors in professional and technical labor markets, at present there is no way to know, because there have been no studies of high-end contracting.

Limitations of Existing Perspectives

Although the employment relations and free agent perspectives attempt to posit credible views of contingent labor, their depictions are too neat and narrow to capture the full diversity of the phenomena. Three limitations are particularly significant. First, both perspectives lack grounding in the experiences of a sufficiently broad range of contingent workers to facilitate comparisons. The free agent literature is largely non-empirical. Its proponents rely exclusively on anecdotes purposefully selected to support their views (see Bridges 1994; Davis and Meyer 1998). In contrast, proponents of the employment relations perspective rely on careful research, but their concern with exploitation has led them to study low-skilled temporary workers. Thus, both literatures lack empirical studies of highly skilled contractors.

Second, both perspectives overlook diversity and contradictions even within occupational sectors. Advocates of free agency generally ignore the risks and costs of contracting. Although employment relations researchers acknowledge that contingent work may have benefits, the positive aspects are typically downplayed. Nevertheless, there is evidence that even lower-skilled contractors have a wider range of experiences than most commentators imply and that the variation may depend on situational and organizational factors (Lautsch 1998; Benson 1998; Pearce 1993; Cohen and Haberfeld 1993; Smith 1998).

Finally, both perspectives imply that contractors use limited conceptual frames to make sense of themselves and their work. Employment relations scholars assume that people construct the meaning of work against a backdrop of involvement in an organization. Advocates of the free agency view suggest that people define themselves by their skills and by the role they play in an entrepreneurial labor market. This dichotomy of hierarchies and markets artificially limits and simplifies the social contexts in which contingent workers operate and develop a sense of self. Specifically, the literature on contingent work largely overlooks occupation—long known to serve as a source of worker identity (Van Maanen and Barley 1984)—as a locus for organizing and sense-making.

Developing a more accurate image of contingent work will require collecting grounded data on various forms of contingent work and on the contingent workers' perspective. This will enable researchers to develop better typologies of contingent employment and explain distinctions that currently appear to be contradictory. It was in order to develop a more grounded image of contingent employment in skilled labor markets that we set out to study why engineers, software developers, and information technology professionals become contractors and how they ultimately come to interpret the advantages and disadvantages of contracting. As we shall show, our data indicate that neither an employment relations nor a free agent perspective adequately captures the themes that run through the contractors' discourse. Instead, our analysis suggests that the experience of high-end contracting is more variegated than currently imagined and that notions of occupation are important for understanding how contractors make sense of their situation.

Data and Methods

Because there is at present no representative enumeration of individuals who work as technical contractors, researchers have several equally troublesome options for choosing respondents and informants. One could convince a staffing firm to make available the names of the people in their databases, sample from one of several résumé databanks found on the Internet, or seek subscription records from magazines targeted at contractors. All of these sources, however, are biased in different ways. Our approach was to select informants from a list of nearly 500 contractors who registered for a seminar on contracting lifestyles broadcast live over the World Wide Web in December 1997.

The seminar was sponsored by a staffing firm that specializes in recruiting and placing technical professionals and was widely advertised in contracting circles throughout the nation via a number of channels, including magazines written for technical contractors. During the spring and summer of 1998, we interviewed 42 contractors who had registered for the Web Seminar, as well as 10 others whom we encountered in the course of the larger project of which this study was a part or who were recommended to us by contractors whom we had already interviewed. We actively sought contractors from outside Silicon Valley to ensure that our conclusions were not regionally biased, and we made a particular effort to interview women. Although our informants are not representative in a statistical sense, they span numerous regions, occupations, and age cohorts, as well as both genders. For this reason, we are reasonably confident that our data identify key issues and dilemmas that are of widespread concern to technical contractors.[4]

All informants worked in engineering or information technology–oriented occupations. Table 1 reports the distribution of informants across occupations as well as their age, their marital status, and the length of time they had worked as contractors. Although the contractors ranged from 26 to 68 years old, most were over 40. Forty-five percent had been contracting for five years or less, 33% for six to ten years, and 22% for over a decade. Sixty-nine percent of the informants were married. These demographic patterns parallel those reported in Black and Andreini's (1997) survey of IT contractors in the Silicon Valley. Fifteen of the contractors in our study were women. Fifty-eight percent worked in the Silicon Valley, and the remainder worked in Austin, Houston, Baltimore, Seattle, Toronto, Los Angeles, Atlanta, Billings, and Norwalk (Connecticut).

Five of our informants either were independent contractors or were incorporated as a business.[5] The rest worked as employ-

[4]It is important to recognize that substantive coverage does not imply distributional coverage. For this reason we make no population inferences, and we urge readers to exercise the same restraint.

[5]The distinctions between an independent contractor, a contractor who works as an employee of a staffing firm, and a contractor who is incorporated as

ees of staffing firms that specialized in finding contractors' jobs and served as the contractors' employer of record while they worked at a client firm.[6] Most informants had worked with numerous staffing firms over their career, and 37% had at some time secured a contract through the firm that sponsored the Web seminar.

Doctoral students trained in ethnographic interviewing conducted most of the interviews, which were structured around a common set of open-ended questions developed to ensure that each interview covered the same topics. These included the contractors' reasons for becoming a contractor, their career history, their perceptions of contracting, their business practices, and their personal and family life. Twenty-four interviews were conducted over the telephone and 28 were conducted face-to-face. The decision to use a telephone or face-to-face interview depended on the informants' preferences and geographical location. All interviews were recorded and transcribed.

In the course of each interview, we asked informants to reconstruct the sequence of events that led them to leave full-time employment for their first contracting job. To determine how subsequent experiences had affected their perception of contracting, we asked them to tell us later in the interview what they saw as the costs and benefits of contracting and what they would tell someone who was thinking about becoming a contractor. Our intent was to discover if and how the contractor's interpretations of contracting had changed. Although the informants' reconstruction of the past may have been colored by their situation at the time of the interview, there is evidence that they were able to distinguish between the two time periods: informants tended to answer the first set of questions using the past tense and the second with the present tense. More important, their answers were substantively different. We used answers to the first question to develop our analysis of informants' "reasons for becoming a contractor" and the second set for our analysis of how they interpreted the "realities of contracting."[7]

Reasons for Becoming a Contractor

The stories that our informants told about how and why they became contractors evinced three broad themes that, when arrayed sequentially, reveal an underlying narrative of transformation. The narrative begins with the lament of an expert for whom the tension between the ideal of technical rationality and the political reality of organizational life has become a source of simmering discontent. Then, an employer's action or an unanticipated event that undermines job security leads the expert to act on his or her discontent. Aided by serendipitous encounters with the world

a business concern the contractors' tax status, not whether they use staffing firms to find jobs. Independent contractors are individuals who satisfy a number of criteria set by the IRS, who receive wages, but who pay taxes and social security on a quarterly basis. Contractors who are incorporated have registered themselves as a business and bill for their services via an invoice from their corporation. All other contractors are "W2's," working as employees of a staffing firm that withholds taxes and social security. Like W2's, independent and incorporated contractors sometimes use staffing firms to find jobs, but unlike W2's they are not obligated to do so.

[6]We use the term "client firm" to refer to the organization for which a contractor performs work. Many firms recruit their own contractors, but then demand that they register with a staffing firm for the duration of the contract. The staffing firm becomes the contractor's employer of record and takes on the legal responsibilities of an employer, including the withholding of taxes and social security payments. The client firm pays the staffing firm a fee that includes the contractors' wages as well as the staffing firm's "mark-up."

[7]One limitation of our data is that we cannot say how people who had entered and then left contracting would have responded to our questions. There is no systematic way to identify individuals who leave contracting. Nevertheless, several informants said they intended to return to permanent employment. Several others had moved back and forth between contracting and permanent employment over the course of their careers.

of contracting, the expert finally chooses to escape the world of full-time employment into the world of contingent work, which promises a way of life more consistent with the expert's worldview.

Expertise and Discontent

Informants wove their tales of discontent with permanent employment around three motifs: politics, incompetence, and inequity. Together, these motifs depicted organizations as irrational and capricious. "Politics" was the term informants most frequently used to refer to the endless ways in which the machinations and manipulations of self-interested others undermined technical rationality as a criterion for organizational action. Often subsumed under the label of politics were managers' personal agendas and collective interests. The view that managers acted to further their own interests was so widespread that informants frequently portrayed technical professionals and projects as pawns in management's political games. A board designer recounted: "I used to have written on my grease board, 'Politics Is Our Most Important Project.' The boss came around and saw that and it went away real quick. But it's true: we're just tools in their project" (*Board designer, M, C50*).[8] A verification engineer offered a similar, albeit less humorous view:

> I worked a lot of long hours. It was for politics. It wasn't for getting the project done. It was like I was doing this for somebody else's ego, or somebody else's personal or career goals. They could check off, they got this or that done based on my work. I was getting the project done not for the goals of the project but for the goals of the people above. (*Verification engineer, M, C19*)

Politics was not confined to hierarchical relationships and interactions: peers were said to be as political as management. Organizational life was, therefore, rife with conflicting agendas, which informants perceived as a waste of time and a source of tension.

> You have to listen to a lot of people's agendas, spend time in a lot of unnecessary meetings, trying to keep everybody happy, trying to play their game. It's not strictly work-related, it's very unproductive, and it can be very tense… . But I've seen people in meetings who don't talk to each other there's so much tension going on. (*Mechanical design engineer, M, C44*)

Incompetence was the second source of discontent that informants routinely mentioned. Whereas they portrayed politics as an aspect of social life, they saw incompetence as an attribute of specific individuals. Organizational leaders were sometimes a target of criticism. For example, a software designer with over 15 years' experience

Table 1. Informant Characteristics: Occupation, Age, Marital Status, and Tenure as a Contractor.

Dimension	*Percentage*
Occupation	
Software Developers	40%
Hardware Engineers	12
Technical Writers	13
Quality Assurance	12
Information Technology	17
Project Managers	4
Marketing	2
Age	
60s	4%
50–59	19
40–49	38
30–39	29
20–29	10
Marital Status	
Married	69%
Single or Divorced	31
Years as a Contractor	
1–5	45%
6–10	33
11–15	12
16–20	4
21–25	4
over 25	2

[8]To assist readers, we provide information on the informant's occupation and gender as well as a unique identifier for each excerpt cited in the text. We use the format "(occupation, gender, identifier)", which appears at the end of each quotation.

offered a scathing indictment of entrepreneurial management in Silicon Valley, which he claimed was full of "ego-maniacs who just happened to stumble into a bunch of money." He continued: "There's plenty of people out there who've made money in spite of themselves. It's the Beverly Hillbilly story. They were shootin' at a rabbit, struck oil, and now they think they're a genius" (*Software developer, M, C39*). Another software designer said he had turned to contracting after encountering a series of senior managers whose incompetence shaded into dishonesty:

> I was at the naval shipyard for a couple of years, and they were going nowhere. I theoretically reported to the chief financial officer and they brought in a couple, how do we say, "yo-yos." We caught one of the CFO's funneling stuff into his condo in Florida. We had a series of CFO's and each one had a different idea of what needed to be done and how to do it, and I'm going, "No, I'm not playing anymore." You know? There was no real strategy or anything. (*Software designer, M, C12*)

However, it was middle management—and project managers, in particular—for whom contractors reserved their most sustained and detailed accusations of incompetence. The comic strip "Dilbert," which depicts the travails of technical professionals who work for managers who lack requisite skills, was a popular source of imagery. A software support technician made the connection: "I don't know if you read 'Dilbert,' but it's almost prophetic. I mean, they hire people to be managers that you'd say, 'Why in the world is this person leading?' They just don't have the skills" (*Software support, M, C18*). Often accompanying such complaints was the belief that informants were more rational and capable than the managers for whom they had worked. A database administrator's comments illustrate this perspective:

> I think I am a little bit smarter than a lot of people out there. If there were really good project managers out there, there would not be any contractors. The reason contractors are hired is because they [organizations] are in deep shit. And the reason they are in so deep is because they have been poorly managed or poorly planned. Like when I was working at [Astrotech]. The project manager there was bordering on schizophrenic; things changed every day: the project plan, the features of the software product. They changed every day! When that happens, people cannot get any work done. And then I—and the rest of the team—would be berated for not getting enough work done. They hire people as project managers without having worked up through the ranks. They have not done the work that the people they are managing are doing. They have no clue as to what is required to get things done. They don't know what is reasonable and what is not. (*Database administrator, M, C34*).

Informants felt that managerial incompetence bred trouble for individuals as well as organizations. For individuals, living with incompetence produced a sense of indignity and injustice. A quality assurance technician who had been laid off by a manager whom he perceived as incompetent explained, "To have a person like that say, 'You have been tagged and you don't have a job any more,' was just too much. This bozo is telling me I don't have a job any more and he's still working?" (*Quality assurance, F, C13*). Incompetent management, usually combined with other associated factors, also made experts feel they had little voice, a situation that informants viewed as detrimental to organizational performance. An informant who specialized in project management underscored the costs of suppressing an expert's voice:

> In the corporate world you may have an opinion, but you are not allowed to say it. When I worked on the project in Missouri, I said: "We are going to lose our rear ends on this project!" They recognize that now. But then they said: "You are not a team player. You are giving up before the battle starts." No, this is reality! Fifteen million dollars later, they will come back and say: "Why didn't you tell us?" (*Project manager, M, C14*)

The informants' third source of discontent was their perception that permanent employment was inequitable. Many claimed that employers exploited technical experts by requiring long hours without commensurate pay:

> There's no compensation for engineers. I had

to take a lower salary, I didn't get to take any vacation, and I worked a lot longer hours. When I worked at Motorola the last time as a permanent employee, I was required to work 12-hour shifts with no extra pay. And it just went on like that for months and months and months. (*Verification engineer, M, C19*)

I don't work for free anymore. As an employee I did that a lot, because I was exempt and didn't get paid for overtime. I have observed that the guy who will work for free—they will just give him more work for free. And I have noticed that no good deed goes unpunished when it comes to working for free and volunteering to do so. (*Software developer, M, C48*)

Inequity, however, was not simply a financial matter. Contractors claimed that the growing tendency for firms to demand loyalty without offering security was fundamentally unfair:

As time went on I saw that companies want loyalty, but they will not—and in some sense cannot—give loyalty to their employees. You know, if the company is falling apart, if it's going bankrupt—they're going to lay off employees. They're going to try and remain a viable entity. But, they want loyalty from me as an employee. Now, why should I do that? What do I get out of this relationship? I have to subject myself to reviews, to whatever the latest reviewing technique is out there. Peer reviews this week, something else next week. I have to subject myself to all of this stuff, company politics, for what? What is it that I'm going to get out of that? (*Software developer, M, C48*)

Informants claimed that inequitable employment relationships created an unpleasant work environment. A programmer spoke of the pettiness and competitiveness she had observed among full-time employees who felt they were improperly compensated:

I was working a contract at TRW just around Christmas. People were very upset because the bonus was a thousand dollars and to get your thousand dollar bonus you had to walk on water. Bonuses were graded, and they were arguing and complaining and yelling in the halls. And I'm thinking, "What is the matter with you people. Why are you doing this for a thousand-dollar bonus? You're highly paid people. Why are you standing here screaming about a mere thousand dollars? It's *nothing* in the grand scheme of things!" But everybody's involved in all the politics of stuff—who should be getting what, and why. (*Programmer, F, C27*)

Ultimately, politics, incompetence, and inequity exacerbated insecurity and undermined a climate of trust. A technical writer described the fear of layoffs she had observed among full-time employees in firms in the Silicon Valley: "You can smell the fear in the halls when you walk into some of those buildings. People are so tense, so afraid that they are going to screw up. They wonder about the next layoff" (*Technical writer, F, C8*).

Panel A of Table 2, which displays the number (and percentage) of informants who spontaneously mentioned politics (31%), incompetence (33%), and inequity (21%) as sources of dissatisfaction with permanent employment, indicates how widespread themes of expertise and discontent were among the technical contractors we interviewed. Since other informants may have failed to voice similar discontentment, one can only interpret these percentages as a lower bound. Nevertheless it is instructive to note that without prompting, over half of the informants mentioned at least one of these themes when explaining why they became contractors.

Triggers for Change

Although discontent with the exigencies of permanent employment was widespread, it was insufficient to motivate most of our interviewees to turn to contracting. Informants did not generally decide to become contractors until they encountered layoffs, acquisitions, financially troubled employers, deteriorating work conditions, and other events that made changing jobs suddenly seem inevitable or desirable. These were events that informants could neither anticipate nor control. For at least 50% (see panel B of Table 2), such events triggered a choice between seeking another full-time position, becoming a contractor, or becoming unemployed.

By far the most common triggers were downsizing and other situations that sug-

Table 2. Themes in Contractors' Accounts of Entering Contracting.

Theme	*Number*	*Percentage*
A. Expertise and Discontent		
Organizational Politics	16	31
Incompetent Management	17	33
Inequity	11	21
Number of Contractors Who Mentioned at Least One Theme	28	54
B. Triggers		
Laid Off	11	21
Unable to Find Full-Time Work	3	6
Probable Loss of Job	11	21
Deteriorating Work Conditions	4	8
Boring or Routine Work	3	6
Prospect of Undesired Relocation or Travel	3	6
Number of Contractors Who Mentioned at Least One Theme	26	50
C. Factors Encouraging Escape into Contracting		
Encounter with Contractors	11	21
Encounter with Staffing Firms	11	21
Desire to Work for a Specific Company	6	12
Encounter with Friends/Prior Customers Who Said They Could Use Someone with Informant's Skills	2	4
Number of Contractors Who Mentioned at Least One Theme	27	52
D. Anticipated Rewards		
Money	23	44
Autonomy at Work	7	14
Development of Marketable New Skills	8	15
Control over Time	6	12
Entrepreneurialism	3	6
Job Variety	4	8
Number of Contractors Who Mentioned at Least One Theme	32	61

Notes:
The themes are listed in the order in which they appear in the paper.
The total number of informants in each panel is the sum of all informants mentioning at least one thematic item mentioned in the panel and hence cannot be computed by summing the number of informants who mentioned each item.

gested job loss was imminent. Eleven (21%; see Table 2, panel B) of the contractors were actually laid off from their last permanent job. Most went directly into contracting:

In March of '97 Apple had a huge layoff, 40% of my department was cut, and I was one of the people laid off. This was a long, drawn-out process, and there already were rumors that Apple was speculating about layoffs, so many of us had begun thinking what we would do in that case. I had been toying with the idea of becoming a contractor before and so I decided that if I were to be laid off, I would become a contractor. So that's how I got into it. I knew that becoming a contractor would require some courage and a leap of faith of sorts because contracting is, you know, unstable by its nature, and I knew I would need to have something to live on while getting myself going. And yet I knew that it was something that I ultimately wanted to do and it was just a question of when I'd get up the courage to take this step. And the layoff seemed like the perfect opportunity because we all got severance packages that softened the fall. (*Technical writer, F, C24*)

Others (3 informants) initially looked for permanent work after being laid off, but could not find it.

I didn't realize at the time, when I quit DEC, that it was changing my life forever. I went to

Apollo; four months later I got caught in the first layoff wave at Apollo, and it decimated the entire tech writing department. Four months after that, another 20 to 30 percent were laid off. Shortly after that, Apollo was bought by Hewlett-Packard. Apollo went right down, it was absolutely amazing. When I got laid off at Apollo, that was it. I could not find a permanent job anywhere in Massachusetts. So I started to go contract instead. (*Technical writer, M, C9*)

A number of contractors (11, or 21%) did not wait for the pink slip. Observing that their employer was having financial difficulties, they decided to leave the firm before it collapsed around them:

Hayes filed for Chapter 11 protection. They successfully reorganized, but in the midst of all this, I said, "Look, they're not being very innovative technology-wise. And they're not putting any money into new products like I think they should. I just don't see it being viable." People were bailing out left and right. My former boss, who had already quit, said, "Look, call up this company, MRJ, Inc. [a staffing firm]. They need somebody like you and they're paying really good money." MRJ made me an offer. I said, "Man, this is just too good to turn down." So I left Hayes." (*Embedded systems engineer, M, C41*)

For another set of contractors (4, or 8%), deteriorating working conditions were sufficient to trigger the shift to contracting, even though these events did not explicitly threaten their job security. For example, a multimedia developer had been demoted, felt unappreciated, and saw the acquisition of his company as a sign that it was time to move on:

I was in computer support for seven years, and at one point I was a manager but I got demoted and I ended up being in field service. There was a period of about two years there, where about every single day I hated my job and I wanted to get out of it. When the company I was working with got sold to a bigger company, I said, "I am not doing this again," and I left. So that is what I mean by push. If a company keeps rejecting and does not take advantage of the skills I have, there is no sense of fulfillment. That is enough of a push. It was sort of like, the universe is giving me a hint, maybe you should move on. *(Multimedia developer, M, C3*)

Others indicated that they turned to contracting because they were bored (3 informants) or because their employer had asked them to relocate and they did not want to move (3 informants).

Escape into Contracting

Triggering events were crucial for deciding to move from permanent to contingent employment, because they led informants to consider their options. However, even the experience of being laid off was, by itself, insufficient to tip the balance in favor of becoming a contractor. As 52% of our informants spontaneously reported (see Table 2, panel C), the decision to enter contracting often required exposure to people or opportunities that made contracting seem more viable than taking another full-time job. Exposure to contracting could occur through encounters with contractors, staffing firms, and potential clients.

Most informants had worked beside contractors in previous jobs where they had opportunities to observe the practicalities of contingent employment. Informants were particularly taken with the idea that contractors made more money for doing the same work. Twenty-one percent of our informants noted that when they finally made their decision, other contractors served as role models:

There were several contractors also working at General Electric and I found out that they were making a lot more money than I was even though they didn't have the benefits I did. So at one point I had a disagreement with the people I was working for and I said, "The heck with you," and I quit General Electric and I went to the job shop that was employing the guys that were working at GE and I said, "Do you guys have a call for anybody?" And they said, "Oh yeah we do, and we will even give you your job back." So they gave me my job [at GE] back at about a third increase in salary. (*Quality assurance, M, C7*)

Encounters with staffing firms were a second, common stimulus that led informants to consider contracting as an option. Technical professionals, especially those in managerial roles, routinely encounter rep-

resentatives of staffing firms seeking new recruits and job openings. Eleven of our informants (21%; see Table 2, panel C) reported being lured into contracting after encountering agents of staffing firms at the very time when they were ready to consider change:

How did I get into contracting? The company that I worked for hired contractors. And at one point they finished up the portion of the project for the contractors and they let them go. The company that they worked for, the Registry, called up a few weeks later and said, "Hey, do you need anybody else?" I said "No." They said, "How would you like to go to work as a contractor?" And I said: "Sure!" (*Database administrator, M, C34*)

Another 12% of our informants said they entered contracting because they wanted to work for a specific firm, but found that the firm would only hire them on a contingent basis. In fact, some firms appeared to have an explicit policy of hiring people as contractors to assess whether to offer a full-time job:

I was working horrendous hours and I got fed up with it after a while. My neighbor said: "I see your light on at 3:30 every morning. What's going on?" And I said, "Well I'm working on this RISC chip." She said her husband was at IBM, and suggested I try there. So I talked to IBM and they gave me this six-page folder and said they didn't hire anybody who had experience. They hired everybody right out of school. I said, "How do you gain experience? How do you hire people from outside?" And they said, "Well you have to come in as a contractor." So I did that. I got a one-year contract, and then I got a six month extension. (*Verification engineer, M, C19*)

A final type of encounter that pulled informants to contracting was a direct offer of contingent employment from a potential client. In some cases, offers came from personal friends and acquaintances:

A friend of mine, a diving buddy actually, who was the Assistant Dean of UCLA needed someone with my skill set to do a major project. She said: "Gee it would be *great* if you were available!" and I was like, "Well, yeah, maybe I *could* be available." So I decided that it was time to get out of the corporation, go off on my own and start making some money for myself and being my own boss. All of a sudden I had a one-year contract full-time with UCLA to do this project. (*Software developer, M, C28*)

Opportunities also came from customers of former employers who believed that an informant had valuable skills for which they were willing to pay high rates on a contingent basis. A software developer explained how he was hired to develop and maintain software sold by his former employer:

The customers were just very easy to find. They wanted custom development. They were existing customers of the software house that I was working for. The company did not offer custom development services. In the last two years, in fact, it became obvious that the president didn't really want to take the company anywhere and was actually looking to sell it. More and more customers were getting antsy. They still wanted modifications. So that's when I went into contracting. And it was by word of mouth. I had to turn down work, there was so much work. (*Software developer, F, C11*)

Anticipated Rewards

Encounters with contractors were crucial for informants because they modeled a way to escape discontent while gaining benefits that seemed more attractive than those associated with full-time work. Of the various advantages of contracting, the most frequently and compellingly expressed was the belief that contractors made more money. Forty-four percent of our informants volunteered that they were drawn to contracting primarily because they thought they would make more money. A numerical control programmer captured the general tenor of contracting's economic lure:

A little less than a year ago, my family and I were living in Seattle and we were getting a little tight on money—getting behind, getting in debt too—because Boeing did not pay enough for me to support my family without my wife working. She doesn't work and I don't believe she should have to. We have four children. I actually worked two or three jobs at one time for about a year. I was even delivering newspapers and doing other odd jobs. At Boeing I was making about $40,000 to $44,000 a year plus overtime which maybe averaged out to be another $5,000 a year. Here, in eight

months I've made about $115,000. (*N.C. programmer, M, C47*)

In fact, the lure of money was so persuasive that contractors were willing to forgo what they saw as the benefits of a more traditional career:

It was a big move, from permanent to contract. I gave up the chance to climb the corporate ladder, the security, benefits. I mean, you lose everything. As a permanent employee you can climb up the ladder in the company and get more responsibility, more opportunities. But you lose everything as a contractor. [*Interviewer: So why did you move?*] The money! They paid a lot more! (*Systems administrator, M, C42*)

Enhanced income, however, was not the only attractive feature of contracting. A number of informants (14%) anticipated more autonomy in their work.

I really wanted to have a little more freedom and choice about what I was involved with. I had been doing software support for network fax products and I ended up doing some support for some development work for a company building network interface cards and I really wanted to gravitate more toward networking on a full-time basis. (*Systems administrator, M, C6*)

Others (15%) anticipated developing new skills: "I thought, I've been doing this firmware stuff and systems bit for quite a while. Maybe I need to branch out and learn some of this IT stuff, like client server and networks and GUI's and all this" (*Embedded systems engineer, M, C41*). Still others (12%) sought more control over their time. A marketer described how she quit a permanent position and came back as a contractor to gain the flexibility to pursue multiple jobs:

The company did not allow part-time employees, so I had to be a temp. I was outsourced through a regular temp placement agency, working for him half day versus being a full-time employee. Then I was free to work at the lectures and video company for half of the day. And it was flexible hours. I just had to tell them the day before what time I would be expected. The flexible hours really helped, being able to juggle these things. (*Marketer, F, C15*)

A few of our informants were drawn to contracting not because they wanted money, flexibility, or control, but because they liked the entrepreneurial excitement of stringing together a series of temporary contracts (6%) or because they sought the variety that contracting inevitably brought (8%).

Our informants' stories of how they became contractors suggest that explanations for the rise of high-end contingent work that consider only a one-sided set of causal factors cannot adequately explain why technical professionals become contractors. As scholars of employment relations would anticipate, downsizing, outsourcing, and related practices triggered movement into contracting for a significant minority of informants (Cappelli 1999; Barker and Christensen 1998). But the individualistic and financial motives that figure so prominently in free agency's rhetoric of employability were also integral to many contractors' accounts. Moreover, serendipitous encounters with the world of contracting were critical for making contracting seem a realistic option at a crucial point in time. The complexity of "pushes" and "pulls" that led informants into contracting make it difficult to distinguish contingent workers who entered temporary labor markets voluntarily from those who did so involuntarily (for example, Tilly 1991). At least among our informants, most of whom could have easily found a permanent job, the decision to enter contracting usually evinced attributes of both.

In short, the decision to become a contractor seems to reflect a mix of structural and economic factors as well as a set of motives rooted in a professional ideology of work. Most informants viewed themselves as experts and subscribed to the notion that decisions about work should be governed primarily by an ethic of technical rationality based on logic, reason, and practicality. But they had discovered, to their chagrin, not only that organizational life deviated from the way they believed organizations should operate, but also that, as experts, they were not always given the respect they thought they deserved. In this sense, the contractor's discontent is reminiscent of the difficulties sociologists of work have repeatedly discovered among

professionals in bureaucratic settings (Marcson 1960; Ritti 1971; Raelin 1985).

Although some contractors found their discontent a sufficient motive for entering contracting, most required a push from their environment before they took action. At this point, an encounter with a contractor, staffing firm, or potential client made contingent employment seem like an option that would allow informants to align their work life with their professional ideology. Contractors not only hoped to make more money, they wanted to be treated as knowledgeable and enjoy the autonomy, flexibility, and influence they believed they deserved. Our informants, therefore, initially saw contracting as a way to escape the burdens of organizational life, while securing the benefits and respect befitting a professional. The practical realities of contracting, however, soon proved to be more complicated and ambiguous than most newly minted contractors anticipated.

Realities of Contracting

When asked to evaluate their experience as contractors and offer advice for those who might follow in their footsteps, informants articulated a more complex and differentiated view of contracting than when they spoke about why they had become contractors. Experience as a contractor cast new light on their original concerns and posed a new set of problems. A few contractors even expressed belated recognition that they had lost some of the advantages of full-time employment. Most had come to perceive two sides to contracting, a matched set of pros and cons that suggested underlying tensions. The informants' discourse on the realities of contracting centered on four themes, each marked by an opposition: independence versus being an outsider, security versus uncertainty, enhanced income versus hidden costs, and skills as expertise versus skills as a commodity.

Table 3 documents the number of informants who spontaneously voiced each theme during their interviews. As with Table 2, these percentages must be read as clues about the relative importance of the themes among technical contractors: they are, at best, lower bounds of a sample estimate, because informants were not responding to structured questions.

Independence versus Being an Outsider

As previously discussed, informants initially perceived contracting as a way of gaining independence and distance from the irrationalities of organizational life. As panel A of Table 3 indicates, even after years of experience, at least 69% of our informants continued to view independence as one of contracting's advantages. Like many contractors (37%), a quality assurance specialist felt that contracting had delivered the promised escape from organizational politics:

> As a contractor, many times you can be removed from corporate politics—not removed completely, but at enough of a distance so that you don't have to take a position—you can be as involved as you want to be. Whereas as an employee, I found that you are involved whether you want to be or not. Contractors can step back a bit, because people let them do that. They say, "Oh this person isn't here forever like the rest of us." (*Quality assurance technician, F, C13*)

Contracting also granted informants the freedom to express professional opinions and offered at least the illusion of more control over their own time, in part because they were less invested in the organization and less enmeshed in social relationships at work (31%). Because contractors were exposed to many work environments, 21% also mentioned that they experienced more challenge and variety in their work:

> The thing I like with consulting is I get to do different things. And I know there's an end to it and I can do another project. I was offered a full-time job; I did consider it, but when I thought about it, I realized I would still be doing the same thing. So I opted not to take it. (*Multimedia developer, F, C26*)

In other words, contractors apparently found that moving from job to job relieved them of the burdens they associated with full membership in an organi-

Table 3. Themes in Informants' Accounts of Their Experience as Contractors.

Theme	*Number of Informants*	*Percentage of Informants*
A. Independence Versus Being an Outsider		
Independence		
Escape from Organizational Politics	19	37
Freedom to Express Opinions	16	31
Job Variety	11	21
Total Mentioning at Least One Independence Theme	36	69
Being an Outsider		
Unable to Speak for Client Company	3	6
Clients Bar Access to Information/Technology	7	13
Treated as an Outsider	10	19
Repeating Cycles—Adapt to New Firms	6	12
Total Mentioning at Least One Outsider Theme	18	35
B. Job Security Versus Uncertainty		
Greater Security[a]	10	19
Uncertainty		
Uncertainty/Lack of Security	17	33
Must Repeatedly Look for Work	6	12
Must Endure Periods without Money to Pay Bills	4	8
Total Mentioning at Least One Uncertainty Theme	21	42
C. Enhanced Income Versus Hidden Costs		
Enhanced Income[a]	26	50
Hidden Costs		
No Benefits	15	29
Skills Training Costs	13	21
Responsibility for Taxes and Fear of IRS	4	8
Downtime Costs	11	21
Lack of Stock Options	2	4
Total Mentioning at Least One Hidden Cost	29	56
D. Skill as Professional Expertise Versus Commodity		
Professional Expertise		
Developing Marketable New Skills/Learning	15	29
Gaining Influence and Respect	10	19
Total Mentioning at Least One Expertise Theme	21	40
Commodity		
Having to Keep Skills Current	9	17
Finding Specialized Niche	3	6
Total Mentioning at Least One Commodity Theme	11	21

Notes:
The themes are listed in the order in which they appear in the paper.
The total is the sum of all informants mentioning at least one theme in this category and so cannot be computed by adding the number of informants mentioning each theme.
[a]Because this theme had no significant variants, item and theme total are equivalent.

zation. But, once they experienced the realities of contracting, they also discovered that independence had a price: they were now outsiders who developed only short-term relationships with employers. Their status as outsiders manifested itself in a variety of ways. For example, a design engineer lamented that he was no longer granted the right to speak for the company:

When it comes to representing the company, I can make recommendations and all that. But when it comes down to it, I can't speak for the company. I don't have the authority to do things in their name even though I have a job description that says, "OK, this contract employee is the one who will recommend go-no-go on this kind of thing." So it's just … it's a minor little point, but it's a point nevertheless. (*Design engineer, M, C5*)

More crucially, and less symbolically, some (13%) discovered that being an outsider could limit their access to more interesting work, thereby undercutting one of contracting's perceived advantages:

There's one big difference. I can't do some things I could do as a permanent employee. I'm working on a joint venture project on nonvolatile memory. But there're some aspects of it I can't get involved in because I'm a contract person, not a permanent employee. I'm not permanent, so I might walk away from it and leave a hole in their group. Also, they don't want to give out that sort of technical information to just anybody. It's sort of like the company's jewels: process information and stuff like that. (*Verification engineer, M, C19*)

Contractors also found that they were not always treated well by permanent employees, precisely because they were perceived as outsiders. A programmer expressed the perception well: "Some companies don't treat contractors as good as their employees. In a lot of places, employees are a little unfriendly because they're really cautious about what information to share with you" (*Programmer, M, C22*). Informants were conscious of the day-to-day consequences of lacking full membership in an organization, such as being excluded from company parties or being given an undesirable workspace. Most considered these consequences to be an acceptable price for contracting's advantages, but a significant minority (19%) found them troublesome and spoke openly of their dissatisfaction with being a person without a community:

The one thing I've actually never really talked about is the lack of belonging. As a contractor, you often go from group to group. You don't really feel tied to the goals and vision of any one community of writers. In contrast to the experience I had at Apple where I was part of a large well-respected documentation group that was doing a lot of interesting things and had somewhat of a vision for the future. There were opportunities for individuals to feel part of something greater and more important. As a contractor, I'm temporarily tied to the goals of all these different groups. I have my own personal goals, but less of a sense of, you know, belonging and community. (*Technical writer, F, C24*)

Others (12%) mentioned the frustration of becoming acclimated to a new setting only to leave and start over somewhere else. A mechanical engineer described the experience of being a professional stranger:

You go to a new company, they look on you as outsider. They don't tell you much, and you're a stranger in the beginning, and it takes a while to get to know them. You have to prove yourself all over again. It takes a while to establish yourself. By the time you establish yourself, you're out of the company. Your work is done and you're gone. So that's the downside. (*Mechanical design engineer, M, C44*)

When informants began contracting, being a perpetual newcomer was not entirely negative. It offered diversity and opportunities to learn. Over time, however, the positive aspects of being an outsider could fade and the negative aspects predominate. As a programmer, who had been a contractor nearly all his career, put it: "You're having to figure out a new culture every time you change jobs. It's tough. At the beginning that was one of the benefits, but now it's getting to be one of the drags" (*Programmer, M, C21*).

In short, the majority of informants felt that contracting had liberated them from the costs of membership in an organizational community. Many had entered contracting, at least in part, to escape such costs, and most remained disdainful of organizations' social demands. After working a number of contracts, however, informants discovered that freeing oneself from organizational life entailed accepting a new burden: the existential status of a perpetual stranger.

To manage isolation, some contractors developed affiliations along occupational and professional lines. For instance, some participated in—and one even founded—a users' group where software developers gathered to exchange information about technical and career issues. Others worked through staffing firms whose business model approached that of an occupational collective, and one technical writer actually affiliated with an occupational union. Still others turned to virtual communities on the World Wide Web for technical and professional support as well as for finding work. Almost all informants recognized the importance of cultivating informal networks composed of professional peers and, in fact, the majority had such networks. For veteran contractors, in particular, these networks provided a substitute for the community they had renounced, but the informal networks that most contractors maintained had not developed into an extended professional community. These networks, nevertheless, helped contractors address another key difficulty: the problem of job security.

Job Security versus Uncertainty

Perhaps the key benefit of permanent employment is the sense of social and economic security it affords. On the face of it, contractors traded this security for the uncertainty of the market, a calculated risk that seemed worthwhile or unavoidable at the time contractors made their decision. With the benefit of hindsight, informants now viewed security from two conflicting perspectives. Nearly a fifth (19%) of our informants claimed without prompting that contracting had actually *enhanced* their sense of security (see Table 3, panel B). Those who articulated this view portrayed the security of permanent employment as an illusion. Security was not about keeping a job, they claimed, but about how easily one could find another job when one's current job ended. These contractors believed they had developed networks and skills that enabled them to manage job loss as a matter of course. The result was an optimism that belied popular perceptions of contingent employment's uncertainty:

> Job security is the ability to get a job. Staff people don't have job security; you can be fired whenever the company likes. And they don't have the networks. They can't call someone and get a job tomorrow morning. They think they have job security but it's on paper. People don't realize that real job security is when you have a network of managers and recruiters where you simply call them and say, "OK my contract finished," and they say, "Great, I can place you somewhere tomorrow morning." The social reality is, the staff person has no connections to a next job. They don't have social relationships. They're isolated. A contractor has these relationships. That's real job security. That's the real game. (*Technical writer, M, C32*)

> People always said, "Oh, contracting, you make a lot of money but your future is not secure. No job security." I have never ever been fired from a job. There've been a number of times I was at places where they had layoffs. Big tearful scene out in the parking lot after the big company-wide meeting. "Oh I'm going to miss you." "Oh I don't know what I am going to do." I'm watching these people—you know, hip flasks of vodka, tearful goodbye scenes. I'm a contractor. I've got a job. I've got a job as long as I want one. That's happened a lot, and I don't know why. It may be that employees end up costing the company a lot more. It seems like whenever there's a downturn, whenever there's a layoff, management has an opportunity to get rid of the corporate deadwood with plausible deniability. Whereas, it's not an issue with a contractor because they can make them go away anytime they want. That's always how it's panned out for me. Stay as long as you want. You got to quit because they won't kick you out. (*Software developer, M, C36*)

Our informants' depiction of contracting as secure had experiential confirmation: most had yet to experience significant "downtime," their term for periods between contacts. Nevertheless, at least 17 (Table 3, panel B) were still concerned with long-term security and believed that at some point they would face a prolonged period of downtime and its accompanying financial difficulties. Although most thought they could survive, and proved so by repeatedly choosing to remain in con-

tracting, uncertainty lurked in the background. Contractors countered their doubts with the argument, again grounded in their own experience, that risk diminished with experience: "There *is* more risk. A contract can be over today. But the more you stay in contracting the less scary it becomes. Those in it for 20 years would never be an employee" (*Quality assurance, F, C13*). Nevertheless, a third of the informants considered latent uncertainty to be a downside of contracting, and half of these found it stressful:

> Well, initially it was very stressful. Right now, I'm kind of relaxed because I'm in the middle of a contract that's rather long and they want to renew. But, many times during the year you have to think about finding work. You're always looking for work. They say it gets easier with time. Once you've developed, if your clients are happy with you, they'll come back and refer work. But there's that constant stress. (*Technical writer, F, C24*)

Moreover, contractors discovered that the activities necessary for minimizing uncertainty were themselves a disadvantage. As 12% of our informants mentioned, searching for jobs, maintaining a network, and keeping records took time and energy:

> You are looking for a job every couple of months. That is probably no different than a salesman who is out of a job every morning—he has got to go create business every morning. But, still, you have to devote some of your time and some of your energy to finding work, instead of working your work. So that is a disadvantage. (*Programmer, M, C48*)

A surprisingly small number (8%) of our informants, however, feared that failing to find a job would drain their savings, making it difficult to pay bills and make ends meet.

Commentary on the nature and meaning of security and uncertainty was nearly ubiquitous in our informants' evaluations of contracting. All were aware of the risks associated with contracting, and those who worried about uncertainty were more prevalent than those who did not (40% versus 19%). For the most part, however, contractors had discovered ways of redefining or minimizing the lack of security. The most common view was that the economic rewards of contracting, at least for the moment, outweighed the risk.

Enhanced Income versus Hidden Costs

Contractors readily agreed that money was contracting's primary advantage. Without prompting, 50% of the informants mentioned that contracting had enhanced their income (see Table 3, panel C). Most estimated that they made 30–300% more than they had as permanent employees. Even those who were initially concerned about making ends meet believed that contracting had made them wealthier. Few envisioned returning to permanent employment, and many had already turned down one or more offers. A story told by an embedded systems engineer was typical:

> [My manager] said to me, "Everybody loves your work, we like working with you. So, we're going to offer you $80,000 a year and a $5,000 signing bonus and we might talk about stock options." And I go, "Well, Mark, gee that's great." After a weekend I come back and he says, "Have you thought about it?" And I say, "Yeah, Mark, that's a great offer but, you know, by the time I take care of all my benefits, vacation and everything else, there's still a twenty thousand dollar difference between what I can make as a contractor and what you're offering me. I'd love to take it if I could, but it just doesn't make economic sense." (*Embedded systems engineer, M, C41*)

Even contractors who factored downtime into their calculations concurred that the economics of employment favored contracting. In fact, no informants said they were economically worse off than they had been as full-time employees. One reason for this was that they had experienced less downtime than they originally expected. Another was that unlike permanent employees, contractors were paid for every hour they worked, usually at a rate higher than permanent employees performing comparable work. An outspoken programmer put it bluntly:

> They're asking me to work seventy hours a week. And, you know what? They're going to pay me for seventy hours a week. When they ask a full-

time person to work seventy hours a week they're going to pay them whatever their salary is. The full-time person is sitting there going, "Ugh." I'm going, "Ching, ching, ching, ching." (*Programmer, F, C27*)

Yet, despite their insistence that they were economically better off as contractors, informants had come to realize that contracting entailed hidden costs. One cost, widely recognized in the literature and mentioned by 29% of our informants, was the burden of providing one's own benefits, especially pension funds and health insurance. Less widely appreciated outside contracting circles was the burden of maintaining one's expertise (mentioned by 21% of our informants). The direct costs of remaining up-to-date included fees for courses as well as the price of equipment, books, and software:

You make a lot of mistakes, and you have to go, "You just blew five thousand dollars on a piece of software that you're throwing away. Whoa!" Especially when you're starting out, that's hard to do. God! (*Software developer, M, C12*)

Other costs were indirect, as when contractors lowered their rates to secure contracts from which they hoped to learn new skills:

When I moved from the old—not *that* old, but legacy—skills to the newer, more popular skills, I had to lower my rate because obviously I was coming as a neophyte as opposed to someone who has several years of project experience. Mostly, customers want references for real projects as opposed to something that I did at home. So the learning of new skills as a contractor is a challenge. (*Software developer, F, C11*)

Some contractors (8%) said that higher taxes and different tax schedules were another hidden cost that reduced the monetary advantage of contracting: "I earn a little bit more than an employee. But let's get it straight: It may appear that I earn twice as much because I take home these huge checks, but half of it goes to the government. I have to pay my own taxes" (*Technical writer, M, C17*). Especially those contractors who worked as independents (or 1099er's, as they are known in contracting circles) feared a tax audit and its subsequent penalties, since the IRS was thought to scrutinize independent contractors closely.

Another hidden cost was the price of uncertainty itself (21%). The potential irregularity of a contractor's income in the face of fixed expenses meant that contractors had to think explicitly about financial strategies for ameliorating uncertainty's impact:

Say something turns bad, and my contract at Cisco is terminated. Now I have my $860-a-month mortgage, my $300-a-month car payment. $300-a-month food bill, I don't know, whatever else, you know, utilities, electric, gas, water.... You learn to think differently as a contractor. (*Technical writer, M, C9*)

At least one informant managed the cost of uncertainty by maintaining a buffer account in the bank, and several others implied that they had done the same. As this engineer (*M, C19*) put it, "The difference between being contract and being permanent is the amount of money I have in my savings account." Other contractors spoke of delaying major purchases until they had saved enough to pay for the item in cash. Married contractors usually said they could get by on their spouses' income, at least for a short period of time.

Finally, technical contractors perceived the lack of stock options as a hidden cost. Although contractors typically made more money than permanent employees, especially in the entrepreneurial climate of the Silicon Valley, permanent employees could become wealthy overnight if their firm went public and did well on the stock market. At least two of our informants were still troubled by memories of lost opportunities to become wealthy:

I turned down a job at Netscape because I wanted to contract. I mean I turned down a job offer from Netscape the month before they went public! I decided not to apply when Grayson moved to Mountain View even though I was doing Web development at the time. That's the one that hurts. Of course I had no idea at the time that Netscape was going to do that. I keep reminding myself of that when I start feeling really stupid. (*Software developer, M, C21*)

Economic considerations were central

to the informants' initial decisions to contract, and most felt that they had reaped the economic benefits they sought, but they also understood that contracting's monetary advantage was reduced by costs they had not anticipated. As a result, informants gradually began to realize the full implications of having directly entered a labor market. Like actors in any other market, they confronted the necessity of estimating, pricing, and managing uncertainty. To this reality they brought one crucial resource: their professional expertise. The meaning of expertise in a market was the final theme that marked our informants' discourse on contracting.

Professional Expertise as Skill versus Commodity

Informants originally hoped contracting would allow them to focus more intently on technical work and on developing new skills, and 29% (see panel D of Table 3) volunteered that they had achieved their objective:

> I am really glad I became a contractor, because it has given me a chance to go all around the Valley and work for all kinds of companies. When you stay in the same field, you only see that world; you don't get to see other kinds of things. I did a contract testing encryption software for a bank. I would have never done that. I mean I would not have gone to a bank and said, "Can I test your encryption software?" I didn't even know it existed. So I got lots of opportunities by doing that. (*Quality assurance, F, C13*)

Furthermore, nearly a fifth of the contractors (19%) claimed that their skills had brought them considerable influence and respect in the client companies where they worked.

The realities of developing and maintaining expertise, however, were sometimes sobering. Contracting did not guarantee interesting or challenging work. Once informants began contracting, they quickly discovered that exercising skill was no longer simply a matter of being knowledgeable; skill and reputation for skill were the coinage by which others measured their value in the marketplace. Failing to keep current and demonstrate skills that were in demand undercut a contractor's marketability:

> It is possible, as a contractor, to wind up doing small things. You know, the same pigeon-holing can happen to you as a contractor. If you fail to educate yourself, you not only have all of the entrepreneurial risks, but you have the same drawbacks as an employee and none of the benefits. (*Software developer, M, C39*)

Once contractors recognized that remaining on the "cutting-edge" was crucial for maintaining employability, learning became an issue of survival and not simply a means of getting a job done or a route to personal satisfaction and growth. At least 17% of our informants portrayed the continual need to retool as a cost of contracting. Furthermore, contractors discovered that it was ultimately customers who defined what they needed to learn. The need to stay abreast of technology could become tedious and might even lead contractors to consider returning to full-time employment:

> The competition is getting a little stiffer because the application packages that a writer needs to know are getting more complicated, more complex, more work intensive. And so, you have to keep up with it. At 45, I'm getting a little tired of playing that rat race, which is why I'm at Cisco, because Cisco wants to bring me on board direct. I would just as soon focus on the network engineering side of technology and on working my way into a management position than continue this. (*Technical writer, M, C9*)

In time, contractors realized that the meaning of expertise had been transformed. To be an expert was no longer simply to possess sophisticated skills and knowledge. One had to possess skills that were marketable. A few contractors (6%) even lamented that one result of selling expertise was doing highly skilled but monotonous work within a specialized niche. In short, experienced contractors came to understand expertise as a commodity whose maintenance could be costly. Ironically, many had become contractors precisely because they wanted to distance their professional selves from the irrationalities of organizational life, yet most eventually dis-

covered that their professionalism was now subject to market forces, which could be no less corrosive.

Discussion and Implications

As ethnographers, our objective has been to document technical contractors' accounts of their experiences with contracting and to use these as a lens for evaluating conceptions of contingent work and for building more valid theories of contingent labor markets. Our data are informative on three counts. First, they help us understand why current images of the experience of contingent work are oversimplified. Second, they point to the previously overlooked role that occupational communities and communities of practice may play in contingent labor markets. Finally, they raise questions about our notions of how contingent labor markets are structured. Consider each implication in turn.

Adequacy of Current Images of Contingent Work

Most research on contingent work begins by positing a contrast between employment in bureaucracies and employment in markets and then, at least implicitly, champions one system over the other. Employment relations scholars highlight the advantages of bureaucratic employment and the disadvantages of contract labor. They warn that contingent employment exacerbates economic insecurity by lowering wages, abetting discrimination, eliminating access to benefits, undermining opportunities for collective action, and, ultimately, exposing people more directly to the whims of employers and the ravages of economic cycles. Advocates of free agency, on the other hand, enumerate the constraints and injustices of organizational employment and extol the virtues of selling one's skills on the open market. Free agents, they claim, have more autonomy, accumulate more wealth, and enjoy a more holistic lifestyle than employees who are trapped in the webs of bureaucracy. Our data, however, suggest that both interpretations are inadequate.

For those who live it, a life of technical contracting appears neither as grim as the proponents of the employment relations' perspective fear nor as rosy as the advocates of free agency promise. Viewing the technical contractors' world through their own eyes suggests how inadvisable it may be for employment relations scholars to assume that contingent work always exacts the social and economic costs associated with low-skilled, temporary labor. The contractors we encountered were not forced into lower-paying, less secure jobs than they desired. In fact, most found contracting to be more lucrative than permanent employment, and a sizable minority saw it as more secure. Our informants generally preferred contracting and consciously accepted its risks in hope of making more money while escaping the constraints of organizational life.

This is not to say that the economic pressures that worry employment relations proponents are irrelevant for highly skilled contractors. A significant number of technical contractors turned to contracting after having been laid off or because they anticipated losing their job. Yet, even in these cases, because demand for their skills was so great, most could have pursued permanent employment had they so desired. That they did not attests not only to technical contracting's economic potential but to important social-cultural considerations. The contractors with whom we spoke viewed organizational employment through the lens of a professional identity and found it wanting. They aspired to obtain work that would enable and reward their efforts to develop and exercise expertise. Many sought independence and greater control over their environment. The majority claimed to have found it.

It is important to note, however, that our study took place during one of the tightest labor markets in recent American history. Whether technical contractors would report similar experiences at another time remains an open question. Furthermore, because we have no data on technical experts who left contracting, it may be that some technical contractors have experi-

ences more like those anticipated by the employment relations perspective.

Even with these caveats, our informants' experiences might, at first glance, appear to be more consistent with the free agent perspective. On closer inspection, however, the free agent perspective seems as partial as the employment relations view. Independence, security, income, and expertise had their dark side: a sense of estrangement and insecurity, the burden of being financially responsible for oneself, and, most important, the realization that expertise was a commodity whose value was determined by market dynamics. Free agency's notion that contractors participate in a market unencumbered by organizations is also misleading. Not only did all contractors have to meet the needs of their clients, but most were forced by their circumstances or by their clients to work through staffing agencies that became their legal employers for the duration of a contract.

Thus, it appears that common images of contingent employment are simplistic in two ways. First, contractors seem to experience their situation more complexly than most research acknowledges. To capture this complexity, scholars of contingent work must set their assumptions aside and turn to data on the perspectives and behaviors of contingent workers. They should attempt to understand both the advantages and disadvantages of contingent work and how these are grounded in the specific conditions that workers face.

Second, because technical contractors' tales of work contradict prevailing images of temporary employment, they underscore the danger of building a theory of contingent labor by generalizing from data on one type of occupation to all others. A comparison of our findings with existing accounts suggests that the experience of contracting in low- and high-skilled jobs differs significantly. Specifically, the notions that contracting is more lucrative than permanent employment and that employability is a form of security appear to have no parallel in the experience of low-skilled temporary workers. Moreover, while both low- and high-skilled contractors experience being an outsider, their experiences may have somewhat different flavors: the former are often ignored or disdained, while the latter frequently experience admiration and respect.

This is not to say that there are no similarities in contingent employment across occupational strata. Like other temporary workers, technical contractors worry about downtime, experience uncertainty, and lack a sense of community. Although differences between occupational groups remain a matter for further research, this study suggests that these differences shape the way people experience contingent employment and that it is unrealistic to assume that contingent employment in itself could level such differences.

The Importance of Occupational Communities

Our ability to offer a full theoretical account of contingent employment may be hampered by confining our conceptualization of its social context to organizations and markets. Organizations and free markets are but two ways of structuring employment relations. As has long been understood in the case of the professions and crafts, occupational communities are a third (Van Maanen and Barley 1984). In their most developed form, occupational communities certify expertise, broker employment, set wages, and create barriers to entry.

Occupational identities were extremely important for the technical contractors we studied. They viewed themselves as professionals and introduced themselves to others using occupational terms. Many spoke of how difficult it was to be a professional in a bureaucratic setting. But just as professional expertise co-existed uneasily in organizational milieus, so professionalism was not entirely consistent with a free market. The informants' stories of contracting were, in part, tales of how they discovered the difficulty of being professionals in an open market.

Although the market for technical ex-

pertise apparently satisfied the contractors' desire to be recognized and paid for their skill, it undermined other aspects of professional life that were more easily addressed when they were permanent employees. Organizations often employ numerous members of the same technical specialty. For this reason, they offer technical specialists a local community of practice (Lave and Wenger 1990), support membership in professional associations, and subsidize professional training and development. Because permanent employment is more stable than contingent employment, even in an age of downsizing it shields technical professionals from experiencing the full brunt of the market for expertise, thereby moderating the threat of obsolescence.

As technical contractors, our informants rapidly learned that their expertise was a commodity whose utility was defined by the clients' willingness to pay for their services. The responsibility for and costs of remaining marketable and technically up-to-date now rested on the contractors' shoulders. To enhance their skills, contractors required access to the technical communities where technical knowledge resides. To find appropriate jobs, they had to interact with people who were aware of potential clients and who appreciated the details of technology and technical work. To counteract the sense of being outsiders, they needed a community independent of the organizations in which they worked. For these purposes, the market was no substitute for an employing organization.

Technical contractors attempted to meet these professional needs through a variety of mechanisms, the most ubiquitous of which was the cultivation of personal networks comprised of friends, colleagues, and acquaintances who could provide technical information and information on jobs. Although the contractors' networks included recruiters, permanent employees, and managers, a significant proportion of their contacts were other contractors in the same technical specialty with whom they exchanged technical information. In short, many contractors had begun to construct networks that resembled occupationally oriented communities of practice to handle their professional needs.

Some sought to augment and strengthen such networks by affiliating with more formally structured communities. Some contractors belong to professional associations and, even more commonly, to "users' groups" that offered technical training, socializing, and information on job opportunities. Several contractors allied themselves with staffing firms that were occupationally homogeneous. One was structured as a collective that provided its members with training, business services, and benefits. Another specialized in outsourcing Unix systems administrators. The firm supported the community it had organized by providing bulletin boards, online chatrooms, and Web-based reference materials that systems administrators could access when they needed technical assistance.

These developments represent the emergence of occupation affiliations and proto-occupational communities in the midst of a contract labor market. They served to shield contractors from the isolation, insecurities, and costs of participating as lone individuals in a market for expertise. They enabled technical contractors not only to address professional issues but also to share experiences, concerns, and interpretations of contingent employment. To put this another way, among technical contractors there was evidence that occupational awareness had begun to bridge the gulf between bureaucracy and market.

The Structure of Contingent Labor Markets

Our data suggest two other modifications of how we should envision the structure of contingent labor markets. Historically, the employment relations literature has conflated the distinction between primary and secondary labor markets with the distinction between the stable core and unstable peripheral sectors of the economy. Because of the impermanent nature of contingent work, contingent labor markets have been viewed as secondary. Yet, technical contractors apparently experience few of

the vicissitudes of a secondary labor market: for instance, they are not poorly trained or rewarded, nor do they appear to lead a hand-to-mouth existence. Consequently, the image of contingent employment as a form of secondary employment seems unwarranted. If we accept the view that less skilled contingent workers often do experience the tribulations of secondary employment, then it might be more accurate to argue that like bureaucratic employment, contingent employment seems to have its own primary and secondary sectors, and the differences in dynamics between them are as pronounced and socially significant as the differences between permanent and contingent employment itself.

Furthermore, it may be even more misleading to employ simple market images of how contingent employment is structured. Discourse on contingent employment often envisions a simple, dyadic relationship between the individual who sells and the firm that buys labor. Except in the special case of independent contractors, this is inaccurate. At minimum, most contingent labor markets are triadic in structure. Between the buyer and the seller lies a third party, usually a staffing firm that brokers market information and matches workers to clients in return for a significant cut of the contractor's hourly rate. Yet, most discussions of contingent labor markets ignore or underplay the role of the staffing firms, and there are almost no studies of how they operate (but see Peck and Theodore 1998). Moreover, at least in the world of technical contracting, a number of other social entities contribute to and participate in the structural dynamics of contingent employment. Internet-based job banks and résumé services (such as DICE) are particularly important. Contractors post their résumés to these services and consult them for job announcements, and staffing firms often rely on them to identify job candidates. Users' groups, professional associations, and, in some cases (technical writers), even unions also influence the dynamics of contingent employment in technical fields. Sorely needed to leaven the discourse on free agency are studies that take seriously the triadic structure of labor markets and that examine the role of other actors in making them operate. If for no other reason, the notion of a dyadic contingent labor market is a fiction because information on jobs and job seekers is neither free nor evenly distributed.

Whether or not the economy will be marked by greater use of contingent labor, we still have much to learn about contracting as a social phenomenon and an economic phenomenon. By describing the point of view of highly skilled contractors, we have tried to show not only where existing theories of contingent work are limited, but that contingent employment is more diverse than is often thought. Contingent work is an area where new employment practices and ideologies are being forged. If policy-makers are to adequately address these developments, they will require more nuanced images of how people experience contingent work and how contingent labor markets are actually structured. We offer this study as but a step in this direction.

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