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# Beach Time, Bridge Time, and Billable Hours: The Temporal Structure of Technical Contracting

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This paper uses data from career histories of technical contractors to explore how they experience, interpret, and allocate their time and whether they take advantage of the temporal flexibility purportedly offered by contract work in the market. Technical contractors offer a unique opportunity for examining assumptions about organizations, work, and time because they are itinerant professionals who operate outside any single organizational context. We find that contractors do perceive themselves to have flexibility and that a few achieve a kind of flexibility unattained by most permanent employees doing similar work, but rather than take advantage of what they call "beach time" and "downtime," the majority work long hours and rarely schedule their time flexibly. The contractors' use of time is constrained by the cyclic structure of employment, the centrality of reputation in markets for skill, the practice of billing by the hour, and the nature of technical work. Our research suggests that markets place more rather than fewer constraints on workers' time.●

Feeling overworked and pressed for time have become familiar complaints among members of the American middle class. Managers and professionals routinely commiserate about working long hours and what those hours cost them and their families. The booming market for advice on managing time effectively and the popularity of academic treatises with titles like *The Overworked American* (Schor, 1991) and *The Time Bind* (Hochschild, 1997) attest to the issue's resonance. In most accounts, temporally greedy organizations are to blame for the "time famine" (Perlow, 1999), and recommended solutions usually involve organizational policies that strike a compromise over how many and which hours employers can lay claim. Some commentators, however, have suggested that employees can gain temporal control by leaving organizational employment for a life in the labor market (Handy, 1989; Kanter, 1989, 1995; Bridges, 1994; Pink, 1998, 2001). The theme of liberation through markets is also found in the recent literature on boundaryless, project-based and portfolio careers, which unfold across rather than within organizations (Faulkner and Anderson, 1987; Mirvis and Hall, 1994; Arthur and Rousseau, 1996; Jones, 1996; Weick, 1996; Gold and Fraser, 2002). Although scholars have noted a rise in market-oriented careers, they have yet to investigate whether such careers actually grant incumbents more control over their time.

The idea that organizations make unreasonable demands on people's time revolves around two issues: how many and which hours people work. The first issue, how many hours people work, is most fully explored in the literature on "over-worked Americans." Interest in the topic burgeoned after Schor (1991) claimed that American men and women were working considerably more hours in the mid-1980s than they had in the 1960s and that growth in the number of weeks that people devote to work explained most of this increase. Although some researchers have disputed Schor's findings on methodological grounds (Robinson and Godbey, 1997), a general consensus has emerged: workers at the lower end of the income distribution often have difficulty finding enough work, while people with higher incomes, especially those in

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professional and managerial jobs, work more hours than ever before (Coleman and Pencavel, 1993a, 1993b; Bluestone and Rose, 1997, 1998; Jacobs and Gerson, 1998; Reynolds, 2003).

Scholars have offered several explanations for why professionals and managers work so many hours. These explanations range from norms about work (Kunda, 1992; Blair-Loy and Wharton, 2002) and rampant consumerism (Schor, 1991) to the notion that work offers an escape from stressful homes (Hochschild, 1997). Most frequently, however, scholars indict managers and organizations. Schor (1991) and others (Maume and Bellas, 2001) have argued that instead of hiring new employees, organizations prefer to extract longer hours from salaried workers because doing so reduces labor costs. Bluestone and Rose (1997) and Hecksher (1995) claimed that rampant downsizing and increasing job insecurity have led white-collar employees to work longer hours in the hope of avoiding layoffs. Long hours signal the kind of commitment and visibility that employees believe firms demand in return for raises, promotions, and continued employment (Bailyn, 1993; Perlow, 1997).

The second issue, which hours people work, is addressed in the literature on work-family balance under the banner of flexibility. Flexibility can mean many things. Although Kickert (1984) discussed flexibility in the context of strategic planning, he captured flexibility's allure, calling it "the magic word." In the context of dual-career issues, the term usually suggests ceding control to workers over the circumstances of their work by enabling them to vary those circumstances to address personal and family needs and uncertainties (Golden, 2001). The circumstance most often implied in flexibility programs is time. In this paper, flexibility always means temporal flexibility, the ability to determine which and how many hours one works.

Flexibility first became an issue in the mid-1970s when enough middle-class women had entered the managerial and professional workforce to generate concern over dual-career families (e.g., Bailyn, 1970; Rapoport and Rapoport, 1978). In such families, men and women discovered that it was difficult to rear children when both spouses worked more than forty hours a week and when neither could accommodate their work schedules to family needs. As a result, both family and work suffer. When work spills over into the home, workers are more likely to experience marital conflict, withdraw from their families, and neglect domestic responsibilities (Bolger, Delongis, and Kessler, 1989; Barnett, 1994; Paden and Buehler, 1995; Repetti and Wood, 1997; Bumpus, Crouter, and McHale, 1999). When home spills into the workplace, job satisfaction falls while absenteeism and turnover increase (Goff, Mount, and Jamison, 1990; Higgins, Duxbury, and Irving, 1992; Forthofer et al., 1996). Commentators have argued that in the face of such difficulties, men and women need leeway to adjust their schedules to meet simultaneously the needs of their employers and the needs of their families (Bailyn, 1993; Tausig and Fenwick, 2001).

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While American employers have generally resisted calls to limit the number of hours that employees work, since the 1970s they have gradually adopted a variety of programs designed to provide employees with more control over which hours they work. Between two-thirds and four-fifths of all employers report offering flextime programs that allow employees to vary the start and end of their workday and to leave work for family obligations (Osterman, 1995; Daniels, 1997; McShulskis, 1997; Galinsky and Bond, 1998; Greenwald, 1998; Saltzstein, Ting, and Saltzstein, 2001). Yet despite the popularity of flextime, accumulating evidence suggests that no more than a quarter of all eligible employees take advantage of the offering (Galinsky, Bond, and Friedman, 1993; Bond, Galinsky, and Swanberg, 1998; Eaton, 2000; Mead et al., 2000; Golden, 2001; Blair-Loy and Wharton, 2002). Employees are even less likely to use other programs that support greater temporal flexibility, such as the option to work from home or take maternity or paternity leave (Bond, Galinsky, and Swanberg, 1998; O'Mahony and Barley, 1999; Mead et al., 2000).

The discrepancy between employees' professed desire for greater flexibility and their relatively low rates of using flex-time has puzzled researchers and policy makers. Some analysts maintain that the gap simply indicates that people are unable to afford time off from work because of debt, low salaries, and norms of consumption (Schor, 1991). Most researchers, however, explain low utilization in terms of organizational pressures similar to those that account for why employees work long hours. Respondents and informants usually say that managers and peers interpret the use of flexibility programs as evidence of a lack of commitment, motivation, and productivity and that supervisors and mid-level managers routinely deny requests for more flexible work schedules (Bailyn, 1993; Perlow, 1997; Clarkberg and Moen, 2001; Meiksins and Whalley, 2002; Blair-Loy and Wharton, 2002; McBride, 2003). Moreover, in many firms, flexibility programs are stigmatized as women's programs (Schwartz, 1989; Mead et al., 2000; Meiksins and Whalley, 2002), and managers themselves admit that they hesitate to grant employees flexibility because they anticipate shirking (Olson, 1987; Perin, 1991; Kurland and Egan, 1999). In short, commentators argue that firms subject employees to informal pressures and tacit threats of sanction that discourage them from using the flexibility programs formally offered.

Etzioni (1961) and Schein (1972) have argued that organizations bring three types of control to bear on employees to ensure that they fulfill managerial expectations: coercive, remunerative, and normative control. Coercive control rests on the organization's ability to extract compliance by threat, especially the threat of termination or withholding promotions. Remunerative control rests on management's ability to elicit compliance by setting the terms for dispensing salaries, raises, and bonuses. Normative control, the most diffuse of the three, elicits compliance through sustained social and interpersonal pressures to internalize and conform to managerially defined norms and values. Whereas traditional bureaucracies relied primarily on coercive and remunerative

control encoded in rules and procedures (Edwards, 1979), contemporary organizational theorists generally concur that normative control dominates traditional controls in postindustrial organizations, especially high-technology and professional firms (Kunda, 1992; Barker, 1993; Perlow, 1997).

Policies of flexibility explicitly loosen coercive and remunerative control over the employee's time: the firm promises, within reasonable limits, to neither terminate the employee nor withhold recompense and promotions for adopting a more flexible schedule. But these policies do not necessarily remove normative pressures. Managers and coworkers may continue to insist that employees work to expectations that undermine customized schedules. Most explanations for why employees fail to take advantage of flexibility programs, therefore, highlight normative pressures that make it difficult for employees to control their time. Perlow (1999) demonstrated that engineers on development teams feel considerable pressure from management to remain visible by working long and inflexible hours. Similarly, Barker (1993) showed how members of self-managed teams pressure fellow members to disregard family obligations and to work longer hours to finish a job. The unstated proposition in such studies is that more people would avail themselves of flexibility programs, and perhaps even limit the time they spend working, if they could free themselves from the normative control endemic to permanent employment.

Theorists have suggested that one way to escape organizational control is to move into the market. In markets, selling skills to multiple clients, rather than a long-term affiliation with one employer, guarantees a living (Handy, 1989; Kanter, 1989, 1995; Arthur, 1994). Career theorists interested in the notion of boundaryless careers have explored this theme in the academic literature (Arthur, 1994; Mirvis and Hall, 1994; Arthur and Rousseau, 1996). These theorists have accepted the idea that firms can no longer guarantee employment as they once did and that internal labor markets are disintegrating. Drawing inspiration from Hollywood (Jones, 1996), software development (Kanter, 1995), and other project-oriented industries, they have argued that workers in the new economy can attain greater security as well as greater autonomy by configuring their careers around skills that allow them to move freely between organizations.

A popular literature on employability and free agency has advocated an even more extreme movement into the market (Beck, 1992; Bridges, 1994; Caulkin, 1997; Darby, 1997; Pink, 2001). The doctrine of employability exalts consultants, contractors, freelancers, and other free agents who have jettisoned permanent employment in favor of temporary engagements mediated by the market. Like the scholars of boundaryless careers, advocates of free agency claim that markets liberate workers from the shackles of organizational control. Both literatures hold that markets grant considerable flexibility, including the ability for workers to control their time. Writing about boundaryless careers in the software industry where people can easily change employers, Kanter (1995: 56) noted,

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Often no more than buzzwords, flexibility and empowerment take on meaning in software companies where people feel they have real control. . . . Managers can authorize any schedule . . . for people whose knowledge is valuable—for example, having a new mother work two days a week. . . . Employees can design their own three-day, four-day or five-day altered-schedule work weeks.

To support the promise of temporal freedom, advocates of free agency routinely offer readers stories of freelancers who work when they want to work and vacation when they please. "Free agents have less time anxiety than the typical worker," wrote Pink (2001: 109–115). "Independent workers may log about forty hours every week, but how they configure those forty hours is highly fluid. Unlike employees, free agents mostly control the faucet. . . . The free agent way is as much vacation as you can afford and as much work as you need." As these passages illustrate, advocates of boundaryless careers and free agency assert that markets give people control over both how many and which hours they work. They also suggest that temporal flexibility applies to multiple units of time: free agents can choose how to deploy hours within a day, days within a week, or months within a year.

The underlying assumption, in both the academic and popular literatures, is that markets offer individuals greater control over their time because they reduce the relationship between employers and workers to a simple economic exchange between buyers and sellers of skill and time. Sellers can decide when to go to the market and how much time they will sell. The only important constraint is whether potential buyers value the skill that is being sold and, hence, the price they are willing to pay. In short, the market presumably removes workers from the normative and coercive controls of an organizational context, leaving a purely remunerative relationship. But market relationships are neither as simple nor as context free as the advocates of boundaryless careers and free agency suggest with their images of frictionless supply and demand for labor (Hirsch and Shanley, 1996). Labor markets have a structure beyond that of dyadic exchanges between buyers and sellers. For instance, many labor markets are triadic: staffing agencies, headhunters, and search firms broker the relationship between buyers and sellers (Gonos, 1997; Finlay and Coverdill, 2002). The presence of a third party introduces complexities that belie the simplicity of dyadic exchange. At the very least, a third party introduces a third set of interests and increases the number of people involved in negotiations, thereby attenuating the workers' bargaining power.

Furthermore, most labor markets are marked by several types of cycles that affect the employment exchange. Economic cycles ranging from longwaves (Clark, Freeman, and Soete, 1981; van Duijn, 1983) to shorter-term business cycles shape market dynamics. The ups and downs of the economy affect employers' desires to hire. Skills, especially those associated with new technologies, also have cycles. When new technologies demand new skills, the skills' scarcity brings high wages. As the technology diffuses and the skills associated with the technology become common, wages fall. Once the technology becomes obsolete, the skills associated

with the technology become worthless. When employment is structured around projects, markets may also be tied to project cycles. Projects typically ramp up slowly, gradually escalate, and then end. Moreover, certain skills may be required only at particular points in the project's flow. For instance, technical writing and quality assurance are usually done in later phases of development. Each of the cycles we have mentioned influences the structure of careers. Economic cycles affect the relative ease of finding jobs; skill cycles set limits on employability; and project cycles determine the pace at which workers reenter the labor market.

Finally, even dyadic exchanges are more constrained than analysts often admit. Careers in skilled labor markets are repeated games, and the shadow of the future grows larger as the velocity of the market increases. Sellers of skill who frequently change jobs rely heavily on reputation to secure an uninterrupted flow of engagements (Van Maanen and Barley, 1984; Faulkner, 1987). As a result, they work not only for immediate rewards but also for the reputation required to secure future remuneration. Because buyers have a significant influence on sellers' reputations, they acquire power over the seller that they would not have in a spot market. When buyers realize that sellers depend on them for reputations, referrals, and future employment, they can trade on this dependency. In particular, they can ask sellers to provide more time and effort than the terms of employment stipulate. This not only enhances the buyer's ability to control sellers by offering or withholding remuneration, it also reintroduces shades of coercive control: termination may adversely affect the seller's reputation and reduce opportunities for future jobs. Thus, in all but the tightest labor market, sellers of skill may have difficulty resisting expanding demands on their time.

By ignoring these dynamics and constraints, the rhetoric of markets and free agency inflates the worker's individual freedom and may therefore overestimate the temporal control that workers can achieve by leaving organizations for the market. To explore how workers experience time when they leave permanent employment and how much control they actually achieve over how many and which hours they work, we need to study a population of workers oriented primarily to markets rather than organizations. Technical contractors are one such population.

Technical contractors are the epitome of free agents. They include engineers, software developers, technical writers, and information technology (IT) specialists who sell their services to firms on a project-by-project basis for an hourly wage or a set fee. Their contracts typically last from three to eighteen months. When a contract expires, they move on to another client organization. Although researchers have paid little attention to technical contracting, several recent studies suggest that contractors seek and may even enjoy temporal flexibility. Meiksins and Whalley (2002) reported that technical professionals often turn to contracting because they want more control over their time. Matusik and Fuller (2002) showed that when contractors' skills are in sufficiently high demand, they experience more control over their time. Tech-

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nical contracting, therefore, appears to offer an ideal context for determining whether and how workers experience flexibility in the absence of organizational control. An even stronger test would be to examine technical contracting during a tight labor market when contractors' bargaining power is enhanced. It was during just such a period that we set out to study the experience of highly skilled technical contractors.

### **METHODS**

In the fall of 1997 we embarked on a two-and-a-half year study of how the labor market for technical contractors operates and how participants in that market experience and structure their work and lives. We began with a year of ethnographic observation in three staffing agencies that brokered technical contractors. From this vantage point, we could not only study the agents who brokered the market for contractors, we could also encounter contractors who were seeking jobs and the managers who hired them. Over the course of the year, we developed a substantive understanding of how the market for technical contractors operates, as well as an initial appreciation for the issues that contractors and their clients face.

Legal institutions and court rulings have shaped the market for technical contractors. In the U.S., employment and tax law are tied to permanent employment. During the 1980s, many firms, including Microsoft, tried to skirt employment taxes and avoid paying benefits by replacing employees with contractors. The Internal Revenue Service (IRS) successfully challenged the practice by taking Microsoft to court. Microsoft subsequently rehired many contractors as permanent employees and let others go. Those who were dismissed sued Microsoft for back benefits and stock options in *Vizcaino v. Microsoft* (97F.3d.1887, 9th Circuit Court, 1996). In 1996, after years of litigation, the court determined that Microsoft had failed to distinguish adequately between contractors and employees and required the firm to pay millions of dollars retroactively for the benefits that contractors would have received had they been employees. The ruling forced other employers to become more cautious about how they played this game. Firms began to differentiate contractors from employees by requiring them to wear special badges, assigning them to less desirable workspaces, and avoiding the appearance of directing contractors' work. To achieve the latter, employers shifted from hiring independent contractors to hiring contractors through staffing agencies. As employers-of-record, staffing agencies shielded companies from legal responsibility for contractors by withholding the contractors' state and federal taxes and thereby appearing, at least on paper, to direct the contractors' work.

Thus, by the time we began collecting data, there were two markets for technical contractors: one for independents who negotiated directly with clients and another for contractors brokered by staffing agencies (commonly called W2s, after the IRS tax form that makes a person an employee in the eyes of the law). Independents and W2s both billed by the hour, but the W2s' bill rate included the agency's markup, which averaged about 30 percent of the total charge.

Although clients rarely hesitated to renew their independent contractors' contracts, they often restricted the duration of a W2's engagement to eighteen months to avoid the appearance of being their employer. Regardless of employment status, however, all contractors' careers were cyclical: all contracts were sooner or later followed by a return to the labor market in search of the next contract. This structure sensitized contractors to both a coarse- and fine-grained flow of time. The coarse grain was defined by the contract cycle and the contractor's choice of how to sequence and space contracts, while the fine grain was measured by the hours of a day and week that contractors worked while on contract.

It was the coarse-grain structure that most clearly set contracting's dynamics apart from permanent employment. Entering the labor market repeatedly to secure new assignments defined the essence of contracting. Both contractors and agents parsed the contractors' time into periods of employment and unemployment, but neither used these terms. Instead, they talked about "being on contract" or "having downtime." "Being on contract" referred to periods when one or more clients compensated a contractor for work. Downtime—also called "beach time," "bench time," or "dead time"—referred to periods between contracts. What distinguished downtime from the notion of unemployment was that downtime was considered normal and inherent to contracting. As the connotative distinction between beach and bench time suggests, downtime could be viewed as a luxury, a time for pleasure and relaxation, for going to the beach. At other times, downtime was equivalent to sitting on the bench out of play, waiting to return to the game. Coarse-grained flexibility entailed decisions about when and how much downtime to allow and, hence, whether downtime would be spent on the beach or the bench.

Agents and contractors also had a vocabulary for talking about the types of hours that defined the fine-grained flow of a contractor's time. Like lawyers and accountants they spoke of "billable hours," hours of work for which they could charge clients. Hours worked but not billed were known as "unbillable" hours. Unbillable hours were of two types: hours that contractors could have billed but didn't and hours that were necessary for completing the work, but for which they could not ethically or practically bill. Fine-grained flexibility entailed decisions about how many billable and unbillable hours a contractor would accrue in the course of a day or week and when they would work billable hours.

As we learned more about the market for technical contractors, we decided to explore the contractors' experience in depth. Conversations with contractors who were seeking jobs through the agencies we studied suggested that their career histories, their work and business practices, their perceptions of the social world of contracting, and how contracting meshed with their personal and family life were crucial areas for study. To elicit this information, we developed an interview guide, shown in Appendix A, consisting of open-ended questions designed to structure our conversations with contractors.

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Because there was no representative enumeration of individuals who work as technical contractors, all options for selecting informants posed limitations. We could have convinced a staffing firm to make available the names of the people in its databases, sampled from one of several résumé databanks on the Internet, or sought subscription records from magazines targeted at contractors. All of these would have yielded samples biased in different ways. We chose to use a modified snowball sample (Faugier and Sargeant, 1997). We began accumulating informants by selecting 37 contractors from a list of 391 who had registered for a seminar on contracting broadcast live over the World Wide Web in December 1997. The seminar was sponsored by a staffing agency that specialized in placing technical professionals and focused on a variety of issues relevant for contractors, such as tax guidelines and marketing strategies. The seminar was advertised nationally in contracting circles via e-mail invitations, Web announcements, and ads in magazines that target technical contractors. We gathered the remainder of our informants over the course of the larger project. Contractors from the Web seminar sample referred us to five additional informants. We met another 14 through our observations at staffing firms and the remaining 11 while studying project teams at client sites. In total we interviewed 71 contractors. We dropped five from the analysis because they were full-time employees of one of the agencies we studied and were, therefore, shielded from repeated encounters with the labor market. We removed another contractor who operated as a management consultant rather than a technical contractor. In this paper, therefore, we draw primarily on data from 65 interviews that lasted from an hour and a half to three hours. These data are backed up by over 300 hours of observation in staffing firms as well as 80 hours of observation and interviewing in client firms.

Because our informants either self-selected into the Web seminar or were part of a snowball sample, they may not be representative of the population of technical contractors in a statistical sense, but our intent was to understand how contractors made sense of their world rather than to poll contractors to test hypotheses. We chose our informants to ensure diversity along attributes that the literature and our ethnographic evidence suggested might shape the experience of contracting. Thus, informants spanned numerous geographical regions, a range of technical occupations, multiple age cohorts, various degrees of experience, and were of both sexes. Moreover, contracting was our informants' only source of income, and all but a handful had made a long-term commitment to working in the market. We are therefore confident that our data speak to issues and dilemmas that are of widespread concern to technical contractors and that they more than satisfy the ethnographer's prime directive to document the native's point of view.

Table 1 reports the distribution of informants across age, marital status, citizenship, residency, experience as a contractor, career structure, and occupation. Our informants ranged from 25 to 68 years of age, although most were over forty. Most had a college education, and 25 percent were women.

Table 1

**Descriptive Statistics for Informants\***

Characteristic	Mean	N	S.D.	Min.	Max.
Demographic					
Mean age <sup>†</sup>	43 yrs.	10		25	68
Mean years of post-high-school education <sup>†</sup>	4.2 yrs.		1.4	0	8
Pay rate (in \$/hour) <sup>‡</sup>	\$68	27		20	125
Male	75%	(49)			
Married <sup>§</sup>	63%	(34)			
With children <sup>¶</sup>	50%	(26)			
Caucasian	75%	(49)			
U.S. citizens	83%	(54)			
California residents	69%	(45)			
Silicon Valley residents	55%	(36)			
Career					
Mean years contracted <sup>†</sup>	6.8 yrs.		4.9	0.5	21
Mean years worked <sup>†</sup>	17.9 yrs.		8.5	3	44
Mean years contracted / mean years worked <sup>†</sup>	.41 yrs.		.26	0	1
Independent contractors or corps.	33%	(21)			
On first contract <sup>§</sup>	7%	(5)			
Always contracted <sup>¶</sup>	11%	(7)			
Left permanent employment behind <sup>¶</sup>	54%	(35)			
Moved back and forth to contracting <sup>¶</sup>	25 %	(16)			
Technical specialties					
Software developers	29%	(19)			
Hardware designers	8%	(5)			
Database programmers and administrators	18%				
Systems administrators	12%	(8)			
Project managers	5%	(3)			
Technical writers	11%	(7)			
Quality assurance technicians	11%	(7)			
Multimedia (Web)	3%	(2)			
Others	3%	(2)			

\* N = 65 individuals. Numbers are drawn from semistructured interview data, and so all of the information is not available on all cases. Numbers in parentheses are the actual number of cases for dummy-variable tabulation.

<sup>†</sup> Only includes data on 64 cases.

<sup>‡</sup> Only includes data on 41 cases.

<sup>§</sup> Only includes data on 54 cases.

<sup>¶</sup> Only includes data on 52 cases.

\* Only includes data on 63 cases.

The majority were U.S citizens, but only 55 percent resided in the Silicon Valley.<sup>1</sup> Informants represented a variety of occupations and skill levels, from software and hardware engineers to technical writers and quality assurance technicians. The demographic and occupational patterns in table 1 are nearly identical to those reported in Black and Andreini's (1997) survey of IT contractors in the Silicon Valley.

Our informants had contracted for an average of six and a half years, over 40 percent of their working lives. Thirty-three percent (21) were independent contractors. The rest had worked as W2s through numerous staffing firms over their careers. Only seven were currently on contract with the firm that sponsored the Web seminar. Seven percent of our informants had become contractors within the previous year, 11 percent had been contractors since the time they left college, and another 54 percent had remained contractors since leaving permanent employment. The remainder (25 percent) had moved back and forth between contracting and permanent employment.

<sup>1</sup>

Those not working in California's Silicon Valley worked in Austin, Houston, Baltimore, Seattle, Toronto, Los Angeles, Atlanta, Billings, MT, and Norwalk, CT.

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Although our informants' occupations ranged in status, all required considerable skill. For example, even though technical writers did not have the status of software architects, they still had to understand the technologies they documented. Similarly, even though quality control technicians were the least likely of our informants to have college degrees, they typically had completed certification courses as well as years of on-the-job training. Pay rates reflected an interaction of status and skill. The software engineers we interviewed averaged \$67 per hour, while the quality control technicians and technical writers averaged \$53 and \$36 per hour, respectively. Thus, even technical writers were well compensated.

Doctoral students trained in ethnographic interviewing assisted in conducting some of the interviews. Forty-one were held face to face, and 24 were conducted by telephone. The decision to use telephone or face-to-face interviews depended on the informants' preferences and geographical location. We conducted face-to-face interviews in contexts of the informants' choosing. We held some in the workplace, others in living rooms or home offices, and still others in restaurants, at users' groups, and in other public places. We interviewed several informants multiple times.

All interviews were recorded, transcribed, and then coded using ATLAS/ti, a qualitative data analysis program. In our initial coding, we associated virtually every passage of the over 1,600 single-spaced pages of transcripts with one or more codes that flagged highly specific but recurring topics in our informants' discourse. We then developed a set of higher-order categories to aggregate codes under broader themes. For example, first-order codes such as "autonomy and freedom," "money," "easy to quit job," and "job variety" contributed to the higher-order code, "advantages of contracting."

Because of the breadth of our interests, we explicitly asked only two questions in the interviews about how contractors experienced or organized their time: "How do you manage your time and travel?" and "How much time do you spend on leisure activities?" Nevertheless, contractors spoke at length about schedules, the timing of events, and strategies for managing time. Moreover, temporal issues and specific references to time pervaded almost every subject that contractors discussed. For instance, references to time were integral to how contractors spoke of the acquisition of skills and the development of professional networks. In fact, every higher-level code in our system subsumed several lower-level codes that pertained to time or temporal issues. For instance, "advantages of contracting" also encompassed the time-oriented codes "avoiding overtime," "working flexible hours," "freedom to take vacations," and "freedom to work fewer hours." Appendix B lists the time-oriented codes in the first column and the higher-level codes with which they were initially associated in the second column.

Once we realized how pervasive the issue of time was in contractors' talk, we decided to focus explicitly on their perception and use of time. To do so, we recoded all passages associated with a time code to develop a more refined set of

temporal codes that included mentions of time between contracts, the number of hours worked each week, whether or not informants took vacations, and reasons for working long or short hours. The second set of first-order temporal codes appears in the first column of Appendix C. As we recoded passages on time, we recognized that most pertained to either the coarse structure of contracting cycles or the finer-grained issues of managing hours, days, and weeks. Following this insight, we developed another set of higher-order codes, this time centered on themes associated with the experience of coarse- and fine-grained temporality. The second column of Appendix C lists these higher-level codes for both coarse- and fine-grained temporal experiences beside the first-order codes that they subsume. We used this coding system to analyze how contractors perceived time, how many and which hours contractors worked, and why they said they did so.

As part of the data analysis for the larger project, we developed a relational database that contained a record for every job each contractor held. Each record contained such information as the duration of the job, whether the informant worked the job as a permanent employee or contractor and, if the latter, whether the informant worked as an independent or W2. The database linked this information on jobs to its incumbent's characteristics; for instance, the contractor's age, marital status, education, and number of children. By cross-referencing information on jobs and contractors, we were able to develop the variables in the second section of table 1 that characterize the structure of contractors' careers.

## THE CONTRACTOR'S TEMPORAL EXPERIENCE

### Organizational Independence

Before turning to the question of how much control markets give contractors over their time, we must first establish that contractors actually perceive themselves to be free from the normative and coercive shackles of organizational life. Otherwise, we cannot reasonably claim that movement into the market largely restricts clients to using remunerative control. In our interviews, we systematically asked informants why they became contractors. Although their reasons ranged from making more money to escaping boredom, 54 percent told us that they had gradually become frustrated with organizational politics, incompetent management, and inequities in the employment relationship (Kunda, Barley, and Evans, 2002). Our informants eventually turned to contracting to escape organizational control and gain professional autonomy. As one programmer put it:

[As an employee] I couldn't push back if somebody asked me to do something that was—from an engineering point of view—just clearly stupid. . . . As a contractor I can say, "This is dumb. I'm not going to do it." "This is dumb, I'm not going to do it" is not something you can say as an employee. They basically get to tell you what you do and don't do. They hold the whip hand over you. Being able to walk away, being independent, having autonomy adds authenticity to your judgment in their eyes.

A majority of informants (70 percent) explicitly told us that they enjoyed considerably more autonomy than they had

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experienced as permanent employees. In fact, some (35 percent) felt that their freedom from the organization was so great that they sometimes felt like outsiders in the firms where they worked. For many contractors, freedom from organizational control translated directly into the perception of temporal autonomy. They recognized, often in retrospect, just how much of their time employers had extracted for reasons unrelated to the actual requirements of work. A verification engineer recounted:

When I was a permanent employee 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. . . . There seemed to be this rush to impress people. You were there on the weekends or you came in on a holiday. Like when I worked at Motorola last time, people actually went in on 4th of July—the actual 4th of July!—where they could sign in, and people saw they signed in. I don't see that happening as a contractor.

While gaining control over time was not the primary reason our informants became contractors, over a third (38 percent) told us that being able to control their time was a significant unanticipated benefit. The benefit covered both how many and which hours they worked. Moreover, our informants felt that they had control over both the coarse-and fine-gained flow of their lives. Contractors claimed that the cyclic structure of contracting gave them more options than they had as permanent employees. For instance, a quality control technician explained how contractors could construct a lifestyle unknown to most workers by deciding about how many and which weeks they would work:

I think contracting gives me the sense of freedom. I feel like if I need to take a lot of time off for something, I can just do it. Finish up what I am doing and just take a lot of time off and not feel obligated to anything. Whereas I think if I worked full time for a company, I would feel like I only have two to three weeks vacation. You know, plan it carefully instead of just like deciding I am going to Mexico and just going and having fun and stuff. I don't like that obligation I guess. I have a lot of obligations being a contractor because I have a lot of responsibility. But at the same time, I know that if I need to leave, I can leave.

Contractors also told us that they were free to set limits on how many and which hours of a day or week they worked. One software engineer testified to his freedom to choose the number of hours he worked:

As a consultant . . . I'm completely autonomous. I can say, "I really can't do that. I have to leave." As an employee I might find an employer who would be so far thinking as to say, "This employee is going to work 30 hours a week and he's going to get a full salary, maybe even a big salary." Let's say they do that. And then let's say the project is push coming to shove. What are they going to do? "Well, I'm sorry. We really do need you to come in." So they own your ass, and I'm not into that.

A database programmer used the occasion of the interview to make the point that he could decide what he would do with each hour of his day: "I can blow off the afternoon and

sit down and talk to you. If I had a real job, I'd have to get an okay from the boss . . . and he's gotta worry about, 'Do we do this against your vacation time' or whatever. Heck, we just do it! The good news is I've got a lot more flexibility in my hours." One of the most accomplished software developers we interviewed made a similar point with respect to her family:

I can spend time with the kids. I know that we need to get this done, so I'll take the morning and do it. If my husband needs to be someplace, I don't have to be at work at any particular time and I don't have to stay at work for any particular length of time, since the object is getting the job done, not how many hours you're there. So it allows me a lot of flexibility in terms of scheduling. My husband says I'm a much calmer person; because I really don't care that much anymore.

Although, most of our informants perceived themselves to be politically and temporally independent of organizations' control and, hence, able to decide how many and which hours they would devote to work, as researchers have shown (Tausig and Fenwick, 2001; Gareis and Barnett, 2002), there is an important distinction between perceiving that one has temporal flexibility and making use of it. Employees who believe they have temporal flexibility nevertheless work as if they did not. The difference hinges, in part, on organizational pressures but also on how employees make sense of time in the larger context of their lives and careers. To determine whether contractors deploy their flexibility as market advocates predict, we examined how they interpreted the meaning of time as well as the choices they made about its use.

### **The Coarse Grain: Contract Cycles and Vacations**

The coarse-grained structure of contractors' time is bound to repeated cycles of contracts and downtime. The essence of coarse-grained choice is how contractors use the time between contracts. The choices that our informants made rested on differences in how they experienced and interpreted that time.

Every informant we interviewed spoke of downtime as an inherent risk of contracting. A few told us that they found the possibility of downtime stressful, if not downright frightening. These tended to be individuals who were new to contracting, who worried about the effect of economic insecurity on their family, or whose spouses were uncomfortable with contracting's risks. One was a young Indian programmer who had recently come to the U.S. to be with her husband. When asked where she "saw herself in a couple of years," she replied, "Two years down the road is too far. I am still thinking, 'Do I have a contract next month?' . . . I stress a lot over whether I will have a job after this. I mean, it is OK to say that the market is good and there is no need to worry. But you do." Another was a technical writer who had experienced several months of downtime that coincided with his wife being laid off from her job. Earlier in his career he had been laid off from a permanent job and was out of work for several months. At the time we interviewed him, he was considering returning to full-time employment because he feared what might happen to his family if he had difficulty

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maintaining steady work. As he put it, "Say something turns bad and my contract at Cisco is terminated, so what happens? I have my \$860 a month mortgage, my \$300 a month car payment, my \$300 a month food bill, I don't know what else, you know, utilities, electric, gas, water." Ultimately, he did return to full-time employment.

Most contractors, however, took downtime for granted. Although they never scoffed at its possibility, they minimized its threat and spoke as if it were a normal event. These contractors gradually came to accept downtime because experience had taught them that it was rare and that if it occurred, they could generally weather the storm. A programmer who had worked for ten years as a contractor was typical of those whose experience allowed them to come to terms with the possibility of downtime:

I used to get really nervous. The six months hiatus [that he once experienced] was really hard on my psyche. I would go into any contract or any job—I had some permanent jobs after that—with fear and trembling. Anytime the boss would say "Hi," I was afraid I was about to get fired. I still have a tiny bit of that. Since then I have never had more than a two-week gap. I have learned that I can make it. If something happens and there is a larger gap, I know that I will make it work out somehow and, second of all, it generally won't be that long.

Perhaps because of the tight labor market, some contractors with substantial experience even treated the possibility of downtime cavalierly, characterizing the process of finding a new job as trivial. "Around here," said one technical writer about life in the Silicon Valley, "If you have seven years experience, you can work literally all the time. You can literally finish a contract at noon and start the next one an hour later. Eat lunch and then go to your next one."

Most of the contractors we interviewed expected that periods of unwanted downtime would last no more than a few weeks, and their experience generally supported that stance. Table 2 documents the longest duration of unplanned downtime our informants reported. Roughly a third had experienced no downtime since becoming contractors.<sup>2</sup> The longest period of unwanted downtime for another fifth was less than two months. Only 14 percent reported periods of downtime that lasted longer. Although no data were available for a third of the contractors we interviewed, this group consisted primarily of individuals who had been contractors for a short period of time, who were highly skilled independent

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One might argue that the absence of downtime could be explained by individuals who had not been contractors long enough to have experienced the possibility. There were no significant differences between those who said they experienced more or less downtime in terms of how many years they had contracted, though those who did not mention downtime were slightly more likely to have been newcomers to contracting. On average, those who did not mention downtime had one year less experience than the other groups of contractors in table 2.

Table 2

### **Longest Duration of Unwanted Downtime Reported by Informants**

Longest duration of downtime	Number of contractors	Percentage of informants
None	21	32%
Less than a month	4	6%
1–2 months	9	14%
3–4 months	6	9%
5–8 months	3	5%
Not reported	22	34%

consultants, or who told us that they used downtime to pursue hobbies and vacations. If one assumes that unwanted downtime was not salient enough for these informants to have mentioned it explicitly, then one is left with the conclusion that at least among the contractors we interviewed, unwanted downtime was rare and of relatively short duration. When facing downtime, contractors took one of three general approaches: they scheduled it, embraced it as an unanticipated gift, or minimized it.

**Scheduling downtime.** One approach to controlling downtime was to plan it and use it for one's own purposes. A handful of contractors scheduled downtime when they wanted to devote a continuous block of time to learning a new technology or skill. They might use this time for taking formal courses or for studying on their own. Others planned downtime to pursue an avocation. For instance, we interviewed one contractor who sailed with his wife and son on their yacht six months of every year. Another contracted for six to eight months and then turned his attention to photography and scuba diving, which took him to Malaysia and other exotic locations. He had published several books of underwater photography.

**Embracing downtime.** A second group of informants embraced unanticipated downtime as a spontaneous opportunity for a much-needed break. "It is not uncommon," explained a multimedia designer, "to have a couple of weeks off. But that's OK! Part of the reason I like contract work is that you work on something and when you get done, you get to take a break for a while if you made enough money. It is almost like you can go off on an adventure of some sort." An Oracle database administrator saw downtime in much the same way:

I knew when a contract was coming to an end or, more often, I saw that my contribution was trailing off. So I would tell the client, "I am costing you money and I am really not doing you any good, so why don't we do some documentation and I will hand whatever I am responsible for over to someone else who will be here for a little longer." And then I look at that as a vacation. And that is another reason, why the money issue isn't just to buy cool toys. It is so I don't have to work 12 months out of the year.

**Minimizing downtime.** Most informants, however, sought to minimize downtime. They reported that they began searching for a new job as soon as the current contract began to wind down. Usually contractors could anticipate the end of a job by the terms of the contract itself or by the amount of work that was left to do. Experienced contractors pointed to more subtle social cues that allowed them to anticipate even unscheduled terminations. As one systems administrator told us:

And then one day, there's nothing for you to do. You can feel it coming. At one point the manager is around all the time and is really excited. Then the manager just kind of ignores you. Then you know that you have a couple of weeks left. That's when you know they will fire you. Things start slowing down first, although I usually end before they end.

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Most informants argued that if they began searching for a new job two to three weeks before the end of their contract, they could almost always secure another in time to avoid downtime. To increase the odds of finding work in such a short period of time, informants employed a number of tactics. One was to work more or less exclusively with a staffing firm that was committed to keeping its contractors employed. A completely different tactic was to play one agency off against another, especially if one's current agency refused to line up a new job until it was clear that the client would not renew. A systems administrator remarked:

What I've encountered is that when I'm nearing the end of a job, the headhunters want me to stay 'til the end of the job. Of course, what that means is that I'll be sitting for a couple of weeks without a paycheck. So I have been forced in most cases to switch to a different headhunter at the end of one particular job so that I can get another lined up before I'm just sitting around for a couple of weeks.

Other contractors employed their personal and professional networks to generate opportunities. Still others made use of the Internet, knowing that staffing firms routinely trolled on-line job listings in search of possible candidates for openings they were trying to fill. As one quality assurance technician told us, this tactic worked particularly well when contractors had skills that were in very high demand, such as the ability to write COBOL during the Y2K scare:

So anyway, I ended up leaving Toyota. The first thing I did was put my name out on the Internet. Let's see, they sent me home at 12. I was on the Internet by 1:30 and I had my first offer by 4 o'clock. It's not hard. Put your name out there. Let 'em know that you can do COBOL and you'll have 500 offers by tomorrow morning.

A final tactic, employed by some contractors, was to work several contracts simultaneously. In fact, one contractor reported having six contracts in play at once. Typically, contractors who held multiple concurrent contracts were software developers and technical writers who worked a significant number of hours from home. These individuals tried to stagger their contracts' end times so that they were never without compensation.

Although none of the informants explicitly gave a name to the period of time at the end of one contract when they began to search for the next, a potentially useful name for this period might be bridge time. With this concept, one can explicitly outline how contractors who sought to minimize downtime understood the temporal structure of contract work. They saw downtime as a problem instead of an opportunity. Their objective was to incur no downtime involuntarily. They used bridge time to unite two periods of contract time so that they could, in essence, skip over downtime and ensure continued employment.

The strategies of scheduling, embracing, and minimizing downtime represented different interpretations of the contract cycle. Most informants used one strategy or another. Those who sought to schedule or embrace downtime saw contracting as an opportunity to live a different lifestyle. For

schedulers, downtime was a resource to save or spend as they saw fit. For embracers it was a windfall. Those who preferred to minimize downtime, despite how cavalierly they might otherwise talk, implicitly saw the contract cycle as a threat. Their notion of control entailed regaining the security of continual employment by lining up the next contract before the current contract ended so that they could move from one job to the next without incurring time on the bench.

Among our informants, schedulers and embracers were far less common than minimizers. A total of 17 contractors (25 percent) said that they routinely scheduled or embraced downtime for breaks, vacations, or hobbies, even though the vast majority of our informants claimed that the freedom to do so was one of contracting's primary benefits. Yet almost as many informants (13, or 20 percent) said that they had not taken a vacation for a number of years, while another 23 (35 percent) took no more than one or two weeks a year.<sup>3</sup> One technical writer described his summer vacation as a single day between contracts spent going on amusement park rides, interrupted with cell phone calls to his recruiter. A software engineer, when asked what she did outside work, responded, "I've been married for 18 years, and I must say our honeymoon was the last time we took a vacation." A firmware engineer admitted, without regret, "I'm not a real big vacation person. It's not like the family goes for a week someplace twice a year. We don't do that."

In short, even though most contractors felt that contracting offered them more control over their time than did permanent employment, relatively few used this freedom to harness the contract cycle to pursue an alternative lifestyle. Natural breaks between contracts made it possible for contractors to take more time off, but a desire to control the contract cycle led most to avoid doing so. For them, not only were there no paid vacations, but vacations bore a suspicious resemblance to unwanted downtime and what they saw as its consequences: increased expenses, decreased income, and an uncomfortable sense of insecurity and failure.

### The Fine Grain

The daily and weekly organization of hours exerted an even more immediate pressure on contractors' temporal choices. Almost every contractor we encountered sold his or her services by the hour. After accounting for the cost of benefits, a contractor's hourly wage was usually 1.5 to 3 times higher than his or her permanent counterparts. Contracts might specify the number of hours per week that contractors would devote to the contract, but they rarely precluded working additional hours or dictated when hours would be spent. Contractors therefore had considerable leeway in choosing how many and which hours to work. A woman who specialized in technical marketing spoke for many of our informants:

Usually the hours are flexible, so there's a feeling of control. Even though you're working at midnight, you're the one who decided you wanted to work at midnight. I mean I know some companies are flexible anyway, but when they know you're consulting they're usually more open about you being flexible because they just want the

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The remaining 24 percent did not spontaneously discuss vacations or lack of vacations.

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job done. They don't care that you're not there 8:00 to 5:00, they just want results.

Some contractors, like this marketing specialist, used their flexibility to work non-traditional hours. Others exercised flexibility on a weekly basis. These informants valued the freedom to take a day off, and some aspired to work four-day weeks.

Yet, because contractors bore much of the responsibility for deciding when to work and how much to work, they became acutely conscious of how they spent their time. Every hour was a form of capital, which the contractor could invest in a variety of ways. Contractors could invest hours in doing directly compensated work for a client. They could invest hours in unbillable activities that ensured long-term employability: managing their business, developing new skills, or maintaining their networks. Contractors could also invest hours in their families, hobbies, or leisure. The need to make these tradeoffs, often on a daily basis, led contractors to develop an accountant's appreciation for the microeconomics of time. Some contractors set annual targets for the number of billable hours they wanted to work. The baseline was usually a 40-hour week, the standard for a permanent job. A technical writer made the calculations for us:

Normally, most people work about 2,000 hours a year. Forty-hour weeks, fifty weeks a year. But last year I did about 2,300 hours. We all keep log books of our hours, so it's pretty easy for us to know how many hours we bill. Like lawyers or CPAs, we all know, "Oh, you did 2,400 hours last year," and stuff like that. So then you take 60 times 2,300, you come up with an idea of how much someone makes.

Most informants also worked a sizable number of unbillable hours. Sometimes jobs simply required more time than the terms of the contract allowed. Contractors worked these additional hours because they agreed to provide a deliverable by a certain date, because they could not always estimate the amount of time the work required, or because they felt they needed to adhere to their own standard of excellence. One software developer explained his rationale:

I end up working more than I charge. Maybe 10 percent more. I usually bill for eight hours a day, but there is so much more you do: you try things, you think. If it doesn't work, you try new things. I guess it averages out to 50 hours a week. Sometimes you need to take an extra week, and often you need to work weekends. . . . You have to meet milestones, show progress. If you haven't, you can't bill.

Contractors also logged unbillable hours because they wanted to make a good impression on the client. By working more hours than they billed or by attending meetings and engaging in other unpaid activities, contractors hoped to signal a level of dedication that would preclude them from being terminated early and ensure a positive recommendation from the client. A project manager explained the tactic:

I want to make sure that when they are laying off contractors, I am the last one they look at on the list. So I do a lot of things. Like when I came on board for the first two weeks, I probably worked 70

hours a week and billed them for 40. . . . I had been there a week when they noticed that I was there at 6:00 in the morning until 6:00 at night.

In addition to unbillable hours worked for clients, contractors invested considerable time in support activities such as learning new skills, maintaining their professional network, and managing the business aspects of contracting. Contractors realized that they were marketable only to the degree that their skills were in demand. In our informants' occupations, technology changed quickly. New programming languages, new applications, and new hardware were continually making older approaches and technologies obsolete. The majority of informants spoke of the necessity of allocating time to remaining up to date. Contractors employed a wide range of strategies for acquiring new knowledge: they read technically oriented journals and books, they took classes from community colleges and universities, they sought industry certifications, they made use of the Internet, they bought software packages and taught themselves the packages at home, they attended users' groups, and availed themselves of the expertise of other technical specialists in their personal networks. As a mechanical engineer explained, each of these activities absorbed time.

I need to know what's going around, what's in demand, what's developing, how the software is changing, how the hardware is changing. It takes a lot of research every day, trying to stay ahead. But it's all worth it. I spend at least an hour a day. Maybe 20 minutes at work and about an hour at home—sometimes even two, three, four hours at home—trying to call people, other agencies, job shops, software, hardware companies. I'll ask questions and talk to them: how is the software changing and what's the new version coming out?

In addition to acquiring new skills, all contractors devoted time to business activities. Even contractors who worked primarily through staffing firms actively marketed themselves. Marketing activities ranged from maintaining one's network of contacts to developing brochures, attending meetings of users' groups, going to career fairs, talking to recruiters, and revising résumés and posting them on the Web. In addition, contractors who worked from home typically had a considerable amount of computer equipment to maintain and upgrade. Independent contractors had the additional burden of maintaining tax records and doing other bookkeeping chores. A software developer nicely summarized the amount of time contractors spend in support activities and how these activities inflate the number of hours worked, while decreasing the proportion of hours billed:

I read an article one time, where a good consultant should spend 50 percent of their time learning, and that's what I've been doing lately. I'm spending almost 50 percent of my time trying to keep current—reading the trade magazines, going to the meetings and stuff. You figure I spend 10–15 percent of my time to do marketing, another 10–15 percent of my time to do the housekeeping chores when you've got your own office. Gee, that leaves maybe 15–20 percent of the time that's billable. Think about the rate I'd have to charge if I was working only twenty hours a week. Nobody's going to spend

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\$400 an hour for me. I'm not that good. So, how do you juggle all this?

In short, the fine-grained temporal structure of contracting differed substantially from most permanent employment. First, contractors had to balance more kinds of time use than their full-time counterparts. Because contractors went to the labor market more frequently, they felt more persistent pressure to invest substantial time in unbillable and support activities than they had as permanent employees. Second, contractors enjoyed more control than most full-time workers over how many and which hours to work. In fact, they confronted an ever-present choice of how to spend every hour. Third, unlike salaried employees, contractors could put a precise value on every hour of the day—their hourly wage. When choosing how to spend their time, contractors could calculate to the penny the opportunity costs of every unbilled or leisure hour.

Finally, unlike employees whose jobs buffer them from the hour-to-hour implications of how they spend their time, contractors were immediately exposed to the consequences of their temporal choices. The number of billable hours that contractors worked translated directly into income. Their investments in unbillable hours affected the probability that clients would extend their contract by making the contractor appear more diligent and by increasing the quality of their work. In this way, unbillable hours increased the odds that a client would provide glowing recommendations. Hours spent in support activities shored up contractors' reputations, skills, and networks, which in turn shaped the outcome of their next encounter with the labor market. These distinctive aspects of the fine-grained structure of contracting combined to focus contractors on the tradeoff between different ways of spending an hour. Generally speaking, contractors approached the tradeoff in two ways. One group evaluated time solely by economic criteria, while another evaluated it more broadly.

**Economic evaluators.** The temporal logic of contracting conditioned many of our informants to equate time with money. For these contractors, the temptation to maximize income by working as many hours as possible was considerable. As a software developer exclaimed, "When you're a consultant, all you have is your time. You use it or lose it! You can only sell your time, so you need to . . . figure out how to sell the most time! Cause when it's gone, it's gone." Informants reported that they were acutely aware that every hour they failed to work was lost compensation. Another software engineer, who attributed his divorce to contracting, described the experience of wasting time and feeling money pass through his hands: "The funny thing about contracting—I find myself doing this and talking to people [who do it as well]—you develop this mentality. I was one of those guys that said, 'I take a day off—I'm losing 800 dollars. Oh my gosh!'"

A number of informants reported that equating time and money was so ingrained that they could no longer enjoy leisure. One software engineer described taking time off in the middle of the day to chaperone a youth group around San Francisco's Fisherman's Wharf. He described how he lost

patience when the children misbehaved. Rather than bemoan his loss of control, he complained about wasted time: "They were really terrible. They spread out in all directions and I ended up with the other chaperone—just the two of us walking around. I was counting those dollars going off. I was really upset about that." He summed up his experience by admitting that as a contractor, "there is a huge temptation to work every hour of the day." Another contractor, a business applications specialist who worked simultaneously for multiple clients, made it abundantly clear that his time was his most valuable resource: "You can do a lot of things to me: you can call me names; you can throw rocks at me; you can shoot at me, and I won't care. Waste my time and I'll drive over you in the parking lot."

In short, many contractors were continuously concerned with the opportunity costs they would incur if they took advantage of the flexibility they perceived themselves to have. As a result, many felt guilty about taking time off. A software developer detailed the experience of doing such a cost/benefit analysis:

[Contracting] is like being a stockbroker. It's not about the fact that you made a million dollars today on your portfolio, it's about the fact that you left 200,000 dollars on the table. If you didn't sell today and waited until tomorrow, or sold earlier, you could have made that 200,000. So this is the lingering thought in your head as a fund manager. . . . The same thing is true in consulting. Time becomes money. When time becomes money, management of that time becomes a critical asset.

A quality assurance technician put the point more succinctly, "I was always hoping that if I could earn more money, I could cut down the number of hours. But because the money is good, I find it very difficult to turn it down."

When contractors used an economic metric as the sole measure of time, they often discounted the worth of other activities whose economic value was difficult to calculate. This was especially true for leisure. When a systems programmer who specialized in mainframes was asked about her life outside work she responded, "What life? I mean I work three weekends out of the month. I work most holidays. I've put in an average of twelve hours a day for the last four years. I work overtime because I want the extra money." When contractors billed 70 or 80 hours a week, they simply had little time left with which to be flexible.

**Broad evaluators.** Another group of contractors measured time more broadly. They too took economic criteria into account and valued contracting's high wages, but, unlike the economic evaluators, they used contracting's flexibility to set aside time for other purposes. These purposes varied widely. Some sought greater balance between work and family. They spoke about the importance of being available for their children and budgeted their time accordingly. For these informants, flexibility meant not only choosing which hours to work, but also limiting those hours. As one software developer said, "I now am a father. I have two children. And now job one for me is managing my time myself. And that means making the income that I need to make in as little time as

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possible and not working 40 hours. So I like to work as little as possible. And I don't think employee situations afford that. I work generally 30 hours a week, but I can work 20 hours some weeks. And I like that." For other broad evaluators, work was a necessary evil to be avoided whenever possible. For example, an accomplished programmer remarked candidly when asked why he typically worked only 30 hours a week, "I'm a goof off. . . . I mean I like the rest of my life. It's very important to me. I've adapted to working less than full time." This contractor used the time he bought for himself to write science fiction, pursue his interests in dance, and hang out at the beach. Although he didn't regret his lifestyle, he was fully aware of its cost. "You know," he confided, "Every so often I kick myself 'cause if I'd have put in sixty hours a week for the last five years at these rates I'd have at least a house to my name."

Still other broad evaluators used opportunities for flexibility spontaneously. Like embracers, they valued both work and leisure but did not routinely plan for one or the other. Without renegeing on their obligations, they took advantage of possibilities to redefine their schedules as they arose. A business application specialist described this stance:

I try to maintain some kind of a pattern with clients, because it helps them. But at the same time, I shift my schedule to meet my needs. If we're going to have a couple of days of very good weather, and there are no major conflagrations burning at a client, I'll decide that maybe what I want to do is pack my cameras and get on the road. I'll say "Hey look, I've got other things going on and instead of me being in on Tuesday and Wednesday, I'm going to be in on Thursday and Friday. I'll see you then unless you have a problem with that." That's what I do usually, 90 percent of the time. Also, if I'm being nonproductive. . . . One day last week was just one of those days where I went to press the "n" on the keyboard and pressed the "q," you know, 37 times in a row—one of those bumble-finger days. My heart wasn't in it that day. I just told the client, "Look, I can stay here and send you a bill, or I can take the afternoon off, go throw rocks at the pigeons in the park or whatever I'm going to go do, and I'll be in better shape tomorrow and you'll get more for your money." And that's the way it is.

Even though broad evaluators had different reasons for doing so, as a group, they did not allow contracting's economic logic to squeeze out the other parts of their lives. They could therefore use the market's flexibility to create temporal rhythms that were consistent with their daily needs and values. On the face of it, broad evaluators had achieved precisely the lifestyle that the free agency literature promises. But broad evaluators were few in number (9, or 14 percent). Most informants worked extremely long hours. In the course of our interviews, three-quarters of our informants estimated the number of hours that they worked each week.<sup>4</sup> Twenty-six percent of the men and 18 percent of the women who estimated their time reported working over 55 hours a week. These figures can be compared with data for full-time technicians, computer scientists, and programmers drawn from the U.S. Department of Labor's Current Population Survey. Heckler (1998) reported that in 1997, only 7 and 3 percent of permanently employed male and female computer scientists, respectively, worked 55 or more hours weekly. Only 4 and 2

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In estimating their weekly hours, our informants did not distinguish between billable and unbillable hours. In most cases, we suspect that they were including both, but if they were not, the absence would dramatically increase our estimates of the number of hours that contractors worked.

percent of male and female technicians worked as long. Even among permanently employed male programmers, a group known for working long hours, only 5 percent worked 55 hours or more each week.<sup>5</sup>

Table 3 lists the percentage of informants who reported that they routinely made use of the opportunities that contracting offered for coarse- and fine-grained flexibility. We classified contractors as having achieved coarse-grained flexibility if they explicitly said in the course of their interview that they used downtime as an opportunity to pursue either avocations or long vacations. We classified contractors as having fine-grained flexibility if they said they worked less than 30 hours a week or varied their daily or weekly schedules to accommodate family and personal interests.<sup>6</sup> As table 3 indicates, the number of informants who achieved coarse-grained flexibility (26 percent) was nearly twice the number of those who made use of fine-grained flexibility (14 percent). Conversely, interviews with 71 percent of our informants suggested no fine-grained flexibility, while only 48 percent of interviews implied the absence of coarse-grained flexibility.

Table 4 cross classifies informants by whether they had coarse- and fine-grained flexibility, thereby allowing us to examine the relationship between how our informants used the two types of flexibility. The data indicate that few informants were flexible on both scores. Only 11 percent of our informants reported making use of opportunities for both coarse- and fine-grained flexibility, while 43 percent of the contractors reported making use of neither. The data in tables 3 and 4 raise two important questions. If, as we have shown, contractors generally perceived themselves to have more control over their time than they did as permanent

Table 3

**Informants Who Took Advantage of Coarse- and Fine-grained Flexibility**

	Coarse-grained flexibility	Fine-grained flexibility
Yes	26% (17)	14% (9)
No	48% (31)	71% (46)
Not specified*	26% (17)	15% (10)
Total	100% (65)	100% (65)

\* These informants did not indicate whether they had the type of flexibility specified in the column.

Table 4

**Cross-Tabulation of Coarse-grained Flexibility Use with Fine-grained Flexibility Use**

Percentage with fine-grained flexibility	Percentage with coarse-grained flexibility		
	Yes	No	Not specified*
Yes	11% (7)	2% (1)	2% (1)
No	11% (7)	43% (28)	17% (11)
Not specified†	5% (3)	3% (2)	8% (5)

\* These informants did not indicate whether they made use of coarse-grained flexibility.

† These informants did not indicate whether they made use of fine-grained flexibility.

**5**

Our data include six contractors who worked less than 30 hours per week. Including these contractors in our comparison of the weekly hours worked by contractors and employees creates a conservative estimate of the percentage of contractors who work long hours. The Bureau of Labor Standards defines anyone working less than 39 hours as a part-time worker whom it excludes from its data on the full-time workforce. If we were to remove these six contractors from our comparison the percentage of contractors working more than 55 hours a week would grow even larger.

**6**

When our informants talked about their use of time, many conflated how many hours they took for themselves and when they took them. Because how many hours contractors worked constrained if and when they could take time off, the two were frequently correlated. Fortunately, for the purposes of this particular analysis, it is not necessary to force the separation. Our agenda is to show that contractors made relatively little use of any type of flexibility. Thus, if after lumping all types of flexibility together we find evidence of little flexibility, confidence in the conclusion should be greater.

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employees, why did relatively few contractors make use of this control? Furthermore, why was it easier for contractors to achieve coarse-grained flexibility?

### **Why Do Contractors Make Such Little Use of Flexibility?**

Researchers have repeatedly shown that demographic characteristics play a role in determining the number of hours that people work and whether they make use of flexibility programs (Schor, 1991; Jacobs and Gerson, 1998; Mead et al., 2000; Golden, 2001). One would expect a similar phenomenon among contractors. For example, one might argue that because women assume more family obligations than men, female contractors might structure their time more flexibly than male contractors. One might also expect differences between those who have children and those who do not, although scholars could disagree on the direction of the effect. People with children might exhibit more temporal flexibility because they need to take care of their children; conversely, they might show less temporal flexibility because of the need to maximize family income. The structure of contractors' careers might also matter. For instance, experienced contractors might use their time differently than newcomers because they are less likely to worry about job security and, therefore, have less anxiety about taking vacations and hours off.

Panels A and B of table 5 compare the demographic attributes and careers of informants who had some flexibility, either coarse- or fine-grained, with those who had neither. These data suggest that demographic differences do not provide much leverage in predicting whether our informants made use of their opportunities for temporal control. Only four demographic differences were significant. Contractors who exhibited temporal flexibility were more commonly highly paid Caucasians and independent contractors with more years of contracting experience. These results point to differences in market power (higher wages, Caucasians, and independent contractors) and to the importance of experience in handling the uncertainties of contracting. Notably, sex, marital status, and the presence of children did not seem to distinguish how our informants used their time.

Professional identities and norms of quality offer another plausible explanation for why most contractors did not use the temporal control they perceived themselves to have. Occupational sociologists have shown that professionals are strongly committed to their work (Hughes, 1958; Bucher and Stelling, 1977). Because the professional's identity is tied to his or her work and because professionals typically find their work intrinsically interesting, they tend to work long hours and have a craftsman's orientation to quality. Moreover, professional norms extend well beyond the confines of organizations: they influence practitioners regardless of work context (Van Maanen and Barley, 1984). Accordingly, one might argue that contractors work long hours and take little time off because they view themselves as committed technical professionals for whom work is a central life interest (Dubin, 1956; Orzack, 1959). But our data do not support this interpretation. We examined all the passages in our transcripts in

Table 5

**Attributes of Informants with and without Flexibility\***

Characteristic	Some flexibility	No flexibility	t-stat.
<b>A. Demographic</b>			
Mean age (in years)†	42.5 yrs.	42.2 yrs.	-.11
Mean education (in post-high-school years)†	4.3 yrs.	4.0 yrs.	-.68
Mean pay rate (in \$/hour)*	\$78	\$58	-2.10*
Male	74%	74%	.01
Married§	47%	71%	1.65
With children¶	50%	52%	.10
Caucasian	95%	67%	-2.43**
U.S. citizens	89%	80%	.82
California resident	74%	67%	-.54
Bay Area resident	58%	55%	-.22
<b>B. Career structure</b>			
Mean years contracted†	8.5 yrs.	6.1 yrs.	-1.78*
Mean years worked†	18.1 yrs.	17.2 yrs.	-.37
Years contracted / years worked†	.47 yrs.	.40 yrs.	-1.04
Independent contractors or corps.†	47%	25%	-1.73
On first contract*	11%	7%	-.40
Have always contracted*	12%	11%	.18
Left permanent employment behind*	58%	51%	-.47
Moved back and forth to contracting*	21%	27%	.47
<b>C. Technical specialty (percentage)</b>			
Software developers	42%	21%	-1.68*
Hardware designers	11%	7%	-.44
Database programmers and administrators	26%	17%	-.87
Systems administrators	0%	17%	1.92*
Project managers	0%	7%	1.19
Technical writers	11%	10%	-.12
Quality assurance technicians	11%	12%	.15
Multimedia (Web)	0%	5%	.95
Others	0%	5%	.96

•  $p < .05$ ; \*\*  $p < .01$ ; one tailed test.

\* N = 60 individuals. Numbers are drawn from semistructured interview data. Thus, some comparisons are based on a subset of the cases. Five informants did not give any information on time use (see table 4) and were excluded from this table. Contractors with "some flexibility" had fine-, coarse-grained, or both types of flexibility.

† Only includes data on 59 cases.

‡ Only includes data on 36 cases.

§ Only includes data on 50 cases.

¶ Only includes data on 48 cases.

\* Only includes data on 58 cases.

which contractors explained why they worked long hours for evidence of professional identities and appeals to intrinsic motivation for work. We also searched the transcripts for all mentions of profession and similar words (professionalism, professional, etc.). Only six of our informants voiced such motives as part of their account for why they worked long hours or eschewed vacations. Professional identities and norms, therefore, did not appear to play a significant role in how the majority of our informants allocated their time. Far more important were the nature of our informants' work and their view of the exchange relationship.

Technical contractors were almost always hired onto a project. Not only did projects have discrete beginnings and endings, but their pace was also patterned. Typically, a project started off slowly and eventually accelerated. By the final third of a project, participants realized that they were running out of time, and the pace became frantic (Gersick, 1988,

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1989). This occurred when projects had crises and managers strove to "put out fires" by "throwing bodies at the problem." The bodies usually belonged to contractors. Consequently, contractors typically entered projects precisely when demands on the team's time were greatest. Contractors were expected and paid to do whatever it took to finish the job. Several contractors compared their work with that of a mercenary, entering battle after battle, with heavy expectations balanced by high rewards. Most of our informants agreed with the sentiments expressed by a quality assurance technician, whose avocation was competitive dancing:

There are times when the job is pretty stressful, especially when they come up on their deadlines and they're expecting you to put in 50 plus hours a week and there's problems with the project. They're falling behind. Things aren't going the way they're supposed to. Almost invariably that's what happens. . . . Now [the team's] under the gun. Its like, "We have till January 1, and who knows if we're gonna make it on time." . . . And I think if I weren't doing this, I would go out dancing a lot more often. I would be competing more. . . . But it certainly puts a Kibosh on that because by the time I get home, and I talk [to my wife] about the bills and whose birthday's coming up next month, very little energy is left for dancing.

The pressure to work long hours created by the fact that contractors usually arrived at "crunch time" was sometimes exacerbated by the nature of the work itself. For example, quality assurance technicians were responsible for running tests on hardware and software. Complex testing could require constantly monitoring the computers on which the tests were running. When running tests, quality assurance technicians would sometimes need to work for stretches of 10 to 15 hours at a time. Systems administrators had responsibility for maintaining networks, the infrastructures whose continual operation was critical to a client's ability to do business. When networks failed or servers crashed, systems administrators had little choice but to work until they fixed the problem. When writing code, software developers, Web designers, and database developers lived in micro-worlds defined entirely by the parameters of the programs they were writing (cf. Kidder, 1981). Writing high-quality, efficient code requires absorption of consciousness that makes designers oblivious to the flow of time. Programmers experience this state as a kind of fixation. A Web designer explained how coding binges sucked up time: "It is very easy for me to become obsessive when it comes to this stuff. I can sit there and do this stuff until 2 A.M. Wake up, go to work, come back and do it until 2 A.M. again. You know, for at least a few days straight. . . . It's something I can't really quit."

Panel C in table 5 suggests how occupations and the tasks they encompass can constrain temporal flexibility. The panel displays the percentage of those with some or no flexibility in eight occupational groups. Compared with contractors with flexibility, contractors without flexibility are more likely to be systems administrators (0 percent vs. 17 percent,  $p < .05$ ), most likely for the reasons discussed above. Despite the fact that software developers could become lost in their work for significant periods of time, they were the most likely occupa-

tional group to have some type of temporal flexibility (42 percent vs. 21 percent,  $p < .05$ ). This freedom reflected the fact that coding tasks could be modularized, which freed programmers from a ceaseless temporal regimen and also allowed them to work from home. If the developer was an independent contractor, clients would often require only that he or she deliver completed code by a specified date. How the contractor spent time was irrelevant, so long as he or she delivered the code on time.

Contractors, however, felt that the nature of their work was not nearly as important for how they allocated time as the exigencies of the exchange relationship. Contractors understood that selling time and skills to a client meant entering a relationship with reciprocal obligations. Clients were obligated to pay contractors but, in return, contractors were obligated to do more than complete a piece of work. They also had to satisfy the client. In the role of customer, clients could make demands that went beyond the letter of the contract, which often translated into demands for additional time. It was precisely because the exchange beneath the contract relationship was remunerative and because current exchanges affected future exchanges that contractors had both immediate and long-term reasons for keeping clients happy, even when this limited contractors' temporal flexibility.

Because contractors sold expertise, the exchange between clients and contractors had overtones of a professional engagement. The ethos of ministering to a client's needs, much as would a doctor or lawyer, was exaggerated by the short-term nature of the contract. Realizing that they hired contractors as experts allowed clients, as one female software developer put, to adopt an attitude of "OK, you're a consultant. Our employees aren't carrying the load. We're paying you so you do this, this, this, and that." Independent contractors, in particular, found that their obligation to serve clients was broad. Like many independents, an experienced database developer told us he felt he had to be on-call 24 hours a day: "I've had phone calls at 3:00 in the morning. You know, the phone's ringing by the bed at 3:00 in the morning every day because somebody's operation is more important than my life." Contractors who worked several contracts simultaneously found it even more difficult to maintain control over their time while also meeting clients' expectations. A software developer explained:

On a project it'll be "We need this done. How soon can we get it done?" If I've only got one or two projects, then it's just "Gee, I'm spending all my time working on your project. We'll have it out in a couple weeks." Right now, I've gotten myself into a bind where I've got all these projects. One of them should have been done six months ago. Another's due out March 31. A couple others are expecting stuff in the next two weeks and that's not gonna happen. . . . When I'm concentrating on one project, customers will phone up, "Gee, it broke," and I have to go out and fix it. . . . I don't have 240 percent time.

Even more important than immediate pressures to please the client was the shadow of the future: the fact that contractors relied on clients for referrals and references. Contractors

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understood that having a reputation as a reliable expert enabled them to negotiate their next contract quickly and successfully. Contractors therefore had incentives to exceed the terms of the contract and to meet clients' demands to protect their reputation and guarantee good references. Informants repeatedly told us that they worked in "small worlds," in which word of performance traveled quickly. A workstation technician, who worked as a W2 and who was moving into quality assurance, explained how concern for her reputation led her to sacrifice her temporal flexibility:

We're kind of in a heavy point right now. The thing I like about contracting is that it's voluntary. I mean if I don't want to go in, I don't go in. Nobody's telling me to do anything. Nobody's saying, "You have to do this. You have to be here at a certain time." But, say it was a real critical part of the project that needed to be done by Monday, and I decided "Oh, I'm not coming in," and I didn't have a really good reason. I'm still not dinged, but it's filed in the back of somebody's mind and they'll say, "Well, she's not as dependable as we thought she would be" or something like that.

The independent contractor cited above who worked multiple contracts echoed those sentiments: "You must always take responsibility for your projects. If you do a bad job, it will get around and people will stop calling you. When I hear people saying that they want to be a contractor because they want to make lots of money, I think, it's more than that. You have to have a knack for it, and you have to be willing to work weird hours."

Contractors quickly learned that market-based remunerative relationships came with more strings attached than they had originally anticipated. Where they once may have had an employer who could exercise control, they now had clients who had the prerogatives of customers. As in all markets for expertise, reputations built at least partially on client satisfaction lubricated the flow of work. The need to keep clients happy meant that once contractors accepted a contract, they also experienced constraints on contracting's promise of fine-grained flexibility. Although clients had little normative control over how contractors allocated their hours and their days, they owned part of the contractors' reputations. This gave them a kind of coercive control in the present because of the possibility that they could exact retribution in the future when asked by potential employers to provide references. Contractors therefore found exercising fine-grained flexibility more costly than using coarse-grained flexibility. Unlike insisting on temporal autonomy within a contract, taking time off between contracts might lower contractors' annual incomes and deplete their savings, but it did not jeopardize their reputations. For this reason, contractors were more likely to take advantage of the market's coarse-grained flexibility than they were to enjoy its promise of fine-grained freedom.

## **DISCUSSION**

Scholars who study time and flexibility in organizations routinely find that employees feel overworked and desire greater control over their time but take little advantage of the flex-time programs available to them. Researchers usually blame this paradox on the normative pressures of organizational life

(Kunda, 1992; Barker, 1993; Perlow, 1997). Advocates of employability and free agency contend that people can escape these pressures and regain temporal control by leaving permanent employment for market-based careers that span organizations (Kanter, 1989; Arthur, 1994; Pink, 2001). Our study suggests otherwise. Moving from organizations to markets created new time binds for technical contractors. As the literature would predict, contractors believed they had more control over their time than they had as full-time employees, but this belief rarely led them to limit their hours or schedule their time more flexibly. Few took advantage of contracting's greater opportunity for breaks and vacations, and most worked such long hours each day that there was little time left with which to be flexible, even if they so desired. Thus, despite the absence of normative pressures, our informants exhibited a disjunction between perceived and realized flexibility similar to that documented by researchers among employees in firms with flexibility programs (Tausig and Fenwick, 2001; Gareis and Barnett, 2002).

The reasons for the disjunction lay in how the market influenced our informants' interpretations of time and their subsequent choices. First, the contract cycle repeatedly exposed contractors to the possibility of downtime, periods without work and pay. The majority of contractors saw downtime primarily as a period without pay, as opposed to a period without work, and hence sought to avoid or minimize downtime. Second, the market's high wages, which were paid by the hour, led contractors to equate time with money and allowed them to calculate precisely the cost of an hour of leisure or family time. By contrast, the opportunity cost of spending an additional hour at work was more difficult to calculate. Contractors therefore gravitated toward working more rather than fewer hours. Third, the demand for contractors was marked by crisis. The tendency for firms to hire contractors into troubled projects at the last minute exacerbated the contractors' proclivity to work long and inflexible hours. Finally, because reputations were crucial for securing a steady stream of contracts, many contractors put in long, even unbillable hours to ensure solid references and referrals.

Although our findings suggest that freeing workers from the normative pressures of an organization are unlikely to unleash a wave of flexibility, our data have limitations. The study took place during the tightest labor market in recent history. It is conceivable that our findings would differ under other economic conditions. In a slack labor market, contractors should find it more difficult to find and keep jobs, and hence they should experience more downtime. With increased risk of downtime, contractors might seek to extend contracts for as long as possible and, in doing so, become more susceptible to normative pressures from their clients. They might be even more likely to forgo vacations and work longer hours to forestall the end of a job. For this reason, contracting may sometimes be more organizationally constrained than our study suggests. But it is difficult to understand how such a change would offer contractors greater temporal flexibility. Even if contractors experience more

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downtime in slack labor markets, it would not be of their choosing.

Our decision to study highly skilled technical professionals certainly shaped our findings. Scholars who have studied temporary clerical and light industrial workers report that temps experience considerable daily uncertainty about if and when they will work. For example, Parker (1994) found that the average temporary clerical job lasts less than two weeks, while temporary industrial jobs last less than one week. This contrasts sharply with the seven-month duration of our informants' average contract. While there is no reason to believe that low-skilled contingent workers would have more flexibility than our informants, it is undoubtedly true that they would experience radically different contract cycles and that their interpretations of time would differ accordingly. We would also expect that the issue of finding work would overshadow the issue of finding time.

Like all ethnographies, our research was designed to portray what people experience rather than to assess the frequency of that experience in the population. Hence, our data do not allow us to determine how broadly our findings apply. The answer to this question awaits survey research. Our study does, however, offer guidance for designing such surveys. First, our research shows the utility of distinguishing between coarse- and fine-grained temporal experience and between how many and which hours people work. It also documents that people distinguish between types of flexibility and that they may enjoy some types of flexibility but not others. Future researchers could sharpen our understanding of how people experience and make use of time by designing studies that employ these distinctions. Second, our informants thought they had more flexibility than employees, yet they usually worked longer hours than they had when they were permanently employed, and they continued to maintain rigid schedules. This suggests that future research not only needs to explicitly compare contractors with employees but also to distinguish between perceptions of temporal experience and the use of time.

Third, our data underscore how work and occupation shape perceptions and the use of time. The systems administrators in our study, for instance, were much less likely than software developers to work flexibly. Most previous research on flexibility has overlooked how the particulars of work affect the use of time. Aggregate occupational categories, such as engineers or technical, professional, and managerial workers, are unlikely to be sufficiently sensitive to differences in the nature of work. Consequently, future studies of time will need to make finer distinctions between occupations to capture these effects. Finally, our data suggested that flexibility among contractors was not contingent on sex, marital status, or size of family. These results run counter to those reported in studies of flexibility among full-time employees. Well-designed surveys of highly skilled contractors are required to determine whether these results simply reflect low statistical power and sampling error or whether they indicate that the demography of time use differs in significant ways between contractors and full-time employees.

More broadly, our research highlights how markets shape behavior, a concern central to the emerging field of economic sociology (Smelser and Swedberg, 1994). If the structure of a market is strong enough to persuade contractors to forfeit the temporal control they desire and claim to have, how might markets shape other behavior? In the case of highly skilled contractors, a promising area of investigation would be the effect of markets on the formation of social and human capital. We have seen that reputations and referrals were crucial to contractors. One might therefore expect building and maintaining social networks to be especially important for a contractor's ability to negotiate the market for skilled work. Conceivably, the structure of contractors' networks—and the dynamics by which they form and persist—may differ in important ways from the networks of full-time employees. Because markets for technical skills hinge on the rise and fall of technologies, a contractor's ability to sidestep obsolescence by learning new skills would also be a fruitful area for research. Workers' responses to technological obsolescence and the dynamics of human capital may differ significantly for contractors and permanent employees.

Ultimately, our research raises doubts about whether organizational life is really as troublesome for workers' ability to control their time as the literature suggests. Although organizations expose workers to mechanisms of control that contractors appear to escape, organizations also buffer employees from repeated encounters with the labor market. As we have seen, the structure of the labor market constrained most contractors from choosing to work fewer and more flexible hours. Our evidence suggests that contractors may actually work more hours than their full-time counterparts in the same occupations. Our study implies that organizations may conceivably consume less of a worker's time than do markets. Organizational employment may also offer at least as much, if not more, fine-grained control over which hours one works. Were studies to confirm these conjectures, they would not only challenge notions of free agency's promised benefits, they would warrant rethinking a key assumption behind the literature on time binds, namely, that organizations offer only constraints. At the very least, our investigation casts doubt on the claim that market-based careers give workers greater flexibility and control over time. Free agency may lead people to perceive that they have more temporal flexibility, but aside from longer vacations, most will likely never use it. Like bureaucracies, markets are also cages, but cages of a different material. Contractors' choices about beach time, bridge time, and billable hours in the context of work may make it difficult for them to see this.

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## APPENDIX A: Interview Guide

### Domain: Question / Issue

#### *Career history*

- What do you call yourself?  
What is your area of expertise?  
What kind of projects do you prefer?  
Tell me about your educational background.  
Can you run through your employment history?  
Of all these experiences, which ones stand out for you? Tell me more about that one.  
Tell me about (when, how, and why) you became a "contractor."  
Have you experienced significant periods of downtime?  
Tell me about your experience with clients.

#### *Work / business practices*

- How do you find a contract? Tell me all the different ways you have found work.  
How did you find your last job? First job?  
What are you going to do when you finish this contract?  
How do you handle health insurance, bookkeeping, taxes, pension, billing?  
How are you paid? (What is your pay rate?)  
How is your current project organized?  
How do you manage your time and your travel?  
How do you stay up to date?

#### *Perceptions and institutional milieu of contracting*

- What is your experience with staffing firms?  
What kinds of staffing firms are there?  
Name industry groups, associations that you are a member of.  
What do you read?

What is the upside and downside of contracting? What would you tell someone new to contracting?  
 What kinds of contractors are there?  
 What kinds of projects are there?

*Personal and family life*

Tell me about your family background, your life outside work.  
 How does the work relate to or influence the other parts of your life?  
 What do you do outside work?  
 How much time do you spend on these activities?  
 What does your spouse think of your work? What does your spouse do?

**APPENDIX B: First-stage Inductive Time Codes from Contractors' Interviews**

First-order time codes	Higher-level codes
Company only had part time work	<i>Contractor's motivations for entering contracting</i> Negative
Flexible hours More time off	Positive
Bear the costs of own mistakes Being on call constantly Downtime Hard to take time off Lack of control over time No vacation or sick pay No work, no pay	<i>Contractor's evaluations of contracting</i> Disadvantage
Avoid overtime Flexible hours / control of time Freedom to take vacations Work fewer hours	Advantages
Retire early / work less	<i>Contractor's view of the future</i> Retire early / work less
Time use Work time	<i>Contractor's life</i> Time use Work time
Pace of change Continuous learning Need to keep up Speed of new things to keep up with Tech cycles Time-efficient skill learning Willingness to do anything	Skills
Billing practices Time management Job search timing	Business
Integration [Projecting] hard worker image Temporal honor system Temporal monitoring	Working on projects
Schedules Commitment time Nothing gets done Attend meetings Freedom to work [in contrast with employment]	<i>View of life as an employee</i>

## Technical Contracting

### APPENDIX C: Second-stage Inductive Time Codes from Contractors' Interviews

First-order time codes	Higher-level codes
Yearly cycles Contract cycles Intensity cycles Cycles of fun and hours Technology cycles (short futures)	<i>Coarse grained Characteristics</i>
None Week or two 1–2 months 3–4 months 5–8 months Break	<i>Downtime</i>
Managing downtime Looking for technology trends Alignment of multiple projects	<i>Managing downtime</i>
Vacations No vacations Work overtime to cover vacations	<i>Vacations</i>
Need time off Knowledge as motivation	<i>Commitments</i>
Not concerned about next job Underestimate learning time Age slowing down time Retirement risks Stress Boredom (of staying on same project)	<i>Experience</i>
10-hour days 12-hour days / 80-hour weeks Long days Late night work Weekend work 8-hour day 30-hour weeks 10-hour weeks	<i>Fine-grained Schedules</i>
Late night expectations Constant availability Constant work Need to always say yes No calling in sick Managing hour expectations Make clients happy Signal time spent Deadlines Self-imposed pressure More work than time Need deadlines for productivity Staying till the job is done	<i>Influences</i> Client expectations
Addicted to work Work sucks you in Brain dead after too much Hard to work so much	Work experience
Meetings: inefficient due to bad organizational planning Hours replace employee hours Inefficient time use Wasting time More efficient off than on site	Organizations

**APPENDIX C (Continued)**

First-order time codes	Higher-level codes
Influence of spouse	Family
Contractor more efficient than permanent employee	<i>Compared with permanent employees</i>
Permanent vs. contractor	
Same as permanent	
Resentment of employees	
Don't bill for personal work	<i>Billing structure</i>
Don't bill for unproductive time	
Ratio of hours to billable hours	
Even money by retainer fee	
Paid for all hours	
Paid—NOT overtime wages	
No overtime allowed	
Speed of payment	
Lack of control	<i>Managing and experience of schedule</i>
Broken boundaries	
Interwoven work/life	
Flexibility	
Hurt family life	
Balance of work/family	
Control	
Discipline of boundaries	
Prioritizing nonwork life	
Owning your time	
Most prized possession	
Awareness of pay for hours	
Time is money	
Need flexibility	<i>Commitments</i>
Need daily fun time	
Need for home weekly	
Commuting	<i>Time use</i>
Strange hours for international connection	
Strange times to free resources	
Spent learning	
Spent looking for jobs	
Spent on business details	
Outsourcing work	
Multiple locations	
Organizing multiple clients	
Free time for entrepreneurial venture	