

Working Paper

***Job Autonomy vs. Career Flexibility
The Role of Large Bureaucracies
in Professional Labor Markets***

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Abstract

This paper investigates the role played by large-scale organizations in professional labor markets. Workers in many professional occupations have witnessed a long-term trend toward growth in large-scale organizations. While well-established theories associate such large organizations with bureaucratic constraint, loss of autonomy, and attendant dissatisfaction, this paper advances a second line of thinking. Using surveys and interviews on physicians, I find that large scale is *also* associated with greater schedule and career flexibility. Ironically, the bureaucratic processes that attend large scale generate the capacity to alleviate patient demands on individual physicians, freeing up those physicians to pursue other career activities or fulfill family responsibilities. In this light, bureaucracy represents a *trade-off* between autonomy and flexibility that many professional workers willingly accept. The implications may extend to other professional and managerial labor markets, where autonomy is traditionally high but so too are client or work-driven demands on schedules and careers.

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A common view among both scholars and practitioners holds that professional workers enjoy high levels of personal autonomy. The movement of professionals into larger bureaucratic employment settings, where they would be forced to compromise their autonomy, has therefore been predicted to engender dissatisfaction and alienation (Scott 1965; Bailyn 1985; Wallace 1995). Yet among physicians, who represent an archetypal autonomous profession, recent surveys show comparable or even higher satisfaction levels for physicians in larger organizations (Author analysis of public survey data in CTS 2003; also see Landon, Reschovsky and Blumenthal 2003). I argue that an explanation for this puzzle lies with the fact that bureaucracy can offer professionals something valuable in exchange for the loss of their autonomy: greater flexibility in their careers. For physicians, the large bureaucratic practice organization ironically offers an expanded range of career options and more control over their

ability to move between those options over time. This career flexibility is increasingly demanded

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in the professional labor force as a result of the rapid influx of women, dual-earner families, and others whose preferences diverge from the norm of full-time long-term work (Osterman et al., 2001). It therefore represents a form of non-monetary compensation that is highly salient in the contemporary professional labor market.

This research thus contributes to a new approach to professional labor markets that emphasizes heterogeneity in career interests and examines the ability of different organizational arrangements to meet those interests. The results suggest a partial inversion of the common assumption about large bureaucracies: though they constrain individual professionals when it comes to work autonomy, they can offer liberation with respect to schedule and career flexibility. As researchers, neglect for this new lens carries the risk of misinterpreting the movement of professionals into large organizations. Such a trend—long observed and much debated in the context of physicians and other professionals (Derber 1982; Starr 1982; Robinson 1999; Brock, Powell, and Hinings 1999; Freidson 2001)—may not simply result in dispirited practice and professional decline. Instead, bureaucratic practice may represent a labor market trade-off that, while shunned by some, is proactively sought by many others. While in the present paper I show this relationship for physicians—allowing me to largely control for variation in work content—the generality of these findings may extend to a range of other

professional occupations where schedule and career flexibility are problematic and a mixture of organizational arrangements persist.

Below, I discuss the ways in which large bureaucratic medical organizations compare with more traditional small private practice settings in terms of physician job characteristics like autonomy and career flexibility. The impact of these factors is then examined using survey data from a random sample of physicians in a major U.S. metropolitan region. Although the primary empirical focus is on these survey data, the arguments and analyses presented here were in part developed through preliminary case study research using interviews and archival materials from four large medical practice organizations and a range of small private practice settings.

Bureaucratic Organizations and Physician Jobs

Scale, Bureaucracy, and the Loss of Autonomy

This paper argues that the large bureaucracy represents a trade-off for physicians when compared to the traditional private practice arrangement. On the one hand they lose autonomy, while on the other hand they gain schedule and career flexibility. The first part of this trade-off, relating size and the loss of autonomy, is relatively uncontroversial. One of the most general relationships found in organizational behavior is the tendency for scale to be associated with the elaboration of rules and hierarchy, which in turn constrain autonomy.

...the large bureaucracy represents a trade-off for physicians when compared to the traditional private practice arrangement

Starting with Weber (1947) and later developed by Merton (1952) and his students, a long literature has identified large-scale organizations with rules and hierarchies that constrain individual action. A link between size and the elaboration of internal rules and structures has been widely confirmed (Blau, Heydebrand, and Stauffer, 1966; Blau, 1972; Marsden et al., 1996). The impact on autonomy has similarly been widely explored and confirmed. This relationship has received special interest in the context of physicians and other professionals, because their orientation toward autonomy is believed to be strong and therefore their loss of autonomy particularly challenging (McKinlay 1989; Derber 1982).

In particular, for physicians, larger medical practice organizations often entail a proliferation of rules and hierarchical relationships that govern the work context. While physicians in large organizations may still retain autonomy over direct clinical activities they are likely to have less

control over their physical work environment, staffing and co-worker selection, and many other aspects of the organization that surround their actual patient-care duties (Hafferty and Light 1995; Krelewski 1999; Freidson 2001).

***Hypothesis 1.** Physicians in larger practice organizations will have less control over their work context, relative to physicians in smaller organizations*

Scale, Bureaucracy, and the Gaining of Schedule and Career Flexibility

The other element in the proposed trade-off relates higher degrees of scale and bureaucracy to the gaining of schedule and career flexibility. This relationship arises from the capacity for bureaucratic work organizations to improve on the otherwise problematic nature of physician schedules and related career limitations. Before expounding on this relationship, I first contrast the general approach to flexibility in the existing literature with the particular implications of flexibility for workers such as physicians and others doing professional service activities.

Approaches to flexibility. The common approach to studying flexibility has been to conceptualize it as a benefit offered by organizational leaders and used by employees (Goodstein 1994; Glass and Estes 1997; Osterman 1995). For example, flextime, telecommuting, and paid family leave are common workplace benefits that increase workers' ability to attain temporal flexibility. Yet the benefits approach has serious limits for professional workers. When the nature of an employee's work encompasses responsibility for higher-level tasks or functions, as is typically true for professionals, the presence of a benefit alone does little to allow access to flexibility. What such employees need as much or more are organizational processes that help ensure that the tasks and functions they are responsible for are not compromised as a result of their pursuit of flexibility. In the context of much professional work, the issue of flexibility is therefore more fruitfully conceptualized as a work-organization issue than employee-benefit issue. This may be one reason why for many workers the simple availability of flexibility benefits does not well predict the incidence of flexibility uptake (Bailyn 1993; Christiansen and Staines 1990; Batt and Valcour 2003).¹

The contrast between these work-organization and employee-benefits approaches becomes even stronger as the intended timeframe of flexibility lengthens. When the timeframe increases from daily or weekly ("schedule flexibility"; see Golden 2001) to monthly or yearly ("career flexibility";

see Bailyn et al., 2001; Moen 2003), there is a greater need for systemic coordination to ensure that professional tasks and functions are not compromised. Otherwise, the risks associated with someone pursuing a part-time career track and other non-traditional career activity become much more likely: if tasks are compromised during the course of her part-time stint, for whatever underlying reason, this provides the basis for others in the organization to re-evaluate her ability and commitment. This can lead her superiors to direct key projects and clients away from her, stunting her subsequent career progression. Of course, in many organizational contexts those risks are borne by anyone pursuing flexibility—yet they loom much larger when there are visible poor performances that can serve as evidence of a lack of ability or commitment on the part of the individual who pursues flexibility.

For example, consider a lawyer with an important client or an engineer on a major project who seeks the flexibility to go part-time for six months and then return to full-time. This individual needs not only an employee benefit that formally sanctions that behavior, but also a set of organizational processes that support those transitions. These processes are necessary to ensure the re-allocation of other staff to cover for the individual seeking flexibility. Processes must also involve some way of making key client or project knowledge accessible to those staff, and provide for clear modes of coordination between all parties involved. Without such a process, task performance may suffer. Mistakes may be made during the transitions to or from part-time, or when issues arise during the period of flexibility. The client may feel that her needs are not being addressed. The result may involve damage to the individual's reputation and/or the loss of clients or projects to others in the organization who have not sought flexibility.

Physicians and flexibility. For physicians, the issue of professional responsibilities over higher-level tasks and functions is of extreme importance. The core task of the practicing physician is the care of patients. At any given time, a full-time physician has responsibility for the health and wellbeing of several hundred patients. Thus the ability to attain flexibility is limited by whether work-organization processes exist that can ensure the health of those patients during the relevant time period and over the relevant career transitions. The physician needs somehow to ensure that they or someone else who is competent and has adequate information and resources is available to meet the needs of those patients at all times. In order to achieve *schedule* flexibility, the physician requires a process for handling those patients who require attention during precisely those times that the physician is planning to be unavailable.

¹ A supportive organizational culture and informal norms are also important, as many have shown (Bailyn 1993; Eaton 2003).

Further, over their life course a physician is likely to want flexibility in a longer *career* timescale. In other words, they may want the ability not only to adjust their schedule to unexpected events as they arise during the day or week, but also the ability to transition from full-time patient care practice to part-time and back again over months or years, potentially even multiple times over the course of a career. For example, a physician might at various points want to pursue activities such as research, teaching, further training, or administrative leadership. If they choose to have a family, they will doubtless also seek to decrease patient care responsibilities for a period of time, and likely resume them later at higher levels.

How physician organizations differ on flexibility. At the organizational level, therefore, the key issue becomes not only whether an organization has flexibility-related employee benefits on the books, but also whether it has processes in place that facilitate actual attempts at implementing individual flexibility. (Rapaport et al., 2002; Perlow 1997) How then do organizational scale and bureaucracy impact the physician's ability to pursue flexibility? In the following descriptions I address this issue by comparing stylized portrayals of medical practice in the traditional small private practice setting and the large-scale medical practice organization.

Physicians in traditional private practices in the United States tend to be organized in either their own solo corporation or small partnerships. In such settings, the individual physician generally does not share responsibility for patients. This tight coupling of patient and physician generates an inflexible schedule and a career pattern involving continuous full-time patient availability. The inability to hand off patients to anyone else means that schedules and careers have to be organized heavily around the needs of patients. Physicians in private practice are on-call for most patient emergencies as these arise, day or night.² In this context, any attempt to limit the access of patients to the physician, so the physician can pursue some other career activity, tends to be fraught with difficulty.

In contrast to the private practice, physicians in large practice organizations have a wider range of schedule and career options. Schedule flexibility is achieved in part through a reduced call schedule. Large scale facilitates this call reduction, with a larger pool of physicians to share on-call duties and a more sophisticated system for handling the patient "hand-offs" involved in one physician regularly seeing another physician's patients while on-call. Therefore, as size increases, the call

² Physicians in private practice usually have arrangements with other private practice physicians to share on-call responsibilities. However, these "cross coverage" arrangements are typically limited in nature, possibly because of coordination difficulties or norms of self-sufficiency.

burden can be spread over more individuals, and the number of options for distributing and adjusting call schedules to cover all patients rises. As a result, the average burden on any given individual physician can decline with increasing organizational size.

***Hypothesis 2.** Physicians in larger practice organizations will have reduced call schedules, relative to physicians in smaller practice organizations*

Scale also helps to achieve increased *career* flexibility as well as schedule flexibility. First, the larger pool of substitutes for the individual physician can also be of importance for covering a physician's responsibilities over the longer time period required for career flexibility. However, with longer time periods comes greater complications associated with coordinating the care of patients. In essence, for longer-term career flexibility patients have to be carefully handed-off from one physician to another for an extended period, and then handed back again at a later point. This handing-off process requires sophistication since it involves a great deal of tacit and codified knowledge about the patient, as well as norms and expectations around how the physician-patient interaction should proceed.

What does the large organization offer in terms of improving this hand-off coordination process? A range of organizational processes which appear more often in large organizations can facilitate these hand-offs and therefore enable career flexibility. Consider the challenges of handing two types of patient needs: regularly scheduled patient care, and irregular patient care episodes. For regularly scheduled care in the context of a physician with career flexibility, some patients will have to be seen by someone besides their regular doctor. Larger organizations are much more likely to provide patient care in organized teams, often involving multiple physicians and/or advanced care practitioners such as nurse practitioners or physician assistants, all of whom may be able to cover for the regular physician for many patient care activities. For irregular patient care episodes, involving urgent needs that arise during the night or on weekends, the organization provides a set of processes that ensure patients have access to appropriate care. For example, larger organizations typically run evening urgent care clinics staffed by physicians and other medical staff.

For all these organizational processes to function, the many patient hand-offs implied in their use must take place smoothly. Organizational coordination processes provide the means for such hand-offs to be executed with minimal disruption and an extremely high level of informational accuracy. For example, large organizations are much more likely to have electronic medical record

systems, enabling information about one physician's patients to be accessed easily and accurately by another physician (Johnson et al., 2002). Coordination is also facilitated with shared norms governing patient care, and established routines for transferring patients and relevant information between practitioners. Hand-offs between practitioners as well as organizational sub-units should thus be safer and smoother. In addition, myriad time-consuming responsibilities involved in organizational administration, human resources, and physical plant are hived off from the physician's list of responsibilities, and handed to central administrative units. All of these various features allow individual physicians a degree of schedule control and hence career flexibility that is ironically unavailable in the traditional private practice where physicians ostensibly have more generalized control over their work.

With more controllable and predictable schedules, physicians in large organizations have the flexibility to pursue other career or family activities while retaining a patient care practice. For physicians, any career deviation from full-time clinical care requires access to a *part-time clinical schedule*, with windows of time that are guaranteed to be "protected" from patients. In other words, for any individual physician to be able to take on such career activities requires them to have dedicated time not involved in seeing patients or associated clinical work. Over time, the physician has to maintain this reduction in patient-related hours, and find a way of scheduling these hours so they are predictable. The internal processes of the large organization—many of which actually impinge on the physician's clinical autonomy—thus actually facilitate these flexibility efforts.

Hypothesis 3. Physicians in larger practice organizations will be more likely to report having had a reduced-hours career experience, relative to physicians in smaller practice organizations

Extent of Bureaucracy and Composition of the Professional Workforce

If large-scale organizations offer physicians more schedule and career flexibility, then we should expect a degree of labor market sorting to take place in which physicians who value that flexibility disproportionately choose employment in large-scale settings. Which physicians are more likely to value flexibility? Research on work-family role conflict suggests that women professionals and those individuals in dual-career families are more likely to

Which physicians are more likely to value flexibility?

exhibit such preferences (Moen and Dempster-McClain, 1987; Lundgren et al., 2001; Wharton and Blair-Loy, 2002). In dual-career families, the partner who assumes the role of primary caregiver is most likely to seek employment in settings which permit career flexibility.

These preference tendencies may be particularly likely to surface in medicine because of the exceptionally demanding work hours and schedules. In surveys, physicians routinely report an average of 60 hours per work week (Gonzales and Zhang, 1998). Despite these long hours and schedules, the professional workforce—in medicine as well as other professional occupations—includes many more women and dual-career professionals than it did two decades ago. For example, the percentage of women in medicine grew from 8% to 22% from 1970 to 1999 (AMA, 2002), and in medical schools it grew from 9% in 1968 to 44% in 1998 (Barzansky et al., 1999). The number of physicians marrying other physicians also appears to be expanding (Sobecks et al., 1999). This provides a growing supply of individuals with potentially strong preferences over their work schedules.

Interviews suggested that large practice organizations were indeed viewed as favorable locations for women physicians and primary caregiver physicians for precisely these reasons. For example, the director of physician recruitment at one large medical practice organization commented that “Physicians who want balance in their lives tend to come to [this organization]. Private practice has physicians who are more interested in money or in the business side of things. People here are more driven by lifestyle, by interesting research and teaching, and by wanting to practice really quality medicine.” In this and other organizations, leaders recognize the potential advantages they hold in their recruitment of women physicians and dual-earner physicians by offering flexibility (see Moody 2002).

Another way of identifying physicians who should be more interested in the schedule and career flexibility offered by the large-scale organization is by targeting those respondents who are primary caregivers in families—in addition to being practicing physicians. These physicians are saddled with the non-work responsibilities associated with their families as well as the work-related responsibilities associated with their patients. Unanticipated and anticipated events that require flexibility are likely to arise with families as well as patients, and the greater availability of schedule and career flexibility in the large-scale organization should be particularly attractive to these individuals.

***Hypothesis 4.** The pattern of employment in larger practice organizations will be consistent with observed demographic differences in career flexibility interest.*

***4a.** Larger practice organizations will employ a greater portion of physicians who are female.*

***4b.** Larger practice organizations will employ a greater portion of physicians who are also primary caregivers in dual-career families.*

Career Flexibility and the Accommodation of Individual Career Interests

Thus far, I have proposed that larger medical practice organizations differ in key ways from traditional smaller practices, and these differences shape both experiences and membership in the larger organizations. The key assumption underlying differences in membership, however, is that individuals are choosing to work in larger organizations because they want to have more career flexibility and they believe that it can be more easily obtained in those settings. If this were indeed the case, then we would expect to find patterns of career behavior *within* the large-scale organization that are consistent with the accommodation of different individual career preferences. Therefore I also sought to assess the extent to which the greater flexibility of the large-scale organization can be accessed by those who want it. Put another way, are the physicians in the organization who do part-time the same ones who would have expressed the most interest in it? Alternatively, if the organization was using part-time and other flexibility options only for its own benefit and not that of employees, it would not actually be accommodating individual interests but rather enforcing organizational mandates without any gains for employees.

To what extent can the greater flexibility of the large-scale organization be accessed by those who want it?

The extent to which large medical practice organizations provide open access to part-time and other career and schedule options can only be incompletely assessed through survey data. Because individuals' needs and wants are likely to evolve over the life course, any historical career preference measurements are likely to be inexact. For example, the desire for career flexibility may increase around the time individuals start a family. Even so, some traction can be gained by examining the

association between career preferences—expressed at an earlier point in time—and the subsequent career activities of those same individuals within the organization.

Because physicians are likely to pursue part-time for family-related reasons, one obvious place to expect an association between preferences and career behavior is among those individuals who indicated an interest in schedule or career-related flexibility in order to facilitate activities outside of work. At the very least, if the organization were accommodating individual career interests, these individuals should have been subsequently among those most likely to have actually experienced a stint in part-time practice.

In addition, however, another group of individuals could be interested in the part-time practice option: those physicians who wanted to do other work-related activities beyond just seeing patients. For example, some physicians want to teach in medical schools, conduct patient-related clinical research, take on some kind of administrative or leadership role, or participate in community or governmental programs. In pursuing any of these activities, most practicing physicians face a set of choices similar to those of physicians who need time for child-rearing: they either have to stop seeing patients entirely, or they have to find some kind of organizational setting that enables them to keep seeing patients but protect windows of time for their other activities that are secure from the onslaught of unpredictable patient needs. Therefore, physicians who expressed an interest in career advancement should also be more likely to pursue part-time practice, compared with other physicians who expressed neither such preference.

***Hypothesis 5.** Within the large practice organization, the frequency of reduced-hours careers will reflect prior individual preferences.*

***5a.** Reduced-hours career experiences that were undertaken for non-work reasons will be more common among those who chose the organization for hours and scheduling reasons*

***5b.** Reduced-hours career experiences that were undertaken for career-advancement reasons will be more common among those who chose the organization for the advancement opportunities*

Methods

Data Collection

My data come from an in-depth study of physicians in a major U.S. metropolitan region. I collected surveys in two stages. The first stage was collected from physicians in one large medical practice organization, referred to as HCO, which itself represents approximately 5-10% of practicing primary care physicians in the region. The second stage was collected from a random sample of physicians in other organizational arrangements in the same region.

Prior to collecting the surveys, I conducted extensive key informant interviews with administrators and physicians in this large practice organization and also across a range of other settings in the region, including four other large practice organizations and many smaller private practices. In all, 43 interviews were completed between January of 2002 and June of 2003. The interview organizations were all located in the same region where the survey data was collected. Interviews lasted approximately one hour each, and the great majority were conducted in person. These interviews served to stimulate the generation of hypotheses that were subsequently tested through surveys. The interviews also provided qualitative evidence on the mechanisms underlying those primary relationships hypothesized above.

The first survey was sent to all primary-care physicians who were employees of HCO in 2002. Survey questions covered schedule and career activities, control at work, and other aspects of the physician's organizational context and personal characteristics. Three rounds of paper surveys were sent to home addresses, resulting in a final response rate of 62% (usable n=139). Shortly following completion of the HCO survey, I sent a similar survey to a random sample of regional physicians practicing in smaller organizations. Addresses and basic data on these physicians were obtained through the state medical association. The final response rate for the random sample survey was 45% (usable n=572).

The data include physicians from primary care practices who are trained in the specialties of general internal medicine (IM) and/or obstetrics and gynecology (Ob-Gyn). These are two of the most prevalent specialties, and physicians from both commonly act as primary-care providers. In order to create a relatively uniform sample, sub-specialists were excluded where they could be identified. In addition, physicians practicing in rural regions were excluded, so that the resulting sample included highly comparable physicians from a range of organizational settings in the greater metropolitan statistical region of a major U.S. city.

The analyses compare physicians working in different practice organizations. They do not focus on physicians based in hospitals, medical schools, or clinics (as opposed to practice organizations). The nature of physician work is markedly different in those organizations, focused on acute care, education and training, and research. In terms of autonomy, physicians who worked in hospitals have historically enjoyed arms-length relationships with the organization rather than being engaged in employment relationships, so although they functioned within a bureaucratic structure they were not subjugated to it (Starr 1982). In terms of the schedule and career issues that were the focus on this research, hospital physicians represented an inappropriate comparison group because they usually housed medical residents whose use greatly alleviates physician scheduling problems and career rigidities.

Dataset Construction

The data structure used in the primary analyses represents the merging of responses on identically worded questions from two simultaneously administered surveys. Had the survey been conducted as a simple random sample of physicians in one geographical region, the number of respondents from the largest-sized organizations would have been insufficient for statistically meaningful analysis. Just two such organizations operated in the region, each representing around 5% of the total regional primary care physician population. Therefore, data were collected from one of these two large practice organization, with the participation of the organization's leadership to ensure both an adequate response rate and final sample size for this key segment of physicians critical to the analysis. This large-organization sample was then merged with a random sample of physicians from smaller practice organizations ranging in size from 1 to 499 physicians.

Longitudinal Sub-sample

In order to test hypothesis 5, which evaluated the extent to which part-time career option reflected the career interests of physicians, I linked a set of HCO survey responses to earlier surveys conducted in 1987 (Konrad et al., 1989). Because survey responses were confidential but not anonymous, respondents could be uniquely identified in both surveys and individual responses from the two surveys were linked to form a panel datafile. The datafile included, in addition to respondent who remained in HCO during the 15 year interval, an additional 62 respondents who had left the organization but subsequent provided survey responses about their tenure in HCO which could be used for this analysis.

This combined dataset allows for the comparison of longitudinal careers over time, and in particular the linking of antecedent preferences to subsequent career actions. This is a great improvement on the more common alternative in which career values are reported simultaneously with behaviors using cross-sectional surveys. Such cross-sectional approaches are susceptible to retrospective revision caused by respondents' urges to improve cognitive consistency between their prior values and current situations (Festinger, 1957).

Analytic Approach

For hypotheses 1 and 2, standard OLS models were used to examine the links between organizational size and job autonomy and career flexibility. For hypothesis 3, a logistic model was used to predict the binary variable of whether the respondent reported a part-time experience. For hypothesis 4, predicting a 4-level categorical variable (organizational type), an ordered probit model was used. Finally, for hypothesis 5, simple mean comparisons were used to examine the differences in career preferences among those organizational physicians who engaged in part-time practice compared with those who did not.

Variables

Autonomy. In order to capture autonomy, I created an index averaging responses on three control-of-workplace variables ($\alpha = 0.842$). A focus on control of the workplace has long been recognized as a dimension of physician work which is critically vulnerable to bureaucratic intrusion (Freidson 1970).³ Respondents were asked in the following manner: "How much control do you have over each of the following?" after which followed these items: "Workplace issues (e.g., office space, facilities, supplies)," "Selecting your office staff," and "Determining organizational policies." For each item, four response categories were offered ranging from "slight or none" (0) to "extensive" (3). The wording of these questions was replicated from an earlier study of physician autonomy in organizations (Konrad 1989).

On-call frequency. The burden of physician night and weekend on-call schedules was measured with the following question: "About how many weekday evenings are you expected to be

³This approach to measuring autonomy differs from the more generic emphasis on control of work content developed by Hackman and Oldham (1975) for a broader class of workers and occupations. In contrast to most occupations, physicians and many other professional workers retain relatively high levels of autonomy over work content. For physicians, the most significant challenges to that autonomy come not from practice organizations but from health insurers, governments, and purchasers of health care (Hafferty and Light 1995: 141-143).

on-call each month?” and a similarly worded question asking about weekend days each month. Respondents were allowed to enter any number they wanted.

Reduced-hours practice. Respondents were asked, “Have you held a part-time position as your main work responsibility for a period of time longer than 6 months (do not include time when you were in training)?” Yes or no responses were required. This was followed by a series of questions about the nature of the reduced-hours position, including the year it was begun. The survey also asked about the total number of weekly hours worked during that reduced-hours career episode. Average hours worked during the reduced-hours practice were 28.4, with a standard deviation of 12.4.

Organization type. The data structure used in these analyses allows comparison of physicians in four distinct sizes of practice organization ranging from solo practice to a very large organization: solo (one physician), small practice (2 to 9 physicians), medium sized group (10 to 499 physicians), and large organization (HCO, at approximately 500 total physicians). The large organization group was defined by membership in the HCO sub-sample. For the other three categories, respondents from the main sample were classified based on the following two questions: (1) “For the following questions, consider the organization in which you spend the most time working (regardless of the type of organization). What type of organization is this? (choose one): solo practice, small group (2-9 MDs), large single-specialty group (>10 MDs), large multi-specialty group (>10 MDs), group/staff model HMO, hospital or medical school, free-standing clinic, or other (specify),” and (2) “How large is this organization, in terms of regular physician staff? Your office: ___ Entire organization: ___.”⁴

In addition to the four main practice organization categories, a fifth organization-type category encompassed non-practice organizations, including principally hospitals, medical schools and free-standing clinics. This fifth category was included in the analyses as a comparison group. In all analyses using organization type as an independent variable, dummy variables are entered for physicians from the larger organization type categories (*smallprac*, *largegroup*, and *hco*) as well as from non-practice organizations (*hosprclinic*); the base case represents physicians from solo practices.

Demographic characteristics. A dummy variable is included for *female*. The variables *age* and *agesq* are entered directly and represent the respondent’s age at the time of the survey in 2002, except in the case of the event history model, where these variables change over time to reflect the

⁴ Three respondents from the medium sized group category reported sizes over 500, but they appeared to be referencing the size of a hospital system that held an ownership stake in their much smaller practice organizations (despite survey instructions that were intended to prevent this situation).

age of the respondent in each year. The dummy variable *married* technically captures marital status for men and women. However, it is worth noting that for women physicians, being married is nearly equivalent to being in a dual-earner family. Virtually all female physicians in the sample had spouses who were also employed full-time outside the home.

Primary caregiver. A primary caregiver variable was developed for the purpose of capturing those physician respondents who should be most interested in the reduced schedule and career opportunities available in the large organization. The primary caregiver variable was defined by those respondents who (a) had a long-term partner and children and (b) held primary responsibility for family caregiving, defined through a question about the relative career commitment of the respondent versus their spouse. The question read: “Overall, compared with your commitment to family caregiving, would you say his/her commitment to such activities is...” with five response categories ranging from (1) much less to (3) the same to (5) much greater. Respondents who reported a 1 or 2, indicating that their own commitment was relatively greater than that of their spouse, were coded a 1 for *primary caregiver*. Other respondents were coded a 0, including respondents with families but who indicated that their spouses shared equal or greater commitment, as well as single respondents.⁵ The expectation was that among physicians, those who were also primary caregivers would have the greatest interest in the schedule and career flexibility of the large practice organization, and would therefore be associated with those larger settings.⁶

Specialty. Two main medical specialties were included in the survey. The majority practiced in internal medicine, and a small group practiced obstetrics & gynecology. Therefore the dummy variable *obgyn* was included in all analyses to control for differences across specialties.

Owner. In order to control for physicians who are owners, as opposed to employees, respondents’ answers to the question “Are you an owner of this organization” were coded (yes or no). This control variable is important because ownership could provide its own intrinsic disincentive to pursuing schedule and career flexibility, some owners would realize more of the residual value of the organization’s production. Ownership and size are inversely related in zero-order correlations, and

⁵The few single parents in the sample were assumed to lack the extra income needed to pursue part-time practice.

⁶Relative share of household income was also investigated for the purpose of identifying primary caregiver respondents. Results using household income share were very similar. However, the income measure suffered from endogeneity because respondents who practiced in larger organizations would have had lower incomes from those practice positions simply by dint of lower average pay in those settings—thereby inflating their spouses’ reported household income shares, and artificially associating household income share with organizational size.

the percent of respondents who reported being employees varies from 8.6% of solo practitioners to 52.1% of large group respondents and 100% of HCO respondents (by definition).

Reason for part-time practice. For respondents who indicated a reduced-hours practice experience, a series of questions were asked about why they took that route. Under the question, “Why did you take on this position?” there were listed a series of possible answers, including “Work expectations too high in previous position,” and “wanted more family/personal time,” used to classify individuals as having non-work-related reasons. Other options included “wanted more time to do research or teach,” which was considered a career-related reason. In addition, many respondents marked “other” and wrote in a reason. These write-ins were classified accordingly; in particular, several respondents wrote in that they had shifted to part-time practice in order to accommodate new managerial responsibilities. In all, of 139 respondents used for related analyses, 23% were classified as part-time for non-work reasons, 14% for work-related reasons (among whom total work hours would have been longer in order to accommodate their non-clinical work activities), and the remaining 63% reported no part-time experience.

Career orientation. For a subset of physicians within HCO, data from a prior era was available on why they reported having come to the organization. This data originated from a 1987 survey that was conducted by an independent research organization funded by the federal department of health and human services. Questions from that survey were taken from a section with the following heading: “Below are listed some reasons reported by physicians for deciding to work in various practice settings. How important were each of these reasons in your decision to join this organization?” Following this, seventeen reasons were listed, eight of which related to career preferences (exact text listed in Table 4). Response categories ranged from (0) not at all important to (3) very important. The other questions related to the content of medical practice, and were therefore not of interest for present purposes (neither did they produce statistically significant differences for part-timers). The eight career-relevant reasons for joining the organization were used as indicators of varying interest levels in the part-time practice. Those wanting a more manageable workload and more predictable hours would be more likely to have a preference for the part-time practice option. Those interested in career advancement would be less likely to have a preference for the part-time practice option.

Results

Table 1 provides basic demographic and job characteristics for respondents from the four main organizational types. As the table indicates, as organizational size increases, job characteristics related to workplace autonomy trend downward while those related to schedule and career flexibility trend upward. With greater size, the likelihood of employment (as opposed to ownership) increases, and control over the workplace declines. Also with greater size, call burdens decrease and the frequency of part-time practice increases. The demographic composition of larger organizations also tends to be different, with

... as organizational size increases, job characteristics related to workplace autonomy trend downward while those related to schedule and career flexibility trend upward.

more women and more primary caregivers. Other control variables, including specialty (Ob-Gyn), marital status, and parental status do not appear to relate to size in these mean comparisons.

Workplace control. The first hypothesis predicted that larger organizations would be associated with less individual control of the workplace. Table 2 reports OLS and logit regression results examining differences across organizational types in predicting the practice characteristics of physicians. Consistent with hypothesis 1, the first model in Table 2 (OLS) indicates that among practice organizations, size is inversely related to control. Compared with the base case of solo practice, physicians from small practices were associated with lower scores on the workplace-control dependent variable (-0.684, $P < 0.001$). Large organizations were associated with an even greater reduction (-1.043, $P < 0.001$), amounting to a difference of one standard deviation on the control index. Finally, consistent with the increasing trend, HCO registered the largest reduction (-1.277, $P < 0.001$). The general trend also held in the presence of an additional control for the respondent's ownership status.

On-call frequency. The second hypothesis predicted that larger organizations would be associated with less on-call burden. The second and third models in Table 2 (both OLS) report the impact of organizational type on the frequency of on-call schedules for physicians, and the findings were confirmatory. Compared with the base case of solo practice, respondents from small practices reported an average of 5 fewer on-call nights per month, and an average of a half-day less of weekend call per month ($P < 0.001$ and 0.01, respectively). Physicians from large groups reported over 6 fewer nights per month and 1.25 fewer weekend days, and those from the largest group (HCO) reported the greatest reduction at 8 fewer nights and more than 1.5 fewer weekend days (all $P <$

0.001). The general decreasing call burden also remained visible and significant in the presence of the ownership control.

Part-time practice. The third hypothesis predicted that respondents from larger organizations would be more likely to report part-time practice experience. The fourth model in Table 2 reports the impact of organizational type on the incidence of part-time practice among physicians. The dependent variable is dichotomous, and the model is a logistic regression predicting the likelihood of part-time practice. Consistent with hypothesis 3, physicians from larger organizations were more likely to have reported a part-time practice experience. Compared with solo practice, physicians from small practices were 3.7 times more likely to have reported a part-time experience (odds ratio of 3.7, $P < 0.05$), those from large groups were 4.9 times more likely ($P < 0.05$), and those from the largest organization (HCO) were 9.7 times more likely to do so ($P < 0.001$). As with the earlier hypotheses, the general size trend for part-time practice also remained intact after controlling for ownership. For example, controlling for ownership those from the largest organization (HCO) were 5.1 times more likely to report a part-time experience compared with solo practitioners ($P < 0.01$).

Physician demographics within organizational types. The fourth hypothesis proposed that women and primary-caregiver physicians would be over-represented in larger organizations. Table 3 reports the findings of ordered probit models where the dependent variable is the four-category organizational size variable (solo practice, small practice, large group, and largest organization [HCO]). The results suggest that women physicians were strongly associated with larger practice organizations ($P < 0.001$). The results in column 1 indicate that *primary caregiver* had no significance. However, column 2 shows a significant result from interacting female with spouse career commitment ($P < 0.05$), indicating that women physicians from families where they held primary caregiving responsibilities were even more likely to practice in larger organizations.

Individual preferences and part-time practice in the largest organization. The fifth hypothesis concerned whether the pattern of part-time practice within the largest practice organization reflected the preferences of individual workers (which would suggest that it indeed accommodates worker interests) or whether it did not (which would suggest that organization fiat or some other non-discretionary process determines who practices part-time). Table 4 reports the mean values on a series of relevant questions for physicians who reported pursuing part-time practice for family reasons (column 1) and advancement reasons (column 2). T-tests were conducted for

significant differences in mean values between each of these two groups and the non-part-timers (column 3). As expected, physicians who reported family-related part-time experiences had indicated stronger prior preferences related to a reduced workload and fewer working hours ($P < 0.05$). Similarly, those who reported career-related part-time experiences had indicated stronger prior preferences related to advancement ($P < 0.01$). In addition, physicians who reported family-related part-time practice were also more likely to have indicated that they chose their organizational setting because of a spouse who wanted to live or work in the region.

Discussion


I have argued that larger scale and greater bureaucratic intensity provide physicians with greater schedule and career flexibility. In essence, the large bureaucratic medical practice organization offers physicians non-monetary compensation for the loss of their autonomy, in the form of greater career flexibility. This access to flexibility is further mirrored in the labor market distribution of physicians being employed by these large organizations. Consistent with the greater availability of career flexibility, women and primary-caregivers in the medical labor force appear to have preferentially chosen bureaucratic employment, as have a range of physicians who want access to career options that go beyond long-term full-time patient care practice.

The results support all five hypotheses. First, larger organizations were indeed associated with a significant loss of workplace control for physicians. Second, those same larger organizations were associated with a reduced on-call schedule burden amounting to—at the extreme—a difference of 8 fewer nights and 1.5 fewer weekend days on-call per month. Third, the incidence of part-time practice was greatly increased in the large-scale organization. Even after controlling for demographic differences, the respondents from larger organizations were more likely to have had a part-time experience. At the extreme, respondents from the largest organization (HCO) were nearly 10 times more likely to report a part-time experience than were their colleagues in solo practice. Fourth, the distribution of women and primary-caregiver physicians into these organizations was skewed in the direction anticipated as a result of differences in flexibility: the numbers of both women and primary-caregiver physicians rose with organizational size (though primary-caregiver status was only significant for women). Finally, turning to examine the question of whether the higher incidence of part-time medical practice in the larger organization really reflected an accommodation of individual interests (as opposed to an organizational mandate), the results were

again confirmatory. The prior preferences of those who had reported part-time experiences were consistent with a model of organizational accommodation rather than constraint.

In sum, the findings suggest that among physicians bureaucracy presents a *trade-off* between autonomy and career flexibility which is understood by physicians in the labor market, and to which physicians respond through their organizational employment choices. Interview comments were consonant with this image of a trade-off inherent in the larger-scale organization. For example, consider the comments made by two physicians at HCO:

“Although it was difficult to relinquish control of the day to day details of my practice, I’ve really appreciated the clinical support here and I love working two-thirds time. I feel like I’m truly able to enjoy both my work and my family.”

“When I started [practicing medicine] in the early 80s, this place was not viewed in the community as the most desirable place to work. . . . But it was accepted that you worked in  kind of practice because others would cover for you, and you did not have to work 24/7.”

Both of these comments indicate recognition that although the large organization presents a loss of autonomy, it nonetheless offered them access to career and schedule options that they wanted and appreciated.

Interestingly, the organizational origins of both sides of this trade-off—the loss of autonomy and the gaining of flexibility—are intimately intertwined. The same elaborated bureaucratic structures of the large-scale organization that enhance a physician’s temporal control and career flexibility also have the much-noted effects of attenuating individual control and generating feelings of alienation. Further, both the loss of autonomy and the gaining of flexibility are essentially unintended consequences of the bureaucratic organization. The large-scale medical practice organization was originally conceived, and continues to function, under the stated purposes of increasing medical efficiency and quality (Robinson 1999; Starr 1982). Rarely are schedule or career flexibility mentioned in public accounts of the large medical practice organization’s origin or purpose.

Further evidence that this trade-off involved in bureaucratic employment is experienced positively by many organizational physicians comes from an examination of career satisfaction. If individuals working in the large-scale organization were primarily experiencing it negatively because

of the alienating loss of autonomy, we would expect satisfaction levels to be lower there. If instead, however, those individuals in the large organization valued the off-setting flexibility available there, then we would not expect marked differences in satisfaction. In controlled regressions (available from the author), no significant differences in career satisfaction were found across the different organizational types using a range of different model specifications.

The flexibility identified here in large medical practice organizations may be particularly valuable because it was found to accommodate the pursuit of a remarkably wide range of work and non-work activities (other than the core professional activity of seeing patients). This meta-flexibility encompassed *both* professionally stereotyped low-status activities like parenting *and* professionally stereotyped high-status activities like research and teaching. As a result, this form of organizational flexibility may act to blur the normative distinctions typically made between full-timers and part-timers, and between flexibility seekers and those exhibiting more traditional career patterns. Might this contribute to the erosion of traditional “ideal worker” norms that utilize an individual’s full-time professional practice status as an indicator of her commitment and ability (William 1999)? Further research is needed to assess whether individuals who avail themselves of career flexibility options in these organizations are less stigmatized than is typical in other settings.

Finally, the question of whether large-scale medical practice organizations impact negatively on patient health care quality is an important issue not addressed directly in this research. However, the large organizations studied in this research showed no evidence of lesser quality. In fact, HCO had received many quality based recognitions from national organizations such as the National Committee for Quality Assurance and the Henry J. Kaiser Foundation, as well as from government agencies such as Medicare and the National Center for Health Services Research. HCO had also often received the highest ratings from *Newsweek* and *U.S. News and World Report*. Within HCO, an unpublished study concluded that part-time physicians, who had made the most use of career flexibility, actually provided equal or better care for their patients than full-time physicians. Part-time physicians on average spent longer with each patient, were not associated with negative measured health outcomes, and received higher patient satisfaction scores.

Beyond medicine, many other professional occupations share varying degrees of client- or work-driven demands that forcibly shape the practitioner’s schedule and career options. The bureaucratic-flexibility linkage may extend to these other settings as well. In law, accounting, architecture, financial services, and management consulting, the client’s needs can inhibit an individual’s pursuit

of flexibility in ways that parallel the physician experience. Engineers, computer programmers, and other professionals engaged in project work can also experience work- or team-driven demands that function similarly. In these contexts, organizational processes associated with larger bureaucracies could similarly alleviate those demands, opening up new options for flexibility. In future research on this topic, care must be taken to control for variations in the nature of work that tend to be correlated with organizational size; for example, while physicians in organizations of all sizes see similar types of patients, lawyers in very large practices are much more likely to serve *Fortune 500* corporate clients than are solo attorneys.

Conclusion

The field of work and employment research needs to better understand professional labor markets. One of the key trends in these labor markets is the expanding ranks of women and dual-career family members. Therefore, one of the key questions for understanding professional labor markets continues to be: “where and how will career flexibility be found?” The current research suggests that organizational form and scale provide an important and intriguing part of the answer. Larger bureaucratic medical practice organizations provide physicians with greater schedule and career flexibility, even while continuing to crimp traditional work autonomy. In a broader range of professional occupations, the roles of scale and bureaucratic process deserve closer examination in the provision of career flexibility. Scale is relevant for flexibility not just because of it increases the likelihood of flexible workplace benefit provision (Knoke 1995; Osterman 1995), but also for its impacts on work-organization. Unpacking those relationships between scale and bureaucracy, work-organization, and career flexibility will likely require research that is multi-method and sensitive to industry context—an approach that paid off in earlier research programs such as high-performance work systems (Ichniowski et al., 1996).

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Table 1

Employment relationship, job characteristics, and demographic composition across organization types

Variable	Range	Solo practice mean	Small practice mean	Large group mean	Largest (HCO) mean
Percent employees (vs. practice owners)	[0/1]	8.6	50.8	52.1	100
Control of workplace	0 – 3	2.49	1.70	1.30	1.19
Nightly on-call frequency	0 – 30	11.5	6.2	4.9	3.4
Weekend on-call frequency	0 – 8	3.1	2.3	1.7	1.4
Part-time practice	[0/1]	6.2	17.0	23.3	39.1
Percent female	[0/1]	31.7	41.6	46.6	51.1
Percent reporting spouse is more committed to career	[0/1]	11.8	21.9	20.0	29.2
Age (in 2002)	29-81	46.8	42.9	43.7	49.3
Percent Ob-Gyn	[0/1]	23.3	26.7	14.9	24.3
Percent married	[0/1]	85.0	87.6	92.5	84.2
Percent with children	[0/1]	89.5	83.6	83.8	84.2
N		97	185	148	139

Table 2

Impact of organizational type on schedule and career: OLS and logit results								
	Control of workplace		Nightly on- call frequency	Weekend on- call frequency		Part-time practice		
Intercept	.532 (.826)	.632 (.798)	6.621 (5.511)	6.867 (5.504)	1.200 (1.430)	1.195 (1.424)	-8.023** (2.535)	-7.924** (2.553)
Female	-.245*** (.069)	-.206** (.067)	-.090 (.476)	-.009 (.478)	-.162 (.125)	-.130 (.125)	2.328*** (.254)	2.295*** (.256)
Age	.064+ (.036)	.037 (.035)	.160 (.236)	.110 (.237)	.077 (.061)	.058 (.061)	.139 (.106)	.160 (.107)
Age-squared	.000 (.000)	.000 (.000)	-.001 (.003)	-.001 (.003)	-.001 (.001)	-.001 (.001)	-.001 (.001)	-.001 (.001)
Ob-Gyn	.214* (.085)	.180 (.083)	.465 (.582)	.373 (.582)	.298* (.152)	.276+ (.151)	-.603* (.273)	-.566* (.275)
Hospital/clinic	-1.505*** (.130)	-.946*** (.147)	-4.653*** (.904)	-3.675*** (1.050)	-1.077*** (.240)	-.611* (.279)	1.228+ (.658)	.649 (.702)
Small practice	-.684*** (.126)	-.410** (.128)	-5.029*** (.867)	-4.651*** (.903)	-.645** (.231)	-.420+ (.242)	1.311* (.650)	1.002+ (.568)
Large group	-1.043*** (.130)	-.765*** (.132)	-6.343*** (.894)	-5.949*** (.933)	-1.252*** (.239)	-1.036*** (.249)	1.582* (.650)	1.240+ (.669)
Largest (HCO)	-1.277*** (.133)	-.670*** (.153)	-8.083*** (.914)	-7.022*** (1.080)	-1.587*** (.243)	-1.094*** (.286)	2.271*** (.647)	1.647* (.699)
Owner status		.652*** (.090)		1.336+ (.638)		.534** (.167)		-.700* (.318)
Adj. R ² / -2LL	.282	.328	.108	.115	.089	.100	56.5	553.8

N = 711 (includes hospital/clinic respondents); Base case for organization type is solo practice.
+ $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.
Standard errors are in parentheses.

Table 3

Impact on likelihood of practicing in a larger organization: Probit results		
	Full sample	Women
Age	-.358 ^{***} (.078)	-.468 ^{***} (.134)
Age-squared	.004 ^{***} (.001)	.006 ^{***} (.002)
Ob-Gyn	-.137 (.119)	-.247 (.157)
Single	.018 (.166)	.089 (.239)
Children	-.031 (.153)	-.128 (.217)
Female	.393 ^{***} (.105)	
Primary caregiver	.209 (.145)	.188 [*] (.105)
Threshold 1	8.049 ^{***} (1.714)	10.345 ^{***} (2.810)
Threshold 2	-1.102 ^{***} (.072)	-1.211 ^{***} (.122)
Threshold 3	-1.889 ^{***} (.085)	-2.060 ^{***} (.141)
Likelihood Ratio Chi ²	82.7 ^{***}	449.1 ^{***}
-2LL	-675.2	-283.5
N	569	245

Excludes hospital/clinic respondents
^{*} $p < .05$; ^{**} $p < .01$; ^{***} $p < .001$
Standard errors are in parentheses.

Table 4

Importance of selected reasons for joining the large practice organization (1987),*
by subsequent part-time practice experience (1987 – 2002)

	Part-time for non-work- related reasons**	Part-time for work-related Reasons**	No part-time experience
I wanted a smaller, more manageable workload	2.00 [•]	.67 ^{••}	1.88
I wanted to live in this community or region	2.50	2.62	2.40
I wanted predictable working hours	2.65 [•]	1.59 ^{••}	2.18
This was one of the few acceptable positions known to me	1.28	.62 ^{••}	1.01
I valued the financial security and the package of fringe benefits that working in this organization provides	1.94	1.64	1.83
I saw this organization as an opportunity to earn income while I decided on my future career plans	.65	.62	0.76
I believed this organization would offer me opportunities for career advancement	1.21 ^{••}	2.10 [•]	1.77
My spouse wanted to live or work in this area	1.94 [•]	1.81	1.41
N	32	19	88
Combined N = 139 (HCO respondents only)			
*Possible responses ranged from (0) not at all important to (3) very important.			
**t-test vs. no part-time experience: [•] $p < .05$; ^{••} $p < .01$; ^{•••} $p < .001$			

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