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TIME ON THE JOB AND TIME WITH THEIR KIDS: CULTURES OF TEACHING AND PARENTHOOD IN THE US

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ABSTRACT

This study uses time diary and telephone survey data from a nonrandom sample of 310 US public, elementary school teachers in 46 schools and four school districts to analyze the sources of time for employed parents to devote to their children in the US. Comparing parent and nonparent teachers for a 24-hour working day reveals that American parents spend significantly less time on work, personal time, passive leisure, and exercise, and significantly more time on child care and housework. Even so, the parent workday is far longer than the employment contract stipulates. Mild evidence suggests that supportive supervisors, shorter contractual hours, and low levels of student poverty are linked to increased parental time for children among the teachers. Evidence is found for a time transfer of work from parents to nonparents in schools with higher proportions of women teachers. Less direct evidence suggests this time transfer is voluntary.

KEYWORDS

Child care, parenting, working time, work and family, women's work

1. INTRODUCTION

Where do employees find time to care for their children? There are many ways to answer this question. The issue can be cast as one of individual time allocation. For example, in traditional time-use diary studies, individuals tell researchers how a 24-hour period was spent (e.g. John Robinson and Geoffrey Godbey 1997). Cutting the period into a "pie" of 24 hours, parenting time can be viewed as the result of trading-off one activity against another. When aggregated across individuals, patterns of parenting time vary systematically by gender across societies and over historical time (Nancy Folbre 1994; Folbre and Susan Himmelweit 2000).

What is less studied are the ways that parents interact with others and with institutions to make time for parenting. In this view an adult can obtain

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parenting time from family, workplace, community, governmental, or market sources. Much research has focused on sources of time such as the division of labor in the home (e.g., Rosalind Barnett and Yu-Chu Shen 1997) and the effects of parental leave legislation (e.g., Naomi Gerstel and Katherine McGonagle 1999). Less research has considered the role of friends (Rosanna Hertz and Faith Ferguson 1997; Teresa Rothausen 1999), while co-worker time is generally analyzed in the context of the potential for additional workload during parental leave (Eileen Trzcinski and William Alpert 1991) or as a result of child care breakdowns (Lois Tetrick, Rebecca Miles, Lyne Marcil and Chistine Van Dosen 1994).

This paper explores some of the sources of parenting time for US employees on a day-to-day basis. That is, the time allocation patterns of parents and nonparents are compared, and then the potential roles of the workplace and of co-workers are analyzed as sources of parenting time.

The sample used here involves full-time, elementary school teachers in four urban, public school districts in the United States. The sample was not chosen because it is representative, but rather because the employees may be subject to substantial time pressures, in part because the profession is highly feminized, a pattern found in most developed countries (Dee Ann Spencer 1997). As argued more fully below, elementary school teachers in the US are at the confluence of two social norms that, while contradictory in many ways, both push toward long work hours (Joan Williams 1999). As professionals, teachers are subject to the "ideal worker norm," and the ideal worker is expected to work long hours. As women in teaching, these employees are subject to the "norm of parental care" in the workplace and expected to serve as mothers to their students, again pressing the teachers towards long work hours. The complication of interest here is that, in addition to their professional obligations, most teachers are also at some point in their careers mothers of their own children, so subject to the "norm of parental care" on the home front.

Further assurance that time pressures will be substantial is provided by the urban character of the schools. The school districts are publicly controlled and funded and are typically far poorer and exhibit more crowded classrooms than districts in the surrounding suburbs (Jonathan Kozol 1991). If teachers attempt to devote the same time to each student across urban and suburban school districts, the urban teachers will end up working or attempting to work longer hours.

The central question of the present analysis is where teachers obtain time to care for their children in the midst of substantial time pressures. Answering this question could therefore shed light on one aspect of what Mona Harrington has labeled the "care crisis" (1999). Much of the data for the analysis stem from a 24-hour time-use diary provided by 310 teachers for a working Tuesday (the choice of a working day also helps to ensure the presence of time pressures). The analysis begins by comparing parents and

nonparents in terms of how the 24-hour time pie is sliced differently across the groups.

The analysis then considers other aspects of time allocation. First, unique to this particular diary study, a question was asked regarding whether the teacher was at the workplace when any given activity took place, thus providing a measure of "face time" in the workplace (Robert Drago, Robert Caplan, David Costanza, Tanya Brubaker, Darnell Cloud, Naomi Harris, Russell Kashian and T. Lynn Riggs 1999). By comparing differences in working time between parents and nonparents for standard diary measures and for face time, we can ascertain the extent to which reductions in working time for parenting are private (nonface time differences) or public (face time differences). To the extent that norms around long working hours hold sway over the teachers, most reductions will be private or hidden.

Second, I consider the subsample of teachers who are parents and ask whether various aspects of the workplace are more or less conducive to parenting time. This portion of the analysis takes advantage of the fact that the teachers were located within forty-six schools in total, and information on those schools was obtained.

Third, the analysis pursues the question of "time transfer" (Rogers 2001), or the possibility that nonparents pick up the tasks left over by parents who need time for their children. Elinor Burkett (2000) has suggested that such time transfers occur, are unfair to nonparents, and are generating a backlash. A variety of survey evidence suggests that the "backlash" is largely a fiction (see Drago, David Costanza, Robert Caplan, Tanya Brubaker, Darnell Cloud, Naomi Harris, Russell Kashian and T. Lynn Riggs forthcoming, and cites therein). However, in a society with few explicit supports for parenting, it would not be surprising if such time transfers provided a mechanism to create time for parenting. Such a result would be even less surprising in work environments where most employees either have been, are, or will be mothers of their own children, as is the case here.

2. SOURCES OF PARENTING TIME

In the US, much parenting time for white families was historically provided by women who were not formally employed. In the modal white family in the early twentieth century, a breadwinner man provided income from paid employment, while the woman provided unpaid housework and child care (Daphne Spain and Suzanne Bianchi 1996).

The emergence of work/family conflict and difficulties for families in finding time for their children, are usually traced to the massive entry of white women into the paid labor force during the last half of that century (Eileen Appelbaum 1981; Lotte Bailyn 1993). Less noticed is the role of the "ideal worker norm" (Williams 1999). The ideal worker is someone who

enters a profession immediately upon receiving the relevant educational credential, works his or her way up the career ladder by putting in long hours without interruptions beyond short vacations, and continues in this fashion until retirement age. The ideal worker can contribute financially to the family but cannot make substantial time commitments to children or other family members without endangering his or her career. Pay and promotion systems, practices, and rules around working time, absence, vacations, and retirement systems, and the beliefs of those from previous generations who have succeeded as ideal workers and currently manage our organizations are all built upon the presumption that only ideal workers should be hired, retained, and rewarded.

Although the ideal worker norm developed in settings where only men were measured against this standard (William H. Whyte 1956), women have since entered positions where they too are expected to serve as ideal workers (Bailyn 1993; Arlie Hochschild 1997; Joyce Fletcher 1999; Williams 1999).

Elementary school teachers in the US were predominantly women by the end of the 1800s. Indeed, women comprised two-thirds of all American school teachers by 1870 (Kate Rousmaniere 1997: 35). Closely linked to the feminization of elementary school teaching was the development of a gendered hierarchy in education that continues to this day. As we move "up" from elementary to secondary schools to institutions of higher education and to the pinnacle of full professors at colleges and universities, women switch from being the vast majority of employees to a small minority (Rousmaniere 1997; Drago and Williams 2000).

Elementary schools were historically viewed in the US as an extension of the family (Martin Carnoy and Henry Levin 1995), suggesting that something other than the ideal worker norm was at work here. Williams (1999) labels this the "norm of parental care," a norm she argues is mainly applied to women. In the case of school teachers, the ideology around this norm helps to explain the feminization of the occupation. As the founder of the German kindergarten, Frederick Froebel, argued, teachers should be women because they become in the process like "a mother made conscious" (quoted in Rousmaniere 1997: 40). As Jo Anne Preston argues, this norm was expressed by nineteenth-century US school reformers in a belief that women have "high moral character, disregard for material gain, limited intellectual capacity . . . and a natural love of children" (1991: 15). Miriam Ben-Peretz (1996) documents the continued existence of this norm for a sample of teachers in Israel, while Cheryl Travers and Cary Cooper (1996) document the same phenomenon for a sample of teachers in the UK. This norm also helped to justify low wages for teachers, as they were ostensibly performing the jobs out of love.

The norm of parental care implied that mothers should not simultaneously be teachers, thus helping to explain the "marriage bars" against

teachers in the US during the late nineteenth and the early part of the twentieth century. The term "marriage bars" clearly connotes an attempt to enforce the economic dependence of women upon men. Nonetheless, marriage bars implicitly recognized that parenting is work that requires time and commitment, and incorporated the norm of parental care as applying to women who either became mothers of children in the home or of children in the school. However, because commitment and hours were far more visible in the public sphere of the school, once mothers were allowed to also be teachers, the norm of parental care as it applied to students predominated. The norm of parental care therefore pushed women in teaching towards long hours of work and away from time with family.

Related to the norm of parental care was the notion that women were intellectually inferior to men such that, while they might be preferred providers of affection, women were not to be entrusted with the intellectual development of children. This belief led to a loss of autonomy for elementary school teachers as control over the curriculum was wrestled away from the teachers, and men were placed in charge of the schools as principals (Carnoy and Levin 1985; Rousmaniere 1997).

It is against this backdrop that teachers *themselves* fought to introduce the ideal worker norm through the ideology of "professionalization" and the development of teacher unions. As Martin Lawn states with regard to teacher unions in the UK, teachers sought "professionalism, only this time it meant . . . a guild of teachers running education on behalf of the community" (1985: 6), and similar motivations can be attributed to teacher unions in the US (Donald Myers 1973) and in Portugal (Stephen Stoer 1985). Teachers asked for autonomy and promised to be ideal workers in return. Long hours of work and high levels of commitment were intimately connected with that promise.[1]

The norms of parental care and of the ideal worker often contradict one another. For example, parental care is ostensibly performed for love rather than money, while a high income is a badge of honor for the ideal worker. More to the point, the dual application of the norm of parental care to mothers and to teachers placed competing responsibilities on those who held both positions. Nonetheless, the public and visible nature of teaching ensured that the winners in this competition would be the students. Add to this the ideal worker norm, and we have a recipe for long hours of work for the school and little time for one's own children. It is even possible that such norms are largely internal and that teachers would therefore view public discussion of their own children as a threat to their identity as professionals and as mothers of their students.

Regardless of these norms, most elementary school teachers either will be, are, or have been mothers of dependent children.[2] Part of the explanation for this phenomenon may lie in the long summer vacations provided

to elementary school teachers in the US, a vacation period that overlaps the time when their own children are out of school. Relatedly, a recent survey found that over 20 percent of all primary and secondary school teachers in the US entered the profession at least in part due to the long break (National Center for Education Statistics 1996: 59).

Summer vacations do not, however, resolve the day-to-day issues of child care and work during the school year. Further, in the US, mothers continue to perform most of the work around parenting in the home (James T. Bond, Ellen Galinsky and Jennifer Swanberg 1998). The question of how teachers make time for their own children during the school year is therefore of immediate practical interest to many teachers.

The discussion to this point suggests that teachers will strive to minimize any public appearance of parenting commitments. Teachers have spent considerable time attempting to impose the ideal worker norm in a male-controlled industry that historically treated and continues to treat them as intellectually substandard (National Commission on Excellence in Education 1983). To voice commitments to one's own family in this context would provide ammunition to those who view teachers as undeserving of professional status, as requiring a tight leash in the form of standardized curriculum and extensive standardized testing of both students and teachers.

I believe this context explains why, for the four schools districts involved in the present study, we found extremely limited work/family policies and a marked absence of teacher demands for such policies.[3] As a result, the analysis that follows does not look towards formal work/family policies as a source of time for teachers to serve as parents of their own children.

Just because the school district does not facilitate time for parenting does not mean that individual schools exert no effects. Recent evidence suggests that supervisory support for the family commitments of subordinates is crucial to the successful melding of work and family (Catherine Lee and Linda Duxbury 1998). Such support could be emotional, or the supervisor might expect less of the employee at work or rearrange work assignments and class schedules when family crises occur. Most directly, the supervisor or principal could create a climate where reductions in working time are considered acceptable whenever an employee experiences relatively high levels of family commitments.

In addition to supervisory support, organizational policies concerning working time arrangements may also affect the functioning of families (Harriet Presser 2000). In the present context, we consider differences in contractual work hours, since longer contractual hours might leave less time to care for children away from the workplace.

It is also possible that work pressures could reduce time for parenting as employees respond to work pressures by increasing working time and reducing parenting time. On the other hand, individuals may respond to

work pressures by escaping the workplace whenever possible and increasing time for parenting. In regard to the teachers, work pressures may be related to the poverty rate for the students in the school. The higher the poverty level, the more the teacher is called upon to deal with difficult discipline problems and other conditions antithetical to a good learning environment. In the face of such difficulties, teachers might either redouble their efforts or instead reduce their time commitment to the school, in either case altering the time available for parenting. Although these opposing forces suggest no clear prediction regarding the effect of student poverty, the earlier discussion of norms around teaching points in a single direction: both as ideal workers and as mothers of students, teachers will increase their level of commitment to pupils as the poverty level rises.[4]

Co-worker support for the family commitments of employees can generally ease conflicts between work and family (Jennifer Glass and Sarah Beth Estes 1996). With regard to time *per se*, Rogers (2001) suggests the notion of "time transfer." Time transfer is defined as the systematic shifting of some work activities from one identifiable group to another. In a case study, Rogers analyzes a school district confronting a shortage of substitute teachers. Substitutes are the teachers hired to provide classroom coverage when the permanent teacher is ill or absent for other reasons. Contrary to the interests of the permanent teachers, the district responded to the shortage by deciding to transfer working time from substitutes to permanent teachers. Using the same concept, I hypothesize that co-workers may engage in a systematic transfer of work between those with and without substantial time commitments to family. With the same data set employed here, an earlier analysis found evidence suggestive of such a time transfer with the shortest hours teachers being those in their 30s and with children and the longest hours teachers being age 50 or above and those with no dependent children in the home (Drago *et al.* 1999). To the extent such time transfers occur, we would expect that organizations associated with high levels of parenting time by some employees will exhibit higher than expected hours of work from other employees: nonparent working time will be changed by the presence of parents in the workplace.

A sidelight to Rogers' (2001) work is some direct evidence of the type of time transfer considered here. The school district formed a committee to make recommendations for alleviating the substitute shortage. Among the members of the committee (some of whom were teachers), there were no parents to be found. There are at least three potential explanations for this finding. First, employees who are parents may force off tasks on nonparents, as Burkett (2000) suggests. In the example here, this would hold if teachers who are parents refused to volunteer to serve on the committee. Second, nonparent employees may volunteer to pick up the slack for parent employees. This might have occurred if the nonparent teachers volunteered to serve on the committee out of a sense of fairness to the teachers

who are parents. Although the volunteer explanation may seem a bit of a stretch for this particular example, placing it in the context of a life-course approach (Phyllis Moen 2000) suggests it may be quite reasonable. Sometimes a particular teacher will, and at other times will not, have substantial commitments to family, so helping out when family commitments are minimal might be accepted and expected. A third possible explanation concerns norms. In the present case, implicit norms would be relevant if those requesting volunteers to serve on the committee did not even consider the possibility of asking parents to serve, ruling them out without any explicit discussion or thought as to why.

There are two variants of the time transfer hypothesis. The general hypothesis is that time transfers are gender neutral. However, given that women tend to spend more time than men on parenting in the home, it is possible that the phenomenon will be more pronounced where a high proportion of employees are women. In these settings, time transfer could represent a sort of intergenerational exchange of help, as teachers who will be or have been mothers establish the practice of helping those teachers who are currently mothers (or, more generally, parents). This possibility is tested in the analysis below.

It is worth emphasizing that the time transfer hypothesis is much stronger than the claim that teachers without parenting responsibilities work longer hours for the employer than those with such responsibilities. Rather, the hypothesis claims that nonparent employees help cover for those with parental commitments, so work longer hours as the amount of parenting time among co-workers rises.

Note also that there are negative aspects to such time transfers. Parents who cut back on working time may give up some of the most pleasant and valued tasks associated with the job (Barnett and Karen Gareis 2000). Further, to the extent such transfers are uncompensated, employees who take over tasks from others may be unfairly burdened (Burkett 2000).

Although not the major focus of the research here, there are other factors relevant to differences in parenting time. Fathers in the US tend to perform less parenting than mothers (Bond, Galinsky, and Swanberg 1998), and it is possible that this general phenomenon would extend to elementary school teachers as well. Nonetheless, because elementary school teaching is so heavily feminized, it is possible that the men who enter the occupation may be atypical. Fletcher (1999) finds that women who enter the predominantly male field of engineering behave differently than other women, and the same may apply to men who become elementary school teachers.

In addition to gender differences, other potential sources of divergence in parenting time include the presence or absence of a partner or spouse (Bond, Galinsky, and Swanberg 1998), the availability of friends to help (Lee and Duxbury 1998), extended family and fictive kin (Hertz and Ferguson 1997), and the structure and geographic location of community

Table 1 Characteristics of the school districts

School district no.	*Student poverty rate (%)*	*Caucasian students (%)*	*Contractual working time (hours per day)*
1	78	20	6.29
2	79	31	6.00
3	70	13	6.58
4	33	67	6.83

Note: Figures rounded to prevent identification of school districts. Poverty and race data were by the school districts for 1995. Contractual working time figures calculated in consultation with union locals from collective bargaining agreement covering teachers during the period of the study (1997–98 school year).

institutions such as schools (Allison Pugh and Barrie Thorne 1999). Most though not all of these possibilities are controlled for in the analysis below.

3. DATA AND METHODS

The data employed here were developed as part of the Time, Work and Family (TWF) Project. The principal investigators were Robert Drago, Robert Caplan, and David Costanza, and the data were collected by the Institute for Survey and Policy Research at the University of Wisconsin-Milwaukee. The TWF project was designed to uncover the ways in which teachers balance their commitments to work and family, and the organizational and family factors that help teachers to meet those commitments (Drago and Williams 2000). The four school districts and forty-six participating schools are described before turning to the data gathered from teachers.

The school districts for the TWF study were selected using two criteria. First, the sample was restricted to urban, public school districts in order to ensure that work demands would be substantial. An initial list of possible school districts was therefore drawn from the thirty largest cities in the US Two school districts on the Eastern seaboard, and two in the Midwest were ultimately selected for study.[5] Kozol (1991) has documented the substandard facilities, extreme poverty, and the heavy demands placed on teachers in this type of school district. Table 1 provides poverty figures and the racial composition of the student body for each district. The percentage of students in poverty is measured by "Free and Reduced Price Lunch" figures, which are standardized across the US and capture students from families at or below 185 percent of the official poverty income level. Excepting district number four, a majority of students are poor and nonwhite. By way of contrast, for the 1998–99 school year, an estimated 63.4 percent of all public school students in the US were white and non-Hispanic. Although national figures on poverty rates are not available because seven states do not report

Table 2 Average student poverty rates for high and low poverty rate schools, by school district

School district no.	*Low poverty sample (number of schools)*	*High poverty sample (number of schools)*
1	55.9% (5)	91.1% (7)
2	49.1% (6)	95.0% (6)
3	39.3% (7)	91.8% (5)
4	12.9% (5)	44.3% (6)

Source: Figures provided by TWF school principals for the 1997–98 school year.

the figures, of the forty-three states reporting, statewide poverty rates among public school students ranged from a high of 63.4 percent in Mississippi to a low of 11.2 percent in New Hampshire (National Center for Education Statistics 2000). The TWF sample was therefore likely to exhibit high rates of poverty and, by implication, substantial work pressures on the teachers.

The second criterion for selecting the districts was that a reasonable variance in teacher working time existed within each district. Absent such variance, it would be difficult to study the determinants of working time. Fortunately, the within-district variance was substantial.[6]

As mentioned earlier, it is possible that contractual working time alters the parenting time available to employees. Since all of the TWF teachers were covered by collective bargaining agreements, a measure of contractual working time per day was constructed from those agreements. The relevant figures are provided in Table 1, and vary from a low of six hours to a high of just under seven hours per day.

A total of 48 schools were initially targeted for the study. Owing to rejections and resampling, the 46 participating schools were a subsample of 57 total schools contacted, for an 80.7 percent school-level response rate. We settled for two fewer schools than initially planned due to time constraints, leaving the total sample of schools at 46.

Within each district, the sample of schools was stratified by student poverty rates for 1995. That is, we randomly sampled within each district from schools in the highest 40 percent in terms of poverty rates for the district, and from schools in the lowest 40 percent, excluding schools from the middle 20 percent to ensure the schools would be distinct. Table 2 reports the poverty rates from the actual schools for the 1997–98 school year, after dividing the schools into the two stratification categories. Because the high poverty schools in district four exhibited a lower average rate of poverty

than appears for the low poverty rate schools in districts one and two, the actual school-level poverty rate is used later to proxy pressures on teachers from this source.

Teachers were sampled within each school. To prevent a small number of schools with large numbers of teachers from dominating the data set, a maximum of 17 teachers were asked to participate at each school. Criteria for inclusion in the sample included full-time teaching status and teaching a "regular" class of students from grades kindergarten through fifth.[7] Given the small percentage of male teachers in such schools, to maximize variance on gender, all teachers who were identified as male from the school faculty roster were included in the study. Female teachers were then randomly selected from rosters to achieve a maximum of 17 eligible teachers per school. Of 627 eligible teachers contacted, 324 time diaries were completed and codable for a 24-hour day on a working Tuesday, for a response rate of 51.7 percent. After accounting for missing data in the telephone survey (discussed below), a working sample of 310 teacher responses is available for all analyses reported here.

Demographic information for the TWF sample of teachers and for a larger sample of teachers from urban, elementary, public schools in the US produced by the National Center for Education Statistics (1996) for the 1993–94 school year, are provided in Table 3. Most of the matches are reasonably close, although a *z*-test for differences of proportions (Lyman Ott and William Mendenhall 1995: 409) reveals some significant divergence. Even with an attempt to oversample males, the TWF data yielded a lower proportion of males than in the national sample ($p < 0.05$). The national sample, however, includes specialty teachers, such as those in physical education, which this study excludes. The TWF sample includes a significantly lower proportion of teachers with education specialist degrees ($p < 0.01$), which may be due to the exclusion of special education teachers. The TWF sample also exhibits a smaller proportion of respondents in the category "other" (i.e., not one of the three main groups) relative to national figures ($p < 0.05$). This disparity may reflect the midwestern and eastern seaboard composition of the TWF. Note also that the wording of the race question on the TWF survey diverges from the National Center for Education Statistics approach, since we employed an open-ended item asking the respondent "How would you describe your ethnicity or racial background?" As a result, Hispanics are classified separately, rather than being classified as white or black, as in the National Center for Education Statistics or standard census data. Regarding marital status, the TWF data yield a lower proportion of single respondents ($p < 0.05$), a result we attribute to our classifying separately respondents who had lived with a partner in a "committed relationship for at least six months." If those individuals are reclassified as single, there are no significant differences in marital status. Note also that the percentage of parents in the TWF data is over 12 full

Table 3 Teacher demographic characteristics

Variable	*TWF sample*	*National Center for Education Statistics Sample*
Age (years)	42.8	43.0
Gender		
Female	86.0%	82.2%
Male	14.0%	17.8%
Race		
White	77.1%	80.7%
Black	11.6%	12.1%
Hispanic	7.1%	
Other	4.2%	7.2%
Marital status		
Married	72.6%	68.1%
Single	11.6%	16.4%
Separated, widowed or divorced	11.8%	15.5%
Living with a partner	4.0%	
Highest education level		
Bachelor's	61.0%	55.8%
Master's	36.5%	39.6%
Ed. specialist	1.9%	5.1%
Doctorate	0.6%	0.8%
Parent of dependent child	43.8%	56.7%
Number of observations	310	4,210

Note: For National Center for Education Statistics data, age data were interpolated from categorical data. Education figures may not sum to 100 percent due to rounding.
Sources: TWF Time Use Diaries and Telephone Survey, National Center for Education Statistics (1996).

percentage points below the national average ($p < 0.01$). We suspect this low figure is due to response bias, with relatively fewer parents willing to add to their already demanding schedules by committing to participate in the project (see Hochschild 1989: 279). The TWF project involved a written survey, extended telephone interview, and time diary, while the National Center for Education Statistics administered only a short written survey to teachers and achieved a response rate of 88.2 percent (1996: 197–8). Given these differences, caution should be used in treating the precise figures below as representative. It is more important to focus on the patterns of findings.

The diaries provided detailed information on time use. Teachers were asked primary activities – "what were you doing?" – for all times during the day. They were also asked about secondary activities ("were you doing anything else?"), but that information is ignored here to maintain the 24-hour constraint on individual time allocation. Coding of time spent on primary activities followed that for the Child Development Supplement of the Panel

Table 4 Average time use in minutes for teachers on a working Tuesday

Time-use category	*Mean time in minutes*	*Standard deviation*
Working time	601.6	106.8
Housework	69.4	54.8
Child care	46.4	74.2
Errands	24.4	37.8
Personal	569.9	79.4
Education & computer use	16.6	49.2
Volunteer activities	6.3	31.3
Socializing	14.4	42.1
Exercise	15.7	35.2
Passive leisure	75.3	66.4

Note: Figures do not sum to 1,440 due to rounding. $N = 310$.
Source: TWF Time Use Diaries.

Study of Income Dynamics, administered by the Survey Research Center at the University of Michigan. That study defines ten broad categories of time use. The average time use for teachers using these categories is provided in Table 4. *Working time* includes all time at the workplace, commuting to the workplace, and working for the employer outside of the workplace. *Housework* includes activities such as cooking, cleaning, or yardwork. *Child care* includes all time spent supervising, transporting or teaching one's own child, along with (presumably uncompensated) time spent on child care activities for neighbors, relatives, or friends. *Errands* involve shopping, dental, and medical appointments, and include travel time for such activities. *Personal* time includes sleeping, washing up, and other personal care activities. *Education and computer use* involves the teachers' own education and time spent at home on the computer. *Volunteer activities* include meetings of church groups, unions, or political groups, and associated travel. *Socializing* involves any activities with others that are oriented toward leisure, including visits to museums, sporting events, or theaters, and again related travel. *Exercise* includes any personal exercise, whether undertaken individually or with a group, while *Passive leisure* includes reading, listening to music or watching television. As is standard, multi-purpose time is split such that, for example, a one-half hour work commute involving dropping off a child at school is coded as 15 minutes of working time and 15 minutes of child care.

T-Tests are used later to test for statistically significant sources of parenting time, comparing parents and nonparents on their allocation of time according to the ten mutually exclusive categories of time use. Comparisons by gender are also possible. Note, however, that because the data are

Table 5 Description of variables

Name and definition	*Mean (standard deviation)*
Face time – Minutes physically present at school of employment	495.2 (64.1)
Supervisor support – Three-item TWF scale for whether principal allows day-to-day flexibility to meet family needs (= 0.89)	3.17 (0.80)
Child younger than five – Parent of child under age 5	0.17 (0.45)
Child care commute – Minutes devoted to taking child to or from child care or school	9.99 (18.7)
Single parent – parent of child less than 18 in home with no partner or spouse	0.077 (0.27)
Partner help – 1 if partner would "probably" or "almost certainly" take time off work to deal with a problem (e.g. repairperson), 0 otherwise	0.40 (0.49)
Usual workday – 1 if teacher reports "usual amount of teaching-related work" for the day, 0 otherwise	0.674 (0.47)
Co-worker support – Four-item TWF scale for whether co-workers are supportive of the teacher (= 0.74)	3.19 (0.80)

Note: $N = 310$.
Sources: Face time, Child care commute, and *Usual workday* from TWF Time Use Diaries. All other variables from TWF Telephone Survey.

cross-sectional, we cannot ascertain whether the fact of parenthood causes differences in time allocation or if instead these differences are attributable to the divergent types of people who do and do not become parents.

A distinct measure of time use, developed for the TWF project, is derived from a box that respondents checked regarding whether an activity was performed at the school of employment. Those data are translated into a measure of *Face time* at work. The description, mean, and standard deviation for the measure of *Face time* are provided in Table 5. The measure of face time, in conjunction with data on working time, allows us to ascertain whether any reductions in working time related to parenting come from time at work or instead from work for the employer performed elsewhere. Earlier, I hypothesized that teachers will tend to minimize the public appearance of commitments to children, suggesting that only a minimal amount of any work reduction for parenting will be related to face time differences between parents and nonparents.

The TWF project also included a telephone survey of teachers. Of 627 eligible teachers, 437 participated in the telephone survey for a response rate of 69.7 percent. Most information on variables relevant to workplace sources of parenting time is generated from responses to that survey.

To consider the workplace sources of parenting time, the time diary

measure of parenting time is regressed against variables capturing various aspects of the workplace using ordinary least squares (OLS) regression. Relevant items were included in the telephone survey of teachers, and the variables are described in Table 5. Supervisor support for the family responsibilities of teachers was measured with a scale developed for the TWF project. Relevant items concern whether the principal is understanding when teachers need to be late, miss work entirely for a day, or leave early from the school, and the scale is reasonably reliable.[8] Such support is expected to increase the time available for parenting. The contractual working day for each school district is described in Table 1 and is expected to exhibit a negative relationship with parenting time. The percentage of students living in poverty is provided in Table 5, and I expect a higher poverty rate to be associated with less parenting time.

Various controls may be relevant to parenting time. In addition to race and gender (see Table 3), children under age 5 typically require more parenting time than older children. A dummy variable for parents of young children was therefore created (see Table 5). The time spent commuting to take a child to or from child care or school may be largely out of the control of the individual in the short run, so the analysis includes a control for child care commuting during the time-use diary day (see Table 5). Family arrangements may also play a role, so a dummy variable for single-parent status and another for whether the partner or spouse would be likely to take off work during the weekday for an emergency were created (see Table 5). These variables may proxy the ability of others in the household to perform parenting. However, the single-parent status and availability of a partner or spouse to cover an emergency are colinear by construction, so may mask any separate effects.

Even with these fairly extensive controls, the analysis is likely to be very noisy. The analysis considers the association between the amount of parenting time during a single day and various aspects of the workplace, school district, and family. Low statistical significance might therefore be expected, even if the posited relationships exist. An imperfect control for the noise inherent in considering a single day lies in a question asked at the end of the time diaries concerning whether the teacher performed the "usual" amount of teaching-related work that day (see Table 5). An ideal control variable would have asked whether the amount of *parenting* time was usual, but the work-related variable may help nonetheless to identify typical patterns. To do so, the regression is performed for the entire sample of 135 parent teachers and then for the subset of 82 parent teachers who reported a normal amount of work-related activity that day.

An initial test of the time transfer hypothesis can be performed in the context of the regressions for parenting time, although the test is not direct. The telephone survey of teachers included four items comprising an additive scale measuring co-worker support for the individual, and the resulting

scale is reasonably reliable (see Table 5). The items covered various aspects of such support, including listening to personal problems, and ease of talking with others, and items on whether co-workers can "be relied on when things get tough at work," and whether co-workers "go out of their way to do things to make your life easier."[9]

If supportive nonparent co-workers engage in a time transfer of work tasks from parents, then we would expect the support scale to be positively associated with parenting time. This test is admittedly indirect, since we are not analyzing the working time of nonparent teachers *per se*, but may nonetheless be important for thinking about causality.

Direct tests of the time transfer hypotheses take advantage of the fact that multiple teachers were surveyed in each school. From the time diary data, the average amount of child care provided by teachers within each school can be calculated. For the subsample of nonparent teachers, the quantity of working time can then be regressed against average child care time within the school. A quadratic (OLS) regression is employed to account for the possibility that as the numbers of nonparents in a school gets very small, the ability of nonparents to cover for all teachers who are parents dwindles. That is, the basic time transfer hypothesis predicts a positive linear effect, but a negative quadratic effect is possible. Control variables for this regression include gender, race, the school-level poverty rate, and the variable for contractual working time.

To test for the gender specificity of time transfer, the subsample of nonparents is split into those in schools with relatively few and with relatively large proportions of male teachers. Time transfer effects might be strongest in schools with a disproportionate number of women teachers.

4. ANALYSIS

The analysis begins with the time diary evidence on the sources of parenting time in the context of splitting up the 24-hour time pie and any gender effects relevant to cutting that pie. That analysis is then checked against the indicator of face time at the school for the same day. Regressions of time diary indicators of child care time on indicators of supervisory support, the poverty level in the school, and contractual working time, along with relevant controls, are presented next. Those regressions are then replicated after including a variable for co-worker support as an initial check on the time transfer hypothesis. Direct tests of the time transfer hypothesis follow.

Table 6 mirrors Table 4 in providing a breakdown of the 24-hour time diary day by the ten broad categories of time use. The difference is that the time-use patterns of parents are provided in the first numeric column, with the time-use patterns of nonparents appearing in the second column. A *t*-statistic for differences of independent means is reported in the third column.[10]

Table 6 Average time use in minutes for parent and nonparent teachers on a working Tuesday

Time-use category	*Parent time in minutes (S.D.)*	*Nonparent time in minutes (S.D.)*	*t-statistic for difference*
Working time	576.4	621.2	3.74***
	(107.0)	(101.7)	
Housework	74.9	65.1	1.57
	(55.2)	(54.4)	
Child care	97.2	6.7	13.4***
	(25.9)	(84.3)	
Errands	19.5	28.1	2.0**
	(33.6)	(40.5)	
Personal	557.7	579.4	2.4**
	(82.5)	(75.7)	
Education & computer use	14.8	18.1	0.6
	(53.2)	(45.9)	
Volunteer activities	7.2	5.6	0.4
	(29.7)	(32.6)	
Socializing	17.7	11.8	1.2
	(48.4)	(38.4)	
Exercise	8.3	21.4	3.3*
	(21.3)	(42.1)	
Passive leisure	66.2	82.3	2.1**
	(54.9)	(73.5)	
Subsample size	136	174	

Note: ***$p < 0.01$; **$p < 0.05$; *$p < 0.10$.
Source: TWF Time Use Diaries.

Starting with the largest and moving to the smallest differences, we find parents spending an average of over 90 minutes more per day on *Child care*, exhibiting approximately 45 minutes less per day in *Working time* for the employer, engaging in around 20 minutes less of *Personal time* (including sleep), spending around 16 minutes less on *Passive leisure* (including television), spending 13 minutes less on *Exercise*, spending an additional 10 minutes on *Housework*, and devoting approximately 9 minutes less to *Errands*. Other differences are well under 10 minutes and hence ignored. Note also that all of these differences except for *Housework* are statistically significant. The insignificance of the difference in *Housework* merely implies that among parents and nonparents, there is substantial variation across individuals in the amount of time spent on that activity.

Absent any further context, the ways in which parents allocate time relative to nonparents may seem reasonable. Context is, however, critical to understanding the pattern. First, note that although the difference in exercise time seems small, it actually represents more than a 60 percent lower

level of exercise time per day for parent (8.3 minutes), as opposed to nonparent (21.4 minutes) teachers. Given the long-term health effects of exercise, it is plausible to argue that parent teachers are sacrificing their health in order to meet their commitments to teaching and parenting.

Second, although parents exhibit substantially lower working time, it is worth translating the working time figures into hours and comparing them to contractual hours. The nonparent teacher figure represents a working day of over 10.3 hours, while the comparable figure for parents is 9.6 hours. The contractual working day, by way of contrast, averages only 6.5 hours across the sample, so the parents provided an average of *three hours of working time per day beyond that stipulated* in their contract. Seen in this light, even the reduced working time of teachers who are parents is consistent with my argument that the norms of the ideal worker and of teachers as parents of pupils push teachers to work very long hours.

To consider gender effects on individual time allocation, the subsample of parents was divided into groups of 19 men and 117 women, and time-use differences were tested. Considering only differences of at least seven minutes per day, the overall pattern exhibits traditional gender differences in the US, with the mothers devoting less time to *Working time* (43 minutes) and to sleep or *Passive leisure* (13 minutes less), and more time to *Housework* (13 minutes), *Errands* (18 minutes), and *Personal time* (18 minutes). Although statistical significance is minimal for most of these differences, that is not surprising given the small sample size here. The only statistically significant difference ($t = 2.241$, $p < 0.05$) appeared for *Errands*, a difference that is consistent with Barnett and Shen's (1997) finding that women tend to perform more low-control tasks around the house relative to men. In contrast to traditional gender patterns, the difference in *Child care* time was very small, with the fathers averaging over 94 minutes per day, compared to just under 98 minutes for the mothers. Although fathers who are elementary school teachers may be bending lines of gender around child care, the overall evidence suggests that gender differences remain.

To ascertain whether parents minimize the public appearance of commitments to children, *Face time* at school for the diary day was compared for parents and nonparents. As expected, the difference was small. Parents were physically present at the school for only 9.87 minutes less per day relative to nonparents, and the difference is not statistically significant ($t = 1.348$). Comparing this figure to the 45-minute overall difference in *Working time* supports the proposition that the ideal worker norm and the norm of parental care of students press teachers to minimize the public nature of any commitments to their own children. Of course, it is possible that all teachers basically are at school for the contractual period and otherwise work at home. This is not, however, the case since even the parent teachers averaged 8.16 hours of *Face time*, over one-and-one-half hours beyond the time required by the average contract. Note also that only

Table 7 Parenting time regressions, subsample of parents

Independent variables	*Coefficients (standard errors)*			
	Base	*Usual work*	*Extended*	*Extended/ Usual work*
Supervisor support	0.132	0.236	0.102	0.233
	(0.125)	(0.161)	(0.126)	(0.157)
Contractual working time	–0.323	–0.562	–0.345	–0.560
	(0.367)	(0.469)	(0.366)	(0.459)
Student poverty rate	–0.005	–0.006	–0.005	–0.006
	(0.004)	(0.005)	(0.004)	(0.459)
Co-worker support	0.292	0.505**		
	(0.199)	(0.247)		
Child younger than five	0.961***	0.966***	0.945***	0.958***
	(0.164)	(0.202)	(0.164)	(0.198)
Child care commute	0.00005***	0.0005***	0.0005***	0.0005***
	(0.000)	(0.000)	(0.000)	(0.000)
Single parent	–0.054	0.043	–0.005	0.081
	(0.279)	(0.341)	(0.280)	(0.334)
Partner help	–0.091	–0.271	–0.085	–0.213
	(0.209)	(0.258)	(0.208)	(0.254)
White	0.078	0.141	0.123	0.110
	(0.255)	(0.338)	(0.255)	(0.331)
Female	0.181	0.061	0.143	–0.033
	(0.274)	(0.327)	(0.274)	(0.323)
Constant	2.431	3.746	1.677	2.177
	(2.503)	(3.132)	(2.544)	(3.161)
Adjusted R^2	0.409	0.460	0.414	0.482
Sample size	135	82	135	82

Note: ***$p < 0.01$; **$p < 0.05$.
Sources: Various TWF instruments, see Tables 1, 2, and 5.

minimal gender differences in face time among parents were located: mothers reported 1.5 less minutes of face time relative to fathers, a difference that is statistically insignificant ($t = 0.098$).

The analysis next turns to a regression analysis of workplace factors and parental time. Relevant results are provided in Table 7. For the subsample of 135 parents, the *Base* regression in the left-hand numeric column includes the three variables for workplace conditions – *Supervisory support*, *Contractual working time*, and the *Student poverty rate* – along with a series of control variables. As expected, *Supervisory support* is positively related to parental time, and *Contractual working time* is negatively related to parental time. Although the prediction was weaker, the *Student poverty rate* was expected to negatively influence parenting time if high levels of poverty are associated with long working hours. The result fits this prediction. The size

of two of these effects is fairly small. A one standard deviation increase in *Supervisor support* is projected to increase parenting time by around 6 minutes. If we move from a school with no students living in poverty to one where all students face this circumstance, parenting time is reduced by less than one minute per day. However, switching from the longest to the shortest *Contractual working time* (a difference of just over one-half hour) is projected to increase parenting time by just under 10 minutes per day, a substantial effect. Although none of the coefficients achieve statistical significance at conventional levels, it is important to recall that we are attempting to relate workplace factors to parenting time for a single working day, so even strong relationships might not yield statistical significance in this sample. Considering control variables, the effects of being a *Single parent*, of receiving *Partner help*, and of being *White* are all projected to be well under 10 minutes, as is even a one-hour *Child care commute*; but having a *Child younger than five* is projected to increase child care time by almost one hour, and *Female* teachers are projected to spend around 12 minutes more on child care. The only control variables that exert statistically significant effects are having a *Child younger than five* and *Child care commute* time, but only the prior variable exerts a substantial effect.

A partial control for the statistical noise associated with examining a single day lies in restricting the sample to parents who also reported a usual working day. The restriction results in a subsample of 82 parent teachers, and the regression results are reported under the *Usual work* column. With regard to the workplace variables, the patterns discerned in the first regression remains and appear more strongly. A one standard deviation increase in *Supervisor support* is now projected to increase child care time by over 12 minutes per day, and a one-half hour reduction in *Contractual working time* is projected to increase child care time by over 15 minutes. In each case, if we consider weekly magnitudes, these effects are each on the order of over one hour of additional child care time. Results for other variables remain very similar (including statistical significance levels), except that *Partner help* is projected to reduce child care time by over 15 minutes, suggesting that partners who do pitch in at home reduce the burden of child care on these teachers. Note also that the *Female* coefficient falls by almost two-thirds, suggesting gender effects may in fact be minimal.

The analysis now turns to the question of time transfer. To do so, the variable for *Co-worker support* is added to the initial or *Base* regression, yielding the *Extended* regression found in the third numeric column. The overall results are similar to those for the initial regressions, and *Co-worker support* is positively related to parenting time, with a one standard deviation increase in the scale leading to a projected increase of around 14 minutes per day in parenting time; although, statistical significance was not found. Restricting the sample to the 82 parents who reported a usual working day yields the final regression for *Extended/Usual work*. The general pattern of

results remains the same, but the positive and larger coefficient on *Co-worker support* now suggests that a one standard deviation increase in the scale would generate a substantial increase in child care time of over 23 minutes per day or almost two hours over the course of a week. The coefficient also attracts statistical significance at the 5 percent level.

There are at least three ways to interpret the latter finding. First, note that the addition of the *Co-worker support* variable reduces the size of the coefficient on *Supervisor support*. Given that both measures are perceptual and cover similar behaviors across different people in the workplace, it is possible that both indicators are picking up some third factor that is, in turn, related to parenting time in some fashion. It is not obvious what that third factor might be, but the possibility remains. Second, it is possible that the causality is reversed, and that parents create parenting time by forcing co-workers to be supportive, as Burkett (2000) suggests. This argument strikes me as implausible since the behaviors considered in the *Co-worker support* scale – whether others are easy to talk to, whether others listen to your personal problems, or can be relied upon, or go out of their way to make the teacher's life easier – are the sorts of behavior that would typically be voluntary on the part of the co-worker. The third interpretation is that voluntary time transfers of work from parents to nonparents give rise to the positive association between supportive co-workers and parenting time.

The final analyses concern direct tests of the time transfer hypothesis. The hypothesis states that the behavior of nonparents should be linked to the behavior of parents in the workplace. Specifically, there should be a positive correlation between the average child care time associated with the teachers in any given school and the quantity of working time provided by nonparent teachers. As mentioned earlier, *Child care time* is entered in the OLS regressions in quadratic form, and various controls are included as well.

The *Base* regression for the time transfer hypothesis is reported in the first numeric column of Table 8. As predicted, there is a positive and declining association between *Child care time* and *Working time*. Given the size of the coefficients, the regression suggests that if we compare a hypothetical school with no parents to one where half of the teachers are parents who provide one hour of child care time per day (averaging one-half hour across the entire school), nonparent working time would rise by 0.45 hours.[11] For this example, a one-hour per day per teacher increase in child care time for half of the teachers in a school would be related to a one-half hour increase per teacher in the working time of nonparent teachers.

Restricting the sample to the 106 nonparents who reported a usual working day and rerunning the regression yields results as shown in the second numeric column of Table 8. As expected, if more usual working days are considered, the relationship between *Child care time* and nonparent *Working time* is strengthened, and both coefficients in the quadratic achieve

Table 8 Working time regressions, subsample of nonparents

	Coefficients (standard errors)			
Independent variables	*Base*	*Usual work*	*Female*	*Male*
Child care time	1.427	2.511*	2.635*	−1.211
	(1.144)	(1.438)	(1.451)	(2.176)
Child care time squared	−1.047	−1.830**	−1.702**	0.341
	(0.685)	(0.884)	(0.870)	(1.232)
Contractual working time	0.217	−0.192	−0.146	0.906
	(0.539)	(0.726)	(0.695)	(0.946)
Student poverty rate	0.002	−0.003	−0.003	0.005
	(0.005)	(0.007)	(0.007)	(0.009)
White	0.124	0.279	0.081	−0.208
	(0.304)	(0.391)	(0.386)	(0.528)
Female	−0.334	0.049		
	(0.386)	(0.598)		
Constant	8.766**	11.08**	10.722**	5.010
	(3.533)	(4.821)	(4.594)	(5.913)
Adjusted R^2	−0.006	0.001	0.000	−0.055
Sample size	173	106	126	46

Note: $^{**}p < 0.05$; $^{*}p < 0.10$.
Sources: Various TWF instruments, see Tables 1, 2, and 5.

statistical significance. Redoing the simulation from before suggests that if half of the teachers add one hour of parenting time, the working time of nonparent teachers rises by 0.8 of an hour.

The potential for gender to be linked to these time transfers is considered in the final two regressions reported in the table. The first regression for *Female* is restricted to a sample of 126 nonparent teachers employed in schools where at least 80 percent of the respondents were women.[12] The second regression for *Male* uses a sample of 46 nonparent teachers employed in school where less than 80 percent of the respondents were women. Comparing the coefficients for *Child care time* and *Child care time squared* across the two equations suggests that these time transfers are closely linked to the gender of the teachers in the school. The coefficients in the *Female* regression support a positive overall relationship and are statistically significant, while the coefficients in the *Male* regression are opposite in sign to those for the other regressions and are not statistically significant. Recalculating the simulation as before suggests that in the *Female* schools, a one-hour increase in parenting time for half of the teachers is associated with an increase of 0.89 hours in the working time of nonparent teachers. The coefficients in the *Male* regression suggest that an increase in parenting time for some of the teachers is related to a small

decrease in working time for nonparent teachers (i.e., the coefficients are smaller in absolute value than those in the other regressions), a result I believe would not hold up in further research.

These results seem reasonable since none of the simulations suggest that there is a one-to-one transfer of time between parenting and nonparent work. Instead, increases in parenting time in schools mainly employing women as teachers appear to be associated with smaller increases in nonparent working time.

5. CONCLUSION

The analysis presented above sought to shed light on the sources of parenting time using a sample of public, elementary school teachers in forty-six schools within four urban school districts in the US. The theoretical context for the analysis was located in two norms affecting elementary school teachers. The norm of parental care, applied to teachers as the profession became feminized in the nineteenth century, supported high levels of commitment and long hours of work because teachers were cast as *mothers of their students.* Teachers fought against this norm by promoting the ideal worker norm, a norm that cast teachers as highly trained experts, worthy of respect, and highly committed to their students as *professionals pursuing careers.* Although these norms are contradictory in many ways – the norm of parental care is linked to low wages and low status, while the norm of the ideal worker is linked to high salaries and high levels of status – both norms press teachers toward long hours of work and minimal or apparently minimal commitments to their own children. Running against these norms is the fact that most of the teachers will be parents of their own children at some point in the life course, creating the possibility of a shared valuing of parenting *per se.*

Time diary data from the teachers for a working Tuesday was used to compare the ways in which parent and nonparent teachers divide the pie of a 24-hour working day. Teachers with dependent children spent an average of 90 minutes more on parenting and 10 minutes more on housework compared to nonparent teachers. By construction, that time had to be related to equivalent reductions in other time-use categories. Those categories included working time (45 minutes less), sleep and personal time (20 minutes less), television and passive leisure (16 minutes less), and exercise time (13 minutes less). The apparently small difference in exercise time may be important, as the absolute difference stems from nonparents averaging over 21 minutes, and parents averaging less than 10 minutes per day on exercise.

The difference in working time of 45 minutes, on the other hand, does not suggest that teachers abandon the ideal worker norm and norm of parental care of students when they rear children of their own. On the

contrary, teachers who are parents still work an average of three hours per day beyond the time stipulated in their contracts. Further, the parent teachers seem to make an effort to be physically present at school for virtually the same time as nonparent teachers, with parent teachers exhibiting face time of around 10 minutes less than nonparent teachers. Those levels of face time – for both parents and nonparents – average over one-and-one-half hours beyond the working hours stipulated in the contract. The latter evidence is consistent with the argument that – because of the norms affecting them – teachers who become parents will strive to minimize the public appearance of commitments to their own children and maximize the appearance and reality of commitment to their students.

Gender differences among the parent teachers were found to be small with respect to parenting time and particularly small with respect to time spent on child care. However, fathers reported less time than mothers on errands and higher levels of working time. Together, these results suggest that male elementary school teachers tend to bend but not break with traditional gender roles.

The analysis further considered the workplace as a source of parenting time. Regression analysis was employed to ascertain the relationship between various workplace conditions in the schools and parenting time as reported in the time-use diaries of the subsample of parents. The various regressions consistently suggested that supportive supervisors are associated with higher levels of parenting time and that higher levels of contractual working time are associated with lower levels of parenting time, although neither result achieved statistical significance for this sample. It would be worthwhile to test for these relationships in either a larger sample of teacher parents or with time-use data for a longer period than a single 24-hour day.

The analysis also developed and tested Rogers' (2001) notion of "time transfer." Rogers considered a case where work tasks were systematically shifted from substitute to permanent teachers. Following Burkett (2000), I hypothesized that nonparent working time may be positively related to the amount of time parents employed in the same workplace spend with their own children: working time is transferred from parents to nonparents. Burkett argued that such time transfers are the result of parents forcing work onto nonparents, often with the explicit blessing of management, a process that is creating a backlash against employed parents. I argue that such time transfers might instead be voluntary and perhaps be related to implicit norms.

Regardless of the reason for time transfers, the evidence pointed to a positive relationship between the parenting time of employees and the working time of nonparents within each workplace. That is, using the time diary data for a 24-hour period, the working time of nonparents is positively related to the quantity of parenting time associated with teachers in the school.

To gain some insight into the causal mechanism responsible for this time transfer, two further tests were performed. In the first test, I asked whether perceived high levels of co-worker support were linked to increased parenting time during the diary day for the subsample of parent teachers. The initial result was positive, but did not achieve statistical significance. However, for a smaller sample of parent teachers reporting a usual working day, the positive relationship held and was statistically significant at conventional levels. Given that items regarding co-worker support included whether others "go out of their way" to be helpful, this finding suggests that the time transfer of work from parents to nonparents is voluntary.

A second test asked whether such time transfers are related to the gender composition of the teachers in the school. The schools were split into those with at least 80 percent female teachers and those with less than 80 percent female teachers in the school. Rerunning the nonparent working time regressions revealed that the positive association between parenting time and nonparent working time was limited to schools where at least 80 percent of the teachers were women. Although other explanations are possible, it seems plausible to argue that the gendered character of these time transfers is linked to the fact that most elementary school teachers are, have been, or will be mothers of their own children at some point in their careers. It would therefore not be surprising if currently childless women took a life course view, and voluntarily reduced the workload placed on those who are parents at any given time.

Although the two tests just discussed are hardly definitive, both are consistent with the claim that time transfers of work from parents to nonparents are voluntary on the part of the nonparents. Burkett's (2000) contrary claim that parents are forcing work onto nonparents is not supported. As mentioned earlier, there is also no evidence supportive of Burkett's claim regarding a "backlash" against employed parents (Drago *et al.* forthcoming).

If we accept the time transfer results here as valid, there is a further grain of truth in Burkett's arguments. The time transfers found here are uncompensated and arguably unfair. Nonparent teachers enjoy less working time in schools with fewer parent teachers, but no difference in pay is associated with that divergence.

We are therefore left with two major conclusions from the analysis: (1) regardless of parenting responsibilities, teachers work very long hours for the school and (2) uncompensated, voluntary, and arguably unfair transfers of working time from parents to nonparents occur in elementary schools where at least 80 percent of the teachers are women.

Potential policy responses to these findings fall into four categories. First, increased compensation could be provided to teachers who work long hours. This strategy has the dual advantage of improving fairness by compensating teachers for time transfers associated with longer work hours and

would likely reduce the overall working day and free-up parental time because schools would have an incentive to reduce the length of the working day. A major disadvantage of this approach is that the working time of teachers would need to be measured on a day-to-day basis, a practice which does not currently exist in the US, that would likely be contentious and expensive, and that runs against the professionalization of teaching. With the notable exception of lawyers, ideal workers do not punch a time clock.

A second approach would involve teachers and their unions striving to reduce the overall length of the working day, either by measuring and reducing working time directly or by increasing the resources provided to schools to reduce the workload on teachers. This approach has the advantage of reducing the need for time transfers, reducing overwork as it affects any teachers, increasing the time available to teachers for their own children, and increasing time for other activities such as personal exercise or community service. If attempts were made to reduce working time directly, however, the same problems associated with the compensation strategy discussed above would emerge. On the other hand, if additional resources were provided, the ideal worker norm and norm of parental care for students might remain untouched, so the teachers might use the additional resources to better serve the students, with only a minimal reduction in working time.

Bailyn (1993) and Fletcher (1999) point to a third approach through the integration of work and family life. They argue that resolutions to problems akin to those identified here require that employees feel comfortable discussing their family commitments at work, giving voice to objectives beyond productivity, thereby integrating work and family. Following this logic would lead us to conclude that teachers, principals, school district administrators, and union leaders should strive to make the family commitments of teachers a public issue. The availability of quality reduced-hours teaching as needed (Williams 1999) might be one outcome of resulting discussions, since a majority of teachers move into and eventually away from parental responsibilities. Further, any concerns regarding fairness, such as those raised by Burkett, could be and presumably would be addressed directly by those affected. But the major promise of this strategy is that the teachers themselves could develop new and innovative methods for confronting the issues of long hours and of some teachers having heavier family responsibilities than others at different stages in the life course. Ultimately, such an approach could fundamentally challenge the norms of the ideal worker and of parental care for students as teachers increasingly communicate with each other and give public voice to their commitments outside of teaching.

A fourth approach involves an increase in public supports for parents and children through publicly provided or subsidized child and dependent

care initiatives. Such supports could reduce the private burden of caring and alleviate the need for time transfers of work from parents to nonparents. Countries like Sweden (Anita Nyberg 2000), France (Barbara Bergmann 1996), and Finland (Ellen Mutari and Deborah Figart 2000) provide such supports and offer hope in this regard. It is possible that such initiatives could actually *increase* the working time of elementary school teachers by feeding into the norm of parental care for students and reducing the need for parenting time. More generally, such initiatives could be viewed as supporting the ideal worker norm by reducing parental time with children. In practice, however, these potentially negative effects seem to be outweighed by a single positive effect: public expressions of support for children and parents serve as a direct challenge to the ideal worker norm because values beyond those associated with economic and career success enter into the public discourse. This argument is consistent with the coexistence of public supports for child care and the relatively low levels of overall working time found in Sweden, France, and Finland (see Mutari and Figart 2000: 239).

At a general level, I believe that some mixture of all four approaches makes sense. Each approach responds to the concrete issues of long working hours and difficulties in meeting simultaneous commitments to work and family, critical elements in the "care crisis" described by Harrington (1999). More importantly, each approach can help to challenge currently existing norms. If, as I have argued, the norms of the ideal worker and of parental care for students are responsible for both the long hours of work for the school and the time transfers of work from parent to nonparent teachers, then no single strategy is likely to resolve the problems. Changing norms requires sustained effort on multiple fronts. Mutari and Figart (2000) document such multifaceted initiatives in Finland, where the government provides ample child care and has successfully promoted high rates of labor force participation among women, low levels of overtime for men, and low levels of part-time employment for women. The result is that greater gender equity exists in the workplace and the home, and without the long hours of work found in the analysis here.

Finally, more research is needed on the phenomena documented in the analysis above. Further survey and time-use diary research could help to identify the types of occupations and workplaces where time transfers of work from parents to nonparents occur. Of arguably greater importance, ethnographic research could shed light on the specifics of time transfers. For example, the minimal differences in parent and nonparent face time suggest that time with students is not being transferred. Instead, it could be committee assignments, curriculum development work, or extracurricular activities, but we cannot know for certain without ethnographic research in the schools. Further, such research could inform us as to the degree to which time transfers from parents to nonparents are implicit or explicit,

perceptions of fairness around these time transfers, and the specific causal mechanisms involved.

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NOTES

[1] The gendered character of the battle over teacher autonomy is largely unstated in recent US debates, whether we look at researchers in favor of autonomy (e.g., Samuel Bowles and Herbert Gintis 1976) or those against it (e.g., National Commission on Excellence in Education 1983).

[2] For example, in the data used here, 70 percent of women teachers from 30 to 40 years of age are parents of dependent children (49 of 70 in total). Assuming that this pattern of fertility holds for teachers in all age groups and given that women make up 86 percent of the entire sample (see Table 3), I estimate that 60.2 percent (i.e., 70 percent of 86 percent) of the entire sample either are, will be, or have been mothers of dependent children.

[3] Specifically, one of the four districts had policies permitting spouses to work in the same school, teachers' children to enroll in the school of parental employment, dependent child care accounts, and early release for teachers with sick children. Another district had an informal policy of allowing teachers' children to enroll in the school of parental employ and had a single pair of teachers who had job-shared, although the arrangement was expected to end soon. The other districts had no formal policies that either the union or school district officials were aware of, and in both cases, the union official state that "no requests" for work/family policies had come from the membership. See Drago and Williams (2000: 6–8). The policies spreading throughout the private sector during the 1990s (Bond, Galinsky, and Swanberg 1998), had not infiltrated these schools.

[4] It does not matter for present purposes whether high commitment teachers choose to work in high poverty schools, or instead respond to poverty with a high level of commitment.

[5] An additional two school districts were invited to participate and refused.

[6] The standard deviation of daily working time using the standard diary measure (described in Drago *et al.* 1999), ranged from a minimum of 1.58 to a high of 2.21 hours across the four districts.

[7] Teachers with at least one-half of their students defined as "special needs" were

also excluded from the study. Our supposition was that the number of special needs teachers that would naturally emerge without the restriction would be too small for statistical analysis.

[8] The items used Likert-scales responses which were added to produce the scale. Specific items asked whether the principal was understanding if, "a teacher is occasionally late due to dependent care problems," "occasionally misses work because a family member is sick," or "if the teacher needs to leave early to take care of a family problem."

[9] The specific items were assigned responses along a four-point Likert scale ranging from "not at all" to "very much" and included: "How much do other people at work go out of their way to do things to make your life easier for you?" "How easy is it to talk with other people at work?" "How much can other people at work be relied on when things get tough at work?" "How much are other people at work willing to listen to your personal problems?"

[10] Equal variances across the subsamples are assumed. Results are slightly stronger if unequal variances are assumed.

[11] The difference of 0.45 hours is obtained by summing $(0.5 \times 1.427) - (0.5^2 \times 1.047)$.

[12] The cut-off at 80 percent is intended to provide a reasonable number of observations for the *Male* subsample. The results are marginally stronger if an 85 percent cut-off is used.

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