Care in Context: Men's Unpaid Work in Advanced Industrialized Nations

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April 2004

Abstract

Cross-national and temporal variations allow observation of men's unpaid work behavior under varying gender arrangements, providing leverage on explanations of men's unpaid work. I consider which aspects of gender arrangements are relevant to men's unpaid work behavior and create indicators of implicated policies. I use tobit models to analyze 38 surveys from 20 countries (spanning 1965 to 1998) archived in the Multinational Time Use Survey datasets. I hypothesize that the combination of women's employment characteristics and state response to women's rising employment helps explain variation in men's unpaid work behaviors. I find that women's labor force involvement and the availability of parental leave for men increase men's unpaid work time, whereas long parental leaves decrease men's time. The analyses document how countries can attain similar levels of men's unpaid work through very different routes, and they help to explain resistance and change in men's unpaid work.

Keywords: cross-national, division of labor, housework, men, time use, unpaid work

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In the latter half of the 20th century large-scale demographic changes altered the position of men within families throughout industrialized nations. Increased out of wedlock births, cohabitation, and divorce left men's connections to women and children more tenuous (Goldscheider 2000). Even when these connections are strong, the role of men in the family is influx as the male-breadwinner family form fades with economic change, most notably mother's mass entrance into paid labor. In response to these demographic shifts, states are increasingly interested in men's contributions in the home as they seek to meet standards for gender equality, provide adequate care for children and the elderly, ease work/family conflict, and rebound from very low fertility levels (Hantrais and Letablier 1997; Hobson and Morgan 2002; Marsiglio, Amato, Day, and Lamb 2000; McDonald 2000; United Nations Division for the Advancement of Women 1979). We know little, however, about contextual influences on men's unpaid work. In this paper I use temporal and cross-national variations in men's unpaid work behavior to explore the influence of contextual factors – specifically, women's employment characteristics and state policies.

Cross-nationally, women's paid work time has increased dramatically over the last 40 years. During this time women's unpaid work has declined significantly, whereas men's unpaid work time has increased, but to a lesser extent (Gershuny 2000; Gershuny, Godwin, and Jones 1994). Hochschild (1989) termed the disparity between women's entrance into paid work and men's entrance into unpaid work a "stalled revolution".

A growing body of research documents both the individual- and state-level predictors of cross-national variability in women's labor force participation. Men's participation in unpaid work, however, has received little attention on the cross-national research agenda (Orloff and Monson 2002). One reason women's labor force participation receives more sociological attention than men's unpaid work is that there is more change and more variation to be explained. Sociological methods are generally unsuitable for examining fairly static phenomenon. Micro-level studies tend to poorly predict men's unpaid work time, while performing much better for women's unpaid work time or relative distributions among couples. Thus far, researchers have tested a number of micro-level hypotheses on single-country, cross-sectional data without gaining substantial leverage on men's unpaid work time.

Temporal and cross-national variations allow observation of men's unpaid work behavior under varying gender contracts, providing leverage on explanations of men's unpaid work behavior. A gender contract refers to a social contract between the state and men or women, as well as a social contract between men and women. Two sources of variation in gender contracts – changes in women's employment and variation in state policy - may help explain men's unpaid work behavior. One explanation of the effect of women's employment on men's unpaid work behavior is the lagged adaptation hypothesis, which proposes that men's unpaid work time adjusts to women's employment, albeit very slowly. Another explanation of men's unpaid work time focuses on how the state has responded to women's labor force participation in its gender contract, i.e. what ideology and policy package has accompanied the increase of women in the labor force. For example, states in both the social democratic and liberal welfare state regimes have

experienced high levels of women's employment, yet women's rising employment has been met with divergent policy responses.

In this paper, I investigate individual and state-level predictors of men's unpaid work across states and time. Using data from the Multi-National Time Use Study, I examine cross-national and over-time variability in individual-level effects on men's time use, as well as the influence of gender contracts on men's time use.

Theory and Previous Research

Individual Characteristics

According to Gershuny (2000), time allocation is a matter of habit. An individual's time use can be seen as a progressive modification of habits and abilities throughout the life course. Changes in time allocation often result from events that require recalibration, such as a graduation, new job, move, marriage, or birth. The allocation of time to unpaid work is affected by demand for unpaid work and the availability to perform unpaid work (which are generally determined by events – marriage, children, new employment, changes to employment schedules). In the time constraints approach, demand for unpaid work is generally conceptualized as number of children and spouse's employment characteristics (status and schedule). Availability is conceptualized as own employment characteristics.

Empirical research in the US generally finds support for this approach – children and spouse's work hours increase household labor time and own work hours decrease household labor time. Some researchers, however, have noted that time constraints do not operate in a gender-neutral manner (Bianchi, Milkie, Sayer, and Robinson 2000; Coverman 1985; Presser 1994; Shelton 1992). For example, Bianchi et al. (2000) found that wives' time was more responsive to number of children than was husbands' time. This reflects findings that parenthood is associated with less egalitarian divisions of labor. However, there is generally an absolute increase in men's time with the presence of young children (Coltrane 2000). Most division of labor research is conducted on couples. When unmarried men are studied, empirical findings from the US indicate that married men do less housework than unmarried men (South and Spitze 1994).

Gender Contract

States shape social and gender contracts (O'Reilly and Spee 1998). Individual time allocation is not only located in individual abilities and trajectories, but also within social and gender contracts. States can structure time allocation in a variety of ways, such as the regulation or non-regulation of working time, provision or absence of public services and subsidies, and incentives or disincentives in tax codes (Cancian and Oliker 2000; Gershuny 2000; Kalleberg and Rosenfeld 1990; Knijn and Kremer 1997; Leira 1999; Sainsbury 1999). Considerable variation exists in social and gender contracts across industrialized countries. Various configurations of state provision have been linked to levels of gendered care responsibilities, gender differences in access to social citizenship,

and modes of family organization (Daly 2000), all of which may impact men's unpaid work time.

The influence of social and gender contracts on men's unpaid work, however, is vastly understudied. There are few cross-national studies of men's unpaid work. Though the evidence is sparse, previous research suggests micro-level effects may not be consistent across countries and household labor arrangements may depend on macro-level variation. In a recent contribution comparing 22 industrialized countries, Fuwa (2003) shows that the micro-level effect of women's employment on the household division of labor is greater (more egalitarian) in countries with a higher ranking on a women's economic/political power index than in countries with a lower ranking. Kamo (1994), comparing housework allocation among American and Japanese couples, finds that there is more variation among American couples and variation is better explained with the standard predictor variables in the US than in Japan. She suggests that structural factors, such as a strong family tradition in Japan, account for differences in unpaid work allocation between American and Japanese couples. Examining time use in Finland and Australia, Bryson, Bittman, and Donath (1994) suggest that greater convergence between men and women's time spent on paid work, housework, and childcare in Finland than in Australia may be a result of greater Finnish childcare provisions. Kalleberg and Rosenfeld (1990), comparing the US, Canada, Norway, and Sweden, suggest that cross-national differences in the reciprocal effects of women's hours worked and women's percentage of household tasks can be accounted for by variation in work/family policies; they found no reciprocal effects, however, between men's hours and relative distribution of tasks. With the exception of Fuwa (2003), the connection between macro-level context and men's unpaid work, however, is inferred.

One exception to these conclusions is a study comparing the gendered division of unpaid work in the US, Canada, Australia, Norway, and Sweden. Baxter (1997) finds similar distributions of unpaid work across the five countries, and consistency in the effects of individual-level predictors. She concludes that because the countries have similar levels of gender inequality in the home macro-level variation is inconsequential, and thus policies will have little impact on equality in the home. Baxter fails to consider, however, that the social democratic and liberal regimes may attain similar levels of gender equality through very different routes. For example, high levels of women's labor force involvement in both countries are met with very different policy response. In the liberal regime, high employment with little state supports may force men into unpaid work. In the social democratic regime, high employment is coupled with generous state support, decreasing demand placed on men as a result of women's employment. The social democratic regime, however, encourages men's participation in the home through a variety of gender equality initiatives. These effects should be disentangled prior to concluding that macro-level variation is inconsequential.

Women's employment

One component of the changing gender contract is the increase in women's labor force participation. The relationship between women's labor force participation and men's unpaid work has been weaker than expected. Hochschild (1989) termed the disparity

between women's increased paid work and men's unpaid work a "stalled revolution". Whereas Hochschild proposes a stalled revolution, Gershuny et al. (1994) argue that the revolution is not stalled, but exceedingly slow. They propose a lagged adaptation model in which an egalitarian redistribution of household labor occurs slowly as increases in women's paid work prompt renegotiation in the household and as more children are socialized in egalitarian homes. According to Gershuny et al. (1994), "adjustment of work roles takes place, not through a short-term redistribution of responsibilities, but through an extended process of household negotiation (and perhaps reconstitution), extending over a period of many years, and indeed across generations" (p. 151). They suggest that change is slow because most people are generally unaware of how much unpaid work they do or how much their partner does (this is evidenced in discrepancies between time diary and self-reports, as well as in discrepancies between reports of husbands and wives), couples often do not explicitly consider the division of labor issue, and it takes households time to respond to change. Thus, the effect of women's employment on men's unpaid work operates in two ways – by slowly changing labor arrangements of couples, and by slowly providing a more egalitarian socialization of children within households.

Empirically, Gershuny et al. (1994) find that over a period of time, household labor arrangements adapt to women's changing employment patterns. Examining historical change in the UK, they find that the increase in men's share of unpaid work is greatest among husbands with wives employed full-time, although, they note that there could be a selection effect as households with less satisfactory arrangements could have dissolved, or women could have left full-time work. Additionally, increases in men's unpaid work in the UK are present across all household types. They conclude that increased sharing of unpaid work is a general social trend, likely originating from increased women's employment, but experienced across households regardless.

In a cross-national empirical investigation, Windebank (2001) hypothesizes that according to the lagged adaptation hypothesis, states with longer histories of women's employment should show greater equality in the home. She finds, however, that British dual-earner households are slightly more egalitarian than are French dual-earner households, despite France's longer history of women's labor force participation. Windebank suggests that necessity, not opportunity, may be the key to men's greater household participation (women's employment in France is accompanied by high levels of child care). Windebank's findings suggest that the effect of women's employment may be moderated by other state-level factors, such as policy. To return to the previous example of similar unpaid work behavior in social democratic and liberal regimes, similar levels of unpaid work may be attained by very different routes, such as through social engineering, e.g., policies encouraging men's unpaid work, or through necessity, e.g., women's employment with little family support. This suggests the need to disentangle the effects of women's employment and policy.

Policy

Which policies are likely to influence men's unpaid work behavior are less clear than which policies are likely to influence women's paid work behavior. Gender-neutral

policies, such as the discontinuation of policies that privilege male-breadwinner families (e.g., tax code reform), also do not generally translate into a transformation in the division of household labor (Bergman and Hobson 2002). The long-term implications of gender-neutral policy change, however, are unknown. State supports for working mothers do not generally translate into equitable divisions of labor in the home either (Leira 1993 in Norway; Olah, Bernhardt, and Goldscheider 2002 in Hungary). Supports in the form of publicly provided child care may decrease women's unpaid workload by shifting this time commitment to the state (predominately paid female workers), but does not encourage greater participation of men. Supports in the form of maternity leaves and extended child care leaves, facilitate women's unpaid work (in some cases moderately compensated) and do not encourage greater participation of men, in fact extended child care leaves may further entrench women's unpaid work responsibilities. Both types of supports decrease the demands for men's unpaid work created by women's employment.

Policies targeted at men may impact men's time allocation. In addition to gender neutral policies adopted in Scandinavian countries (e.g., mandatory joint custody upon divorce and the right to adjust work schedules to accommodate family work), examples of policies targeted at men include "use it or lose it" paternity leave and public campaigns promoting active fathering. Unlike gender-neutral policies, fathers can use policies targeted at men to bargain with employers and partners (Bergman and Hobson 2002 in Sweden; Knijn and Selten 2002 in the Netherlands). There is evidence that fathers use these proactive policies, even when policy precedes demand. In Norway, for example, the enactment of use it or lose it paternity leave was not in response to mass demand, but was an attempt to reorganize the division of labor in the home.[2] Although Norwegian men did not lobby for this policy change, they have been responsive to the new policy. Prior to use it or lose it leave, only 2 to 3% of eligible men took leave, after enactment over 70% of eligible men took leave (Leira 1998). There is reason to suspect that in addition to shifting the division of child care, policies targeted at men as fathers should affect the relative power of men and women in families, and thus broader division of unpaid work (Orloff and Monson 2002).

Additionally, state regulation of working time may determine the time available for men's family work. Long standard work weeks, in the former Soviet states for example, may constrain men from participating in family work. Empirical research documents that working time regulations translate into outcomes. Regulations stipulating lower standard weekly work hours predict lower average weekly working hours (Gornick and Meyers 2003). Whether or not more of this available time is devoted to unpaid work is an empirical question.

These arguments imply several testable hypotheses. The effects of individual-level variables will be inconsistent across surveys because of variation in state-level context.

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[2] The Nordic countries are not the only states altering family policy without large-scale demand. Recent child support reforms in the UK and Spain have been met by stiff opposition and protest (Lewis 2002; Municio-Larsson and Algans 2002). The policy context under which men and women decide how to allocate time may or may not reflect their own desires.

For example, marriage may decrease men's unpaid work because of specialization. The effect, however, may depend upon levels of female labor force involvement. Relationships should be less specialized in states with high levels of female labor force involvement, creating an inconsequential or positive effect for marriage.

I expect that men's unpaid work is not only shaped by individual life circumstances, but also by the state-level context in which they exist. According to the lagged adaptation hypothesis, greater overall levels of women's labor force participation will increase men's unpaid work time because of negotiations within dual-earner households, changes in childhood socialization, and changes in social norms. Support for working mothers in the form of publicly funded childcare and extended child care leaves will diminish the positive effect of women's employment on men's unpaid work because under these policies, the burden for unpaid work is shifted to the state (primarily female workers) or remains with women in the home. Finally, policies encouraging men's involvement in the home will have a positive effect on men's unpaid work time by creating policy use (e.g., taking paternity leave), better bargaining positions for men, and changes in social norms.

The present analyses document whether the effects of individual-level factors on men's unpaid work time are consistent across states. Additionally, the analyses specify which macro-level factors predict men's unpaid work across states.

Research Strategy

Data

I use data from the Multinational Time Use Survey (versions 5.0.1 and 5.5.1), which is a harmonized dataset providing background and time expenditures variables for respondents ages 20-59.[3] Time expenditures are measured in a 40-category typology (Gauthier, Gershuny, and Fisher 2002; 2003). The time diary format has been widely recognized as the most valid and reliable measure of time use (Harvey 1993; Juster 1985; Marini and Shelton 1993; Robinson 1985). I utilize 38 surveys, conducted between 1965 and 1998, from 20 countries. Table 1 shows a list of countries and years.

[3] The age range is limited by cross-national variation in age coverage; 20 to 59 are the highest beginning age and the lowest ending age, respectively. Unfortunately, this restriction eliminates older, retired men who may be involved in many forms of unpaid work as paid work commitments wane. Unpaid work demands may increase during this time with additional demands such as taking care of an ill spouse, or minding grandchildren. In terms of policy implications, this restriction is less problematic as many of the policy implications relating to men's unpaid work (i.e., fertility and work/family conflict) are focused on family formation and childrearing years.

Australia 1974, 1992	West Germany 1965, 1991
Austria 1992	Hungary 1965, 1976
Belgium 1965	Italy 1989
Bulgaria 1988	Netherlands 1975, 1980, 1985, 1990, 1995
Canada 1971, 1981, 1986, 1992, 1998	Norway 1980, 1990
Czechoslovakia 1965	Poland 1965
Denmark 1987	Sweden 1990
Finland 1987	United Kingdom 1974, 1987, 1995
France 1966, 1974	United States 1965, 1975, 1985, 1998
East Germany 1966	Yugoslavia 1965

Measures

The dependent variable is men's unpaid work time. This measure encompasses time spent on housework, cooking and washing up, childcare, shopping, gardening, other domestic work (care of adults, care of pets, maintenance of dwelling and car), and domestic travel. Unfortunately, MTUS is not suited to studying task segregation because the categories reported are too aggregated, i.e., cooking and washing are in the same category conflating two distinct categories of work that are differently gendered (Twiggs, McQuillan, and Feree 1999).

Measures of independent individual-level variables include factors associated with demand (marital status and children) and availability (less than full-time worker and hours worked on diary day). I include education and age as control variables. See Table 2 for details of variable construction.

Table 2. Micro-level predictors

Variable	Description
Married	Coded to one if respondent is married
Child	Coded to one if respondent is living with a child under age 15
Employed less than full-time	Coded to one if the respondent is employed part-time or not employed
Employment hours	Number of hours spent on employment during the diary day
Low education	Coded to one if respondent has less than a secondary education
Age	Respondent's age in years

Measures of state-level variables include women's employment characteristics, state policies, and men's work characteristics. See Table 3 for details of variable construction. Table 4 presents means and standard deviations for both individual- and macro- level variables.

Table 3. Macro-level predictors

Variable	Description
Married women's labor force participation	Percentage of married women in the labor force.
Married, employed women's weekly paid work hours	Mean weekly hours among employed, married women.
Publicly-funded child care	Percentage of children aged 0 to 2 in publicly-funded child care.
Parental leave length	Sum of maternity, parental and extended child care leave weeks available.
Parental leave available to men	Coded to one if men are eligible to use parental leave.
Employed men's weekly paid work hours	Mean weekly hours among men employed full-time.
Total unpaid work load	Sum of women's mean weekly unpaid work hours and men's mean weekly unpaid work hours.

Table 4. Means and standard deviations for individual- and macro- level variables, weighted

	Mean	S.D.
Dependent variable		
Unpaid work minutes	125.82	140.99
Individual-level variables		
Married (1=yes)	0.73	0.44
Child (1=yes)	0.47	0.50
Paid work hours (daily)	6.01	4.69
Low employment (1=yes)	0.16	0.37
Low education (1=yes)	0.46	0.50
Age	38.19	11.31
(N = 80,073)		
Macro-level variables		
% married women employed	52.47	17.46
Employed women's weekly paid hours	33.79	7.21
Weeks of parental leave	36.29	44.70
% 0-2 in publicly-funded child care	7.74	10.09
Parental leave for men (1=yes)	0.32	0.47
Employed men's weekly paid hours	48.13	5.01
Total unpaid weekly workload	52.53	6.09
(N=38)		

Method

I use tobit models to estimate the influence of individual- and macro-level predictors on men's unpaid work time. Tobit models are used for data with censoring. Data are censored when there is limited information about the dependent variable for some respondents (Long 1997). Tobit models have been applied to time use data to deal with censoring caused by reports of zero minutes spent on an activity. Comparisons of several approaches to modeling time use have found the tobit preferable (Flood and Grasjo 1998). Data are censored in this case. It is impossible to distinguish if reports of zero minutes are respondents that happened not to perform unpaid work on their diary day, but usually do, or respondents that never perform unpaid work. The number of zero reports on one day surveys ranges from 7% to 35% (but is only around 2% for seven day diaries). This variation, however, may be a result of survey design. The length of time slots in which respondents recorded activities varies from survey to survey, some having 5, 10, or 15 minute intervals and some having no set intervals. Thus, for most surveys time on unpaid work is censored at 5, 10, or 15 minutes.

Because of censoring, estimating coefficients using OLS would underestimate the intercept and overestimate the slopes. Alternately, deleting cases with zero reports and only estimating coefficients for respondents with values greater than zero would overestimate the intercept and underestimate the slopes. Both approaches produce inconsistent estimates. Tobit models have the advantage of utilizing all the information available and providing consistent estimates for censored data. When estimating tobit models the data are divided into censored and uncensored observations. The probability of an observation being censored is combined with parameter estimates for uncensored observations. The resulting coefficients are interpretable similar to those produced by OLS (Long 1997).

I estimate two models. In the first, I estimate only individual-level effects. I include interaction terms between each survey and each of the individual-level effects, including the intercept. I allow each of the effects to vary in order to examine variation in estimated effects at the individual level. In the second, I estimate both individual- and macro-level effects, without allowing the effects to vary for each survey. Because this model utilizes macro-level data, I use robust standard errors based on clustering on survey (N = 38). This increases the standard errors on macro-level variables, providing a more accurate and conservative test of statistical significance. In both models observations are left-censored for zero reports and reports in excess of 750 minutes are top-coded.

Analyses are weighted to account for both population distribution and daily/seasonal variation. For data from MTUS 5.0.1 a post-hoc weight (SEDWT2) is used. It weights cases according to known age-sex-employment distributions multiplied by a day of the week weight. For data from MTUS 5.5.1 a post-hoc weight (PROPWT) is used. It weights cases according to known age-sex distributions multiplied by a day of the week weight.

Results

There is considerable variation in men's unpaid work across countries and survey years. Figure 1 displays the variation across years. Men's daily unpaid work time varies from a little over one hour per day for Italy 1989 to three hours per day for the US 1998. The mean time is slightly over two hours.

Figure 1. Variation in men's mean unpaid work minutes by survey year, weighted

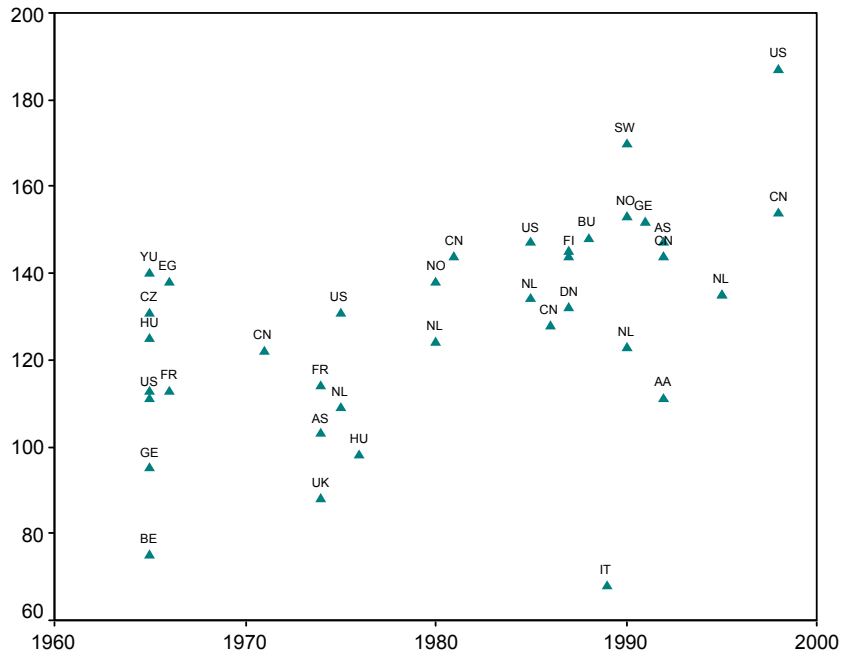


Table 5 shows the mean effects of individual-level variables on men's unpaid work. There is considerable variation among the estimated coefficients; Figure 2 displays the variation. On average across the 38 surveys, being married increases men's unpaid work time by 33 minutes per day. The effect ranges from -10 minutes (Denmark 1987) to 72.1 minutes (Hungary 1965). This result is in the opposite direction than is generally found in US studies. In fact, of the 38 surveys the only coefficients less positive than the US 1998 results are the marriage coefficients for the other US surveys, East Germany 1965, Canada 1971, and Denmark 1987 (the effect is indistinguishable from zero for the US surveys, and is negative in the latter three countries). This suggests that caution should be taken extending results from the US to other industrialized countries, even results on basic demographic indicators, such as marriage.

Living with a child increases men's unpaid work time by 26 minutes. Again, considerable variation exists in the estimates; the effect ranges -5 minutes (Netherlands 1980) to 71 minutes (Canada 1992). In only two survey years, the Netherlands 1975 and 1980, is the effect of living with a child negative, though the coefficient is very small. The estimated effect in the US 1998 is 48 minutes. This is surpassed by only six other

survey years, Norway 1980 and 1990, Canada 1986, 1992, and 1998, and the UK 1995 (although the estimates are not significantly different from the US 1998).

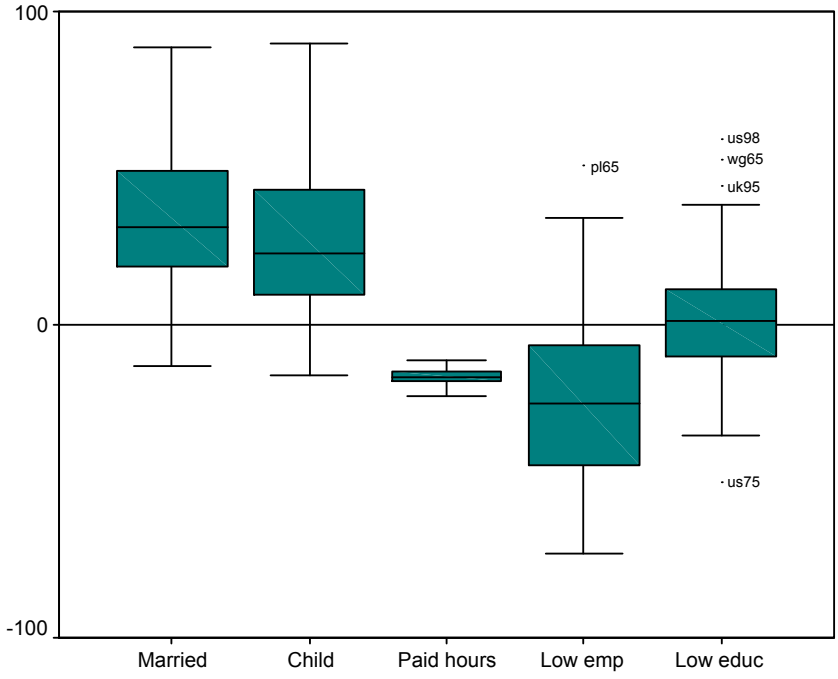
Table 5. Mean effects of micro-level parameters on men's unpaid work, N = 38

	Mean	Std. Dev.	Minimum	Maximum
Constant	158.51	41.10	43.73	229.40
Married	33.29	22.66	-13.46	88.76
Child	26.11	25.13	-16.36	90.11
Paid work hours	-16.23	2.34	-22.72	-11.13
Low employment	-23.73	29.91	-73.14	50.74
Low education	1.91	22.45	-50.10	59.43
Age	0.55	0.09	-	-

Note: The effect of age was not allowed to vary for each country. .

Each hour of paid work decreases men's unpaid work time by 16 minutes per day. There is less variation in the estimate of paid work than in other parameters. The effect ranges from a high of -19 minutes per hour of paid work (Australia 1992) to a low of -11 minutes per hour of paid work (Italy 1989). The US 1998 is on the high end at -18 minutes per hour.

Figure 2. Boxplots of micro-level effects



The effect of being unemployed or employed part-time ranges widely. On average it decreases men's time by 24 minutes per day. It ranges from -74 (US 1998) to 27 (Poland

1965 and the UK 1974). The effect is positive in only 8 survey years. The effect of low education is statistically insignificant.

Table 6 shows the results of a tobit model predicting men's daily unpaid work minutes. The micro-level effects are similar to the mean effects across models. Macro-level effects show that women's employment characteristics, policies supporting working women, and policies encouraging men's unpaid work influence men's unpaid work time. At the macro-level, each percentage increase in married women's employment increases men's unpaid work by 1 minutes per day and each hour increase in employed, married women's weekly employment hours increases men's unpaid work time by 1.2 minutes per day. See Figure 3 for predicted values of women's labor force participation. Each week of parental leave decreases men's unpaid work time by .18 minutes per day, whereas the effect of publicly supported child care is negative but not statistically significant. See Figure 4 for predicted values of parental leave weeks. It is suspected that supports for working women offset the large gains created by women's employment. The availability of parental leave for men, however, exerts a positive influence of 17 minutes per day. Each additional hour of employed men's weekly paid work hours decrease men's unpaid work time by 2.51 minutes per day.

Table 6. Tobit model predicting men's unpaid work minutes, with standard errors adjusted for clustering, weighted

	β	*Robust SE*	
Micro-level variables			
Constant	51.08	44.00	
Married (1=yes)	35.76	5.43	**
Child (1=yes)	25.39	4.96	**
Paid work hours (daily)	-16.13	0.48	**
Low employment (1=yes)	-19.13	6.30	**
Low education (1=yes)	-3.47	4.49	
Age	0.59	0.21	**
Macro-level variables			
% married women employed	1.01	0.26	**
Employed women's weekly paid hours	1.26	0.61	*
Weeks of parental leave	-0.18	0.06	**
% 0-2 in publicly-funded child care	-0.13	0.25	
Parental leave for men (1=yes)	17.27	7.74	*
Employed men's weekly paid hours	-2.51	0.83	**
Total unpaid weekly workload	2.51	0.52	**

*p<.05, **p<.005 (two-tailed tests)

Figure 3. Predicted values – percentage of married women in the labor force

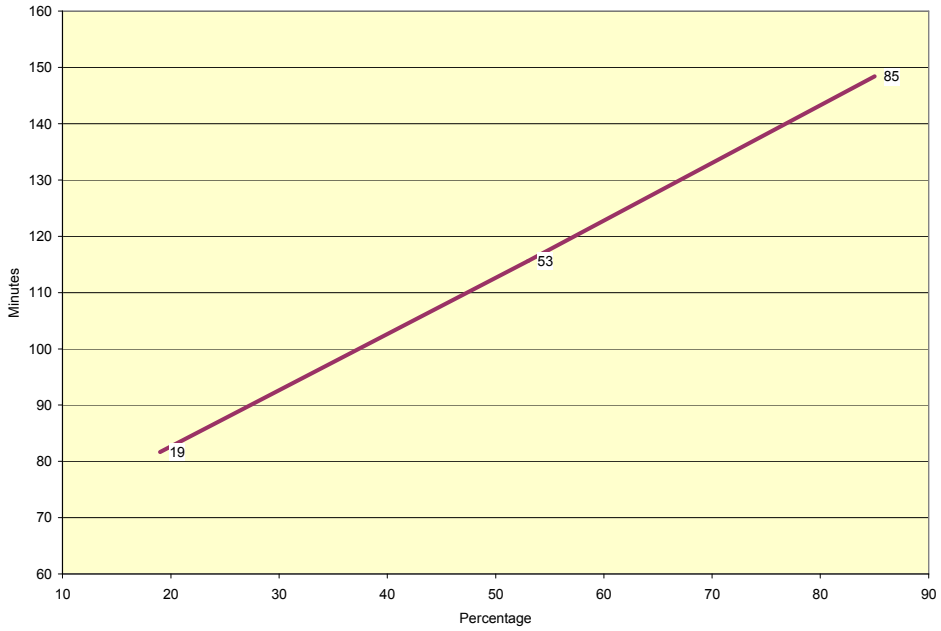
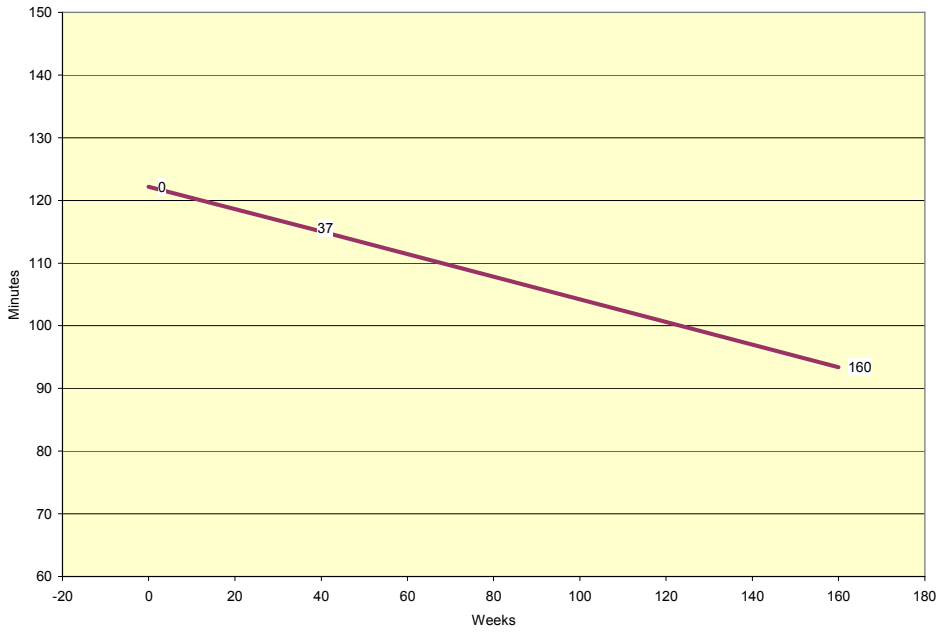


Figure 4. Predicted values – weeks of parental leave available



At the macro-level, using the example of a liberal country and a social-democratic country, we can see that men in each regime may spend similar amounts of time on unpaid work through very different routes. Assuming higher than average labor force involvement among married women (80%), men in both countries would be expected to do 80 minutes more of unpaid work than would men in a country with no labor force

involvement among married women. In the liberal country this effect would not be moderated by parental leave or child care. In the social democratic country, however, 85 weeks of parental leave (Sweden 1990), would decrease men's daily unpaid work time by 15 minutes per day. The availability parental leave for men, however, would offset this loss by an estimated 17 minutes.

Discussion

A comparative study of men's unpaid labor helps us understand the persistence of gender inequality in the home and the workplace, and the role that states play in this arrangement. The analyses document considerable variation in individual-level factors predicting men's unpaid work. A next step in the analyses is investigating whether macro-level factors, such as those explored here, influence this variation. Additionally, the analyses show that two distinct sources of variation in gender contracts – women's labor force involvement and state policies – influence men's unpaid work. This research refutes previous suggestion that macro-level variation is inconsequential (Baxter 1997).

This study is the first to use a large cross-national sample to examine men's unpaid work time. The results make important contributions to the literature. As interest in cross-national research grows among US family researchers, the results indicate that individual-level effects found in US empirical research do not necessarily apply to cross-national contexts. Additionally, countervailing forces within states are an essential area to examine when making cross-national comparisons of family life. The results also have implications for policies addressing gender equality, fatherhood and child well-being, work/family conflict, and very low fertility. Policy matters. There is evidence that state-level encouragement of men's unpaid work in the home increases men's unpaid work time. There is also evidence that supports for working women decrease men's unpaid work time (although they may still increase gender equality if women's time is reduced more than is men's time, which is likely for publicly provided child care, but unlikely for extended child care leaves). Finally, this study provides an explanation of the varied effects of women's labor force involvement on men's unpaid work. Women's labor force participation is an important, but not sole, determinant of men's unpaid work time. Policies created in response to women's labor force involvement decrease the gain associated with increased involvement.

References

Adamik, M. 1991. "Hungary - supporting parenting and child rearing: Policy innovation in Eastern Europe." Pp. x-x in *Child care, parental leave, and the under 3s: Policy innovation in Europe*, edited by S. Kamerman and A. J. Kahn. New York: Auburn House.

Baxter, Janeen. 1997. "Gender equality and participation in housework: a cross-national perspective." *Journal of Comparative Family Studies* 28:220-228.

Bergman, Helena and Barbara Hobson. 2002. "Compulsory fatherhood: the coding of fatherhood in the Swedish welfare state." Pp. 92-124 in *Making men into fathers: Men, masculinities and the social politics of fatherhood*, edited by B. Hobson. Cambridge: Cambridge University Press.

Bianchi, Susan M, Melissa A Milkie, Liana C Sayer, and John P Robinson. 2000. "Is anyone doing housework? Trends in the gender division of household labor." *Social Forces* 79:191-228.

Bryson, Lois, Michael Bittman, and Sue Donath. 1994. "Men's welfare state, women's welfare state: tendencies to convergence in practice and theory?" Pp. 118-131 in *Gendering Welfare States*, edited by D. Sainsbury. London: Sage Publications.

Bussemaker, Jet and Kees van Kersbergen. 1994. "Gender and welfare states: some theoretical reflections." Pp. 8-25 in *Gendering Welfare States*, edited by D. Sainsbury. London: Sage Publications.

Cancian, Francesca M and Stacey J Oliker. 2000. *Caring and gender*. Walnut Creek, CA: Alta Mira Press.

Coltrane, Scott. 2000. "Research on household labor: Modeling and measuring the social embeddedness of routine family work." *Journal of Marriage and the Family* 62:1208-1233.

Coverman, Shelley. 1985. "Explaining husbands' participation in domestic labor." *Sociological Quarterly* 26:81-97.

Daly, Mary. 2000. "Paid work, unpaid work and welfare: Towards a framework for studying welfare state variation." Pp. 23-40 in *Gender, welfare state, and the market: Towards a new division of labour*, edited by T. P. Boje and A. Leira. London: Routledge.

EC Childcare Network. 1994. "Men as carers: Towards a culture of responsiblity, sharing and reciprocity between women and men in the care and upbringing of children." European Commission Equal Opportunities Unit, Brussels.

Esping-Andersen, Gosta. 1990. *The three worlds of welfare capitalism*. Cambridge: Polity Press.

—. 1999. *Social foundations of postindustrial economies*. Oxford: Oxford University Press.

Flood, Lennart and Urban Grasjo. 1998. "Regression analysis and time use data: A comparison of microeconomic approaches with data from the Swedish Time Use Survey (HUS)." *Working Papers in Economics No. 5*. Goteborg University: School of Economics and Commerical Law.

Fuwa, Makiko. 2003. "Macro-level gender inequality and the division of household labor: A cross-national study." Paper presented at the Annual meeting of the American Sociological Association. Atlanta, GA.

Gauthier, Anne Helene, Jonathan Gershuny, and Kimberly Fisher, with Cara Fedick, Anita Bortnik, Sally Jones, Tingting Lu, Fiona Lui, Leslie Macrae, Monica Pauls, and Charlemaigne Victorino,. 2002. "MTUS On-Line Documentation." vol. 2003: Colchester: ISER/University of Essex.

Gauthier, Anne Helene, Jonathan Gershuny, and Kimberly Fisher, with Donna Dosman, Anita Bortnik, Cara Fedick, Tyler Frederick, Sally Jones, Tingting Lu, Fiona Lui, Leslie MacRae, Monica Pauls, Cori Pawlak, and Charlemaigne Victorino,. 2003. "MTUS On-Line Documentation." vol. 2003: Colchester: ISER/University of Essex.

Gershuny, Jonathan. 2000. *Changing times: Work and leisure in postindustrial society*. Oxford: Oxford University Press.

Gershuny, Jonathan, Michael Godwin, and Sally Jones. 1994. "The domestic labour revolution: a process of lagged adaptation." Pp. 151-197 in *The social and political economy of the household*, edited by M. Anderson, F. Bechhofer, and J. Gershuny. Oxford: Oxford University Press.

Goldscheider, Frances K. 2000. "Men, children and the future of the family in the third millennium." *Futures* 32:525-538.

Gornick, Janet and Marcia Meyers. 2003. *Familes that work: Policies for reconciling parenthood and employment*. New York: Russell Sage Foundation.

Hantrais, Linda and Marie-Therese Letablier. 1997. "The gender of paid and upaid work time: A European problem." *Time & Society* 6:131-149.

Harvey, Andrew S. 1993. "Guidelines for time use data collection." *Social Indicators Research* 30:197-228.

Hobson, Barbara and David Morgan. 2002. "Introduction: Making men into fathers." Pp. 1-21 in *Making men into fathers: Men, masculinities and the social politics of fatherhood*, edited by B. Hobson. Cambridge: Cambridge University Press.

Hochschild, Arlie Russell and Anne Machung. 1989. *The second shift*. New York: Viking Press.

Juster, F Thomas. 1985. "The validity and quality of time use estimates obtained from recall diaries." Pp. 63-91 in *Time, goods, and well-being*, edited by F. T. Juster and F. P. Stafford. Ann Arbor: University of Michigan.

Kalleberg, Arne and Rachel Rosenfeld. 1990. "Work in the family and in the labor market: A cross-national, reciprocal analysis." *Journal of Marriage and Family* 52:331-346.

Kamo, Yoshinori. 1994. "Division of household work in the United States and Japan." *Journal of Family Issues* 15:348-378.

Knijn, Trudie and Monique Kremer. 1997. "Gender and the caring dimension of welfare states: Toward inclusive citizenship." *Social Politics* 4:328-361.

Knijn, Trudie and Peter Selten. 2002. "Transformations of fatherhood: The Netherlands." Pp. 168-187 in *Making men into fathers: Men, masculinities and the social politics of fatherhood*, edited by B. Hobson. Cambridge: Cambridge University Press.

Leira, Arnlaug. 1993. "The 'woman-friendly' welfare state?: The case of Norway and Sweden." Pp. 49-71 in *Women and social policies in Europe: Work, family and the state*, edited by J. Lewis. Aldershot, UK: Edward Elgar Publishing.

—. 1998. "Caring as a social right: Cash for child care and daddy leave." *Social Politics* 5:362-378.

—. 1999. "Introduction." Pp. ix-xxii in *Family change: Practices, policies, and values*, vol. 18, *Comparative social research*, edited by A. Leira. Stamford, Connecticut: JAI Press.

Lewis, Jane. 2002. "The problem of fathers: Policy and behavior in Britain." Pp. 125-149 in *Making men into fathers: Men, masculinities and the social politics of fatherhood*, edited by B. Hobson. Cambridge: Cambridge University Press.

Long, J. Scott. 1997. *Regression Models for Categorical and Limited Dependent Variables*. Thousand Oaks: SAGE Publications.

Marini, Margaret Mooney and Beth Anne Shelton. 1993. "Measuring household work: Recent experience in the United States." *Social Science Research* 22:361-382.

Marsiglio, William, Paul Amato, Randal Day, and Michael Lamb. 2000. "Scholarship of fatherhood in the 1990s and beyond." *Journal of Marriage and Family* 62:1173-1191.

McDonald, Peter. 2000. "Gender equity, social institutions and the future of fertility." *Journal of Population Research* 17:1-16.

Municio-Larsson, Ingegerd and Carmen Pujol Algans. 2002. "Making sense of fatherhood: The non-payment of child support in Spain." Pp. 191-212 in *Making men into fathers: Men, masculinities and the social politics of fatherhood*, edited by B. Hobson. Cambridge: Cambridge University Press.

Olah, Livia Sz, Eva M Bernhardt, and Frances K Goldscheider. 2002. "Coresidential paternal roles in industrialized countries: Sweden, Hungary and the United States." Pp. 25-57 in *Making men into fathers: Men, masculinities and the social politics of fatherhood*, edited by B. Hobson. Cambridge: Cambridge University Press.

O'Reilly, Jacqueline and Claudia Spee. 1998. "The future regulation of work and welfare: Time for a revised social and gender contract." *European Journal of Industrial Relations* 4:259-281.

Orloff, Ann Shola and Renee Monson. 2002. "Citizens, workers, or fathers? Men in the history of US social policy." Pp. 61-91 in *Making men into fathers: Men, masculinities and the social politics of fatherhood*, edited by B. Hobson. Cambridge: Cambridge University Press.

Pascall, Gillian and Nick Manning. 2000. "Gender and social policy: Comparing welfare states in Central and Eastern Europe and the Former Soviet Union." *Journal of European Social Policy* 10:240-266.

Presser, Harriet B. 1994. "Employment schedules among dual-earner spouses and the division of household labor by gender." *American Sociological Review* 59:348-364.

Robinson, John P. 1985. "The validity and reliability of diaries versus alternative time use measures." Pp. 33 - 62 in *Time, goods, and well-being*, edited by F. T. Juster and F. P. Stafford. Ann Arbor: University of Michigan.

Sainsbury, Diane. 1999. "Taxation, family responsiblities, and employment." in *Gender and Welfare Regimes*, edited by D. Sainsbury. Oxford: Oxford University Press.

Shelton, Beth Anne. 1992. *Women, men and time: Gender differences in paid work, housework and leisure*. Westport, CT: Greenwood.

South, Scott J and Glenna Spitze. 1994. "Housework in marital and non-marital households." *American Sociological Review* 59:327-347.

Twiggs, Joan E, Julia McQuillan, and Myra Marx Feree. 1999. "Meaning and measurement: reconceptualizing measures of the division of household labor." *Journal of Marriage and the Family* 61:712-724.

United Nations Division for the Advancement of Women. 1979. "Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)." vol. 2003: New York: UN.

Windebank, Jan. 2001. "Dual-earner couples in Britain and France: Gender divisions of domestic labour and parenting work in different welfare states." *Work, Employment & Society* 15:269-290.