EDUCATIONAL DIFFERENCES IN PARENTS' TIME SPENT IN CHILD CARE:

CULTURE, INCENTIVES, OR INCOME CONSTRAINTS?

Paula England Stanford University

Anjula Saraff Independent Scholar, India

PRELIMINARY DRAFT-DO NOT CITE OR QUOTE

3-2-3010 Preliminary draft of prepared in preparation for presentation at the April, 2010 annual meetings of Population Association of America, Dallas, Texas. Address correspondence to pengland@stanford.edu or asaraff_2000@yahoo.com.

INTRODUCTION

Well educated parents spend more time in child care than their less educated counterparts (Bianchi and Robinson 1997; Bianchi et al. 2006; Bianchi et al 2004; Bryant and Zick 1996; Guryan et al. 2008; Kimmel and Connelly 2007; Sandberg and Hofferth 2001; Sayer et al. 2004). At first glance, this seems puzzling for three reasons. First, the well educated have fewer children (Yang and Morgan 2003), so this might lead them to spend less time on child rearing. Second, women with more education and higher earnings do less housework (Gupta 2007), so, given that both child care and housework are unpaid home production, we might expect that education would affect them similarly. Finally, education increases employment rates among both men and women (Cohen and Bianchi 1999; Cotter et al. 2004; Cotter et al. 2008; England et al. 2004; England et al. 2008), leaving less time for child care, making the extra time the well educated spend in child care especially surprising.

What explains the extra time well educated parents spend in child care? Is it a matter of economic incentives (opportunity costs), income constraints, or class-differentiated culture? Economic incentives would seem to push the opposite way; education increases one's potential wage and thereby encourages more employment, which takes time away from child care. It is possible that the higher income of well educated parents might allow them to outsource more housework, which would free up time for child care, even among those who are employed; if this is true, the lower amount of time in child care by less educated parents would reflect economic constraints. The explanation may also be noneconomic: perhaps, as Laureau (2003) has argued, cultural models of appropriate parenting differ by class, and encourage more time-intensivity among the well educated.

In this paper, we use data from the 2003-2008 American Time Use Study (ATUS) to shed light on these questions. We will show educational differences in the average time spent in child care, and on other uses of time, for married (or cohabiting) mothers and fathers. A series of cross-sectional regression analyses will explore effects of education on mothers' and fathers' time spent in child care (and other uses of time), under a series of economic controls, and for a variety of sub-samples defined by partners' employment status. Through these controls and sample limitations we attempt to ascertain whether income constraints drive time use on child care. If educational differences remain after controls for income, and within subgroups defined by women's level of employment, we will take this as indirect evidence that the force driving the time use is cultural rather than reflecting economic constraints. One distinctive feature of our modeling is that we examine cross-spouse effects; that is, we examine effects of the respondent's own education, as well as the effect of his or her spouse's education, on the respondent's time use.

PAST RESEARCH

Women's Employment and Child Care Time

We often think of stay-at-home moms as the quintessential child care providers. Given this, we expect that the long-term increase in women's employment must have taken parental time away from children, especially since men didn't decrease their hours of work to match women's increases. Consistent with this, in cross-sectional comparisons, employed women do spend less time in child care and less time with children (Bryant and Zick 1996; Sandberg and Hofferth 2001). But the differential is not as great as one might think. This is partly because approximately a quarter of mothers work part-time (U.S. Bureau of Labor Statistics 2009, Table 5), taking less time away from children than full-time employment would. Another reason for a small differential in time spent in child care between employed and nonemployed mothers is that the latter spend surprisingly few

hours per day actually doing child care as their primary activity, as opposed to housework, shopping, or leisure, some of which may be done while one is with children. Bianchi et al. (2006:218) found that in 2000, mothers who were employed 1.5 hours/day in child care, while the number for nonemployed averaged 2.5.¹ Zick and Bryant (1996a) estimate that the effect of each additional hour of women's employment is about three minutes in lost child care time. Even if we expand "child care" to include all time a child spends with a parent, children with employed mothers spend only 5.5 more hours per week in 1997 with their mother than children whose mothers were not employed, less than an hour per day (Sandberg and Hofferth 2001). Nock and Kingston (1988) found that women's employment takes mothers primarily away from homemaking activities that involve children very little. This is why it is possible for women's employment to have increased vastly across the decades. with no discernible decrease in the time mothers spend with children (Bianchi 2000; Bryant and Zick 1996b). Bryant and Zick (1996b) assembled time use studies from the 1920s to the 1980s and found no change in married parents' time in direct child care during this period, despite the large increase in women's employment. Sandberg and Hofferth (2001) assessed change between 1981 and 1997 in the PSID in how much time children in two-parent families spent with their parents (regardless of what the parents were doing). They found an *increase* of a few hours in time with both mothers and fathers, averaging across all family types, despite increased mother's employment. They conclude that the change was not "structural" (by which they mean explained by changes in average levels of measured variables such as women's employment and education), but rather "behavioral." Bianchi et al. (2006) use several national time use studies from different decades and show that fathers did 3 hours/week of child care in 1965, 1975, and 1985, but increased to 4 in 1995 and 7 in 2000. Mothers' time decreased and then increased across the period, moving from 10 hours/week in 1965 down to 8 hours in 1985, and up to 13 hours/week in 2000.

Past Research on Education and Child Care Time

Because time diary studies are the "gold standard" for accurate measurement of time use, we will limit our review to studies using this method. The finding that well educated parents spend more time in child care appears in literature over three decades old (Leibowitz 1974, 1977: Hill and Stafford 1974, 1980; Timmer et al. 1985). Leibowitz shows that college educated mothers not only spend more time overall in child care, but spend an especially large surplus in enrichment activities such as reading to children (see also Bianchi and Robinson 1997). Examining time spent with children, regardless of whether the activity was child care, Bryant and Zick (1996) used an older dataset from the 1970s and showed that, compared to their less well educated counterparts, well educated mothers spent more time with younger children, while well educated fathers spend more time with older children. Using more recent data from the Panel Study of Income Dynamics (PSID) Child Development Supplement, Hofferth and Sandberg (2001) find that children with well educated mothers spend more time with their mothers. While past literature on an education gradient in time use for fathers is mixed (see review in Bianchi et al. 2004), the national time diary studies that preceded the ATUS showed a positive relationship between the education of both fathers and mothers and time spent in child care (Bianchi et al 2004). Moreover, these authors claim that differences by education did not change between 1965 and 2000 for either sex. Gurvan et al. (2008) use the American Time Use Surveys (2003-2006 waves) and analogous datasets for 14 other countries, and cross-sectional regressions including demographic controls to assess educational differences. They find a nearly ubiquitous pattern in which more educated mothers and fathers spend more time in child care. Kimmel and Connelly (2006) use the 2003-2004 ATUS and estimate a fourequation system predicting mothers' time use in housework, leisure, market work, and child care;

¹ Of course, as Folbre and Yoon (2007) point out, such time vastly underestimates the time that a parent must be on call in case a child needs them, and thus is not a good measure of total supervisory responsibility that we might want to call "care."

this approach too shows that well educated mothers spend more time in child care. Using similar datasets, Sayer et al. (2004) examine the education gradient for Canada, Germany, Italy, and Norway, finding consistent educational differences for mothers. For fathers, they find large differences in Canada and Italy, small differences in Germany, and no educational differences in Norway.

Our goal in this paper is to describe educational differences in time use by mothers and fathers, to examine net effects of spouses' own education in models controlling for their spouses' education and other demographic controls, and to examine cross-spouse effects which might capture how spouses influence each other. We also seek to ascertain whether the extra time spent in child care by the well educated is a function of economic constraints, such as the need to work long hours because of a low wage rate, or lack of income with which to purchase substitutes for housework, thus necessitating more time in housework that could take away from time in child care.

DATA AND METHODS

Data and Sample

The analysis is based on American Time Use Survey (ATUS). We have pooled data from 2003 to 2008 surveys. Our sample consists of married (spouse present) or cohabiting² men and women aged 21-54 years and who have at least one child in the household. (For convenience, below we use the terms "spouse," "husband," and "wife" to pertain to cohabiting as well as married partners.) This age choice should limit students and retirees to a minimum. We excluded same-sex couples, as well as men and women enrolled in school. The analytic sample is 21659 respondents (9936 males and 11723 females).

The ATUS collected one-day time diaries from respondents; as part of a telephone interview, respondents were asked to recall the primary activity they were doing in each period, starting at midnight and noting a start and end time for each activity. ATUS data can be linked to Current Population Survey (CPS) data to provide other socio-demographic variables; we have utilized this link. While we only have time use data on one member of each couple, we utilize CPS data on the spouse's education, wage, and earnings.

Variables

Dependent Variable: Time Use. Our dependent variables are amounts of time spent in the day of the diary on various categories of time use. Our analysis is limited to what the respondent reported as the primary activity done in each period. (ATUS did not collect data on secondary activities.) Following ATUS conventions, we have grouped activities into seven major categories, each of which is used as a dependent variable in selected analyses: Paid Work (which includes activities in search of a job for the unemployed), Child Care, Housework (which includes repair and yard work), Shopping, Personal Care (which includes sleep, grooming, bathing, and dressing), Eating, and Leisure (including sports). Because a major use of leisure time is television watching, and it relates differently to education than other forms of leisure, we show leisure divided into television and other components in descriptive tables. (There is also a residual "other" category which adds to very little time on average.) Also following conventions in ATUS published reports, we consider travel related to a particular activity within the corresponding activity category, so that travel to work is part of

 $^{^2}$ Our decision to include cohabitors is because, among the less educated, nonmarital births and unmarried cohabiting couples with children are very common, and to exclude them would render the sample of the least educated couples less representative of family life in low SES couples. Overall, however, only 1.6% of our analytic sample are cohabiting.

paid work, taking a child to school or an appointment is child care,³ and travel to a store is considered part of shopping.

Time-use estimates given in our descriptive tables are presented in hours per day and represent an "average day" with weekend days weighted appropriately as 2/7; alternatively one can multiply by 7 to get weekly time use.

Independent Variable of Interest: Education. Our primary independent variable of interest is education. Respondents have been classified into four categories: Less than High School, High School Graduate with no College, Some College but no 4 year degree, and College Graduate (Bachelors and above). Respondents who reported their educational attainment as "Some college but no degree" and "associate degree-occupational/vocational/academic program" have been put in the category "some college." The same categories were used for spouses' education.

Control Variables: Other variables enter regressions as controls, or are used as a basis for defining subgroups on which we present descriptive statistics. They are detailed below.

Race/Ethnic Composition: We have considered four categories for race and ethnicity: (NonHispanic) White, Hispanic, (NonHispanic) Black, and Others (the largest subcategory of which is Asian). All Hispanics (of any race) form one category; rest of the categories refers to non-Hispanics only. Respondents who reported more two or more races have been put into "Others." In regression analyses, whites are the reference category.

Employment Status: Employed persons are identified by using the labor force status of the respondent. Those who say that they are employed, whether at work or absent, are considered "employed." If the respondents report that they are unemployed – on lay off or looking, or are not in labor force, they are considered "non-employed." We use this variable to create subsamples of household types for separate descriptive or regression analyses.

Age: Age is measured in years and its square is also entered into regressions to allow for nonlinear effects.

Number of Children: This is a continuous variable representing the number of children under 18 in the household. All households have at least one child to be in the sample.

Age of youngest child: This is a continuous variable representing the age of the youngest child under 18 in the household.

Marital Status: A dummy variable codes cohabiting partners as 0 and married as 1. In tables, the term "spouse," "husband," or "wife," refers to married as well as cohabiting partners.

Family Income: This is entered as a set of dummy variables representing the percentile of the family the respondent's reported total family income is in: 1-20% (reference category), 20-40%, 40-60%, 60-80%, 80-95%, 95-100%. So that we are measuring relative income for the specific year, we created family income percentiles for each survey year separately. Because cohabitors are not considered "family" in government statistics, analyses entering family income exclude the 1.6% of the analytic sample who are cohabiting.

Region: This is entered as a set of dummy variables: South (reference category), Northeast, Midwest, West.

³ However, using ATUS conventions, taking a child to child care services is "shopping."

Metropolitan status: We code non-metropolitan or nonidentified areas as 1 and metropolitan areas as 0.4^4

Year of interview: This is entered as a set of dummy variables to capture period effects: 2003 (reference category), 2004, 2005, 2006, 2007, 2008.

Weekly earning of the respondent and spouse: This is a continuous variable representing the amount in dollars earned per week. The weekly earning of non-employed individuals has been put to zero. We have also considered relative weekly earning of respondent and spouse which is the ratio of the respondent's to his/her spouse's weekly earning.

Hourly wage of respondent and spouse: This variable is constructed by CPS staff by dividing weekly earnings by regular hours of worked per week. It is a continuous variable representing the hourly wage rate of the respondent and spouse. The relative hourly wage of respondent and spouse is a ratio of the respondent's to his/her spouse's hourly wage.

Hours of paid work of respondent and spouse: This is a continuous variable representing the regular weekly numbers of hours at paid work reported by the individual in the CPS; this is not the measure of time spend in paid work from the time diary. The value has been put to 0 if the individual is non-employed. This variable enters some of our regressions predicting child care (or other uses of time other than paid work) as a control.

We use ATUS final weights for all descriptive analyses. Regressions are unweighted.

Models and Methods

We start by reporting means for each time use category, separately for each education category (Table 1). We then report these means separately for a number of "household types" defined by men's and women's employment. Limiting ourselves to households in which men are employed full time, we examine those in which the women are not employed, employed part-time (less than 35 hours/week, based on their CPS report of regular weekly hours worked), and employed full-time (over 35 hours/week).

We then perform a number of OLS regression models in which hours spent in each of the time use categories are the dependent variables. (We do not include a model for "other.") In these models, education is the independent variable of intereset, and we always control for race, age (and its square), number of children, and age of youngest child, and, where cohabitors are not excluded from the models, for marital status of the couple. These baseline regressions are reported in Table 3 (men) and Table 4 (women). We then perform another series of OLS regressions predicting child care on various sub-samples with various "economic" controls. These are in Table 5. The subsamples used are: both employed (whether full- or part-time), both employed full-time, full-time employed male with part-time employed female, and full-time employed male with nonemployed female. By "economic" controls we refer to the following; models predicting (men's or women's) child care time are run with controls for each of the following: 1) family income, 2) weekly earnings of respondent and spouse, 3) hours of paid work of respondent and spouse, 4) respondent's weekly earnings as a ratio of spouse's weekly earnings, 5) respondent's hourly wage as a ratio of spouse's hourly wage. Models holding constant wives' employment or controlling for the above factors are

⁴ Changes in the CPS definition of "metropolitan" in 2000 were implemented in 2004. We used the definition of metropolitan in force for each given year in the CPS data.

used to discern whether economic constraints or incentives can explain the educational gradient on child care. An important feature of Table 5 is that it shows the effects of respondent's and spouse's education (coefficients for all other variables are so that cross-spouse effects can be discerned. Tables 6-10 are parallel to 5 except in the dependent variable, which is no longer child care time. Since descriptive analysis showed that well educated parents spend more time in child care and paid work, but less time in housework (for women) and (for both men and women) personal care, and leisure, we provide models on various sub-samples and with various economic controls predicting these dependent variables (and, for leisure, we also provide models for television and other leisure).

RESULTS

Education and Time Use: Descriptive Results

Table 1 shows the basic descriptive findings—mean differences in hours per day spent on each activity type, separately for partnered (married or cohabiting) mothers and fathers. Fathers with less than high school spend .8 hour/day, while college graduates spend 1.3 hours on child care; for women the analogous figures are 1.8 and 2.6 hours. (Below if we give only the figures for the lowest and highest group, this means the relationship is monotonic or nearly so.) Moreover, the tendency of well educated men and women to spend more time in child care holds across types of families defined by whether the woman is employed full-time, part-time, or not at all (Table 2). When both partners work full time in the market, men spend .7 of an hour per day in child care compared to 1.2 for college graduates; the analogous figures for women are .9 and 1.9. Men's hours of child care vary little by whether their wives are employed (Table 2), but women's approximately double if they are not employed. Nonetheless, where women are not employed (but men are employed full-time), we still see an educational gradient for women; those with less than high school spend 2.4 hours/day in child care ascending monotonically to 3.7 for college graduates.

This educational difference in child care time is particularly striking because college graduates have fewer children. In our sample of partnered parents (combining men and women), 31% of the college educated but only 25% of those with less than high school have only one child, while 38% percent of those with less than high school have more than 2 children, compared to only 22% of college graduates (results not shown).

Another thing that makes the educational difference in child care time striking is that it is working "against" educational differences in paid work time. Paid work increases monotonically for men and women, but much more so for women. Male high school dropouts average 6 hours a day in paid work, compared to 6.5 for college graduates; the comparable figures for women are 2.1 and 3.4. Importantly, however, these differences in average hours of paid work reflect a greater compositional representation of nonemployed men and women among the less educated, not longer work hours among the well-educated who are employed. This can be seen from the fact that, in Table 2, education has no monotonic relationship to hours in paid work for either full-time employed women (see the "both partners full-time" row) or employed men (since all rows limit to full-time employed husbands here, this can be seen across all rows).

Given that the day has only 24 hours (and ATUS procedures force respondents to answer in such a way that their total hours across activities add to 24), if highly educated parents spend more time in child care and more of them are employed, they must spend less time in some other activity. Where do highly educated parents "take" the time from? While our cross-sectional descriptive analysis cannot clarify causal order—which time use allocations are affecting which others—we can make at least a simple accounting assessment of which activities well educated parents spend less on. Table 1 shows that both men and women spend less on personal care (which includes sleep and grooming)

if their education is higher. For men this ranges from 9.4 for those without high school to 8.5 hours per day for college graduates (Table 1). The analogous figures for women are 9.8 and 8.9 (Table 1). This difference, in itself, is enough to explain all of the child care gap by education for both men and women. Again, these differences by education in personal care, like those in child care, are apparent across all the family types defined by whether and how much women are employed.

Leisure is another candidate for where more educated get the extra time that they put into child care; it ranges monotonically from 4.4 hours per day for men with less than high school to 3.7 hours for college graduates, with the analogous (not quite monotonic) range for women from 4 to 3.3 hours (Table 1). However, upon breaking leisure down into television watching and all other leisure and sports, we see that it is only television that has this negative gradient, going from 2.7 hours/day for men with less than a high school degree down to 1.7 for college graduates, with the analogous figures for women 2.5 and 1.4 (Table 1). The rest of leisure and sports has a positive education gradient, with figures corresponding to those above going from 1.6 to 2.0 for men and 1.5 to 1.9 for women (Table 1). These education gradients—negative for television watching and positive for the remainder of leisure and sports—also hold for all family types, whether the woman is employed full-time, part-time, or not at all (Table 2).

Housework is another category from which well educated women may steal some extra time for child care. Education has little bivariate relationship to housework for men, but women, who do much more housework than men, do less of it as their education increases, from 3.5 hours/day done by those with less than high school to 2.4 hours/day done by college graduates (Table 1). In one sense it is hardly surprising that college educated women do less household work, given that they do more paid work. However, Table 2 shows that even if we limit the average to women working for pay full-time, those with more education do less housework (2.7 hours/day for those with less than high school and 1.9 for college graduates). It is also true in families where women are not employed for pay that the better educated women do less housework than the less educated. This makes it more likely that there is some tradeoff of housework for child care time. Below we will address the question of whether the education gradient in this tradeoff is a function of the income of the well educated, a plausible hypothesis since we know that well educated women are married to higher earning men.

In sum, looking at descriptive statistics to discern where well educated get the extra time they put into paid work and child care, we see that the major activity groups on which they spend less time are personal care, television watching, and, for women only, housework. Also striking is how robust educational differences are across family types defined by whether and how much the woman is employed. Often women's paid work affects their time allocation on other things, as we would expect, but educational differences in child care time are present within families where women are working for pay full time, working for pay part-time, and working as homemakers full-time.

Regression Analyses Predicting Time Use From Education and Selected Controls

We now move to regression analyses predicting child care and other uses of time from education and selected noneconomic controls (Tables 3 and 4 for the whole sample of fathers and mothers, respectively). Then we move to selected regression analyses predicting child care with selected economic control variables, and for various sub-samples of family types defined by women's employment (Table 5). We then examine models predicting time in the categories from which our descriptive results suggested that the time the well educated put into child care may be coming—housework, personal care (including sleep), and leisure and its subcomponents (Tables 6-10). Tables 3 and 4 are interesting because, in addition to standard controls (e.g. age, race, number and age of

children), we assess the effect of the respondents education in a model that includes his or her spouse's education as well.

As far as we know, no past analyses have tried to disentangle effects of his and her education, allowing cross-spouse effects of education. Due to educational homogamy, spouses' education is correlated, but not so highly as to create collinearity. Table 3, with no economic, but many sociodemographic controls, shows that, relative to those with less than high school, men with some college spend .219 hour/day more in child care, and those with a bachelor's degree spend .298 more. Net of these effects, men whose partners are college educated spend slightly (.09 hour/day) more. As in the descriptive statistics, we see that net of other variables, more educated men spend more time in paid work, less time in personal care, and less time in leisure and sports. When their female partners are more educated, this too creates decrements in their personal care and leisure.

For women, Table 4 shows effects on time use categories other than child care consistent with the descriptive results: negative effects of women's education on housework, personal care, and leisure remain significant when controlling for husband's education, as does the positive effect of her education on her own hours of employment. However, surprisingly that women's own education has no net effect on child care in this basic model for the whole sample without economic controls. But a woman's husband's education increases her child care time. At first glance, this makes us question whether the descriptive pattern above was an "artifact" of the correlation of her education with her husband's education, and the effect of his education and income in increasing her child care, perhaps by lowering her paid work.

However, further analyses in Table 5 make clear that economic variables (income, earnings, hours of paid work) serve as surpressors when not controlled, and the effect of women's own education, at least for college graduates relative to those with less than high school, reappears whenever these controls are put in, or whenever we hold women's labor supply relatively constant by limiting the analyses to families with mothers who are similar in paid work hours (full-time, part-time, or nonemployed). For example, taking the sample as a whole, Table 5 shows that when nothing is changed from the model in Table 4 except that family income is added as a control, women with a college degree spend .26/hour per day more in child care than those with less than high school. If, instead of controlling for family income, we simply control for the hours of paid work of the woman and her spouse, the model shows that, compared to women with less than high school, those with some college do .196 hours/day more n child care, while those with a college degree do .455 hour/day more (Table 5). Moreover, even without controls for income or wage, relative or absolute, when both spouses are employed, college educated women do more child care than those without high school by over a half hour a day (Table 5). They effects of women's education are even larger when they are employed part-time. The only family type among which there are no significant net effects of women's own education on her child care time is where she is not employed. In most all the models predicting women's child care, her husband's education also positively affects her child care time. However, these effects are only about half of the size of the own education effects in subsamples constrained to one family type defined by women's employment.

Why does a woman's husband's education affect her child care? This does not appear to be because of his education increasing his income and allowing her to do less paid work and less housework (through outsourcing), because if this were true the cross-spouse effect on women should go away under economic controls for family income or weekly earnings, but they do not (Table 5). Table 6 allows us to see if men's education reduces affects their wives' housework in models without economic controls, which would be consistent with the idea that his income allows her to outsource, spend less time on housework, and thereby more in child care. But we do not see virtually any evidence of cross-spouse education effects on her housework in Table 6, which belies the idea that

his education is affecting her child care through his income reducing her housework. What is striking is how much women's own education reduces her housework in every family type (with the one exception of those in which she is employed part-time), under most economic controls.

Table 5's subsample and economic control analysis shows that the effects of men's education on their own child care time is stronger in the overall sample, but often disappears when women's employment status is held constant. Among men whose wives are not employed, the well educated spend more time in child care, but this is not true where both are employed. Table 5's analysis of men also shows strong cross-spouse effects for men of their wives' education for most family types.

Table 8 shows that in the whole sample, under controls, we see a negative effect of own education on personal care for both men and women, consistent with the idea that this is sacrificed for child care among the well educated. Table 8 takes time watching television as the dependent variable and shows strong and consistent negative education effects on men's television watching, with little cross-spouse effect. For women, it appears to be only among the nonemployed that education is significantly related to television watching. Thus for men, the more highly educated may indeed get some of the time put into child care from not watching television. That they do not get it from other forms of leisure is shown by Table 9, which shows that education is either unrelated to other forms or leisure, or increases time in it. (Table 10's models take all of leisure as the dependent variable.)

CONCLUSION

We have shown that education increases men's and women's time in child care across all families. This is striking since the well educated are also more likely to be employed. The "extra" time for child care appears to be coming from spending less on personal care (including sleep), television watching, and, for women, housework. Moreover, when one's spouse has more education, a man or woman is also likely to spend more time in child care.

The greater time spent in child care is not "explained" by the higher income of households. Economic incentives do not explain these differences, as the highly educated have a greater incentive to spend more time in market work. Nor are they explained by the lower work hours of the well educated, since they persist under controls for regular hours of market work.

Thus, we conclude that the differences are probably cultural, reflecting a different conception of appropriate child rearing, one that is more time-intensive, among the highly educated. Our findings are consistent with Lareau's (2003) suggestion that the upper-middle class are more likely than their working or lower class counterparts to see good parenting as requiring "concerted cultivation." This ideology of investment requires more time in direct care of children.

REFERENCES

- Aguiar, Mark and Erik Hurst. 2007. "Measuring Trends in Leisure: The Allocation of Time Over Five Decades." *Quarterly Journal of Economics* 122(3): 969-1006.
- Bianchi, Suzanne and John P. Robinson. 1997. "What Did You Do Today?' Children's Use of Time, Family Composition, and the Acquisition of Social Capital." *Journal of Marriage and the Family* 59 (2): 332-44.
- Bianchi, Suzanne, John P. Robinson, and Melissa A. Milkie. 2006. *Changing Rhythms of American Family Life*. Russell Sage Foundation (for Rose Series in Sociology).
- Bianchi, Suzanne, Philip Cohen, Sara Raley, and Kei Nomaguchi. 2004. "Inequality in Parental Investment in Childrearing: Time, Expenditures, and Health." In *Dimensions of Social Inequality*, edited by Kathryn Neckerman. New York: Russell Sage Foundation.
- Bittman, Michael, Paula England, Liana Sayer, Nancy Folbre, and George Matheson. 2003. "When Does Gender Trump Money?: Bargaining and Time in Household Work." *American Journal of Sociology* 109:186-214.
- Blair-Loy, Mary. 2003. *Competing Devotions: Career and Family among Women Executives*. Cambridge, Mass.: Harvard University Press.
- Bryant, W. Keith and Cathleen D. Zick. 1996a. "Are We Investing Less in the Next Generation? Historical Trends in Time Spent Caring for Children? Historical Trends in Time Spent Caring for Children." *Journal of Family and Economic Issues* 17: 365-91.
- -----.1996b. "An Examination of Parent-Child Shared Time." *Journal of Marriage and Family* 58 (1): 227-37.
- Cohen, Philip N., and Suzanne M. Bianchi. 1999. "Marriage, children, and women's employment: What do we know?" *Monthly Labor Review* 122: 22-31.
- Coltrane, Scott. 1996. *Family Man: Fatherhood, Housework, and Gender Equity*. New York: Oxford University Press.
- Cotter, David A., Joan M. Hermsen, and Paula England. 2008. "Moms and jobs: Trends in mothers' employment and which mothers stay home." In *American families: A multicultural reader*, Second Edition, edited by Stephanie Coontz with Maya Parson and Gabrielle Raley, 379-86. New York: Routledge.
- Cotter, David A., Joan M. Hermsen, and Reeve Vanneman. 2004. *Gender inequality at work*. New York: Russell Sage Foundation.
- Ellwood, David T. and Christopher Jencks. 2004. "The Spread of Single-Parent Families in the United States Since 1960." Pp. 25-65 (Chapter 2) in *The Future of the Family*, edited by D. P. Moynihan, T. M. Smeeding, and L. Rainwater. New York: Russell Sage Foundation.
- England, Paula, Carmen Garcia-Beaulieu, and Mary Ross. 2004. "Women's Employment Among Blacks, Whites, and Three Groups of Latinas: Do More Privileged Women Have

Higher Employment?" Gender & Society 18: 494-509.

- England, Paula, Janet C. Gornick, and Emily Fitzgibbons Shafer. 2008. "Is it better at the top? How women's employment and the gender earnings gap vary by education in sixteen countries." Paper presented at the 2008 annual meeting of the American Sociological Annual meeting.
- Folbre, Nancy, Jayoung Yoon, Kade Finnoff, and Allison Sidle Fuligni. 2005. "By What Measure? Family Time Devoted to Children in the United States," *Demography* 42(2): 373– 90.
- Folbre, Nancy and Jayoung Yoon. 2007. "What is Child Care? Lessons from Time-Use Surveys of Major English-Speaking Countries." *Review of Economics of the Household* 5(3): 223-228.
- Geffen, Jim Van. 2003. "Metropolitan Statistical Area Changes." *Texas Labor Market Review*, September. <u>http://www.tracer2.com/admin/uploadedPublications/951_tlmr0309.pdf.</u>
- Gupta, Sanjiv. 2007. "Autonomy, dependence, or display? The relationship between married women's earnings and housework." *Journal of Marriage and Family* 69:399–417.
- Guryan, Jonathan, Erik Hurst, and Melissa Schettini Kearney. 2008. "Parental Education and Parental Time with Children." NBER Working Paper, No. 13993.
- Guryan, Jonathan, Erik Hurst, and Melissa Schettini Kearney. 2008. "Parental Education and Parental Time with Children" *Journal of Economic Perspectives* 22(3): 23-46.
- Hays, Sharon. 1996. *The Cultural Contradictions of Motherhood*. New Haven, Conn.: Yale University Press.
- Hill, C. Russell, and Frank P. Stafford. 1974. "Allocation of Time to Pre-School Children and Educational Opportunity." *Journal of Human Resources* 9(3): 323-41.
- -----. 1980. "Parental Care of Children: Time Diary Estimates of Quantity, Predictability, and Variety" *Journal of Human Resources* 15(2): 219-39.
- Hofferth, S. L. 2001. "Women's Employment and Care of Children in the United States." Pp. 151-74 in *Women's Employment in a Comparative Perspective*, edited by T. Van der Lippe and L. Van Dijk. New York: Aldine de Gruyter.
- Hofferth, Sandra, and John Sandberg. 2001. "How American Children Spend Their Time." *Journal of Marriage and the Family* 63(2): 295-308.
- Kimmel, Jean and Rachel Connelly. 2007. "Mothers' Time Choices: Caregiving, Leisure, Home Production, and Paid Work." *Journal of Human Resources* 42(3): 643-61.
- Lareau, Annette. 2003. *Unequal Childhoods: Class, Race, and Family Life*. Berkeley, CA: University of California Press.
- Leibowitz, Arleen. 1974. "Home Investments in Children." *Journal of Political Economy* 82(2): S111-S131.

- -----. 1977. "Parental Inputs and Children's Achievement." *Journal of Human Resources* 12(2): 242-51.
- Lundberg, Shelley., and Robert. A. Pollak. 1996. "Bargaining and distribution in marriage." *Journal of Economic Perspectives* 10:139–158.
- Nock, S. L. and P.W. Kingston. 1988. "Time With Children: The Impact of Couples' Work-Time Commitments." *Social Forces* 67: 59-83.
- Sandberg, John F. and Sandra L. Hofferth. 2001. "Changes in Children's Time with Parents: United States, 1981-1997." *Demography* 38 (3): 423-436.
- Sayer, Liana C., Anne H. Gauthier, and Frank F. Furstenberg Jr. 2004. "Educational Differences in Parents' Time with Children: Cross-National Variations." *Journal of Marriage and Family*, 66(5): 1152-69.
- Timmer, S., J. Eccles, and K. O'Brien. 1985. "How Children Use Time." In *Time, Goods and Well-Being*, edited by F. Thomas Juster and Frank P. Stafford. Ann Arbor: Survey Research Center, University of Michigan.

U.S. Bureau of Labor Statistics. 2009. Employment Characteristics of Families in 2008: Table 5. News Release, USDL 09-0568. Washington, D.C.: United States Department of Labor. (Also available at http://www.bls.gov/news.release/pdf/famee.pdf

		Fath	ers			Moth	ers	
Activities	Less than High School	High School Graduate	Some College	Bachelors and above	Less than High School	High School Graduate	Some College	Bachelors and above
Paid Work	6.0	6.2	6.2	6.5	2.1	3.1	3.4	3.4
Childcare	0.8	0.9	1.1	1.3	1.8	1.8	2.0	2.6
Housework	1.2	1.3	1.4	1.3	3.5	2.8	2.7	2.4
Shopping	0.7	0.6	0.7	0.7	1.0	0.9	1.1	1.1
Personal Care	9.4	8.8	8.6	8.5	9.8	9.3	9.2	8.9
Eating	1.1	1.2	1.2	1.4	1.1	1.1	1.1	1.3
Leisure	4.4	4.3	4.1	3.7	4.0	4.1	3.6	3.3
Leisure-TV	2.7	2.4	2.1	1.7	2.5	2.3	1.8	1.4
Leisure-Other	1.6	1.9	2.0	2.0	1.5	1.8	1.8	1.9
Other	0.5	0.7	0.7	0.8	0.7	0.9	0.9	1.0
Ν	936	2565	2546	3889	1014	2798	3253	4658

Table 1. Average time (in hours) spent per day on various activities by American fathers and mothers aged 21-54 years by their educational attainment (2003-2008)

		Fath	ers			Motl	ners	
	<hs< th=""><th>HS Grad</th><th>Some Coll</th><th>BA+</th><th><hs< th=""><th>HS Grad</th><th>Some Coll</th><th>BA+</th></hs<></th></hs<>	HS Grad	Some Coll	BA+	<hs< th=""><th>HS Grad</th><th>Some Coll</th><th>BA+</th></hs<>	HS Grad	Some Coll	BA+
Paid Work								
Both partners full-time	6.6	6.4	6.6	6.4	5.9	5.3	5.6	5.5
Husband full-time, wife part-time	6.4	7.3	6.2	6.7	3.5	3.4	3.0	2.9
Husband full-time, wife non-employed	6.9	7.0	7.0	6.9	0.1	0.1	0.1	0.1
Childcare								
Both partners full-time	0.7	0.8	1.2	1.2	0.9	1.2	1.4	1.9
Husband full-time, wife part-time	0.9	0.9	1.0	1.3	1.3	1.9	2.1	2.8
Husband full-time, wife non-employed	0.6	0.8	0.9	1.3	2.4	2.7	3.0	3.7
Housework								
Both partners full-time	1.4	1.4	1.3	1.4	2.7	2.2	2.1	1.9
Husband full-time, wife part-time	0.9	1.2	1.5	1.2	3.1	2.5	2.8	2.6
Husband full-time, wife non-employed	1.0	1.0	1.3	1.2	4.1	3.8	3.6	3.3
Shopping								
Both partners full-time	0.6	0.6	0.7	0.7	0.8	0.9	0.9	1.0
Husband full-time, wife part-time	0.7	0.6	0.7	0.6	0.8	1.1	1.2	1.0
Husband full-time, wife non-employed	0.7	0.7	0.6	0.6	1.1	1.0	1.2	1.2
Personal Care								
Both partners full-time	9.1	8.8	8.5	8.5	9.5	9.1	9.1	8.9
Husband full-time, wife part-time	9.1	8.4	8.7	8.4	9.5	9.2	9.2	8.9
Husband full-time, wife non-employed	9.3	8.8	8.6	8.5	9.9	9.6	9.3	9.1
Eating								
Both partners full-time	1.1	1.2	1.2	1.3	1.1	1.1	1.1	1.2
Husband full-time, wife part-time	1.1	1.2	1.3	1.4	1.0	1.0	1.1	1.3
Husband full-time, wife non-employed	1.2	1.2	1.2	1.4	1.1	1.1	1.2	1.4
Leisure								
Both partners full-time	4.1	4.2	3.9	3.7	2.6	3.6	3.1	2.9
Husband full-time, wife part-time	4.3	3.9	4.0	3.6	3.8	3.9	3.6	3.4
Husband full-time, wife non-employed	3.9	4.0	3.8	3.5	4.5	4.7	4.3	3.9
Leisure-TV								
Both partners full-time	2.7	2.3	2.1	1.8	1.5	1.9	1.6	1.3
Husband full-time, wife part-time	2.5	2.1	2.1	1.6	2.2	2.1	1.7	1.4
Husband full-time, wife non-employed	2.4	2.3	1.9	1.6	3.1	2.7	2.1	1.5
Leisure-Other								
Both partners full-time	1.5	1.9	1.9	1.9	1.1	1.7	1.6	1.6
Husband full-time, wife part-time	1.8	1.8	1.9	2.0	1.7	1.8	2.0	2.0
Husband full-time, wife non-employed	1.5	1.7	1.9	2.0	1.5	2.1	2.2	2.4
Other								
Both partners full-time	0.4	0.6	0.6	0.7	0.5	0.7	0.7	0.7
Husband full-time, wife part-time	0.6	0.5	0.7	0.8	1.0	1.0	1.0	1.1
Husband full-time, wife non-employed	0.5	0.6	0.7	0.7	0.7	1.0	1.2	1.3

Table 2. Average time (in hours) spent per day on various activities by American fathers and mothers aged 21-54 years by employment status of husband and wife and respondent's education (2003-2008)

Note: Both partners employed full-time (N=8315); Husband employed full-time, wife employed part-time (N=4303); Husband employed full-time, wife non-employed (N=6378)

<HS=Less than High School; HS Grad=High School Graduate; Some Coll=Some College; BA+=Bachelors and above.

Tuble of electricities from OLIS models predicting various	Pai	d Work		hildcare	Ho	usework	SI	opping	Perso	nal Care	1	Fating	I	eisure
	h	Beta	h	Reta	h	Reta	h	Reta	h	Reta	h	Reta	h	Reta
Education (Ref= <high school)<="" td=""><td>0</td><td>Deta</td><td>0</td><td>Deta</td><td>0</td><td>Deta</td><td>0</td><td>Deta</td><td>0</td><td>Deta</td><td>U</td><td>Deta</td><td>0</td><td>Deta</td></high>	0	Deta	0	Deta	0	Deta	0	Deta	0	Deta	U	Deta	0	Deta
High School Graduate	342	030	116	030	- 008	- 002	012	004	- 351	- 073 ***	097	042 *	- 169	- 023
Some College	423	037 *	219	.056 **	054	011	015	005	- 492	- 102 ***	176	076 ***	- 438	- 059 **
Bachelors and above	.425	042 *	208	.030	- 132	- 029	050	018	- 490	- 113 ***	265	178 ***	- 550	- 082 ***
Snouse's Education (Ref= <high school)<="" td=""><td>.450</td><td>.042</td><td>.270</td><td>.000</td><td>.152</td><td>.02)</td><td>.050</td><td>.010</td><td>.470</td><td>.115</td><td>.205</td><td>.120</td><td>.550</td><td>.002</td></high>	.450	.042	.270	.000	.152	.02)	.050	.010	.470	.115	.205	.120	.550	.002
High School Graduate	133	011	059	015	009	002	- 181	- 057 **	- 076	- 015	000	000	- 060	- 008
Some College	043	004	093	025	135	027	- 105	- 035	- 188	- 040	- 009	- 004	- 076	- 010
Bachelors and above	.015	.002	.311	.020 ***	.181	.027	- 130	- 048	- 246	- 057 *	.009	.048 *	- 342	- 051 *
Age	- 015	- 019	.016	.052 ***	019	.055 ***	.004	.019	- 019	- 058 ***	.003	.021	- 015	- 030 *
Age squared	.001	.009	001	016	.000	010	.000	002	.000	.005	.000	016	001	008
Number of household children <18 years	.025	.005	072	.040 ***	056	024 *	- 031	- 022 *	- 046	- 021 *	- 009	- 009	- 125	- 036 ***
Age of voungest household child <18 years	.018	017	- 105	- 290 ***	010	021	- 004	- 016	.015	033 **	- 003	- 012	053	.076 ***
Marital Status (Ref=Cohabiting)	1010	1017		.290	.010	1021		1010	.010	1000	.000	1012	.000	1070
Married	1.152	.028 ***	253	018	139	008	045	004	254	015	192	023 *	600	022 *
Race/Ethnicity (Ref=White)														
Hispanic	.335	.023 *	265	055 ***	409	064 ***	.137	.036 **	.389	.064 ***	.034	.012	103	011
Black	470	021 *	263	034 ***	325	032 ***	022	004	.231	.024 *	325	072 ***	.860	.059 ***
Asian/Others	012	001	113	016	500	052 ***	.104	.018	.391	.043 ***	.120	.028 **	.003	.000
Region (Ref=South)														
Northeast	053	004	.164	.037 ***	.090	.016	.031	.009	035	006	.066	.025 *	116	014
Midwest	235	021 *	.027	.007	.059	.012	.074	.024 *	012	002	.017	.008	.165	.022 *
West	346	029 **	057	014	.128	.024 *	.110	.034 **	.100	.020	.071	.030 *	.068	.009
Metropolitan Status (Ref=Metropolitan)														
Non-metropolitan/ Non-identified	.120	.009	056	013	.017	.003	042	012	035	006	029	011	001	.000
Year of Interview (Ref=2003)														
2004	105	008	040	009	033	005	003	001	.036	.006	.077	.028 *	.124	.014
2005	109	008	.016	.003	031	005	038	010	.100	.017	.137	.049 ***	.023	.003
2006	088	006	.013	.003	.035	.006	023	006	.032	.005	.070	.025 *	.036	.004
2007	.015	.001	.010	.002	068	011	030	008	020	003	.093	.033 **	.039	.004
2008	012	001	.000	.000	049	008	136	036 **	.091	.015	.061	.021	.032	.003
Diary Day was a weekday (Ref=Yes)														
No	-5.978	592 ***	.130	.038 ***	1.104	.246 ***	.438	.164 ***	1.099	.260 ***	.275	.137 ***	2.350	.359 ***
Constant	6.991		.859		.289		.563		9.781		.983		4.872	
Adjusted R Square	.352		.107		.072		.031		.096		.044		.150	

Table 3. Coefficients from OLS models predicting various activities (hours per day): Americans fathers 21-54 years who have at least one child in the household (2003-2008)

Note: N=9890 (excludes 46 cases where the spouse's education is missing); b = unstandardized regression coefficient; Beta = standardized regression coefficient.

p* <=.05; *p* <=.01; ****p* <=.001, two-tailed tests

	Pai	d Work	Chi	ldcare	Hou	isework	Sh	opping	Person	nal Care	E	ating	L	eisure
	b	Beta	b	Beta	b	Beta	b	Beta	b	Beta	b	Beta	b	Beta
Education (Ref= <high school)<="" td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></high>														
High School Graduate	.616	.068 ***	038	007	427	076 ***	009	002	183	039 *	001	001	006	001
Some College	1.007	.116 ***	010	002	497	093 ***	.062	.018	341	077 ***	.043	.020	376	061 **
Bachelors and above	1.281	.162 ***	.165	.037	747	153 ***	.057	.018	493	121 ***	.112	.056 *	499	088 ***
Spouse's Education (Ref= <high school)<="" td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></high>														
High School Graduate	086	010	.188	.038 *	090	016	039	011	041	009	031	014	.004	.001
Some College	254	029	.307	.061 ***	154	028	.039	.011	064	014	.027	.012	027	004
Bachelors and above	789	099 ***	.538	.120 ***	058	012	.051	.016	034	008	.148	.074 ***	136	024
Age	018	031 **	.013	.040 ***	.043	.120 ***	.001	.002	025	083 ***	.000	.002	027	065 ***
Age squared	003	034 ***	.000	.000	.000	.005	.000	.002	.000	.012	.000	017	.001	.027 **
Number of household children <18 years	265	065 ***	.127	.055 ***	.244	.097 ***	.000	.000	140	067 ***	028	027 **	065	022 **
Age of youngest household child <18 years	.093	.115 ***	200	439 ***	008	015	.014	.044 ***	.027	.064 ***	004	020	.068	.118 ***
Marital Status (Ref=Cohabiting)														
Married	.140	.005	.059	.003	.088	.005	.041	.003	119	008	.212	.028 **	588	027 **
Race/Ethnicity (Ref=White)														
Hispanic	.014	.001	407	066 ***	.300	.045 ***	.025	.006	.389	.070 ***	.056	.021	304	039 ***
Black	.881	.046 ***	508	047 ***	590	050 ***	114	015	.493	.050 ***	290	061 ***	071	005
Asian/Others	.193	.012	.071	.008	.112	.011	099	015	.142	.017	.182	.044 ***	465	039 ***
Region (Ref=South)														
Northeast	.010	.001	.144	.026 **	.151	.025 *	068	017	087	017	027	011	.026	.004
Midwest	.221	.025 **	021	004	.129	.024 *	114	033 **	092	020 *	063	029 **	.027	.004
West	074	008	114	022 *	.134	.023 *	094	026 *	.091	.019	019	008	.092	.014
Metropolitan Status (Ref=Metropolitan)														
Non-metropolitan/ Non-identified	.238	.024 **	218	038 ***	.180	.029 **	101	025 **	036	007	036	014	145	020 *
Year of Interview (Ref=2003)														
2004	.038	.004	018	003	.009	.001	.080	.019	035	006	013	005	.080	.010
2005	072	007	059	010	.027	.004	.047	.011	.030	.006	002	001	.120	.016
2006	.183	.017	124	021 *	060	009	.078	.019	.004	.001	010	004	.063	.008
2007	.045	.004	082	013	.006	.001	105	024 *	.027	.005	010	004	.195	.025 *
2008	.161	.015	081	013	169	025 *	023	005	009	002	.020	.007	.176	.022 *
Diary Day was a weekday (Ref=Yes)														
No	-3.123	403 ***	742	170 ***	.446	.094 ***	.304	.100 ***	1.036	.260 ***	.305	.157 ***	1.440	.260 ***
Constant	3.951		2.647		.931		.808		10.310		.878		4.766	
Adjusted R Square	.193		.249		.046		.015		.103		.049		.092	

Table 4. Coefficients from OLS models predicting various activities (hours per day): Americans mothers 21-54 years who have at least one child in the household (2003-2008)

Note: N=11694 (excludes 29 cases where the spouse's education is missing); b = unstandardized regression coefficient; Beta = standardized regression coefficient.

p* <=.05; *p* <=.01; ****p* <=.001, two-tailed tests

		E	ffects on M	len's Childo	care				Effe	ects on Wo	men's Child	lcare		
	E	ffect of C Educatio	Own on	Effe	ect of Spo Education	ouse's n		Eff E	fect of C Educatio)wn on	Effe	ct of Spo Educatio	ouse's	
SAMPLE AND CONTROLS	HS Grad	Some Coll	BA+	HS Grad	Some Coll	BA+	N	HS Grad	Some Coll	BA+	HS Grad	Some Coll	BA+	Ν
All Married or Cohabiting Respondents with a Child														
No Economic Controls	.116	.219	.298	.059	.093	.311	9890	038	010	.165	.188	.307	.538	11694
Control for Family Income (Cohabiters excluded)	.142	.233	.286	.030	.069	.274	8804	.038	.075	.264	.174	.298	.527	10351
Control for Weekly Earnings of Respondent and Spouse	.085	.173	3.308	.103	.120	.308	7890	006	.009	.338	.188	.300	.426	9166
Control for Hours of Paid Work of R and Spouse	.131	.250	.359	.093	.109	.325	9451	.117	.196	.455	.189	.260	.389	11009
W/ Both Employed (Whether Full- or Part-time)														
No Economic Controls	.080	.227	.240	.062	.055	.318	6113	.225	.325	.556	.193	.237	.404	7332
Control for Weekly Earnings of Respondent and Spouse	.014	.132	.148	.147	.115	.352	4556	.228	.277	.604	.199	.223	.301	5466
Control for R's Weekly Earnings/Spouse's Weekly Earnings	.013	.134	4 .145	.151	.123	.374	4544	.222	.269	.550	.210	.256	.381	5447
Control for Hourly Wage of Respondent and Spouse	002	.146	5 .133	.183	.120	.352	4184	.217	.246	.539	.174	.220	.314	5019
Control for R's Hourly Wage/Spouse's Hourly Wage	.002	.150	.139	.189	.134	.384	4170	.219	.253	.543	.188	.245	.368	5001
Control for Hours of Paid Work of R and Spouse	.045	.193	.195	.160	.146	.417	5797	.264	.359	.637	.173	.192	.327	6852
W/ Both Employed Full-Time														
No Economic Controls	.106	.283	3 .241	.164	.144	.415	3844	.178	.266	.526	.226	.272	.282	4439
Control for Weekly Earnings of Respondent and Spouse	.058	.205	5.150	.156	.141	.387	3148	.168	.222	.529	.217	.245	.219	3595
Control for R's Weekly Earnings/Spouse's Weekly Earnings	.058	.212	.162	.160	.144	.400	3139	.170	.222	.530	.226	.271	.282	3588
Control for Hourly Wage of Respondent and Spouse	.072	.243	.161	.210	.163	.411	2955	.187	.221	.537	.215	.250	.216	3358
Control for R's Hourly Wage/Spouse's Hourly Wage	.077	.254	4 .185	.218	.174	.442	2947	.187	.220	.544	.223	.276	.272	3351
Control for Hours of Paid Work of R and Spouse	.103	.284	.240	.190	.155	.425	3746	.201	.286	.553	.235	.288	.294	4354
W/ Full-Time Employed Male and Part-Time Employed Female														
No Economic Controls	.012	.103	.228	073	041	.159	1928	.357	.457	.829	.172	.134	.448	2367
Weekly Earnings of Respondent and Spouse	027	.033	.207	.046	.006	.164	1224	.318	.359	.713	.291	.244	.518	1589
Control for R's Weekly Earnings/Spouse's Weekly Earnings	027	.033	.204	.046	.007	.162	1221	.314	.363	.720	.319	.273	.581	1579
Control for Hourly Wage of Respondent and Spouse	143	059	.072	.014	038	.076	1081	.268	.294	.613	.235	.248	.557	1453
Control for R's Hourly Wage/Spouse's Hourly Wage	135	048	.101	.031	016	.120	1078	.273	.312	.645	.259	.256	.565	1442
Control for Hours of Paid Work of R and Spouse	080	022	2.119	.093	.145	.356	1871	.356	.429	.794	.123	.091	.399	2250
W/ Full-Time Employed Male and Nonemployed Female														
No Economic Controls	.238	.241	.579	051	.078	.146	3087	.034	.095	.262	002	.264	.351	3271
Control for Family Income (Cohabiters excluded)	.210	.197	7 .488	077	.059	.088	2757	.038	.100	.281	.017	.239	.293	2915

Table 5. Unstandardized coefficients from OLS models for effects of fathers' and mothers' education on their hours per day in childcare for selected subsamples with selected economic controls

Note: R=Respondent

Education effects are relative to reference category of less than high school education.

HS Grad=High School Graduate; Some Coll=Some College; BA+=Bachelors and above.

Bolded coefficients are significant, p<.05, two-tailed test

		Eff	ects on Me	en's Housev	work				Effe	cts on Wor	nen's Hous	ework		
	Ef	fect of C Educatio)wn on	Effe	ect of Spe Educatio	ouse's on		E	ffect of C Educatio)wn on	Effe	ct of Spo Educatio	ouse's	
	HS	Some		HS	Some			HS	Some		HS	Some		
SAMPLE AND CONTROLS	Grad	Coll	BA+	Grad	Coll	BA+	Ν	Grad	Coll	BA+	Grad	Coll	BA+	Ν
All Married or Cohabiting Respondents with a Child														
No Economic Controls	008	.054	132	.009	.135	.181	9890	427	497	747	090	154	058	11694
Control for Family Income (Cohabiters excluded)	035	001	217	.003	.116	.156	8804	082	095	152	012	022	.007	10351
Control for Weekly Earnings of Respondent and Spouse	036	.081	077	.001	.124	.127	7890	307	252	371	072	178	145	9166
Control for Hours of Paid Work of R and Spouse	010	.077	022	.010	.115	.132	9451	261	238	409	062	178	213	11009
W/ Both Employed (Whether Full- or Part-time)														
No Economic Controls	.037	.071	020	232	184	197	6113	408	402	589	154	134	123	7332
Control for Weekly Earnings of Respondent and Spouse	020	.068	079	244	173	234	4556	269	164	279	163	175	192	5466
Control for R's Weekly Earnings/Spouse's Weekly Earnings	016	.070	084	227	138	160	4544	286	201	399	168	178	186	5447
Control for Hourly Wage of Respondent and Spouse	027	.049	112	307	227	274	4184	368	- .226	433	209	243	196	5019
Control for R's Hourly Wage/Spouse's Hourly Wage	015	.064	084	293	201	218	4170	366	. 229	442	219	261	220	5001
Control for Hours of Paid Work of R and Spouse	020	.015	035	146	108	118	5797	367	343	502	155	135	176	6852
W/ Both Employed Full-Time														
No Economic Controls	094	166	136	013	.100	.115	3844	401	419	525	.031	045	075	4439
Control for Weekly Earnings of Respondent and Spouse	025	043	024	100	.026	.006	3148	287	233	329	002	111	086	3595
Control for R's Weekly Earnings/Spouse's Weekly Earnings	025	045	036	084	.053	.047	3139	294	246	391	013	131	120	3588
Control for Hourly Wage of Respondent and Spouse	068	089	082	144	048	089	2955	357	261	384	001	129	089	3358
Control for R's Hourly Wage/Spouse's Hourly Wage	061	077	060	118	005	.001	2947	362	270	422	011	152	129	3351
Control for Hours of Paid Work of R and Spouse	118	174	136	016	.087	.110	3746	406	422	546	.039	016	051	4354
W/ Full-Time Employed Male and Part-Time Employed Female														
No Economic Controls	.203	.416	.227	261	352	419	1928	172	046	261	695	527	561	2367
Weekly Earnings of Respondent and Spouse	103	.286	184	385	422	564	1224	077	.178	.067	652	381	505	1589
Control for R's Weekly Earnings/Spouse's Weekly Earnings	084	.311	123	358	386	500	1221	087	.099	083	636	367	493	1579
Control for Hourly Wage of Respondent and Spouse	039	.342	172	561	477	620	1081	234	003	227	739	489	474	1453
Control for R's Hourly Wage/Spouse's Hourly Wage	026	.367	112	530	440	567	1078	197	.012	225	803	556	.550	1442
Control for Hours of Paid Work of R and Spouse	.132	.318	.173	161	261	329	1871	250	107	352	724	545	633	2250
W/ Full-Time Employed Male and Nonemployed Female														
No Economic Controls	.017	.225	.059	.058	.270	.280	3087	269	234	426	.181	187	276	3271
Control for Family Income (Cohabiters excluded)	.013	.206	074	.059	.249	.247	2757	369	280	502	.170	124	154	2915

Table 6. Unstandardized coefficients from OLS models for effects of fathers' and mothers' education on their hours per day in housework for selected subsamples with selected economic controls

Note: R=Respondent

Education effects are relative to reference category of less than high school education.

HS Grad=High School Graduate; Some Coll=Some College; BA+=Bachelors and above.

Bolded coefficients are significant, p<.05, two-tailed test

		Effe	ects on Me	n's Persona	l Care				Effec	ts on Worr	nen's Persor	nal Care		
	E	ffect of C Educatio)wn on	Effe	ect of Sp Educatio	ouse's on		Ef	ffect of C Educatio)wn on	Effe	ect of Sp Education	ouse's on	
SAMPLE AND CONTROLS	HS Grad	Some Coll	BA+	HS Grad	Some Coll	BA+	N	HS Grad	Some Coll	BA+	HS Grad	Some Coll	BA+	N
All Married or Cohabiting Respondents with a Child														
No Economic Controls	351	492	490	076	188	246	9890	183	341	493	041	064	034	11694
Control for Family Income (Cohabiters excluded)	315	403	332	.030	050	077	8804	132	306	415	054	088	027	10351
Control for Weekly Earnings of Respondent and Spouse	311	422	305	011	092	107	7890	135	283	330	098	113	091	9166
Control for Hours of Paid Work of R and Spouse	293	420	409	076	165	198	9451	115	232	350	039	044	049	11009
W/ Both Employed (Whether Full- or Part-time)														
No Economic Controls	167	273	248	118	154	237	6113	090	182	350	.111	.083	.120	7332
Control for Weekly Earnings of Respondent and Spouse	033	097	.004	137	162	245	4556	102	201	274	.094	.090	.113	5466
Control for R's Weekly Earnings/Spouse's Weekly Earnings	044	116	063	157	185	297	4544	119	230	369	.086	.087	.102	5447
Control for Hourly Wage of Respondent and Spouse	.032	020	.052	175	153	266	4184	125	241	367	.074	.118	.110	5019
Control for R's Hourly Wage/Spouse's Hourly Wage	.020	028	.044	178	168	308	4170	116	5238	377	.066	.118	.113	5001
Control for Hours of Paid Work of R and Spouse	157	243	232	130	138	209	5797	054	141	283	.070	.073	.090	6852
W/ Both Employed Full-Time														
No Economic Controls	243	370	296	030	112	204	3844	072		248	092	047	068	4439
Control for Weekly Earnings of Respondent and Spouse	104	162	014	083	141	255	3148	083	102	229	079	023	005	3595
Control for R's Weekly Earnings/Spouse's Weekly Earnings	113	182	091	095	150	284	3139	096	5115	291	088	032	033	3588
Control for Hourly Wage of Respondent and Spouse	072		037	104	146	247	2955	058	081	274	102	042	023	3358
Control for R's Hourly Wage/Spouse's Hourly Wage	071	134	028	115	165	291	2947	060	077	282	098	037	016	3351
Control for Hours of Paid Work of R and Spouse	254	378	290	017	085	170	3746	041	042	163	080	045	.027	4354
W/ Full-Time Employed Male and Part-Time Employed Female														
No Economic Controls	080	096	222	175	113	123	1928	053	273	407	.309	.173	.264	2367
Weekly Earnings of Respondent and Spouse	037	.011	151	.032	.133	.165	1224	051	321	248	.286	.184	.234	1589
Control for R's Weekly Earnings/Spouse's Weekly Earnings	063	010	220	.003	.096	.089	1221	062	366	332	.281	.185	.227	1579
Control for Hourly Wage of Respondent and Spouse	.197	.288	.102	015	.191	.095	1081	069	376	280	.304	.292	.259	1453
Control for R's Hourly Wage/Spouse's Hourly Wage	.185	.277	.079	032	.195	.095	1078	015	366	282	.232	.240	.188	1442
Control for Hours of Paid Work of R and Spouse	.043	.050	102	240	160	173	1871	.015	251	392	.268	.187	.269	2250
W/ Full-Time Employed Male and Nonemployed Female														
No Economic Controls	528	.587	601	.090	192	115	3087	093	186	276	180	250	.314	3271
Control for Family Income (Cohabiters excluded)	454	489	419	234	- 079	.039	2757	- 100) - 179	- 234	- 186	- 259	- 307	2915

Table 7. Unstandardized coefficients from OLS models for effects of fathers' and mothers' education on their hours per day in personal care for selected subsamples with selected economic controls

Note: R=Respondent

Education effects are relative to reference category of less than high school education.

HS Grad=High School Graduate; Some Coll=Some College; BA+=Bachelors and above.

Bolded coefficients are significant, p<.05, two-tailed test

	Effects on Men's Leisure (watching TV)								Effects on Women's Leisure (watching TV)					
	Effect	of Own E	ducation	Effe	ct of Spor Educatior	use's 1		Eff E	ect of O Educatio	wn n	Effe	ect of Sp Educatio	ouse's on	
SAMPLE AND CONTROLS	HS Grad	Some Coll	BA+	HS Grad	Some Coll	BA+	N	HS Grad	Some Coll	BA+	HS Grad	Some Coll	BA+	N
All Married or Cohabiting Respondents with a Child														
No Economic Controls	383	568	878	050	144	361	9890	096	407	603	165	247	490	11694
Control for Family Income (Cohabiters excluded)	396	549	832	024	071	274	8804	118	372	522	077	130	301	10351
Control for Weekly Earnings of Respondent and Spouse	443	607	762	.034	077	204	7890	054	304	403	151	263	500	9166
Control for Hours of Paid Work of R and Spouse	316	470	728	025	116	330	9451	.004	266	404	169	237	542	11009
W/ Both Employed (Whether Full- or Part-time)														
No Economic Controls	509	630	924	.154	.128	029	6113	.204	035	174	.003	051	295	7332
Control for Weekly Earnings of Respondent and Spouse	651	709	908	.187	.182	.127	4556	.209	.021	051	.052	040	253	5466
Control for R's Weekly Earnings/Spouse's Weekly Earnings	675	762	-1.054	.152	.137	.041	4544	.200	005	127	.044	049	265	5447
Control for Hourly Wage of Respondent and Spouse	580	627	902	.227	.209	.129	4184	.234	.026	061	.095	002	217	5019
Control for R's Hourly Wage/Spouse's Hourly Wage	584	638	947	.195	.157	.041	4170	.230	.012	090	.091	007	210	5001
Control for Hours of Paid Work of R and Spouse	519	650	912	.253	.233	.055	5797	.283	.030	086	035	054	310	6852
W/ Both Employed Full-Time														
No Economic Controls	509	671	910	.068	.050	054	3844	.245	.020	116	.035	.059	141	4439
Control for Weekly Earnings of Respondent and Spouse	569	623	895	.140	.127	.184	3148	.301	.064	018	.063	.099	121	3595
Control for R's Weekly Earnings/Spouse's Weekly Earnings	592	676	-1.038	.102	.073	.061	3139	.295	.050	070	.057	.092	129	3588
Control for Hourly Wage of Respondent and Spouse	649	705	-1.026	.217	.190	.225	2955	.321	.119	.015	.118	.122	065	3358
Control for R's Hourly Wage/Spouse's Hourly Wage	666	740	-1.092	.184	.139	.108	2947	.321	.113	007	.117	.119	063	3351
Control for Hours of Paid Work of R and Spouse	512	666	893	.155	.141	.031	3746	.327	.105	.012	.042	.071	120	4354
W/ Full-Time Employed Male and Part-Time Employed Female														
No Economic Controls	568	572	824	.543	.512	.157	1928	069	302	453	.067	078	411	2367
Weekly Earnings of Respondent and Spouse	-1.034	996	-1.023	.550	.674	.330	1224	072	137	248	.154	172	387	1589
Control for R's Weekly Earnings/Spouse's Weekly Earnings	-1.055	-1.038	-1.105	.514	.614	.205	1221	072	180	326	.152	187	414	1579
Control for Hourly Wage of Respondent and Spouse	458	355	427	.547	.637	.242	1081	043	212	286	.180	173	437	1453
Control for R's Hourly Wage/Spouse's Hourly Wage	455	362	456	.531	.584	.143	1078	044	237	321	.154	202	453	1442
Control for Hours of Paid Work of R and Spouse	526	518	767	.481	.472	.137	1871	076	315	471	061	162	497	2250
W/ Full-Time Employed Male and Nonemployed Female														
No Economic Controls	083	183	422	178	326	561	3087	233	530	764	.023	242	567	3271
Control for Family Income (Cohabiters excluded)	137	185	389	104	255	465	2757	158	410	604	009	263	464	2915

Table 8. Unstandardized coefficients from OLS models for effects of fathers' and mothers' education on their hours per day in Leisure (watching TV) for selected subsamples with selected economic controls

Note: R=Respondent

Education effects are relative to reference category of less than high school education.

HS Grad=High School Graduate; Some Coll=Some College; BA+=Bachelors and above.

Bolded coefficients are significant, p<.05, two-tailed test

Table 9. Unstandardized coefficients from OLS models for effects of fathers' and mothers' education on their hours per day in Leisure (other than watching TV) for selected subsamples with selected economic controls

		Effec	ets on Men'	s Leisure (o	ther)		Effect	s on Wome	en's Leisure	(other)				
	Effect of	of Own E	ducation	Effe	ct of Spor	use's		Ef	fect of O Education	wn n	Effe	ect of Sp Education	ouse's	
	HS	Some		HS	Some			HS	Some		HS	Some		
SAMPLE AND CONTROLS	Grad	Coll	BA+	Grad	Coll	BA+	Ν	Grad	Coll	BA+	Grad	Coll	BA+	Ν
All Married or Cohabiting Respondents with a Child														
No Economic Controls	.214	.130	.328	010	.068	.019	9890	.090	.031	.104	.169	.220	.354	11694
Control for Family Income (Cohabiters excluded)	.244	.101	.293	.035	.104	.013	8804	.142	.066	.117	.153	.244	.363	10351
Control for Weekly Earnings of Respondent and Spouse	.209	.127	.384	.058	.120	.099	7890	.047	.019	.153	.329	.383	.477	9166
Control for Hours of Paid Work of R and Spouse	.287	.198	.438	037	.080	.033	9451	.190	.163	.301	.214	.245	.292	11009
W/ Both Employed (Whether Full- or Part-time)														
No Economic Controls	.260	.153	.349	.077	.147	.139	6113	.158	.104	.132	.185	.290	.306	7332
Control for Weekly Earnings of Respondent and Spouse	.235	.071	.262	.189	.256	.248	4556	.217	.146	.151	.365	.457	.452	5466
Control for R's Weekly Earnings/Spouse's Weekly Earnings	.245	.087	.310	.203	.264	.263	4544	.217	.137	.133	.368	.460	.458	5447
Control for Hourly Wage of Respondent and Spouse	.058	127	.042	.190	.281	.205	4184	.246	.183	.158	.326	.420	.384	5019
Control for R's Hourly Wage/Spouse's Hourly Wage	.076	099	.138	.231	.326	.293	4170	.249	.188	.184	.330	.420	.378	5001
Control for Hours of Paid Work of R and Spouse	.275	.138	.365	.047	.146	.142	5797	.179	.123	.202	.170	.229	.194	6852
W/ Both Employed Full-Time														
No Economic Controls	.254	.161	.304	.097	.286	.192	3844	.438	.349	.372	.128	.151	.150	4439
Control for Weekly Earnings of Respondent and Spouse	.107	061	.165	.249	.438	.258	3148	.427	.354	.389	.348	.354	.379	3595
Control for R's Weekly Earnings/Spouse's Weekly Earnings	.111	057	.188	.256	.437	.264	3139	.422	.342	.371	.338	.345	.336	3588
Control for Hourly Wage of Respondent and Spouse	.047	134	.059	.184	.437	.210	2955	.463	.387	.409	.299	.314	.311	3358
Control for R's Hourly Wage/Spouse's Hourly Wage	.062	110	.137	.190	.429	.205	2947	.460	.379	.403	.290	.306	.266	3351
Control for Hours of Paid Work of R and Spouse	.248	.121	.295	.066	.289	.164	3746	.447	.360	.418	.160	.168	.156	4354
W/ Full-Time Employed Male and Part-Time Employed Female														
No Economic Controls	.457	.175	.494	086	260	099	1928	310	260	160	.394	.587	.513	2367
Weekly Earnings of Respondent and Spouse	.792	.512	.745	079	364	063	1224	205	253	303	.526	.738	.608	1589
Control for R's Weekly Earnings/Spouse's Weekly Earnings	.819	.540	.797	048	305	.054	1221	180	202	195	.539	.754	.652	1579
Control for Hourly Wage of Respondent and Spouse	.319	048	.199	.163	165	.064	1081	238	216	271	.601	.811	.694	1453
Control for R's Hourly Wage/Spouse's Hourly Wage	.337	016	.288	.224	049	.307	1078	253	216	241	.643	.824	.716	1442
Control for Hours of Paid Work of R and Spouse	.570	.296	.627	070	271	096	1871	389	309	239	.440	.596	.529	2250
W/ Full-Time Employed Male and Nonemployed Female														
No Economic Controls	.039	.102	.318	058	.033	044	3087	.313	.226	.510	.196	.146	.318	3271
Control for Family Income (Cohabiters excluded)	.144	.104	.389	101	.071	053	2757	.391	.255	.497	.175	.104	.191	2915

Note: R=Respondent

Education effects are relative to reference category of less than high school education.

HS Grad=High School Graduate; Some Coll=Some College; BA+=Bachelors and above.

Bolded coefficients are significant, p<.05, two-tailed test

		E	Effects on Mei	n's Leisure				Effects on Women's Leisure						
	Effect of	Effe	ect of Spo	ouse's		Eff	ect of O	wn	Effe	ect of Sp	oouse's			
		ome		н	Some	-11		HS	Some	11	нѕ	Some	OII	
SAMPLE AND CONTROLS	HS Grad C	Coll	BA+	Grad	Coll	BA+	Ν	Grad	Coll	BA+	Grad	Coll	BA+	Ν
All Married or Cohabiting Respondents with a Child														
No Economic Controls	169	438	550	060	076	342	9890	006	376	499	.004	027	136	11694
Control for Family Income (Cohabiters excluded)	152	448	539	.011	.033	262	8804	.024	306	405	.075	.115	.062	10351
Control for Weekly Earnings of Respondent and Spouse	234	480	377	.092	.043	105	7890	007	285	250	.178	.120	023	9166
Control for Hours of Paid Work of R and Spouse	029	272	290	061	035	297	9451	.194	103	103	.045	.008	250	11009
W/ Both Employed (Whether Full- or Part-time)														
No Economic Controls	250	476	576	.231	.275	.110	6113	.362	.069	041	.188	.239	.011	7332
Control for Weekly Earnings of Respondent and Spouse	415	638	646	.376	.439	.375	4556	.426	.168	.100	.417	.417	.199	5466
Control for R's Weekly Earnings/Spouse's Weekly Earnings	430	674	744	.355	.402	.303	4544	.417	.132	.007	.412	.412	.192	5447
Control for Hourly Wage of Respondent and Spouse	522	753	860	.417	.489	.334	4184	.480	.208	.097	.420	.417	.167	5019
Control for R's Hourly Wage/Spouse's Hourly Wage	508	736	809	.426	.483	.334	4170	.479	.200	.094	.421	.413	.167	5001
Control for Hours of Paid Work of R and Spouse	244	511	546	.301	.379	.197	5797	.462	.153	.116	.134	.175	116	6852
W/ Both Employed Full-Time														
No Economic Controls	255	510	606	.166	.335	.138	3844	.683	.369	.256	.162	.210	.009	4439
Control for Weekly Earnings of Respondent and Spouse	462	684	730	.389	.566	.442	3148	.727	.418	.372	.411	.454	.259	3595
Control for R's Weekly Earnings/Spouse's Weekly Earnings	481	733	850	.358	.510	.326	3139	.717	.392	.302	.395	.437	.207	3588
Control for Hourly Wage of Respondent and Spouse	602	839	967	.401	.627	.435	2955	.784	.507	.425	.416	.436	.246	3358
Control for R's Hourly Wage/Spouse's Hourly Wage	604	851	955	.374	.568	.313	2947	.780	.492	.396	.406	.424	.203	3351
Control for Hours of Paid Work of R and Spouse	264	545	598	.221	.429	.195	3746	.774	.465	.430	.202	.239	.036	4354
W/ Full-Time Employed Male and Part-Time Employed Female														
No Economic Controls	111	396	330	.457	.252	.058	1928	379	562	613	.461	.509	.103	2367
Weekly Earnings of Respondent and Spouse	242	484	278	.471	.310	.268	1224	277	390	551	.680	.566	.221	1589
Control for R's Weekly Earnings/Spouse's Weekly Earnings	236	498	308	.466	.309	.260	1221	252	382	522	.691	.566	.238	1579
Control for Hourly Wage of Respondent and Spouse	139	403	228	.710	.472	.306	1081	281	428	557	.781	.638	.257	1453
Control for R's Hourly Wage/Spouse's Hourly Wage	118	378	167	.756	.534	.450	1078	297	453	563	.797	.622	.262	1442
Control for Hours of Paid Work of R and Spouse	.044	222	140	.410	.201	.042	1871	464	624	710	.380	.434	.032	2250
W/ Full-Time Employed Male and Nonemployed Female														
No Economic Controls	044	081	105	236	293	605	3087	.080	304	255	.219	097	249	3271
Control for Family Income (Cohabiters excluded)	.008	082	.000	205	185	517	2757	.233	155	107	.166	159	273	2915

Table 10. Unstandardized coefficients from OLS models for effects of fathers' and mothers' education on their hours per day in Leisure for selected subsamples with selected economic controls

Note: R=Respondent

Education effects are relative to reference category of less than high school education.

HS Grad=High School Graduate; Some Coll=Some College; BA+=Bachelors and above.

Bolded coefficients are significant, p<.05, two-tailed test