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# Eugenics of Inequality: UK and US Fatherhood Premia across the Earnings Distribution, 1974-2010

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#### Abstract

Fathers in many countries enjoy a wage premium as compared with childless men, but parenthood does not benefit all men equally. Income inequality among men has increased markedly since the 1970s, suggesting that differences among fathers have grown over time. Five waves of LIS data and regressions of the recentered influence function are used to compare the unconditional quantile partial effects of children along UK and US men's earnings distributions. In the 1970s, most UK and US fathers enjoyed a modest premium regardless of their relative earnings, which decreased as number of children increased. This bonus was not attributable to household specialization in paid work, as once controlling for partnership, wives' earnings did not significantly alter the fatherhood premium for most men. Since the 1970s, a more eugenic structure has emerged. Net of human capital and labor supply, the lowest-earning fathers in both countries face penalties. UK fathers' premia across the remainder of the distribution are similar. In contrast, US fathers' premia continue to increase as earnings increase, which translates into ever-greater absolute fatherhood bonuses for the most-privileged US men.

Keywords: Earnings, inequality, parenthood, international comparisons

# Eugenics of Inequality: UK and US Fatherhood Premia across the Earnings Distribution, 1974-2010

Fathers often enjoy a wage premium as compared with childless men (Lundberg and Rose 2000, 2002; Waldfogel 1998). Yet the fatherhood premium has been shown to differ by ethnicity (Glauber 2008; Hodges and Budig 2010), parental living (Killewald 2013) and work arrangements (Glauber 2008; Hodges and Budig 2010), across the earnings distribution (Cooke 2013), and across countries (Boeckmann and Budig 2013; Cooke 2013; Smith Koslowski 2011). Parenthood therefore does not benefit all men everywhere equally.

Here I explore how premia differences among UK and US fathers evolved over the period in which specialization in household labor decreased while earnings inequality among men increased. In theory, one reason for men's family premia is that wives' specialization in unpaid work enhances husbands' productivity in paid work, although recent evidence of this is mixed (Boeckmann and Budig 2013; Killewald 2013; Lundberg and Rose 2000; Smith Koslowski 2011). Since the 1960s, gendered divisions of household labor have diminished. Dual-earners now represent the majority of married-couple households in most OECD countries (OECD 2010). This trend in paid labor coincides with a decrease in wives' housework (but not childcare) time, and an increase in husbands' housework as well as childcare (Gauthier, Smeeding and Furstenberg 2004; Hook 2010; Sayer 2010). To the extent a gendered division of household labor explains some of the fatherhood premium, the premium should have decreased over the last four decades.

The general trend towards more egalitarian divisions of household labor masks betweencountry heterogeneity. The United States is rather unique in that the increase in married women's employment since the 1970s has been into full-time work (Blossfeld and Drobnič

2001). In other countries such as the United Kingdom, the increase in mothers' employment has been primarily into part-time jobs (Cooke 2011; OECD 2010). Specialization in paid work has therefore waned to differing degrees across countries, the impact of which is explored here by comparing over-time changes in the United Kingdom and United States.

Gender specialization may have diminished, but earnings inequality among men has increased. The trend toward rising inequality began first in the United Kingdom and United States in the 1970s (Gottschalk and Smeeding 1997; Machin 2010), a further reason they are good country cases for comparison. Employment shares across the wage distribution shifted, with strong growth in both the lowest- and highest-waged jobs (Autor, Levy and Murnane 2003; Bernhardt, Morris and Handcock 1995; Goos, Manning and Solomons 2009). Returns to education continue to increase, as has inequality across the upper half of the earnings distribution (Autor, Katz and Kearney 2008; Machin 2010). Real wages across the bottom half of the earnings distribution have stagnated, however, and inequality between those earning at the 50<sup>th</sup> as compared with the 10<sup>th</sup> percentile began to plateau by the late 1990s (Autor et al. 2008; Machin 2010).

No one has assessed the impact of this growing earnings inequality on the fatherhood premia among men. Here I trace the effect of children on UK and US fathers' relative earnings from the mid-1970s to 2010. Five waves of LIS labor force data (1974, 1986, 1994, 2004, 2010) and regressions of the recentered influence function (Firpo, Fortin and Lemieux 2009) are used to compare how the marginal impact of children, net of wives' earnings, at different quantiles of UK and US men's unconditional earnings distributions has changed over time.

#### FATHERHOOD PREMIA: THEORY AND EVIDENCE

Analyses of motherhood penalties dominate economic and sociological literatures, but studies of fatherhood premia are equally important for understanding fundamental economic inequalities. The limited US research suggests fathers receive hourly wage or annual earnings premia of 4 to 9 percent after controlling for marital status, the education and work experience of human capital, and hours of work and other aspects of labor supply (Glauber 2008; Hodges and Budig 2010; Lundberg and Rose 2000; Waldfogel 1998). The even more limited UK evidence suggests fathers in that country receive a net premium of 7 to 10 percent (Smith Koslowski 2011; Whitehouse 2002).

Selection and institutionalized group inequalities have been used to explain a fatherhood premium. Positive selection could account for the premium if the men who are more likely to become fathers differ on unmeasured characteristics such as commitment and dependability that employers value and reward (Coltrane 2004). Direct comparisons of fixed-effects with OLS models, though, offer little support for positive selection into fatherhood. Instead, the US men most likely to become fathers tend to have less favorable labor market characteristics (Hodges and Budig 2010; Lundberg and Rose 2000, 2002). Analyzing the Panel Study of Income Dynamics (PSID) data, Lundberg and Rose (2000) found that US men who became fathers earned 9 percent less before the birth than men who did not become fathers. Yet the difference between fixed-effects and OLS coefficients was smaller for the cohort born after 1950 as compared with the one born before then (Lundberg and Rose 2002). In addition, an increase in work hours explained more of the US fatherhood premium for the more recent cohort than it had for the earlier one. Thus in the United States, negative selection into fatherhood seems to have

decreased over time, whereas labor supply explains more of the premium than it did for earlier cohorts.

## Group Advantage and the Fatherhood Premium

Institutionalized group inequalities may contribute to a fatherhood premium, as well as differences in the premium among men. The hegemonic family of industrial societies is a nuclear one comprised of a husband, wife, and their biological offspring (Ferree 2010; Ridgeway and Correll 2004). Becker (1981) argued that production and reproduction in this household type are maximized when one partner specializes in paid work and the other in unpaid family work. Although in theory either partner might specialize in either type of labor, Becker (1981) held that women, given their biological role in reproduction, have a comparative advantage in unpaid family work. Men's economic advantage is enhanced by their wives' unpaid work, which enables them to devote more time and effort to paid work (Becker 1985). A fatherhood premium might therefore reflect a mixture of fathers' greater time in paid work as compared with childless men, which is observable, coupled with greater effort, which is more difficult to ascertain.

There is no empirical support for the direct impact of specialization in *unpaid* work on the fatherhood premium. In general, women do increase their housework hours when they move in with a man, whereas men decrease their housework hours when they move in with a woman (Gupta 1999; South and Spitz 1994). But partnered men's housework time has increased since the 1960s (Hook 2010; Sayer 2010), and it is quite stable across family transitions (Baxter, Hewitt and Haynes 2008; Hersch and Stratton 2000). Fathers' time in childcare has also increased since the 1960s (Gauthier et al. 2004), with educated UK and US fathers spending

more time in childcare than fathers with secondary schooling or less (Bianchi, Robinson and Milkie 2006; Sullivan 2010). Yet when comparing countries in the European Community Household Panel that spans the 1990s, Smith Koslowski (2011) found no evidence that fathers who spent more time caring for their children received lower wages. In some countries, fathers spending the most time with their children received the largest hourly wage bonus despite working fewer hours (Smith Koslowski 2011).

Evidence regarding the impact of household divisions of *paid* work is more mixed. In their fixed-effects analysis of PSID data, Lundberg and Rose (2000) found that husbands' work hours and wages did indeed increase when their wives exited the labor market following a birth. When wives instead remained in the labor market after a birth, their husbands' work hours decreased, but their wages still increased. Thus regardless of the labor supply of themselves or their wives, US men received a premium following the birth of a child. Analyzing the US cohort from the 1979 National Longitudinal Survey of Youth (NLSY79), Hodges and Budig (2010) found that all men earned some fatherhood premium and that Latino, but not White or Black sole-breadwinning fathers earned a further bonus.

Using the same data, Killewald (2013) found that the premium varied with family form but not ethnicity, although she acknowledged that the two may correlate. Married men coresiding with their biological children received the greatest fatherhood premium, followed by cohabiting fathers under the same circumstances.<sup>1</sup> Only 15 percent of the premium was explained by a father's labor market behavior following a birth, and the premium disappeared when his wife worked full-time (Killewald 2013: 109). These results would seem to support the specialization

<sup>&</sup>lt;sup>1</sup> Neither divorced fathers living apart from their children nor stepfathers living with nonbiological children received significant fatherhood premia (Killewald 2013).

hypothesis. Killewald, though, referenced Smith Koslowski's (2011) evidence on the impact of unpaid work to resist concluding this.<sup>2</sup>

Gender scholars argue the fatherhood premium cannot be explained by observed characteristics because it reflects positive discrimination that results from cultural beliefs and institutional reinforcement of men's relative advantage at the macro, organizational, and interactional levels (Ferree 2010; Glauber 2008; Hodges and Budig 2010; Ridgeway and Correll 2004). Measuring positive or negative discrimination is impossible with survey data, but experimental or audit research designs offer some insights. In one such study, Correll and her colleagues (2007) found that US undergraduate evaluators of job applicants with identical education, experience, and other characteristics viewed applicants labeled as fathers more favorably in terms of hiring, suggested starting wages, and potential for future promotion than applicants labeled as childless men or women. Those labeled as mothers fared the worst. The audit of employers revealed they discriminate against mothers, but not fathers. Thus parenthood penalties and premia reflect both negative and possibly positive discrimination.

<sup>&</sup>lt;sup>2</sup> Instead, Killewald applied Stryker's (1968) identity theory to argue fathers' productivity and wage premia vary because not all men understand fatherhood in the same way. Per Stryker (1968), individuals hold social positions that come with specific behavioral expectations that are reinforced in social interactions and ultimately internalized to shape an individual's identity. An individual's behavior aligns with a specific identity when it is salient and involves intense commitment. Killewald (2013) equated the hegemonic family form (married men coresiding with their biological children) as the most salient and committed US fatherhood identity. Yet she had no direct measures of men's commitment across household types, so her evidence offered no stronger support of her identity thesis than the specialization thesis.

#### **CHANGING GROUP INEQUALITIES, CHANGING PREMIA?**

Social structures and cultural ideals, however, adapt within shifting economies (Ferree 2010). Levels of educational attainment, wives' labor force participation, and diversity in family forms have all increased across the latter part of the 20<sup>th</sup> Century (McLanahan 2004; van de Kaa 1987). Marriage rates declined, whereas cohabitation increased, as has nonmarital childbearing (for a review, see Cooke and Baxter 2010). Dual-earners now outnumber male breadwinning couples in most OECD countries (OECD 2010), and, as noted above, household divisions of unpaid work have narrowed. Cohabitants exhibit the most egalitarian divisions of paid and unpaid work (Batalova and Cohen 2002; Brines and Joyner 1999), but highly-educated married couples have more egalitarian divisions of household labor than their less-educated counterparts (Bianchi et al. 2006; Hook 2010; Sullivan 2010).

Changing family dynamics may explain the mixed evidence as to the impact of household specialization on the fatherhood premium, and the pre/post-1950 differences in Lundberg and Rose's (2002) analyses. UK and US partnered men's employment rate has remained close to 90 percent from 1974 to 2010. Across the period, UK partnered women's employment rate increased from 56 to 71 percent, whereas in the United States it increased from 42 to 68 percent.<sup>3</sup> Single cohort studies such as NLSY79 are not suitable for revealing cross-cohort changes. The analyses here therefore fill a void in the existing literature by assessing whether the impact of household specialization in paid work on the fatherhood premium has decreased as dual-earning has come to dominate couple households.

Despite the similarity in employment rates, UK wives are more likely to work part-time than US wives (OECD 2010). In 2008, 37.8 percent of employed UK women worked part-time,

<sup>&</sup>lt;sup>3</sup> Author's calculations, LIS data for individuals aged 25 to 59.

as compared with 17.8 percent of employed US women (OECD 2010: 286). This reflects the UK's policy reinforcement of a male breadwinner model (Lewis 1992),<sup>4</sup> including tax regulations that until 1999 encouraged the proliferation of low-wage part-time jobs taken up primarily by married women (Cooke 2011). Theoretically, we could therefore anticipate more constancy in the UK fatherhood premium over time to the extent it is explained by household specialization in paid work.

#### Growing Inequality among Men

Gendered divisions of labor may have lessened, but earnings inequality among men has increased (Autor et al. 2008; Blau and Kahn 1996; Gottschalk and Smeeding 1997; Machin 2010). Until the 1970s, the distribution of incomes differed across industrial societies but was remarkably stable within them (Gottschalk and Smeeding 1997). Income inequality was greatest in the United States, with a larger degree of inequality across the bottom half of the wage distribution as compared with other countries (Blau and Kahn 1996). US workers at the 10<sup>th</sup> percentile of the wage distribution fared poorly not only vis-à-vis higher-waged US workers, but also as compared with the lowest-waged workers in other countries (Blau and Kahn 1996; Gottschalk and Smeeding 1997).

Since the 1970s, income inequality has increased across most OECD countries, and the shape of the employment distribution shifted to reflect greater polarization (Autor et al. 2003; Bernhardt et al. 1995; Gottschalk and Smeeding 1997; Kahn and Autor 1999; Mishel, et al.

<sup>&</sup>lt;sup>4</sup> This perspective was embedded in Beveridge's (1942:50) blueprint for the modern UK welfare state, wherein he claimed that: "...the great majority of married women must be regarded as occupied on work which is vital though unpaid, without which their husbands could not do their paid work and without which the nation could not continue."

2012). Increasing earnings inequality was first evident in the United Kingdom and United States, driven by high returns for highly-educated workers (Blau and Kahn 1996; Gottschalk and Smeeding 1997; Katz and Autor 1999; Machin 2010). US university graduates in 1979 earned 30 percent more annually than high school graduates, an earnings premium that had increased to 50 percent a decade later (Gottschalk and Smeeding 1997: 645). For less-educated workers, de-industrialization replaced good-wage unskilled manufacturing employment with low-wage service sector jobs (Bernhardt et al. 1995; Mishel et al. 2012). Employment shares in primarily administrative occupations in the middle of the earnings distribution also decreased (Machin 2010; Mouw and Kalleberg 2010). Thus during the 1980s, wage gaps widened at all parts of the UK and US wage distributions (Gottschalk and Smeeding 1997; Machin 2010).

Growth in overall UK and US earnings inequalities slowed during the 1990s, as it began to increase in other countries (Machin 2010). Yet inequality across the upper portion of the UK and US earnings distributions continued to increase, reflecting continued growth in the highestwaged jobs (Goos et al. 2009). In contrast, inequality across the bottom half of men's earnings distribution slowed and then plateaued beginning in the mid-1980s in the United States (Autor et al. 2008) and the mid-1990s in the United Kingdom (Machin 2010).

Between 1970 and 2008, UK men's ratio of the 90<sup>th</sup> as compared with 10<sup>th</sup> percentile hourly wages (90/10) had increased by 37 percent, whereas the US men's 90/10 ratio had increased by 47 percent (Machin 2010: Table 2). Within the earnings distribution, the real income of US households in the bottom fifth grew just 6.1 percent, as compared with 12.3 percent for the middle fifth, 69.6 percent for the top fifth, and 183.7 percent for those in the top percentile (Mishel et al. 2012: 2). The moderate growth for middle-income families was due largely to the increase in wives' labor force participation or work hours (Mishel et al. 2012). The

stagnating wages of most UK and US men therefore fueled the de-specialization of couple households.

Debated economic explanations for increasing inequality include the changing industrial structure and the role of technology therein, globalization (including increasing foreign trade and immigration), and the decline in limiting institutions such as trade unions and the real value of the minimum wage (Bernhardt et al. 1995; Goos et al. 2009; Gottschalk and Smeeding 1997; Mishel et al. 2012). The arguments are not mutually exclusive, but each tends to pertain to particular points in the earnings distribution.

The decline in unionization and the real minimum wage are argued to account for the eroding economic circumstances of low-waged workers. Mishel and his colleagues (2012) estimate that the decrease in US unionization from 43 percent of blue collar workers in 1978 to just over 19 percent in 2005, coupled with the drop in the real value of the minimum wage, explains one-third of the growth in US wage inequality. There are no comparable UK data for the entire period, although de-unionization is credited with one-fifth of the growth of inequality during the 1980s (Machin 2010). The United Kingdom introduced its first minimum wage law in 1999.

Mishel and his colleagues (2012: 7) attribute a further third of US inequality to the shift from manufacturing to service sector employment, and the global mobility of people, capital, and goods. These trends also affect workers primarily across the bottom half of the wage distribution (Gottschalk and Smeeding 1997; Mishel et al. 2012). Technology is credited with increasing returns to education, even as more young adults obtain higher levels of education (Kahn and Autor 1999). Yet this theorized skill-biased technical change (SBTC) does not explain the reduction in medium-waged jobs across the period. Autor and his colleagues (2003; Acemoglu

and Autor 2012) instead suggest that computerization has replaced routine tasks in many occupations, thereby reducing employment demand in the middle of the wage distribution.

In sum, the economic evidence reveals growing differences among men net of group characteristics. The parenthood analyses find that the fatherhood premium varies by ethnicity (Glauber 2008), socio-economic status (Hodges and Budig 2010), and family form (Killewald 2013). I connect the two literatures to suggest that the fatherhood premia across the earnings distribution—net of family status, human capital, and labor supply—will mirror these trends. In other words, the fatherhood premia will increasingly stagnate across the bottom half of the earnings distribution and flourish across the upper half. As the increase in inequality has been greater in the United States, differences among US men in the fatherhood premia should be greater than in the United Kingdom.

## **METHOD**

#### Data and Sample

Much of the recent research on the fatherhood bonus uses panel data and fixed effects models to control for unmeasured heterogeneity among men that does not change over time (Glauber 2008; Hodges and Budig 2010; Killewald 2013; Lundberg and Rose 2000, 2002; Smith Koslowski 2011). Of the datasets used in these analyses, only the PSID offers the possibility of comparing the pre- and post-1950s cohort as it began in 1968 and adds respondents as they marry into the initial sample. The comparable British Household Panel Survey began data collection in 1991, and is therefore not suitable for assessing changes among fathers over the past four decades. There are four British Cohort Studies (1946, 1958, 1970, and 2000), but the income information in the earlier ones is poor (Erikson and Goldthorpe 2010).

The best available data for comparing men's earnings over the past forty years therefore come from the LIS data project, the largest available database of harmonized microdata on market income, household- and person-level characteristics, and labor market outcomes collected from multiple countries over several decades. With such cross-sectional data, instrumental variables can be used to control for selection effects. The LIS datasets, however, contain no suitable instruments that predict fatherhood but not earnings. Lundberg and Rose's (2002:258) pre/post-1950 comparison using the PSID data suggested that negative selection into fatherhood has decreased substantially for later US cohorts. Therefore the advantage of being able to compare the fatherhood premia among men over time with the LIS data outweighs the inability to control for selection in this particular analysis. It should be kept in mind, though, that the coefficients produced may understate the size of the premia if there is negative selection into fatherhood. Lundberg and Rose's contrast suggests this possibility is greater for earlier than more recent cohorts.

Five waves of LIS data are selected for the United Kingdom and United States, for the years 1974, 1986, 1994, 2004, and 2010. From each national dataset, the sample selected includes men between the ages of 25 and 59 who earn more than US1974\$1, excluding the self-employed, disabled, and those still in school. The restrictions ensure the focus is on prime working-age adults who have completed education. The self-employed are excluded as many have negative income because of accounting practices, so their earnings are not comparable to those of paid employees.

# Analytical Technique

Much of what we know about the impact of children on earnings is based on comparisons of means using regression models that establish conditional relationships between earnings (Y) and

a set of covariates (*X*). Here, in contrast, I am interested in the impact of children across the earnings distribution. Semiparametric approaches allow slope parameters to differ at each percentile of the conditional wage distribution to reveal how the impact of individual characteristics varies. The estimator proposed by Koenker and Bassett (1978), however, provides conditional quantile treatment effects. In other words, the coefficients indicate the impact of the variable of interest on the *relatively* lower or higher earnings among groups of persons sharing similar characteristics. Thus including the covariates for human capital and labor supply may alter the earnings quantile in which a respondent then falls (Koenker 2005: 48). In other words, the individuals with the lowest *relative* earnings on the conditional distribution given the covariates (education, years of experience, work hours, etc.) may not be the same as those with lowest *absolute* earnings on the unconditional distribution. Of interest here is the impact of fatherhood on the unconditional earnings distribution in each survey year.

Firpo and his colleagues (2009) show that unconditional quantile partial effects (UQPE) can be estimated by using regressions of the (recentered) influence function (RIF). The influence function introduced by Hampel (1974) is a widely used tool in robust statistics, representing the influence of an individual observation on a distributional statistic of interest such as a quantile. Per Firpo et al. (2009: 960), three components are involved in estimating UQPE ( $\tau$ ) using RIF regression: the quantile,  $q_{\tau}$ , the density of the unconditional distribution of *Y* that appears in the constant,  $c_{1,\tau} = 1/f_Y(q_\tau)$ , and the average marginal effect,  $E[d \Pr[Y > q_\tau / X] / dX]$ . Koenker and Bassett (1978) represent the  $\tau^{\text{th}}$  sample quantile estimator of the  $\tau^{\text{th}}$  population quantile,  $\hat{q}_r$ , as:

$$\hat{q}_{\tau} = \arg\min\left\{\sum_{i=1}^{N} (\tau - \prod_{q} \{Y_i - q \le 0\}) \cdot (Y_i - q)\right\}$$
(1)

A kernel density estimator is used to estimate the second component, the density of Y,  $\hat{f}_Y(\Box)$ ,

$$\hat{f}_{Y}(\hat{q}_{\tau}) = \frac{1}{N \Box b} \Box_{i=1}^{N} \kappa_{Y}\left(\frac{Y_{i} - \hat{q}_{\tau}}{b}\right)$$
(2)

where  $K_Y(z)$  is a kernel function and *b* a positive scalar bandwidth. Finally, the average marginal effect, *E* [*d* Pr [*Y* >  $q_\tau$  /*X*] /*dX*], can be estimated with an OLS regression (Firpo et al. 2009: 962). The resulting RIF statistic (UQPE) is therefore interpreted as any OLS statistic, indicating the marginal effect of a small increase in the location of the distribution of the explanatory variable *X* of the  $\tau$ <sup>th</sup> quantile of the unconditional distribution of *Y*, holding everything else constant (Firpo et al. 2009).

# Models and Variables

For each year and country, five nested models are run using the *rifreg* command in Stata to estimate the UQPE of children at the 10<sup>th</sup>, 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup>, and 90<sup>th</sup> percentiles in the log annual earnings distribution. The dependent variable is the natural logarithm of gross annual earnings, equivalized and deflated to 1974 US dollars as of 31 January of the survey year.<sup>5</sup> Annual earnings rather than hourly wages are used, as the national datasets contain information on usually weekly work hours (except UK 1974), but not necessarily number of weeks worked. In addition, annual earnings incorporate periods of unemployment or reduced hours, the risk of which varies across the earnings distribution and in the different decades (Gottschalk and

<sup>&</sup>lt;sup>5</sup> http://www.bls.gov/data/inflation\_calculator.htm

Smeeding 1997; Mishel et al. 2012). Annual earnings therefore provide a more accurate reflection of economic inequality among men than comparisons of hourly wages.<sup>6</sup>

Depending on the year and country, the number of children ranges from 0 to 13. The fatherhood premium differs, and not necessarily linearly, depending on the number of children (Glauber 2008; Killewald 2013; Lundberg and Rose 2002), and the US premium or penalty for a given parity has varied over time (Lundberg and Rose 2002; Waldfogel 1998). Including a series of indicator variables for one child, two children, and three or more children at each quantile made presentation of all nested results awkward. Consequently, a continuous variable for number of children under the age of 18 and a variable indicating the number of children squared are included to parsimoniously model the impact of children on men's earnings. All fit statistics are nearly identical for the two model specifications, and effects of all covariates are the same. This specification best illustrates changes in the premium and the impact as the number of children increase, although the number of children in each category is presented in the descriptive statistics as a more intuitive way to see changes in family size over time. Whether the children are biological, adopted, or stepchildren cannot be ascertained in the LIS data.

The first model (Model 0) estimates the impact of number of children (and its square) on men's log of annual earnings without any further covariates. Model P adds an indicator variable for partnership to the baseline model, which for the 2010 wave can be further subdivided into cohabiting and married. Arguments about positive selection and specialization apply to partnership regardless of a man's parental status (Cohen 2002; Lundberg and Rose 2002;

<sup>&</sup>lt;sup>6</sup> Analyses could have been conducted to assess effects on both hourly wages and weekly work hours when those are available, but that would have doubled the length of the tables, which are already quite lengthy given the reporting demands of quantile effects over five waves of data.

Schoeni 1995), so it should account for some proportion of the premia in Model 0. Cohen (2002) found that the US partnership premium was smaller among cohabiting as compared with legally-married couples, a contrast which is assessed here with the 2010 data.

Model P+HC adds measures of human capital to the previous model to assess the extent to which these account for any of the fatherhood premium. An indicator variable denotes men with a university degree or higher education, with some post-secondary education or less the reference group. Educational attainment is not available in the 1974 UK data. Age and its square (divided by 100) are included as a proxy of work experience (Mincer 1979).

In Model P+HC+LS, weekly work hours and their square (00) are added to control for labor supply (except for UK 1974). If the fatherhood premium decreases after adding in work hours, this reveals that it derives from fathers' greater work hours and therefore an "earned" premium.<sup>7</sup> Occupations are not included as analyses assess parenthood effects at different levels of earnings, which reflect higher or lower-waged occupations. Models (not shown) including indicators for low-skill, clerical, service, and professional occupations against a referent of associate professionals yield substantively similar fatherhood effects at each quantile.

To assess the impact of household specialization on fatherhood premia controlling for partnership, human capital, and labor supply, a final model (P+HC+LS+PE) includes the partner's annual earnings (US1974\$000).<sup>8</sup> If specialization supports the fatherhood premium

<sup>&</sup>lt;sup>7</sup> Petersen (1989) argued a log of weekly work hours better accounts for effects in sociological earnings analyses, but using this specification resulted in substantially poorer fitting models despite the gain in degree of freedom, and did not alter the premia.

<sup>&</sup>lt;sup>8</sup> The 1974, 1986, 1994 and 2004 data had a variable with information on spouse's annual earnings. LIS changed variable format by the 2010 wave, such that a spouse's income was not specifically included. Instead, the data contain information on "other household labor income."

(and partnered men's work effort more generally), the premium should decrease as partner's earnings increase. Partners' earnings are used rather than weekly work hours, as the latter are not available in all years and a calculation of annual work hours requires number of weeks worked as well, which is not available in all waves. Spousal earnings are also used because employed wives use their earnings to purchase market substitutes for formerly unpaid domestic tasks, with the income-housework gradient steeper in more unequal countries such as the United Kingdom and United States (Gupta et al. 2010; Heisig 2011). This suggests wives' greater earnings could substitute for their former unpaid work, which might also support men's earnings under what might be termed a commodified specialization effect.

Information on some ethnic groups is available in all US waves, but only in the 2010 UK wave. Some have found ethnic differences in the US fatherhood premium (Glauber 2008; Hodges and Budig 2010), whereas Killewald (2013) found none after controlling for the family form. A subsequent analysis of the 2010 data is conducted to include an indicator each for Black, Hispanic, and Other Ethnic group in the full US model, against the referent of White. Two indicator variables, one for Black and one for Other Ethnic group, are similarly included in the 2010 full UK model, against the referent of British or Other White.

To ensure this reflected the spouse's earnings rather than potentially those of another adult living in the household in order to test the specialization hypothesis, households that included other adult relatives or non-relatives were excluded from the 2010 analyses. This restriction reduced the UK analytical sample by 6.7 percent and the US sample by 18 percent. The pattern of the fatherhood premia for the full sample including these non-nuclear families did not differ substantially for the nuclear-only families, although the magnitude of the penalties for the 10<sup>th</sup> and 25<sup>th</sup> percentiles was slightly greater. This suggests that lower-earning men are more likely to have more adults living with them, and that penalties reported here are slightly understated for all low-earning men.

# RESULTS

Table 1 displays the weighted descriptive statistics. In the United Kingdom, men's real average earnings increased each year until 2004, but then fell in the wake of the 2008 economic crisis. In contrast, the real value of US men's average annual earnings decreased in the 1980s and 1990s, but increased in 2004 and 2010. The real value of partners' earnings increased more steadily across the period, and reflects women's increasing share of couple household income. US partnered women's average annual earnings doubled across the period, whereas UK partnered women's earnings increased almost seven-fold. The percentage of partnered men fell substantially, however, most dramatically between the 1970s and 1980s in the United States, and between the 1980s and 1990s in the United Kingdom. Including cohabitants in 2010 increases the partnership percentage, although not to 1974 levels.

#### [Table 1 about here]

The number of children also decreased across the period in both countries. The decrease reflects both an increase in the percentage of childless men, as well as a decrease in the percentage of men with two or more children. The number of UK men with no children increased by almost 19 percentage points between 1974 and 2010. The increase in childless US men was more modest at 13 percentage points. Some of this increase in childlessness and decrease in partnership reflects the rising age at marriage and first birth as levels of education increase. The percentage of men with a university degree nearly doubled in both countries between the 1970s and 2010.

In the presentation of results, the displayed coefficients are exponentiated  $(100^*(e^{b}-1))$  to interpret them as the predicted percentage change in fathers' annual earnings, as compared with childless men at that percentile of the distribution. Because these are percentage effects, an effect of similar magnitude at the 10<sup>th</sup> and 90<sup>th</sup> percentiles of the earnings distribution has a

larger absolute dollar impact for workers in the higher earnings quantile. So even when the magnitude of the effect is similar across the earnings distribution, high-earning men are better off in absolute terms than lower-earning men.

# Growing Relative (Dis)Advantage

Table 2 displays the impact of children on men's log of annual earnings at the 10<sup>th</sup>, 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup>, and 90<sup>th</sup> percentiles in the first four nested models. These reveal the extent to which being partnered, human capital, and labor supply explain the fatherhood premia across the decades. Partnership can predict a premium for men as well as women regardless of specialization (Cooke 2011; Killewald and Gough 2013). Results for the fifth model and specialization effects over time will be discussed separately. In discussion of results, the term "premia" or "premium" refers to the main effect of number of children, and the term "higher-order children" refers to the impact of the children-squared term.

*1974.* The UK 1970s fatherhood premium pattern is one of relative equity among men. Before including covariates (Model 0), all UK fathers received similar premia of 9 to 11 percent.<sup>9</sup> The slightly greater fatherhood premium at the 10<sup>th</sup> percentile decreases a bit more quickly as the number of children increases than the premium at the 90<sup>th</sup> percentile, as indicated by the slightly smaller children-squared term for the latter percentile. Partnership (Model P) and the proxy for experience (Model P+HC, but no education information for the UK in 1974) explain some of the premium, as its size decreases when including the additional covariates. The fatherhood premium is no longer statistically significant at the 10<sup>th</sup> percentile, and is reduced to 4 to 5

 $\overline{9^{9}(100^{*}(e^{.09}-1))} = 9\%; (100^{*}(e^{.10}-1)) = 10.5\%$ 

percent for the remainder of the earnings distribution. The child-squared term diminishes as well but remains statistically significant, and is also of similar magnitude across the earnings distribution. This highlights the decreasing returns to higher-order children are offset somewhat by a UK father's marital status and work experience at all levels of earnings.

The 1970s pattern in the United States is in fact one of some fatherhood advantage for the lowest-earning men. In Model 0, US fathers in the 10<sup>th</sup> percentile are predicted to enjoy a 41 percent earnings<sup>10</sup> premium for each additional child as compared with childless men at that point in the earnings distribution. The penalty for higher-order children as indicated by the child-squared term (-5.3 percent), however, is substantially larger at the 10<sup>th</sup> percentile than for men in the rest of the US earnings distribution. It is also substantially larger than the higher-order children penalty among UK men at the 10<sup>th</sup> percentile (-1.8 percent).

Much of the US fatherhood premia across the bottom half of the earnings distribution in 1974 are accounted for by the covariates. Partnership substantially reduces the premia, by twothirds at the 10<sup>th</sup> and 25<sup>th</sup> percentile, and by about half across the rest of the distribution. Partnership also reduces the 1970s higher-order children penalty by about half regardless of earnings. Accounting for US men's human capital does not further change the fatherhood premia except among men at the 90<sup>th</sup> percentile, for whom it predicts a greater premium. Labor supply effects in the fourth model are modest. Premia of 4 to 5 percent persist in the middle of the US wage distribution, similar to UK fathers' premia. US fathers at the 10<sup>th</sup> percentile earn a 9 percent premium unexplained by the covariates, but the higher-order children penalty also remains greater at the 10<sup>th</sup> percentile in Model P+HC+LS than along the rest of the distribution.

 $<sup>\</sup>overline{10}$  (100\*( $e^{.34}$ -1)) = 40.49 %

additional child, but the higher-order children penalty is half that for the lowest-earning men.<sup>11</sup> Thus in percentage terms, the 1970s US labor market gave a small financial boost to the lowest-earning fathers provided their families were not too large.

*1986.* Greater differences among UK and US fathers are evident by the mid-1980s. The fatherhood premia across the bottom half of the UK earnings distribution and at the 90<sup>th</sup> percentile are not statistically significant once including the covariates. UK men in the 10<sup>th</sup> percentile do not receive a statistically significant premium even in Model 0. Yet neither is the higher-order children penalty for these men statistically significant. In Model 0, UK fathers at the 25<sup>th</sup> and 50<sup>th</sup> percentiles receive similarly-sized premia and higher-order children penalties as in the 1970s, whereas those for men at the 90<sup>th</sup> percentile are slightly greater than in the prior decade. Net of partnership and human capital, however, the 1986 fatherhood premia and higher-order penalties at these percentiles are no longer statistically significant, although this may be an artifact of the smaller 1986 sample size. The unexplained UK fatherhood premium is greatest for men at the 75<sup>th</sup> percentile of earnings and greater than it had been in the 1970s, but so, too, is the higher-order children penalty. In general, most UK had men lost their (unexplained) fatherhood bonus in 1986.

The 1986 pattern of the US bonuses in Model 0 is similar to that in 1974, with the unexplained fatherhood premium greater among lower-earning men. Similar to the United Kingdom, the fatherhood premium and the higher-order children penalty at the 10<sup>th</sup> percentile

<sup>&</sup>lt;sup>11</sup> Solving for x in  $.09x + (-.022x^2) = 0$  reveals this occurs when a man at the 10<sup>th</sup> percentile has 4.1 children; whereas at the 90<sup>th</sup> percentile  $.07x + (-.011x^2) = 0$  occurs when a man has 6.4 children.

disappear once including partnership, human capital, and labor supply. The net fatherhood premium at the 25<sup>th</sup> percentile is only marginally significant, whereas the higher-order children penalty persists. Fathers earning at the median and above receive similar net premia as in the 1970s, although the higher-order children penalty is slightly greater at the 50<sup>th</sup> and 75<sup>th</sup> percentiles. Thus in both countries, the 1986 fatherhood premia for the lowest-earning men is now fully explained by the covariates. These effects are consistent with Lundberg and Rose's (2002) finding that more of the US fatherhood premium for men born after 1950 is explained by labor supply, but further indicates this derives primarily from effects across the bottom half of the earnings distribution.

#### [Table 3 about here]

*1994.* 1994 was a year of economic growth in both countries, but not all men benefited equally. The UK fatherhood premia in Model 0 are now more like the US pattern: larger for lower-earning than high-earning men, as is the higher-order children penalty. As in the prior decade, partnership, human capital, and labor supply explain more of the premia for the lowest-earning UK men. But in contrast to the earlier decade and the United States, a significant fatherhood bonus persists net of the covariates for all UK men. The net premium is slightly smaller for men at the 25<sup>th</sup> percentile of earnings and, as in the prior decade, slightly larger for men in the 75<sup>th</sup> percentile of earnings. For UK men across the bottom half of the earnings distribution, the higher-order children penalty is larger than in 1986. Thus UK fathers in the 10<sup>th</sup> and 25<sup>th</sup> percentiles receive premia for up to two children.<sup>12</sup> For UK men in the upper half of the distribution, the premia are greater or the higher-order children penalties smaller. So

<sup>&</sup>lt;sup>12</sup> At the 10<sup>th</sup> percentile, solving for x in  $(.05x + -.023x^2) = 0$  gives 2.2; at the 25<sup>th</sup> percentile, solving for x in  $(.03x + -.014x^2) = 0$  gives 2.1.

although all UK fathers benefited from the economic growth, higher-earning UK fathers garnered more money for more children than fathers in the bottom quartile.

In contrast, differences among US fathers are starker in 1994 than in 1986, and as compared with the United Kingdom. The unexplained fatherhood premia and higher-order children penalties in Model 0 do not differ substantially from 1986.<sup>13</sup> Once controlling for partnership, human capital, and labor supply, however, the earnings situation for US fathers in the bottom half of the distribution has worsened. Net of the covariates, US fathers at the 10<sup>th</sup> percentile are predicted to earn 2 percent less and fathers at the 50<sup>th</sup> percentile one percent less than childless men, although these effects are not statistically significant. The higher-order children penalties, however, are at least marginally significant. US fathers at the 25<sup>th</sup> percentile are predicted to earn a statistically-significant 5 percent less. In contrast, a net fatherhood premium persists for US men at the 75<sup>th</sup> and 90<sup>th</sup> percentiles of the earnings distribution, albeit slightly smaller in 1994 than 1986. Overall, there is growing divergence among US as compared with UK fathers because of emerging parental penalties for lower-earning US fathers.

*2004.* The 2004 UK pattern in Model 0 resembles that of 1974, with slightly greater unexplained fatherhood premia among the lowest- as compared with the highest-earning men. Net of partnership, human capital, and labor supply, however, UK fathers in the 10<sup>th</sup> percentile no longer earn a significant premium. As the higher-order children penalty remains statistically significant, this suggests an earnings penalty among UK fathers in the lowest decile not explained by the covariates, much as was evident in the United States in the prior decade. At the

<sup>&</sup>lt;sup>13</sup> At the 25<sup>th</sup> percentile, the 1994 US child premium is greater and the penalty smaller than in 1986, but the differences more or less balance each other out.

25<sup>th</sup>, 50<sup>th</sup>, and 75<sup>th</sup> percentiles, UK fathers still earn a significant net premium of 4 to 5 percent. There is neither a premium nor a higher-order children effect for fathers in the 90<sup>th</sup> percentile, although both are positive (i.e., no higher-order penalty as at lower earnings levels).

The US pattern of relative (dis)advantage has changed somewhat from that in 1994. There are no longer large differences in the fatherhood premia among men before controlling for the covariates (Model 0). For men in the bottom quartile, the premia are fully explained by partnership, human capital, and labor supply. Significant higher-order children penalties remain, but not as large as in 1994. Overall, the lowest-earning US fathers' economic disadvantage as compared with childless men at that point in the distribution is less acute than in 1994. Higherearning US fathers continue to gain economic advantage relative to high-earning childless men. At the 50<sup>th</sup>, 75<sup>th</sup>, and 90<sup>th</sup> percentiles, US men's net fatherhood premia are at least twice the size of their 1994 premia, although the higher-order children penalties are also larger. The US inequality story thus changes from one of growing paternal disadvantage at the bottom of the earnings distribution, to one of growing paternal advantage at the top, a finding consistent with the conclusions of Hodges and Budig (2010).

2010. The patterns in the wake of the 2008 economic crisis do not change essentially from those in 2004, but parental inequalities among men continue to increase. UK fathers in the bottom earnings quartile no longer earn net fatherhood premia. Both the main and squared term are negative for UK men in the  $10^{th}$  percentile once controlling for partnership, human capital, and labor supply, but neither reaches standard levels of statistical significance. For UK men in the  $25^{th}$  percentile, the premium is slight and not statistically significant, whereas the higher-order children penalty is larger than in 2004 and statistically significant. Significant net

fatherhood premia at the 50<sup>th</sup>, 75<sup>th</sup>, and 90<sup>th</sup> percentiles are similar to their 2004 levels. The higher-order children penalties are slightly greater at the 50<sup>th</sup> and 75<sup>th</sup> percentiles than in 2004, whereas the coefficient remains positive for the highest-earning UK men. All in all, the story in the United Kingdom is one of slight disadvantage for the lowest-earning UK fathers relative to childless men at the same point in the earnings distribution. Higher-earning UK fathers retain a modest premium, but at similar levels to earlier decades. In 2010, the UK pattern continues to look like the US pattern in 1994.

Economic disparities among US fathers have widened further, as reflected in further gains in the fatherhood premia for the highest-earning men. US fathers in the bottom quartile face significant penalties net of partnership, human capital, and labor supply when they have larger families (higher-order children penalty). The size of the main child effect is slightly greater for US fathers at the 50<sup>th</sup> and 75<sup>th</sup> percentile of the earnings distribution as compared with 2004, whereas higher-order children penalties are the same. The net fatherhood premium is 4 percentage points greater for US fathers at the 90<sup>th</sup> percentile as compared with 2004, although the higher-order children penalty is also slightly greater. In both years, the premium does not disappear until a man has 6 or more children.<sup>14</sup> The relative and absolute fatherhood premia

The trends over time in fatherhood premia mirror the aggregate trends in men's earnings inequality and support hypotheses about the UK and US differences. The stagnating wages for the bottom half of the earnings distribution are reflected in stagnating fatherhood premia, and indeed penalties once accounting for weekly work hours. The results suggest lower-earning

<sup>&</sup>lt;sup>14</sup> In 2004, solving for x in  $(.11x + -.017x^2) = 0$  gives 6.5; in 2010, solving for x in  $(.15x + -.027x^2) = 0$  gives 5.6.

fathers work hard (as evident in the premia of Model 0 being fully explained by the covariates), but do not always benefit from this effort. In contrast, the highest-earning men receive increasing fatherhood premia unexplained by even long work hours (as indicated by the positive and significant weekly work hours squared coefficient). As anticipated, differences among UK men are somewhat smaller than in the United States and the change in premia over time is less dramatic, as would be expected with the slightly lesser growth in overall inequality. Whether these fatherhood premia patterns explain or simply reflect the growing earnings inequalities among men, however, cannot be ascertained with these data. But results do suggest diverging resources for the next generation even among intact families with an employed father.

# Impact of De-specialization on Men's Earnings

What is the role of de-specialization in these unfolding country stories of fatherhood inequalities among men? Table 3 presents full results for the fifth model, displaying the impact of children and children-squared on men's log of annual earnings, as well as partnership, human capital, labor supply, and partners' earnings (US1974\$000). Also included for 2010 are the separate indicators for marriage and cohabitation, as well as ethnicity. A comparison of the child effects in Table 3 with those in the last model of Table 2 reveals that including a partner's earnings does not substantively alter most men's fatherhood premia after controlling for the other covariates. When it does, it generally increases the fatherhood premia rather than decreasing it, except for some of the highest-earning men in 1974 and 1986. For example, including wives' earnings makes the fatherhood premium for UK men in the 10<sup>th</sup> percentile marginally significant. Thus household specialization in paid work does not account for much of the fatherhood premium among men regardless of decade. These results are consistent with the studies finding no

evidence of specialization effects for most UK or US men (Boeckmann and Budig 2013; Hodges and Budig 2010; Lundberg and Rose 2000).

At the same time, the direct effect of partnered women's earnings on men's differs across the distribution and changes appreciably across the decades. In 1974, US wives' greater earnings predict a slight reduction in all men's earnings as expected with the specialization hypothesis, but none of these effects reach statistical significance. In contrast, each additional \$1,000 earned by UK wives predicted a small percentage *increase* in men's earnings across the bottom half of the distribution, although the effect is statistically significant only at the 25<sup>th</sup> percentile. Despite policy reinforcement of a male breadwinner model, UK men benefited from wives' earnings. Furthermore, Land (1976) noted the number of poor UK two-parent families in which the father was employed full-time would have nearly trebled during the 1970s if fathers' earnings had not been supplemented by mothers'. Among UK men at the 90<sup>th</sup> percentile, in contrast, wives' greater earnings predict a reduction of almost 3 percent in these men's earnings. Specialization was therefore economically important only for the highest-earning UK men in the mid-1970s.

In 1986, results suggest a growing positive impact of UK's wives' earnings on their husbands', with the percentage increase greatest for the lowest-earning men. Positive effects are only marginally significant at the 25<sup>th</sup> and 50<sup>th</sup> percentiles, and not significant for the highest-earning UK men. The US pattern in 1986 resembles the 1974 UK pattern. Wives' greater earnings predict greater earnings for lower-earning men, but a significant penalty for men at the 90<sup>th</sup> percentile, albeit of only 0.1 percent per thousand in wives' earnings.

#### [Table 3 about here]

In 1994, all but the top-earning men in both countries benefit as their wives' earnings increase. UK men's earnings through the 75<sup>th</sup> percentile and US men's earnings through the 50<sup>th</sup>

percentile are predicted to increase 1 percent for every \$1,000 increase in wives' earnings. In 2004, the effect of UK wives' earnings on men's earnings is 40 to 60 percent greater than in 1994, except again for the men at the 90<sup>th</sup> percentile. The increase in the positive impact of wives' earnings on their husbands' is even larger in the United States. The increase is most dramatic for US men at the 75<sup>th</sup> and 90<sup>th</sup> percentiles. Each additional \$1,000 earned by their wives predicts an increase of 2.8 percent in the earnings of US men at the 75<sup>th</sup> percentile, and an increase of 4 percent in earnings for men at the 90<sup>th</sup> percentile. These changing US effects across the earnings distribution may in part explain the divergent group effects for specialization found in the NLSY79 analyses (Hodges and Budig 2010; Killewald 2013).

The 2010 impact of wives' earnings is similar to that in 1994, with one exception. In both countries, wives' earnings in 2010 have the greatest positive effect on the earnings of men at the 90<sup>th</sup> percentile. Each additional \$1,000 earned by a US wife predicts an increase of almost 2 percent in her husband's already high earnings. In the United Kingdom, the impact is greater, predicting a 3.5 percent increase in husbands' earnings. From being the men that most benefited from specialization in the 1970s, the highest-earning UK and US men now benefit the most from a dual-earner household.

The 2010 results include the relative impact of the type of relationship on men's earnings, with only marriage predicting a further premium. The marriage premium is statistically significant for UK men only at the 10<sup>th</sup> and 50<sup>th</sup> percentiles. In the United States, the marriage premium is greatest for the lowest-earning men, but statistically significant for all men below the 90<sup>th</sup> percentile of earnings. Cohabitation in both countries predicts a penalty that is greatest for men in the 90<sup>th</sup> percentile of the distribution, although effects across the rest of the US distribution do not reach standard levels of significance. These findings are consistent with

Cohen's (2002) conclusion that cohabitation has eroded the partnership premium among US men. The cohabitation penalty is greater in the United Kingdom, where cohabitation is also more prevalent.<sup>15</sup>

The controls for ethnicity in the 2010 models do not change the size of the fatherhood premia, but predict further earnings penalties. The UK Black coefficient is statistically significant only in the middle half of the distribution, predicting a 12 to 15 percent<sup>16</sup> earnings penalty. The US Black earnings penalty is slightly greater and statistically significant across the entire earnings distribution. US Hispanics in the bottom quartile face the largest relative earnings penalty, but some significant penalty is predicted at all percentiles. The UK Other Ethnic groups face the largest ethnic penalty in that country, which is greater in the bottom quartile. Family form and ethnicity in conjunction with the fatherhood premia and penalties therefore magnify relative economic (dis)advantage among men and their families.

### CONCLUSIONS

Trends in the fatherhood premium at different points in the earnings distribution follow the aggregate changes in earnings inequality among UK and US men that began in the 1970s. In 1974, most fathers in both countries enjoyed net premia, with the premium for the lowest-earning US fathers slightly greater than along the rest of the distribution. By 1986, any premium among the lowest-earning men was fully explained by the covariates. This is consistent with Lundberg and Rose's (2002) finding that labor supply explained more of the fatherhood premium for the cohort of US men born after 1950.

 $^{16}(100^{*}(e^{.11}-1)) = 12 \%; (100^{*}(e^{.14}-1)) = 15 \%.$ 

<sup>&</sup>lt;sup>15</sup> In 2002, 9 percent of UK adults were cohabiting, as compared with just 6 percent of US adults (Cooke and Baxter 2010: Table 1).

By the 1990s as returns to education continued to increase, the fatherhood premia among higher-earning men began to increase. More surprising was an emerging US fatherhood penalty among lower-earning men. Differences between US fathers continued to widen in 2004 and 2010 as the premia for the highest-earning men increased further. As predicted, greater equity among UK fathers persisted over time and across the earnings distribution, although UK fathers at the 10<sup>th</sup> percentile also faced penalties as the number of children increased. In both countries, however, lower-earning fathers no longer benefit from the work hours invested to support their families as much as higher-earning men.

The looming question is, why? The analyses here revealed only the pattern, and so in conclusion I offer some possible mechanisms that might be tested in subsequent research. One might argue that fatherhood penalties emerged among low-earning men as their wives entered employment and they took on more unpaid care work, whereas high-earning men could purchase care. Time diary data, however, indicate that it is highly-educated UK and US fathers whose time in childcare has increased since the 1970s (Sullivan 2010). In general, results offered little support for the specialization hypothesis in any decade except for the highest-earning men before 2000. Wives' earnings did not substantially change the fatherhood premia, but did predict a direct increase rather than decrease in most men's earnings. Effects were greater among lower-earning men until 2004, suggesting the ability to use a wife's earnings to reduce household demands or the extra security of a second income may have been more important to the productivity of low- as compared with high-earning men. Yet this pattern changed in the United States in 2004 and United Kingdom in 2010, such that now the highest-earning men benefit the most from wives' greater earnings. Comparisons of household divisions of paid and unpaid

work over time are needed to explore the reasons for these changing patterns among dual-earning couples.

Selection may account for the emerging fatherhood penalties at the bottom and growing premia at the top of the earnings distribution. Accounting for the results here, however, requires that selection effects work in opposite ways at the two ends of the earnings distribution. Positive selection would need to explain the increasing fatherhood premia for the highest-earning men, whereas controlling for negative selection may eliminate the observed penalties among lowerearning men. Whether selection effects on the fatherhood premium operate differently depending on the location in the earnings distribution is another fruitful topic for future research with appropriate data.

Barring changes in selection effects, some of the economic explanations for growing earnings inequality may explain the observed patterns among lower-earning men. Trade unions bargained for "family" or "living" wages that raised the wage floor and enabled more men to support dependents (Cooke 2011; Pettit and Hook 2009). Cooke (2013) found less difference in the 2004 fatherhood premia across the earnings distribution in Australia, where trade unions won early family wage victories. Declining unionization might therefore explain the emerging fatherhood penalties along the bottom of the UK and US earnings distributions. Further research analyzing the patterns in more diverse countries with greater income equality such as Germany or Sweden would reveal the importance of wage compression policies in structuring fatherhood penalties or premia across the earnings distribution. Relatedly, future research should also explore the impact of real minimum wages on fatherhood penalties or premia among men. The 1999 introduction of a UK minimum wage may in part be responsible for the greater equity in UK fatherhood effects among men as compared with the US patterns.

Deriving plausible explanations for the patterns along the top of the earnings distribution is more challenging. The SBTC argument credits college-educated workers' ability to harness technology with the growth in top earnings (Katz and Autor 1999). Once controlling for university education as done in the models here, however, it is difficult to conceptualize how technology might also explain steadily increasing fatherhood premia among the highest-earning men.

Instead, the results suggest a growing eugenic structure of market inequalities, most pronounced in the United States where aggregate inequality is greater. Eugenics is both a science and social movement that sought to encourage reproduction among people with "desirable" traits and discourage it among the less "desirable" (Osborne 1937). The trends here suggest the market has evolved to serve this function vis-à-vis economic capacity. Fatherhood penalties among low-earning men discourage reproduction among the poor, whereas the unexplained premia for high-earning men encourage greater reproduction among the most advantaged workers. Unexplained parental penalties and premia are often attributed to employer discrimination, in this case negative discrimination against low-earning fathers and positive discrimination favoring high-earning fathers. This suggests a good extension to Correll and her colleagues' (2007) experimental and audit studies would be to compare parental (and gender and race) effects for different types of jobs, rather than just a fictitious managerial position.

Unregulated UK and US labor markets intensify gross income inequality, but progressive tax policies in both countries may minimize the differences in fatherhood penalties or premia in disposable income. This seems unlikely, however. Taxes narrowed the disposable income distribution only until the mid-1970s (Brandolini and Smeeding 2009). Inequality in after-tax income increased in the United Kingdom beginning in the 1980s, and in the United States during

the 1990s and 2000s (Brandolini and Smeeding 2009; OECD 2011). Other tax policies introduced during the period may have contributed to the emerging penalties for lower-earning fathers. The US Earned Income Tax Credit introduced in 1975<sup>17</sup> and the UK's Working Families Tax Credit introduced in 1999 (Blundell et al. 2000) were enacted to "make work pay" for persons at risk of requiring social transfers. The credits provide additional tax relief on a sliding scale to families with children and at least one adult in employment. These tax credits may have had the unintended consequence of being absorbed into the bottom quartile wage structure as the real value of the US minimum wage, at least, eroded. In other words, the tax credits for enhancing the income of low-earning households could in fact be subsidizing employers' labor costs for low-waged jobs. Assessing the role of taxes and state transfers in easing or reinforcing parental (dis)advantage over time is another important topic for future analyses.

In all, the changing patterns of UK and US fatherhood penalties and premia confirm McLanahan's (2004) concern for the increasingly divergent destinies of children predicted by their parents' resources. Results here, however, suggest that her argued importance of education is just one facet of this growing inequality with eugenic effects. The market and perhaps social action, via employer discrimination, is widening differences among fathers such that relative economic (dis)advantage begets further family (dis)advantage. The cumulative effects across generations paint a bleak picture of future society in unregulated labor markets.

<sup>&</sup>lt;sup>17</sup> See Section 13 of the 1998 Green Book for the U.S. House of Representatives Committee on Ways and Means, http://www.gpo.gov/fdsys/pkg/GPO-CPRT-105WPRT37945/content-detail.html.

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		UNIT	ED KING	DOM			UNI	ITED STAT	res	
	1974	1986	1994	2004	2010	1974	1986	1994	2004	2010
N	3,318	2,722	9,091	8,283	8,839	5,719	5,715	28,749	32,170	24,472
Annual earnings	5,716	7,237	9,439	13,995	11,504	12,074	11,515	11,100	12,114	13,017
(74\$)	(2,182)	(3,201)	(4,913)	(8,533)	(8,220)	(6,140)	(7,407)	(7,489)	(8,568)	(9,240)
Partnered	87	83	70	61	62 mar	81	68	63	65	68 mar
					6 coh					9 coh
Partner's annual	1,174	1,847	3,257	5,781	7,223	3,686	3,838	4,791	8,565	7,338
earnings (74\$00)	(1,422)	(2,351)	(3,502)	(5,722)	(7,261)	(4,656)	(4,423)	(5,045)	(8,396)	(7,832)
No children	38.6	47.9	57.2	58.9	57.3	42.0	51.3	53.0	52.5	55.2
One child < 18	20.3	19.4	16.4	16.2	19.3	18.9	19.8	18.8	18.4	17.7
Two children <	23.8	22.4	18.5	17.9	18.0	19.8	18.3	18.3	18.6	17.6
18										
Three or more	17.3	10.3	7.9	7.0	5.4	19.3	10.6	9.9	10.5	9.5
children < 18										
University degree	-	14	17	30	30	21	31	29	31	38
Age	40.8	39.7	40.2	40.3	41.8	39.8	38.7	38.9	40.7	41.9
	(10.1)	(9.5)	(9.6)	(9.5)	(9.6)	(10.2)	(9.7)	(9.2)	(9.6)	(9.8)
Age <sup>2</sup> 00	17.7	16.7	17.1	17.1	18.4	16.9	15.9	16.0	17.5	18.5
	(8.5)	(7.9)	(7.9)	(7.9)	(8.1)	(8.4)	(8.0)	(7.5)	(8.0)	(8.2)

Table 1Weighted sample descriptive statistics, men aged 25 to 59 years old not still in school, disabled or self-employed,<br/>earning more than US1974\$1 (LIS data, multiple waves)

Weekly work	-	43.4	42.1	44.8	40.1	37.3	39.1	43.6	40.4	43.0
hours		(8.5)	(8.6)	(10.3)	(9.1)	(16.8)	(17.5)	(8.8)	(13.7)	(9.1)
Weekly work	-	19.5	18.4	21.2	16.9	16.8	18.4	19.8	18.2	19.3
hours <sup>2</sup>		(8.1)	(8.0)	(10.2)	(7.8)	(10.3)	(12.0)	(8.2)	(9.9)	(8.5)

				197	74				
			UNITED <b>K</b>	KINGDOM	[		UNITED	STATES	
		Model 0	Model P	Model P+HC	Model P+HC+LS	Model 0	Model P	Model P+HC	Model P+HC+LS
Ν		3,318	3,318	3,318		5,719	5,719	5,719	5,719
10 <sup>th</sup> p	# children < 18	.10***	.07***	.03	-	.34***	.12**	.12**	.09*
	# children <sup>2</sup>	018***	014***	009*		054***	025**	026**	022**
25 <sup>th</sup> p	# children < 18	.10***	.08***	.04**	-	.18***	.06**	.05*	.04*
	# children <sup>2</sup>	016***	013***	008**		027***	011**	011**	009**
50 <sup>th</sup> p	# children < 18	.09***	.08***	.04**	-	.12***	.06***	.06***	.05***
	# children <sup>2</sup>	015***	014***	010*		017***	009***	010***	009***
75 <sup>th</sup> p	# children < 18	.09***	.08***	.06***	-	.08***	.04***	.04***	.04***
	# children <sup>2</sup>	015***	013***	011***		012***	007**	008**	007**
90 <sup>th</sup> p	# children < 18	.08***	.06**	.05*	-	.07**	.04**	.07***	.07***
	# children <sup>2</sup>	011**	009*	009*		011***	008**	011***	011***

Table 2 Effect of fatherhood on UK and US men's log gross annual wage distribution from nested RIF regression models

 $+ p \le .10 * p \le .05 ** p \le .01 *** p \le .001$ 

Model 0: # children < 18, no other covariates;

Model P: Model 0 plus partnered;

Model P+HC: Model P plus human capital (university, age, age-squared);

				198	86				
		1	UNITED <b>K</b>	KINGDOM	[		UNITED	STATES	
		Model 0	Model P	Model P+HC	Model P+HC+LS	Model 0	Model P	Model P+HC	Model P+HC+LS
N		2,722	2,722	2,722	2,722	5,715	5,715	5,715	5,715
10 <sup>th</sup> p	# children < 18	.06+	.01	.00	.00	.26***	.06	.04	.01
	# children <sup>2</sup>	012	002	002	002	059***	031*	029+	018
25 <sup>th</sup> p	# children < 18	.09***	.07**	.04	.03	.27***	.07+	.08*	.06+
	# children <sup>2</sup>	016*	012+	008	006	071***	042***	043***	037***
50 <sup>th</sup> p	# children < 18	.11***	.08**	.05+	.04	.13***	.02	.05**	.04*
	# children <sup>2</sup>	018*	014+	009	007	031***	015***	019***	016***
75 <sup>th</sup> p	# children < 18	.15***	.12***	.10**	.09**	.09***	.01	.06**	.05**
	# children <sup>2</sup>	040***	034***	032***	030***	019***	008*	013***	011**
90 <sup>th</sup> p	# children < 18	.11**	.08+	.06	.05	.08***	.00	.06**	.06*
	# children <sup>2</sup>	027*	021	019	017	015***	004	011*	010*

 $+ p \le .10 * p \le .05 * p \le .01 * p \le .01$ 

Model 0: # children < 18, no other covariates;

Model P: Model 0 plus partnered;

Model P+HC: Model P plus human capital (university, age, age-squared);

				199	)4				
		1	UNITED <b>k</b>	KINGDOM	[		UNITED	STATES	
		Model 0	Model P	Model P+HC	Model P+HC+LS	Model 0	Model P	Model P+HC	Model P+HC+LS
Ν		9,091	9,091	9,091	9,091	28,749	28,749	28,749	28,749
10 <sup>th</sup> p	# children < 18	.18***	.13***	.07**	.05*	.23***	.02	.01	02
	# children <sup>2</sup>	050***	041***	033***	023***	054***	022***	021***	013***
25 <sup>th</sup> p	# children < 18	.13***	.08***	.04*	.03*	.16***	05***	04**	05***
	# children <sup>2</sup>	031***	023***	017***	014***	034***	005	006*	001
50 <sup>th</sup> p	# children < 18	.14***	.10***	.07***	.06***	.11***	03**	.00	01
	# children <sup>2</sup>	028***	022***	018***	017***	023***	002	006**	004+
75 <sup>th</sup> p	# children < 18	.13***	.09***	.08***	.08***	.09***	02+	.03***	.03***
	# children <sup>2</sup>	029***	022***	022***	021***	019***	003	009***	007***
90 <sup>th</sup> p	# children < 18	.10***	.04*	.03*	.05*	.09***	01	.06***	.05***
	# children <sup>2</sup>	021***	013*	014**	014*	018***	003	010***	010***

 $+ p \le .10 * p \le .05 * p \le .01 * p \le .01$ 

Model 0: # children < 18, no other covariates;

Model P: Model 0 plus partnered;

Model P+HC: Model P plus human capital (university, age, age-squared);

				200	)4				
		١	UNITED K	KINGDOM	[		UNITED	STATES	
		Model 0	Model P	Model P+HC	Model P+HC+LS	Model 0	Model P	Model P+HC	Model P+HC+LS
N		8,283	8,283	8,283	8,283	32,170	32,170	32,170	32,170
10 <sup>th</sup> p	# children < 18	.11***	.07*	.03	.02	.13***	.02	.01	.00
	# children <sup>2</sup>	035***	029**	023*	019*	026***	010**	009**	006*
25 <sup>th</sup> p	# children < 18	11***	.07***	.05**	.04**	.12***	.01	.02+	.01
	# children <sup>2</sup>	028***	022***	020***	017***	027***	011***	011***	009***
50 <sup>th</sup> p	# children < 18	.10***	.06***	.05***	.05***	.12***	.02	.04***	.04***
	# children <sup>2</sup>	023***	015***	016***	013***	024***	010***	011***	010***
75 <sup>th</sup> p	# children < 18	.09***	.03	.05**	.04**	.13***	.04***	.08***	.07***
	# children <sup>2</sup>	011*	002	006	004	025***	013***	015***	014***
90 <sup>th</sup> p	# children < 18	.06	.00	.03	.03	.16***	.07***	.12***	.11***
	# children <sup>2</sup>	.004	.014	.008	.011	027***	015***	018***	017***

 $+ p \le .10 * p \le .05 * p \le .01 * p \le .01$ 

Model 0: # children < 18, no other covariates;

Model P: Model 0 plus partnered;

Model P+HC: Model P plus human capital (university, age, age-squared);

				201	10				
		۱	UNITED K	KINGDOM	[		UNITED	STATES	
		Model 0	Model P	Model P+HC	Model P+HC+LS	Model 0	Model P	Model P+HC	Model P+HC+LS
Ν		8,839	8,839	8,839	8,839	24,472	24,472	24,472	24,472
10 <sup>th</sup> p	# children < 18	.11***	.09+	03	03	.14***	.02	.02	01
	# children <sup>2</sup>	053***	048**	028+	015	030***	012**	011*	008+
25 <sup>th</sup> p	# children < 18	.15***	.10***	.02	.02	.13***	.04***	.04***	.03+
	# children <sup>2</sup>	050***	041***	027***	022**	028***	015***	014***	012***
50 <sup>th</sup> p	# children < 18	.16***	.11***	.06***	.06***	.12***	.05***	.06***	.05***
	# children <sup>2</sup>	042***	032***	023***	021***	024***	013***	014***	010***
75 <sup>th</sup> p	# children < 18	.14***	.09***	.06**	.06**	.13***	.06***	.09***	.08***
	# children <sup>2</sup>	025***	014*	008	007	024***	012***	014***	013***
90 <sup>th</sup> p	# children < 18	.14***	.06	.04	.04	.18***	.11***	.16***	.15***
	# children <sup>2</sup>	010	.005	.011	.012	034***	024***	028***	027***

 $+ p \le .10 * p \le .05 ** p \le .01 *** p \le .001$ 

Model 0: # children < 18, no other covariates;

Model P: Model 0 plus partnered;

Model P+HC: Model P plus human capital (university, age, age-squared);

				19	974					
		UNII	ED KING	DOM			UN	ITED STAT	ГES	
	10 <sup>TH</sup> P	25 <sup>TH</sup> P	50 <sup>TH</sup> P	75 <sup>TH</sup> P	90 <sup>TH</sup> P	10 <sup>TH</sup> P	25 <sup>TH</sup> P	50 <sup>TH</sup> P	75 <sup>TH</sup> P	90 <sup>TH</sup> P
	.04+	.04**	.05**	.05***	.04	.09*	.04+	.05***	.04**	.06***
# children < 18	(.02)	(.02)	(.01)	(.03)	(.03)	(.04)	(.02)	(.01)	(.01)	(.02)
	009*	009**	010***	011***	007	021**	009*	009***	007***	011***
# children <sup>2</sup>	(.004)	(.003)	(.003)	(.003)	(.004)	(.009)	(.004)	(003)	(.003)	(.003)
	.20***	.15***	.11***	.09***	.15***	.74***	.44***	.18***	.12***	.04
Partner ( <i>1</i> =yes)	(.04)	(.03)	(.02)	(.03)	(.04)	(.08)	(.04)	(.02)	(.02)	(.02)
Partner's earnings	.010	.011*	.005	007	026*	005	001	001	001	002
(000)	(.006)	(.006)	(.006)	(.007)	(.012)	(.005)	(.002)	(.001)	(.001)	(.002)
	-	-	-	-	-	.24***	.30***	.33***	.45***	.62***
University ( <i>1</i> =yes)						(.05)	(.02)	(.02)	(.02)	(.03)
	.03***	.04***	.04***	.05***	.06***	.12***	.08***	.07***	.07***	.06***
Age	(.01)	(.01)	(.01)	(.01)	(.01)	(.02)	(.01)	(.01)	(.01)	(.01)
	05***	06***	05***	06***	07***	13***	09***	07***	08***	06***
$Age^{2}(00)$	(.01)	(.01)	(.01)	(.01)	(.02)	(.03)	(.00)	(.01)	(.01)	(.01)
	-	-	-	-	-	.05***	.02***	.01***	.00	005**
Weekly work hours						(.01)	(.00)	(.00)	(.00)	(.002)
Weekly work	-	-	-	-	-	04***	01***	004*	.006**	.015***
hours <sup>2</sup> (00)						(.01)	(.00)	(.00)	(.002)	(00)
	7.40***	7.46***	7.66***	7.77***	7.71***	4.14***	6.43***	7.45***	7.74***	8.22***
Constant	(.21)	(.16)	(.14)	(.16)	(.23)	(.47)	(.21)	(.13)	(.13)	(.16)
Ν	3318	3318	3318	3318	3318	5719	5719	5719	5719	5719
Adjusted $R^2$	.03	.05	.04	.02	.02	.12	.15	.15	.18	.15

Table 3.Model P+HC+LS+ partners' earnings on the effects of children on UK and US men's log annual earnings from RIF<br/>regressions

				19	986					
		UNI	TED KING	DOM				ITED STA		
	10 <sup>TH</sup> P	25 <sup>TH</sup> P	50 <sup>TH</sup> P	75 <sup>TH</sup> P	90 <sup>TH</sup> P	10 <sup>TH</sup> P	25 <sup>TH</sup> P	50 <sup>TH</sup> P	75 <sup>TH</sup> P	90 <sup>TH</sup> P
	.03	.04	.05+	.11***	.06	.02	.07+	.04*	.05**	.05*
# children < 18	(.04)	(.03)	(.03)	(.03)	(.04)	(.06)	(.04)	(.02)	(.02)	(.03)
	005	008	008	032***	018	018	037***	016***	011**	009*
# children <sup>2</sup>	(.011)	(.007)	(.008)	(.009)	(.012)	(.016)	(.008)	(.004)	(.004)	(.005)
	.12*	.06	.07*	.07+	.09*	.46***	.46***	.24***	.14***	.16***
Partner (1=yes)	(.05)	(.04)	(.03)	(.04)	(.04)	(.08)	(.05)	(.03)	(.03)	(.03)
Partner's earnings	.019***	.008+	.009+	.014*	.006	.003	.012**	.000	002	009*
(000)	(.006)	(.004)	(.005)	(.007)	(.009)	(.007)	(.004)	(.003)	(.003)	(.004)
	.27***	.28***	.40***	.43***	.35***	.29***	.43***	.38***	.43***	.57***
University ( <i>l</i> =yes)	(.03)	(.02)	(.03)	(.04)	(.06)	(.05)	(.04)	(.02)	(.02)	(.04)
	.03+	.07***	.09***	.09***	.07***	.15***	.16***	.09***	.07***	.06***
Age	(.02)	(.01)	(.01)	(.01)	(.01)	(.03)	(.02)	(.01)	(.01)	(.01)
	03+	08***	10***	10***	08***	17***	18***	10***	07***	05***
$Age^{2}(00)$	(.02)	(.01)	(.01)	(.01)	(.02)	(.03)	(.02)	(.01)	(.01)	(.02)
	.07***	.02*	01	01	.00	.06***	.03***	.01***	.003*	004*
Weekly work hours	(.02)	(.01)	(.01)	(.01)	(.01)	(.01)	(.00)	(.00)	(.001)	(.002)
Weekly work	06***	01	.01+	.02+	.01	04***	02***	00	.004*	.015***
hours <sup>2</sup> (00)	(.02)	(.01)	(.01)	(.01)	(.01)	(.01)	(.00)	(.00)	(.002)	(.003)
	5.61***	6.54***	6.88***	7.16***	7.56***	3.20***	3.95***	6.55***	7.54***	8.21***
Constant	(.50)	(.29)	(.26)	(.29)	(.34)	(.57)	(.35)	(.18)	(.17)	(.23)
Ν	2722	2722	2722	2722	2722	5715	5715	5715	5715	5715
Adjusted $R^2$	.04	.07	.11	.10	.04	.11	.16	.17	.15	.11

				19	994					
		UNII	ED KING	DOM				ITED STAT	ΓES	
	10 <sup>TH</sup> P	25 <sup>TH</sup> P	50 <sup>TH</sup> P	75 <sup>TH</sup> P	90 <sup>TH</sup> P	10 <sup>TH</sup> P	25 <sup>TH</sup> P	50 <sup>TH</sup> P	75 <sup>TH</sup> P	90 <sup>TH</sup> P
	.06**	.05***	.08***	.09***	.05*	01	04***	.00	.03***	.05***
# children < 18	(.02)	(.02)	(.01)	(.01)	(.02)	(.02)	(.01)	(.01)	(.01)	(.01)
	025***	015***	018***	022***	014**	013*	001	004+	007***	010***
# children <sup>2</sup>	(.006)	(.004)	(.004)	(.014)	(.006)	(.005)	(.003)	(.002)	(.002)	(.002)
	.25***	.23***	.19***	.15***	.12***	.39***	.35***	.19***	.13***	.10***
Partner (1=yes)	(.03)	(.02)	(.02)	(.02)	(.03)	(.03)	(.02)	(.01)	(.01)	(.01)
Partner's earnings	.010***	.011***	.010***	.007***	.002	.008***	.013***	.010***	.004***	000
(000)	(.002)	(.002)	(.001)	(.001)	(.003)	(.002)	(.001)	(.001)	(.001)	(.002)
	.30***	.34***	.42***	.49***	.58***	.29***	.38***	.46***	.53***	.67***
University (1=yes)	(.02)	(.01)	(.01)	(.02)	(.04)	(.02)	(.01)	(.01)	(.01)	(.02)
	.06***	.06***	.07***	.07***	.07***	.08***	.11***	.10***	.06***	.04***
Age	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.00)	(.00)	(.01)
	08***	08***	08***	08***	08***	09***	12***	10***	05***	03***
$Age^{2}(00)$	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
	.13***	.04***	.01***	00	01	.29***	.14***	.05***	.02***	.00
Weekly work hours	(.01)	(.00)	(.00)	(.00)	(.01)	(.01)	(.00)	(.00)	(.00)	(.00)
Weekly work	12***	04***	01**	.00	.01	27***	12***	03***	01*	.02***
hours <sup>2</sup> (00)	(.01)	(.00)	(.00)	(.00)	(.01)	(.01)	(.00)	(.00)	(.00)	(.00)
	3.89***	6.07***	6.93***	7.51***	7.83***	-1.43***	2.31***	5.13***	7.09***	8.07***
Constant	(.25)	(.15)	(.13)	(.13)	(.21)	(.26)	(.15)	(.10)	(.09)	(.11)
Ν	9091	9091	9091	9091	9091	28749	28749	28749	28749	28749
Adjusted $R^2$	.12	.09	.12	.12	.07	.18	.20	.22	.21	.17

				20	004					
			<b>FED KING</b>	DOM				ITED STA	TES	
	10 <sup>TH</sup> P	25 <sup>TH</sup> P	50 <sup>TH</sup> P	75 <sup>TH</sup> P	90 <sup>TH</sup> P	10 <sup>TH</sup> P	25 <sup>TH</sup> P	50 <sup>TH</sup> P	75 <sup>TH</sup> P	90 <sup>TH</sup> P
	.03	.05**	.05***	.05**	.03	01	.00	.02***	.06***	.09***
# children < 18	(.03)	(.02)	(.01)	(.02)	(.03)	(.01)	(.01)	(.01)	(.01)	(.01)
	017*	016***	012**	003	.011	004	006*	007***	010***	011***
# children <sup>2</sup>	(.008)	(.005)	(.004)	(.005)	(.009)	(.003)	(.003)	(.002)	(.002)	(.003)
	.04+	.04*	.04*	.05***	.09***	.19***	.15***	.10***	00	11***
Partner (1=yes)	(.02)	(.02)	(.02)	(.02)	(.03)	(.02)	(.01)	(.01)	(.01)	(.01)
Partner's earnings	.016***	.014***	.014***	.010***	.002	.015***	.020***	.021***	.028***	.040***
(000)	(.001)	(.001)	(.001)	(.002)	(.003)	(.001)	(.001)	(.000)	(.001)	(.001)
	.19***	.28***	.41***	.61***	.67***	.14***	.30***	.42***	.57***	.73***
University (1=yes)	(.02)	(.01)	(.01)	(.02)	(.03)	(.01)	(.01)	(.01)	(.01)	(.02)
	.06***	.06***	.07***	.07***	.06***	.07***	.07***	.06***	.05***	.04***
Age	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.00)	(.00)	(.01)
	07***	07***	08***	08***	06***	08***	08***	06***	05***	04***
$Age^{2}(00)$	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.00)	(.01)	(.01)
	.13***	.06***	.03***	.02***	.02***	.05***	.02***	.01***	.00	01***
Weekly work hours	(.01)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)
Weekly work	11***	04***	02***	01**	01	03***	01***	.003**	.01***	.02***
hours <sup>2</sup> (00)	(.01)	(.00)	(.00)	(.00)	(.01)	(.00)	(.00)	(.001)	(.00)	(.00)
	3.79***	5.86***	6.58***	6.94***	7.43***	5.35***	6.10***	7.19***	7.84***	8.41***
Constant	(.26)	(.16)	(.13)	(.15)	(.22)	(.16)	(.11)	(.07)	(.08)	(.11)
Ν	8283	8283	8283	8283	8283	32170	32170	32170	32170	32170
Adjusted $R^2$	.19	.16	.21	.22	.13	.11	.17	.25	.26	.21

				20	010					
			TED KING					ITED STA		
	10 <sup>TH</sup> P	25 <sup>TH</sup> P	50 <sup>TH</sup> P	75 <sup>TH</sup> P	90 <sup>TH</sup> P	10 <sup>TH</sup> P	25 <sup>TH</sup> P	50 <sup>TH</sup> P	75 <sup>TH</sup> P	90 <sup>TH</sup> P
	02	.03	.07***	.08***	.08*	.00	.03**	.06***	.08***	.15***
# children < 18	(.04)	(.02)	(.02)	(.02)	(.04)	(.02)	(.01)	(.01)	(.01)	(.01)
	013	021**	021***	007	.010	007+	010***	011***	012***	024***
# children <sup>2</sup>	(.013)	(.007)	(.005)	(.006)	(.012)	(.004)	(.003)	(.002)	(.003)	(.003)
	.06	.12***	.08***	.04+	01	.25***	.15***	.11***	.07***	03
Married	(.04)	(.02)	(.02)	(.02)	(.03)	(.03)	(.02)	(.01)	(.01)	(.02)
	19*	19***	17***	18***	22***	02	03	03+	01	08***
Cohabiting	(.08)	(.04)	(.03)	(.03)	(.05)	(.04)	(.03)	(.02)	(.02)	(.02)
Partner's earnings	.012***	.009***	.010***	.015***	.035***	.004***	.006***	.006***	.009***	.019***
(000)	(.002)	(.001)	(.001)	(.001)	(.003)	(.001)	(.001)	(.001)	(.001)	(.001)
	.27***	.33***	.44***	.59***	.79***	.26***	.33***	.45***	.59***	.64***
University ( <i>l</i> =yes)	(.03)	(.02)	(.02)	(.02)	(.04)	(.02)	(.01)	(.01)	(.01)	(.02)
	.05**	.08***	.08***	.08***	.09***	.07***	.07***	.06***	.06***	.04***
Age	(.02)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.00)	(.00)	(.01)
	07***	10***	09***	08***	09***	07***	08***	06***	05***	03***
$Age^{2}(00)$	(.02)	(.01)	(.01)	(.01)	(.02)	(.01)	(.01)	(.01)	(.01)	(.01)
	.32***	.11***	.05***	.02***	.01*	.18***	.09***	.03***	.02***	.01***
Weekly work hours	(.01)	(.00)	(.00)	(.00)	(.001)	(.01)	(.00)	(.00)	(.00)	(.00)
Weekly work	33***	11***	05***	02***	.01*	16***	07***	02***	00	.01**
hours <sup>2</sup> (00)	(.01)	(.01)	(.00)	(.00)	(.01)	(.01)	(.00)	(.00)	(.00)	(.00)
	.15	11+	13**	14*	05	15***	21***	18***	16***	16***
Black ( <i>R</i> = <i>White</i> )	(.11)	(.07)	(.05)	(.06)	(.11)	(.03)	(.02)	(.02)	(.02)	(.02)
Hispanic ( <i>R</i> = <i>White</i> )	-	-	-	-	-	39***	36***	22***	13***	06***
						(.03)	(.02)	(.01)	(.01)	(.02)
Other ethnicity	40***	27***	18***	11***	09	12***	15***	07***	02	05+

(R=White)	(.07)	(.04)	(.03)	(.03)	(.06)	(.03)	(.02)	(.02)	(.02)	(.03)
	.20	4.44***	6.03***	6.83***	6.65***	1.92***	4.76***	6.61***	7.32***	7.92***
Constant	(.41)	(.21)	(.15)	(.15)	(.26)	(.25)	(.14)	(.09)	(.10)	(.14)
N	8839	8839	8839	8839	8839	24472	24472	24472	24472	24472
Adjusted $R^2$	.23	.16	.17	.19	.14	.16	.20	.24	.22	.15

+ p <= .10 \* p <= .05 \*\* p <= .01 \*\*\* p <= .001