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High income men have high value as long-term mates in the U.S.: personal income and the probability of marriage, divorce, and childbearing in the U.S.

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ABSTRACT

Using data from the first Census data set that includes complete measures of male biological fertility for a large-scale probability sample of the U.S. population (the 2014 wave of the Study of Income and Program Participation-$N = 55{,}281$), this study shows that high income men are more likely to marry, are less likely to divorce, if divorced are more likely to remarry, and are less likely to be childless than low income men. Men who remarry marry relatively younger women than other men, on average, although this does not vary by personal income. For men who divorce who have children, high income is not associated with an increased probability of having children with new partners. Income is not associated with the probability of marriage for women and is positively associated with the probability of divorce. High income women are less likely to remarry after divorce and more likely to be childless than low income women. For women who divorce who have children, high income is associated with a lower chance of having children with new partners, although the relationship is curvilinear. These results are behavioral evidence that women are more likely than men to prioritize earning capabilities in a long-term mate and suggest that high income men have high value as long-term mates in the U.S.

1. Introduction

Personal income has been found to be associated with fertility for men and women in opposite ways in a variety of modern, industrialized societies, with higher income men having more biological children relative to lower income men and higher income women having fewer biological children compared to lower income women. This has been shown in the U.S. (Hopcroft, 2006, 2015, 2019; Stulp, Sear, Schaffnit, Mills, & Barrett, 2016), the U.K. (Nettle & Pollet, 2008), Norway (Lappegård & Rønsen, 2013), Sweden (Fieder & Huber, 2007; Goodman & Koupil, 2010), and Finland (Nisén, Martikainen, Myrskylä, & Silventoinen, 2018), although there are signs that the negative income fertility relationship for women is changing among recent cohorts in Scandinavia (e.g. Jalovaara et al., 2019; Kravdal & Rindfuss, 2008)

These findings are relevant to two separate theoretical literatures – literature in behavioral ecology and evolutionary demography on the positive relationship between status and reproductive success particularly for men in pre-industrial societies (Borgerhoff Mulder, 1987; Von Rueden, Gurven, & Kaplan, 2011; Von Rueden & Jaeggi, 2016; and its seeming disappearance in modern societies (Nettle, Gibson, Lawson, & Sear, 2013; Perusse, 1993; Sear, Lawson, Kaplan, & Shenk, 2016; Vining, 1986); and literature in evolutionary psychology regarding sex differences in mate preferences (Buss, 1989, 2016; Buss & Schmitt, 2019).

Extensive evidence from pre-industrial societies suggests that status is positively related to reproductive success for men in pre-industrial societies, whether status is measured as landownership, hunting ability, prestige, or wealth (see Table 1 in Hopcroft, 2006; Von Rueden & Jaeggi, 2016; Low, 2020). With modernization, fertility rates decline (Hruschka & Burger, 2016; Low, 2020), and they tend to decline among the elite first (Sear, Lawson, Kaplan, & Shenk, 2016). In most modern societies, status as measured by education, occupation, or household income is usually negatively correlated with fertility (see review in Skirbekk, 2008). Yet the great majority of demographic studies measure female fertility or number of children in the household and not male fertility. Other surveys (such as the U.S. General Social Survey) measure fertility using questions about the respondent's number of children that do not specify biological children. As a result fertility for men is often mismeasured, as men are more likely than women to misreport their number of children, to have step-children in the home, and to have children not in the household (Coleman, 2000; Joyner et al., 2012; Zhang, 2011). Further, the effects of personal income on fertility have been understudied, as family demographers usually measure personal

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Table 1
Means and Standard errors (in brackets).

	Women (Standard Error)	Men (Standard Error)
Age	47.712 (0.022)	46.239 (0.025)
Black	0.130 (0.000)	0.116 (0.000)
Hispanic	0.146 (0.000)	0.157 (0.001)
Monthly Personal Income (thousands)	2.547 (0.026)	4.223(0.081)
Education (years)	13.502 (0.017)	13.428 (0.023)
Ever Married (Proportion)	0.747 (0.002)	0.691 (0.002)
Ever Divorce (Proportion)	0.251 (0.003)	0.228 (0.003)
Multiple Marriages (Proportion)	0.237 (0.003)	0.242 (0.003)
Have Children (Proportion)	0.721 (0.003)	0.624 (0.003)
Multiple Child-Bearing Unions (Proportion)	0.120 (0.002)	0.091 (0.002)

status as education not personal income (Guzzo & Hayford, 2020; Trimarchi & Van Bavel, 2017). Yet in the U.S. education alone does not have a very strong positive correlation with income (Horowitz, 2018; Hout, 2012), and it is income or wealth that is most likely to be important for reproductive decision-making (Stulp & Barrett, 2016). Nevertheless, among behavioral ecologists and others, the consensus is that the decline in fertility in modern societies is maladaptive, that is, that status is no longer associated with reproductive success in contemporary societies (Goodman, Koupil, & Lawson, 2012; Lawson & Borgerhoff Mulder, 2016; Nettle et al., 2013; Perusse, 1993; Vining, 1986). The finding that one important form of status (personal income) is positively associated with fertility for men, primarily because low income men are more likely to be childless than high income men (Von Rueden et al., 2011; Fieder, Huber, & Bookstein, 2011; Barthold, Myrskylä, & Jones, 2012; Hopcroft, 2015), suggests that at least for men status is still associated with reproductive success.

The positive relationship between income and fertility for men is also relevant to sexual strategies theory in evolutionary psychology and research on mate preferences. Much of this research finds that financial prospects and status in a long-term mate are a higher priority for women than for men (Buss, 1989, 2016; Buss & Schmitt, 2019; Fales et al., 2016; Walter et al., 2020; Wang et al., 2018; Williams & Sulikowski, 2020). Other studies find these preferences correlated with mate choices and actual partner characteristics (Conroy-Beam & Buss, 2016; Gerlach, Arslan, Schultze, Reinhard, & Penke, 2019; Li et al., 2013; Todd, Penke, Fasolo, & Lenton, 2007). This is further supported by evidence that low income or unemployed men are less likely to be married (Ellis, Hoskin, & Ratnasingam, 2018; Ellwood & Jencks, 2004; Griliches & Mason, 1972; Kanazawa, 2003) and more likely to be divorced (Jalovaara, 2001; Killewald, 2016).

The correlation between stated preferences and actual partner characteristics may not be causal for the reasons discussed by Eastwick, Finkel, and Simpson (2019). Yet if it assumed that female choice does influence the occurrence of marriage, divorce, and childbearing, and high income men are more likely than low income men to be married, are less likely to be divorced, are more likely to remarry after divorce, and are less likely to be childless; this suggests a revealed female preference for earning capability in a male long-term mate, regardless of stated preferences or ideals. If on the other hand it is assumed that male choice also influence marriage, divorce, and childbearing, and female earning capabilities are unrelated or negatively related to female marriage and childbearing, unrelated or positively related to female divorce, and unrelated or negatively related to female remarriage after divorce, this suggests no male revealed preference for earning capability in a long-term mate.

Further, sexual strategies theory predicts a male preference for younger women as mates (Buss & Schmitt, 2019; Conroy-Beam & Buss, 2019; Walter et al., 2020), and men with higher personal incomes may be more likely to be able to fulfill this preference. Divorced, higher income men may also be more likely to have children with new partners than lower income, divorced men.

This paper tests the hypotheses that high income males: (1) are more likely than low income males to marry; (2) if married are less likely to ever divorce; (3) if divorced are more likely to remarry; and (4) if remarried are more likely to marry relatively younger women. Conversely, it is hypothesized that (5) high income women are not more likely to marry than low income women. Given that men are less likely to value income earning in a mate and divorced women are more likely to support themselves, (6) high income for women is likely to be positively associated with divorce; and (7) high income women, if divorced, are not more likely to remarry than low income women. It is further hypothesized that (8) high income men are more likely than low income men to have children, and (9) if divorced, are more likely to have additional children with new partners. Because of assortative mating, well-educated women with higher earning capability are more likely to marry well educated men with higher earning capability (Kalmijn, 1998). However, life history theory suggests that women in particular may tradeoff resource acquisition and child bearing and child raising (Kaplan & Lancaster, 2003) and so may reduce their income earning activities after having children. Thus it is hypothesized that (10) high earning women are more likely than low earning women to be childless, and (11) if they have children and divorce, are less likely to have children with new partners.

These hypotheses are tested using a recent nation-wide survey that includes complete measures of male biological fertility – the 2014 wave of the study of Income and Program Participation (SIPP) – as well as measures of income from all sources. The SIPP study is the first study by the U.S. Census to collect full fertility histories from both men and women (Monte & Knop, 2019). Further, the measures of income from all sources available in the SIPP allows a full examination of the role of personal income in shaping the marriage and fertility behavior of men and women. This study thus sheds new light on contemporary long-term mate selection and child bearing processes with a large, representative sample of Americans, something few evolutionary studies of mate preference and selection processes do (Barrett, 2020).

2. 2014 SIPP data

The SIPP sampling universe is the civilian, noninstitutionalized population of the United States. The sampling universe is based on addresses from multiple sources, chiefly the 2010 decennial census, and contains approximately 304.4 million individuals. SIPP sampled housing units from the current Master Address File (MAF), which is maintained by the US Census Bureau and is the source of addresses for the American Community Survey, other demographic surveys, and the decennial census. The MAF is updated using the US Postal Service's Delivery Sequence File and various automated, clerical, and field operations. The 2014 SIPP sample is a multistage stratified sample of 53,070 housing units from 820 sample areas designed to represent the civilian, noninstitutionalized population. The Census Bureau employs a two-stage sample design to select the SIPP sample: (1) selection of primary sampling units (PSUs) and (2) selection of addresses within sample PSUs. Information on all individuals in the sampled households over the age of 15 was collected between February and June 2014, resulting in 67,994 personal interviews and a response rate of 70.19%. In addition to personal interviews, proxy interviews occurred in which respondents give information on all individuals over the age of 15 who were not present at the time of the interview. The SIPP data can be found at https://www.census.gov/programs-surveys/sipp/data/2014-panel/wave-1.html. The analyses presented here only use data on respondents aged 18 and over. The individual person weightings designed by the census included in the analysis (see below) adjust for the lack of independence between cases because of the clustering in households and allow for the analysis of the data as a representative sample of adults in the US.

2.1. Variables

Monthly Personal Income (in $1000s) is the sum of reported monthly earnings and income amounts received by an individual from all sources (jobs, businesses, rental property, investments, annuities, trust funds, government programs, alimony, etc.) during the previous year. This is a variable constructed and top-coded by the Census with a ceiling value for privacy reasons. Top coding means that values at the top of the distribution for the variable are replaced by the mean or median of that variable. Because this variable includes business and investment income and loss, it can be negative and therefore cannot be logged.

The independent variables measuring marriage and divorce are as follows: *Ever Married* (1 = yes, 0 = no); *Ever Divorced* (1 = yes, 0 = no); *Ever Remarried after Divorce* (1 = yes, 0 = no).

The independent variables measuring reproduction are: *Ever have biological children* (1 = yes, 0 = no); *Ever have children with more than one partner* (1 = yes, 0 = no).

Because the probability of marriage and childbearing has declined in recent generations in the U.S., and the probability of divorce has increased, *Age* (Respondent's age in years) and *Age-squared* are included as control variables.

Black (1 = black, 0 = non-black) was controlled because previous research shows important differences in income and multi-partner fertility between blacks and non-blacks in the U.S. (Guzzo & Furstenberg, 2007).

Hispanic (1 = Hispanic, 0 = non-Hispanic) is also controlled because there are important differences in the relationship between income and fertility between Hispanic and non-Hispanic groups in the U.S. (Johnson & Lichter, 2016).

Relative age of current wife (men living with spouses only). This is calculated as the difference in years between husband's age and current wife's age.

Education (measured as years of education) is controlled to disentangle the effects of income and education on outcomes.

Last, because average incomes vary across the U.S. by state, state of residence is controlled by including a set of dummy variables for the states and the District of Columbia.

3. Methods

Data were analyzed using logistic regression methods for stratified samples using SAS 9.4.

The basic model estimated here is as follows:

$$log\,[p(x)/(1-p(x))] = \beta_0 + \beta_1 x \ldots$$

Log = natural log.
p(x) = probability of event x.
β_0 = intercept.
x = predictor.
β_1 = logistic regression coefficient.

Following recommendations by the Census for the sample structure of the SIPP (see https://www.census.gov/content/dam/Census/programs-surveys/sipp/methodology/2014-SIPP-Panel-Users-Guide.pdf) (see also Rust & Rao, 1996), Fay's (1990) modified balanced repeated replication (BRR) method was used for estimating variances in the logistic regression models. Balanced repeated replication methods are used for estimating the variance of a statistic obtained by stratified sampling. The difference between the basic BRR method and Fay's method is that the BRR method uses replicate factors of 0 and 2, whereas Fay's method uses one factor, k, which is in the range (0,1), with the other factor equal to $2 - k$. In Fay's method, the introduction of the perturbation factor $(1-k)$ allows the use of both halves of the sample. Thus, Fay's method has the advantage that no subset of the sample units in a particular classification will be totally excluded. The variance formula for Fay's method is:

$$\mathrm{Var}(\theta_0) = \frac{1}{[G(1-k)^2]} \sum_{i=1}^{G} (\theta_i - \theta_0)^2,$$

where G = number of replicates, $1 - k$ = perturbation factor, and i = replicate i, $i = 1, \ldots, G$.

The 2014 panel uses 240 replicate weights. All replicate weights are calculated based on a perturbation factor of 0.5 ($k = 0.5$). Replicate weights were computed by the Census and are available on the data website.

In addition to the replicate weights, the Census provides individual person weights for use in analyses such as this one (with the person as the unit of analysis) to create unbiased estimates of variances, and these were also included in all analyses.

4. Results

Table 1 gives means and standard errors for all variables. This table shows that women in the sample have slightly higher proportions ever married, ever divorced, ever have children, and have multiple child bearing unions. Men in the sample have higher average monthly personal incomes, and a higher proportion of men than women have multiple marriages. All the differences in means for men and women are significant except for the difference in mean proportion with multiple marriages.

Table 2 gives the logistic regression results for the effects of income on the likelihood of ever married, ever divorced, and married more than once. Parameters shown are the logistic regression coefficients for men and women separately, and the sex difference is the significance of the interaction between sex and each predictor variable. Not shown are controls for state of residence to adjust for differences in average incomes across states.

4.1. Ever married

For both women and men age, age-squared, Black, and years of education are significant predictors of the log odds of ever being married. Hispanic is a significant positive predictor of ever married for men only, and the sex difference is significant. Education is positively associated with the probability of ever married for men and women, but the coefficient is significantly larger for women than for men. Personal income is a positive and significant predictor of the log odds of ever married for men and is not a significant predictor of the probability of ever married for women, although the sex difference is not significant. The finding that high income men are more likely to be married than low income men supports Hypothesis 1, while the finding that high income women are not more likely to be married than low income women supports Hypothesis 5. The pseudo r-squared shows that the model explains more of the variance in the log odds of ever being marriedfor men than for women (about 37% as compared to about 33% for women).

It is straightforward to convert the log odds in logistic regression models to probabilities. Fig. 1 shows the predicted probability of ever married (y-axis) by income (x-axis), for men and women with age, education, proportion Black and proportion Hispanic set to their means. The x-axis on all figures is capped at the maximum monthly income for most women, maximum income for men is much higher. For women the probability of ever married remains much the same at all levels of income, while for men the probability of ever married rises steeply with income, and becomes a probability of one for the very highest earning men. The wider confidence band for men indicates a greater variation of predicted outcomes, particularly among low income males.

4.2. Ever divorced

The analysis of ever divorced is limited to those individuals who have ever married. For both women and men, age, age-squared, Black,

Table 2
Logistic regression of ever having been married, ever having been divorced and ever having remarried[a]. Logistic regression coefficients, standard errors in brackets.

	Ever Married			Ever Divorced (Ever married only)			Married more than once (Ever divorced only)		
	Women	Men	Diff	Women	Men	Diff-	Women	Men	Diff
Intercept	−7.367***	−7.954***		−6.632***	−6.254***		−2.640***	−2.536***	
	(0.191)	(0.363)		(0.254)	(0.312)		(0.520)	(0.575)	
Age	0.291***	0.277***	−0.017	0.188***	0.232***	0.048***	0.115***	0.070***	−0.041*
	(0.005)	(0.011)	(0.0121)	(0.007)	(0.010)	(0.009)	(0.013)	(0.019)	(0.021)
Age squared	−0.002***	−0.002***	0.000*	−0.002***	−0.002***	−0.000***	−0.001***	−0.000	0.001**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Black	−1.286***	−0.784***	0.510***	0.174**	0.163***	0.082	−0.928***	−0.388***	0.569***
	0.060	0.075	(0.082)	(0.057)	(0.066)	(0.064)	(0.095)	(0.088)	(0.117)
Hispanic	0.083	0.213***	0.170**	−0.325***	−0.425***	−0.093	−0.479***	0.068	0.460**
	(0.063)	(0.062)	(0.067)	(0.059)	(0.062)	(0.065)	(0.118)	(0.115)	(0.168)
Education (yrs)	0.045***	0.043**	0.042**	−0.024***	−0.046***	−0.019**	−0.019	0.015	0.016
	(0.008)	(0.015)	(0.016)	(0.006)	(0.007)	(0.007)	(0.014)	(0.017)	(0.016)
Total Personal Income	−0.008	0.074*	0.072	0.015**	−0.026***	−0.027***	−0.072***	0.023*	0.042*
	(0.006)	(0.036)	(0.039)	(0.005)	(0.004)	(0.005)	(0.017)	(0.012)	(0.019)
Total Personal Income squared							0.002**	0.000	0.000
							(0.001)	(0.000)	(0.000)
Pseudo R-square	0.325	0.373		0.061	0.077		0.070	0.075	
N	29,099	26,182		21,944	18,375		7,811	6,368	

* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.
[a] Not shown – controls for state of residence.

Fig. 1. Probability of ever having married by income*.
*Model prediction with age, education, proportions Black and Hispanic set to their means.

Hispanic, and education are significant predictors of the probability ever divorced. Education decreases the log odds of ever divorced for both men and women, but more so for men than for women and the sex difference is significant. Personal income is negatively associated with ever divorce for men, and positively associated with ever divorce for women, and the sex difference is statistically significant. This shows women with higher incomes are more likely to have ever divorced than lower income women (supporting Hypothesis 6), and men with higher incomes are less likely to have ever divorced than men with lower incomes (supporting Hypothesis 2). The low pseudo r-squared values show this model explains much less of the variance in the log odds of divorce than it did of the variance in the log odds of ever married, for both men and women. These results are shown in Fig. 2. For men as monthly income increases, the probability of ever divorcing decreases, while for women the probability of ever divorcing increases with monthly income.

4.3. Remarriage after divorce

The next analysis of the likelihood of remarriage after divorce is limited only to those who have ever divorced. For women age, age-squared, Black, and Hispanic and total personal income and total person income squared are significant predictors of the log odds of the probability of ever remarried after divorce. For women the effect of personal income is negative, showing that high income women are less likely to remarry after divorce, although the squared term for income is

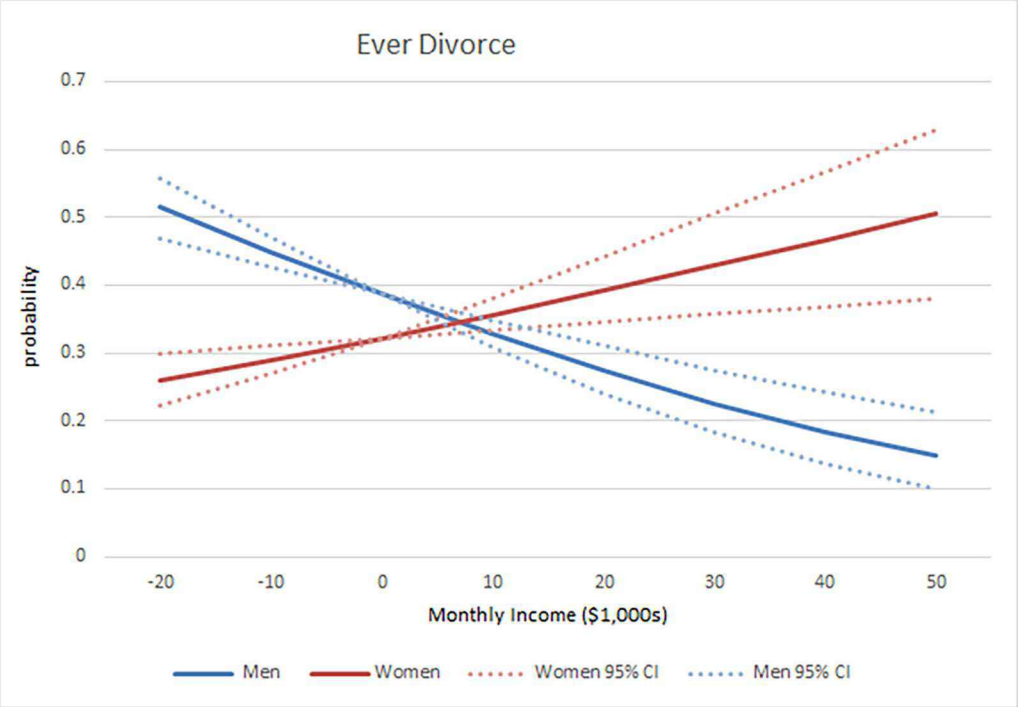

Fig. 2. Probability ever having divorced by income*.
*Model prediction with age, education, proportions Black and Hispanic set to their means.

positive and significant, showing a curvilinear effect. This supports Hypothesis 7. For men the significant predictors of remarriage after divorce are age, Black, Hispanic, and total personal income. For men the effect of personal income is positive, showing that high income men are more likely to remarry after divorce (supporting Hypothesis 3). The sex difference in the effect of income is significant. Once again the low pseudo r-squared values show this model explains much less of the variance in the log odds of remarrying after divorce than it did the variance in the log odds of ever being married, for both men and women. Fig. 3 shows the predicted probabilities of ever remarried after divorce for men and women with age, Black, Hispanic, and education set to their means. For men the probability of remarrying after divorce increases for men with increasing income, while the relationship between income and remarriage for women is curvilinear.

4.4. *Remarriage and age differences between husbands and current wives*

The age difference between husbands and their current wives (for men living with a spouse only) is shown in Table 3. The average difference in age between all husbands and current wives is 2.380 years. Men who have married only once are on average 1.903 years older than

Table 3
Mean age difference (years) between husbands and current wives, men living with a spouse only.

	Mean (Standard Error)
All married men	2.380 (5.071)
Men married only once	1.903 (4.334)
Men married more than once	4.014 (6.782)

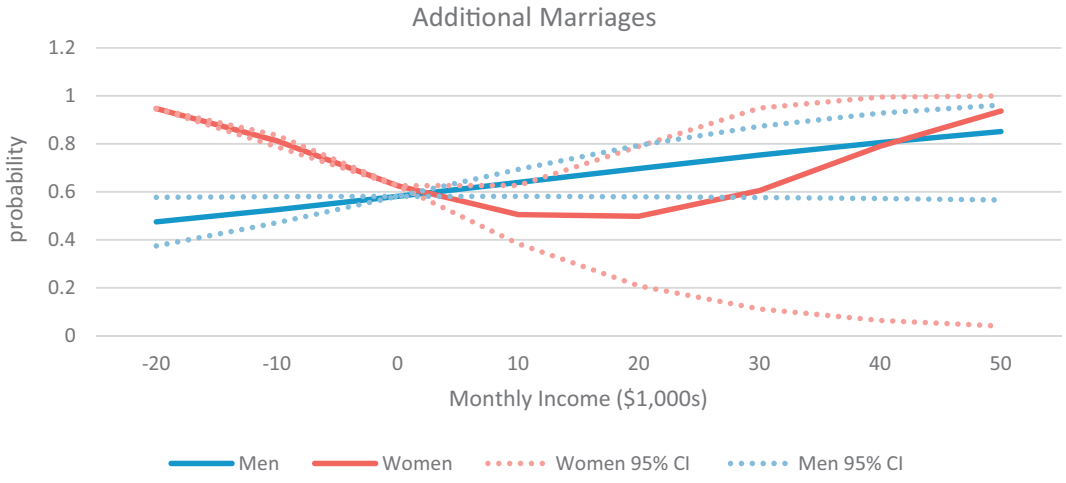

Fig. 3. Probability ever having remarried after divorce by income*.
*Model prediction with age, education, proportions Black and Hispanic set to their means.

their current wives, while men who have divorced and married again are on average 4.014 years older than their current wives, and the difference is significant. Additional analysis (not included) shows that the tendency for divorced men to remarry younger women does not vary by personal income. High income, divorced men who remarry are not more likely than low income men to marry comparatively younger women. This does not support Hypothesis 4.

4.5. Ever have children

Table 4 gives logistic regression results for ever having children and having children with additional partners. Parameters shown are the logistic regression coefficients for men and women separately, and the sex difference is the significance of the interaction between sex and each predictor variable. Not shown are controls for state of residence to adjust for differences in average incomes across states.

For women and men all variables are significant predictors of having children. Education is negatively related to ever having children for both men and women, although the negative coefficient is significantly larger for women than for men. For women, the effect of income is negative, for men income is a positive predictor of ever having children, and the sex difference is significant. High income men are more likely to ever have children than low income men (supporting Hypothesis 8), high income women are less likely to ever have children than low income women (supporting Hypothesis 10). The pseudo r-squared value shows that for men the model explains more of the variance in the log odds of ever having children than for women (about 26% for men as compared to 22% for women). The predicted probabilities are shown graphed in Fig. 4 for men and women with age, Black, Hispanic, and education set to their means. For women the probability of having children decreases with increasing income while for men the probability of having children increases with increasing income.

4.6. Ever have children with more than one partner

The next model shows the analysis of having children with additional partners, and is limited to divorced individuals with children only. For women, Black, personal income, and personal income squared are significant predictors of the log odds of having children with additional partners. High income women are less likely than low income women to have children with additional partners after divorce, although the relationship between personal income and having children with additional partners is curvilinear. This supports Hypothesis 11. For men only Black and Hispanic are significant predictors of having children with additional partners after divorce, and personal income is not significantly associated with having children with additional partners. This does not support Hypothesis 9. (A summary of hypotheses and results is given in Table 5). There is a significant sex difference in the effect of personal income on the probability of having children with additional partners after divorce. The low pseudo r-squared value shows that this model explains much less of the variance in having children with additional partners than ever having children for both men and women.

These results are shown converted to probabilities in Fig. 5. For women the probability of having children with additional partners drops quickly with increasing monthly income. For men there is no relationship between personal income and the probability of having children with additional partners after divorce.

5. Discussion and conclusions

This paper used the first U.S. Census study to collect full fertility histories from both men and women (the 2014 SIPP) to examine the effects of personal income on the probability of marriage, divorce, remarriage, childlessness, and having children with additional partners after divorce for individuals in the U.S. The results show that as compared to low income men, high income men are more likely to marry, less likely to divorce, if divorced are more likely to be remarried, and are more likely to have children than low income men. The same is not true for women. Personal income is not related to the probability of marriage for women, is positively associated with the probability of divorce, and negatively associated with the probability of remarriage for women, although the relationship is curvilinear. Consistent with prior research, the results also show that high income women are less likely to have children than low income women (Abma & Martinez, 2006; Fieder & Huber, 2020; Frejka, 2017). High income women are also less likely to have children with additional partners after divorce, although this

Table 4
Logistic regression of ever having had children and ever having had children with additional partners[a]. Logistic regression coefficients, standard errors in brackets.

	Have children			Have children with additional partnersincluding squared term (divorced individuals with children only)		
	Women	Men	Diff	Women	Men	Diff
Intercept	−3.504***	−5.100***		1.404**	0.066	
	(0.182)	(0.228)		(0.556)	(0.636)	
Age	0.240***	0.218***	−0.008	0.000	0.006	0.014
	(0.005)	(0.006)	(0.008)	(0.016)	(0.021)	(0.025)
Age squared	−0.002***	−0.002***	0.000*	−0.000	−0.000	0.000
	(0.000)	(0.000)	0.000	(0.000)	(0.000)	(0.000)
Black	0.338***	0.327***	−0.078	0.548***	0.615***	0.163
	(0.045)	(0.051)	(0.064)	(0.096)	(0.110)	(0.141)
Hispanic	0.560***	0.641***	−0.126**	−0.107	0.424***	0.223
	(0.053)	(0.056)	(0.054)	(0.097)	(0.112)	(0.147)
Education (yrs)	−0.125***	−0.052***	−0.052***	−0.130***	−0.072***	−0.075***
	(0.008)	(0.008)	(0.008)	(0.014)	(0.016)	(0.016)
Total Personal Income	−0.022***	0.042***	0.088***	−0.071***	0.019	0.131***
	(0.005)	(0.009)	(0.010)	(0.017)	(0.014)	(0.022)
Income squared				0.000**	−0.000	−0.001***
				(0.000)	(0.000)	(0.000)
Pseudo R-squared	0.216	0.262		0.061	0.039	
N	29,099	26,182		6,846	5,327	

* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.
[a] Not shown – controls for state of residence.

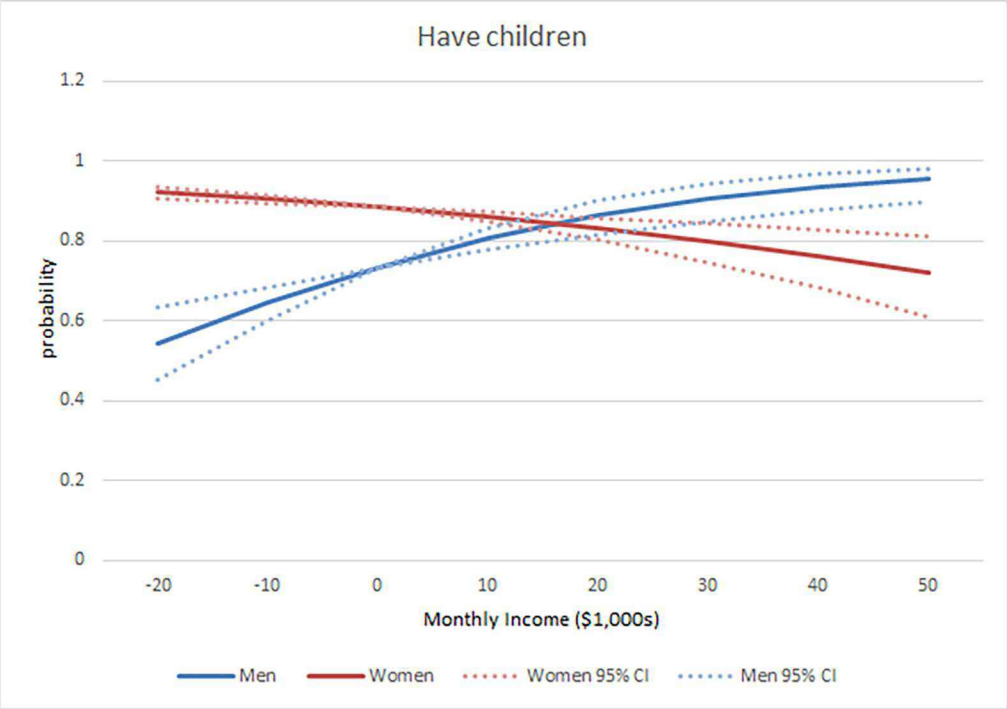

Fig. 4. Probability ever have children by income*.
*Model prediction with age, education, proportions Black and Hispanic set to their means.

Table 5
Hypotheses and Outcomes.

Hypothesis	Theory	Outcome
1. High income men are more likely than low income men to marry	Sexual Strategies theory	Supported
2. If married, high income men are less likely than low income men to divorce	Sexual Strategies theory	Supported
3. If divorced, high income men are more likely than low income men to remarry.	Sexual Strategies theory	Supported
4. If remarried, high income men are more likely than lower income men to remarry relatively younger women	Sexual Strategies theory	Not Supported
5. High income women are not more likely than low income women to be married.	Sexual Strategies theory	Supported
6. If married, high income women are more likely than low income women to divorce	Sexual Strategies theory	Supported
7. If divorced, high income women are not more likely than low income women to remarry	Sexual Strategies theory	Supported
8. High income men are more likely than low income men to have children	Sexual Strategies theory, Sociobiology	Supported
9. High income men are more likely than low income men to have additional children with new partners after divorce	Sexual Strategies theory, Sociobiology	Not Supported
10. High income women are more likely than low income women to be childless	Sexual Strategies theory, Life History Theory	Supported
11. High income women are less likely than low income women to have additional children with new partners after divorce	Sexual Strategies theory, Life History Theory	Supported

appears to change for the highest income women.

These results are behavioral evidence that females value resource-providing in a long-term mate more than males do, as hypothesized by sexual strategies theory in evolutionary psychology. While income for men positively predicted greater success in long-term mating and reproduction as measured here, income for women was either unrelated or negatively related to success in long-term mating and reproduction. Although these results for women from cross-sectional data likely reflect tradeoffs over the life course some women make between parenting and income earning, they also suggest that men with high personal incomes have high value as long-term mates in the U.S.

This conclusion is based on the assumption that the marriage, divorce and reproductive behavior of men reflect female choice to some extent, and so increased marriageability, lack of divorce, remarriageability, and increased likelihood of fatherhood are evidence that high income men are more likely to be valued as long-term mates by women. It is also based on the assumption that the marriage, divorce and reproductive behavior of women reflect male choice to some extent, so that increased divorce, lack of remarriageability, and decreased likelihood of motherhood are evidence that high income women are less likely to be valued as long-term mates by men. Yet there may be some other factor (other than education) associated with higher income for a man that is in fact what is valued by women in a long-term mate, and another factor associated with higher income for a woman that is less valued in a long-term mate by men. Further, these choices (marriage, divorce, having children) are made by a couple, not just the man or woman alone. It may be the case that men with higher income are more likely than lower income men to choose marriage and fatherhood and not choose divorce; and higher income women may be more likely than lower income women to choose divorce and less likely to choose motherhood, perhaps because of greater opportunities outside of marriage and motherhood. Or it may be that higher income males are able to use their economic position or social status to limit the access of lower income males to mating and marriage partners in some way (Von Rueden et al., 2011). Last, societal norms and values shaping individual preferences, such as the male breadwinner norm (Killewald, 2016) and employer preferences and behavior leading to a motherhood penalty for working women (Budig & England, 2001) may help produce the results presented here. Yet the point of evolutionary approaches such as sexual strategies theory is that societal norms, values, and individual

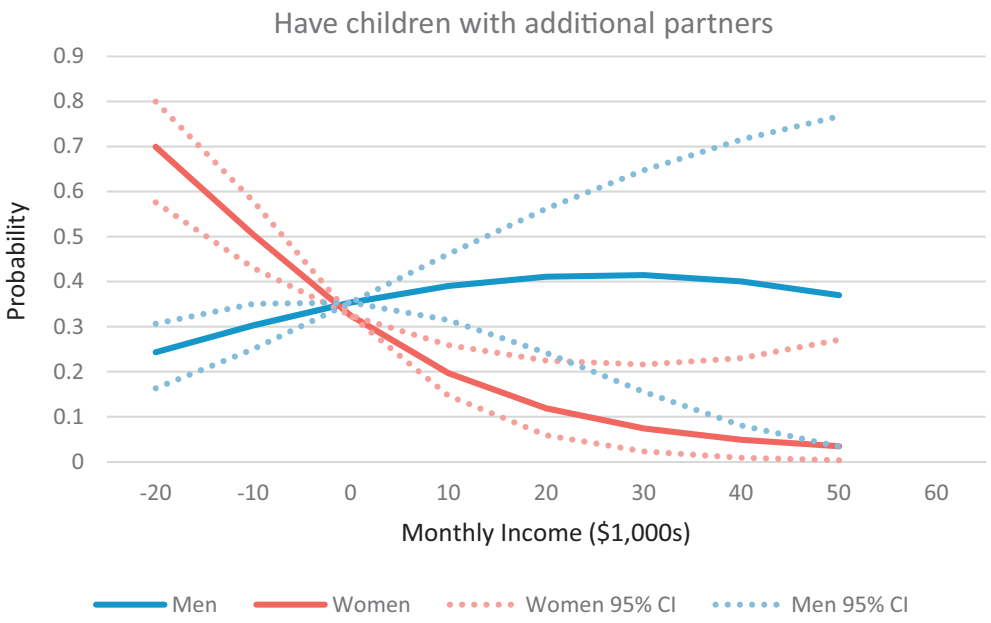

Fig. 5. Probability ever have children with additional partners after divorce by income*.
*Model prediction with age, education, proportions Black and Hispanic set to their means.

preferences, are themselves shaped in part by evolved predispositions, so that sociological explanations do not exclude a role for evolved factors. Yet while the results presented here do not rule out these other explanations, the results do support the hypothesis from sexual strategies theory that men and women have different priorities when it comes to income earning capability in a long-term mate.

However, not all the results supported the hypotheses drawn from sexual strategies theory. Results shown here suggest that while high income men are more likely to remarry after divorce and they do remarry comparatively younger women, on average, divorced high income men are *not* more likely to remarry comparatively younger women than low income men. Further, high income men are *not* more likely to have children with additional partners after divorce than low income men. This suggests that any reproductive advantage that accrues to high income men thus stems from their greater marriageability (and remarriageability) alone.

These results also bear on debates in behavioral ecology and evolutionary demography about the adaptiveness of fertility behavior in modern societies (Lawson & Borgerhoff Mulder, 2016; Nettle et al., 2013; Perusse, 1993; Vining, 1986). The results in this paper come from data that were collected in the U.S. in 2014, a year when fertility rates were low and falling, a majority of women were employed, sex roles favoring more egalitarian arrangements in the household were widespread, and more than a third of working wives earned more than their husbands (U.S. Bureau of Labor Statistics, 2017). Yet competition for mates is always intrasexual, and the evidence presented here suggests that in this competition high income men win out over low income men. Even in a historically unusual ecology, this finding suggests that the demographic transition has attenuated, but not entirely broken the link between social status and fertility for men.

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