The Economics of the Family

Chapter 1: Facts

Martin Browning
Department of Economics, Oxford University

Pierre-André Chiappori
Department of Economics, Columbia University

Yoram Weiss
Department of Economics, Tel Aviv University

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1 Introduction

The purpose of this chapter is to present some basic and general facts about the marriage and the family. The chapter is intended to motivate the analysis that follows in the rest of the book by showing how presumably non-economic activities, such as marriage and fertility, interact with economic considerations such as work, wages and schooling.

2 Marriage, divorce and remarriage

2.1 Marital status

Marriage is a "natural state". Table 1 shows the proportions (the 'stocks') in each marital state for three different years for six high income countries. These figures show that most of the adult population (aged 20 or older) is married at any given time (about $55-70$ percent). However the proportion of the adult population that is married has declined in most countries in the last fifty years. This trend is accompanied by a larger proportion of never married and a higher proportion of divorced individuals, with little change in the proportion of widowed (because of the offsetting effects of reduced marriage and mortality). In all countries and at all times, the proportion of never married women is significantly lower than the proportion of never married men; this is partially attributable to the fact that men marry later. Explaining these cross-country regularities and trends is a major challenge for demographers and economists. Factors that may be related to the changes in marital status that we see in this table are: changes in the age structure; delays in marriage; the relative attractiveness of alternative household arrangements; higher turnover and longer life spans.

There are some notable differences among the countries, reflecting different social norms and legal regimes. As an obvious example, the low stock of divorcees in Italy reflects the fact that divorce was illegal until 1970. As another example, the increasing proportion of 'never married' in Denmark can be attributed to cohabitation, which has become common in Scandinavia.

Strictly, cohabitation should be seen as an alternative state and an extra column should be included in Table 1, but it has been relatively unimportant in most countries until recently. To give some idea of the level and changes in cohabitation we present numbers from the US and Denmark in Table 2; this gives the proportion of couples (classified by the head's age) who live together who are *not* formally married. As can be seen, there appear to be age, period and cohort effects. That is, cohabitation is more common amongst the young; at any given age cohabitation is more common amongst younger cohorts and cohabitation rates are higher now than twenty years ago. Dramatically, in Denmark, 80 percent of those aged $20-24$ who live together choose not to marry. Comparing the two countries we note that the rate of convergence

between US rates and Danish rates, if any, is very slow.

The propensity to cohabit rather than marry is associated with having children. In Tables 3a and 3b we show the proportion of households with children, conditioned on whether the household head is single, married or cohabiting for Denmark and the US, respectively. We see that, in each age group, married couples have more children than cohabiting couples who in turn have more children than singles. Moreover, the proportion of cohabiting couples declines sharply with age. We can thus think of cohabitation as a "partial marriage" involving less investment in children and a lower commitment to a long term relationship.

2.2 Marital histories

Modern societies are characterized by marriage and divorce at will. Thus, although marriage appears to be the preferred state, one need not be married to the same person and, in fact, there is substantial *turnover*, especially among the young. Table 4 provides data on marriage histories by age in 2001. Among those who were $50-59$ years old in 2001, only 6 percent were never married, but about 31 percent of men and 26 percent of women had been married more than two times and about 40 percent of each gender divorced at least once. Widowhood at old ages is much more common among women and they are also more likely to be divorced when old.

A more refined picture of the marital histories is provided in Table 5 that records the marital history of the 1931-36 and 1937-41 US birth cohorts at different years as they age, separately for men and women. It is seen that the proportions of men and women in their first marriage tend to first rise and then decline, while the proportions in the second or third marriages and the proportion divorced rise. Women are more likely to be in a first marriage when young but less likely to be in a first marriage when old. In addition women are substantially more likely to be divorced when old, suggesting that women find it more difficult to maintain their first marriage and to remarry. For both cohorts we find an increase in the proportion divorced during the period 1970-1980, suggesting that the "divorce revolution" in the US that occurred in this period affected all couples and not only the newly married. However, in the more recent cohort individuals are more likely to be divorced at any given age.

Table 6 provides information form the NLS Panel that includes individuals who were aged $11-21$ years old in 1979 and then followed up until 2000. By age 35, most men (81 percent) and women (89 percent) were married at least once. However, the divorce rate has been substantial too and 35 percent of the women (26 percent of the men) had divorced at least once. By age 35, most men and women reported that they had finished their schooling but 21 percent of women and 16 percent of men have done so after marriage. About 16 percent of the women had a child prior to marriage.

2.3 Flows

The numbers presented so far refer to stocks but we are also interested in flows into and out of marriage. Figures 1 and 2 describe the crude marriage and divorce rates for a selection of high income countries. In contrast to Table 1 that provides information on the *stocks* in different marital states, these graphs describe the *flows* into the married and divorced states in a given year as proportions of the adult population. The picture is quite clear; starting in 1960 marriage rates have declined and divorce rates have risen in all the displayed countries. Divorce rates started to rise sharply in the late 1960's with a weak tendency for convergence around $3-4$ percent per year for some countries; but about 6 percent in the US and about 1 percent in Spain and Italy. The fact that divorced rates went up in many countries at about the same time suggest a common trigger, such as the anti-pregnancy pill (see Michael, 1988). Given that about 60 percent of the population is married in these late years, the implied probability that an average marriage will break up is roughly 2 percent per year (4 percent in the US).

Figures 3 and 4 provide a longer perspective of the marriage and divorce rates in the US (see also Stevenson and Wolfers (2007)). Figure 3 shows marriage and divorce rates per thousand. As can be seen, following a short episode of increase in the marriage rate after World War 2 (reflecting delayed marriages and divorces during the war) the marriage rate declined slightly from 1950 to 2000 with some ups and downs in between. In contrast, there is an abrupt change in the divorce rate starting at about 1965 with a doubling in the rate form 1965 to 1975. Although the crude marriage and divorce rates are informative, much more useful are hazard rates (that is, the proportion per the relevant groups at risk). Figure 4 shows hazards of marriage, divorce and re-marriage form 1922 to 1988 in the US.[1] This figure too shows the abrupt change in divorce rates after 1965. At about the same time the remarriage rate increased relative to the marriage rate, indicating a higher marital turnover. The presence of many divorcees raises the incentive of any given couple to divorce, because it would be easier to remarry following separation (see Chiappori and Weiss (2006)).

2.4 Transitions

The most direct information on marital turnover within cohorts is given by the *transition rates* across marital states. To show these we use two different data sources. The first is the HRS which provides us with marital histories for a cohort born between 1931 and 1941 that reported (retrospectively) its marital status history in 2000. The second data source is the NLS(Y) which provides information on marital status up to age 40 for a younger cohort born between 1958 and 1965. Figures 5 and 6 present the annual transition rate from never married to first marriage of men and women

[1] Unfortunately it is not possible to extend the series beyond 1988.

for the two cohorts respectively. For both cohorts the entry rate into first marriage first rises and then declines as most individuals who wish or can marry have already married. The short phase of rising rates of entry indicates a delay associated with premarital investments and learning about one's potential spouse. However, women enter first marriage at a higher rate than men, suggesting that their gain from early marriage is higher.

Figure 7 presents the rate of dissolution of the first marriage by the duration of marriage for the same two cohorts. For each cohort we break up those who are married into those who married before the median age for that cohort ('early marriages') and those who marry latter than the median age ('late marriages'). These figures illustrate two important facts. First, the hazard of divorce is first rising and then declines and, second, the divorce hazard at any marriage duration is generally lower for later marriages. These two features are the consequence of the interplay between sorting and acquisition of information of match quality. The hazard of divorce is initially rising with duration of marriage because partners learn about each other. As new information arrives, some marriages break. However, with the passage of time, the weak matches are eliminated and the remaining marriages are increasingly stable. Similarly, the higher stability of late marriages can be ascribed to longer premarital search and courtship, which eliminates some of the potentially weak matches (see Becker, Landes and Michael, 1977 and Weiss and Willis, 1993, 1997). Although these features are common to the two cohorts, there is a very large difference in divorce rates between the two cohorts. For any duration of the first marriage, the younger cohort reports a divorce rate that is about twice as high. This reflects the general rise in the divorce rates during the period 1965-1975. All of the divorces of the younger cohort, born in 1958-65, happened after the divorce revolution, while most of the divorces of the cohort born between 1931 and 1941 happened before 1975.

Similarly to the first marriage rate, the remarriage rate of divorced individuals first rises with the time since divorce (indicating experimentation) and then declines sharply, because those divorcees who remained unmarried for a long period are less suitable or less willing to remarry (see Figure 8). The remarriage rate is much higher among the younger cohort, corresponding to their higher divorce rate. Thus, later cohorts are characterized by higher turnover which is reflected in both higher divorce rates and higher remarriage rates. The remarriage rates of men and women are similar at the early part of the 1958-1965 birth cohort. For earlier cohorts that are observed later in life, men remarry at substantial higher rates than women, especially at high ages. This reflects the fact that the ratio of eligible men to eligible women decreases because women marry earlier and live longer, so more of them are either divorced or widowed at late age. The remarriage options of men are further enhanced by the fact that the wage gap between female and male earning capacity is increasing with age because, on average, males had accumulated more work experience.

Comparing Figure 8 with Figures 5 and 6, we see that for both cohorts, the remarriage rates of those who remarry quickly exceed the rates of entry into first

marriage. This suggests that some individuals are endowed with marital attributes that make them attractive in any marriage, whether it be the first or second.

2.5 Households

Marriage usually involves at least two people living together in the same household. This allows the sharing of housing and other consumption goods. The benefits from such sharing opportunities depend on the household size. Clearly, living in the same household does not require marriage and more than one family (or an extended family) can live in the same household. In Tables 7a and 7b we present some statistics on the prevalence of one person households. Table 7a shows that the proportion living alone ranges from 5 percent in Iberia to over 20 percent in Scandinavia. Given that there are significant material gains from living in many person households, the high level of people living alone in some countries represents a considerable potential loss of material well-being. Table 7b (for Denmark) shows that the latter high proportions are not simply a result of older people or younger people living alone, although the rates are higher for these groups. For example, the proportion of 40 year old living alone in Denmark is higher than the overall proportion for France.

Figures 9 and 10 give statistics on living arrangements over time for the US. We see that the proportion of households that are 'married with children' has declined from 40 percent in 1970 to 24 percent in 2000 and the proportion of 'married without children' has hardly changed. There have been sharp increases in the proportion of single person households, from 17.1 percent to 25.5 percent and in 'other' households (whether 'family' or 'non-family'), from 12.3 percent to 21.7 percent. Figure 10 shows the corresponding changes in household size. As can be seen, the proportion of large households (5+ members) has halved and the proportion of single person households has increased by about one half. Taken together, these figures suggest a substantial reduction in the gains from sharing consumption goods within households. One possible reason is that technological advances in home appliances allow singles to obtain household goods more cheaply, even without sharing with others (see Greenwood and Guner, 2005).

3 Marriage, work and wages

3.1 Time use

Marital status is strongly correlated with the allocation of work time and the market wages that individuals receive. Thus, compared with singles, married men work more in the market and have higher wages, while married women work less in the market, receiving lower market wages. This pattern may result from two different effects. First, the division of labor between the married partners, whereby, on average, wives takes a larger part of the household chores. Second, selection into marriage, whereby

those willing and able to marry are high wage males with prospective strong market attachment and low wage females with prospective weak market attachment.

Time budget data allows a closer look at the relationship between marital status and the allocation of time. Such data is presented in Tables 8a (paid work and leisure) and 8b (for housework and some of its components) for four countries, where for each country we provide information for two time periods. A number of robust (if unsurprising) regularities can be seen. Most importantly, in all countries and for all marital states, men work more than women in the market and women do more housework than men. Over time, married women increase their market work (see Table 8a) and reduce their non-market work (see Table 8b), while married men increase non market work and reduce market work (although Canada provides some exceptions). However, this trend toward equalization is quite slow and by 2000, the gender gap in household roles remains large. When the children are less than 5 years old, women work in the market less than half the time that men do (2.8 versus 6.4 hours per day in the US) and about twice as much at home (2.7 versus 1.2 hours per day on child care and 2.6 versus. 1.4 hours per day on home production in the US).[2] Although technological advance has substantially reduced the time that women spend on household chores such as cooking and cleaning (from 3.7 hours a day to 2.6 hours a day in the US) the amount of time spent with children by both fathers and mothers has risen. Time spent on shopping has not changed much over time and women continue to spend about twice as much time on shopping than men, irrespective of their marital status. Note that gender differences in the allocation of time, whereby men work in the market and less at home, are also present among unmarried men and women, perhaps reflecting the higher average market wages of men. However, the difference in the allocation of time of married men and women are more pronounced, indicating an added role for the division of labor within couples. Another salient feature of these statistics is that although single men enjoy more leisure than single women, hours of leisure are about the same for married men and women, suggesting some coordination of leisure activities (see Aguiar and Hurst, 2006, and Burda *et al*, 2006). These averages, however, mask quite large differences across households; in some households we see one partner having twice as much leisure as the other (see Browning and Gørtz, 2006).

Similar patterns are observed in aggregate data. Table 9 presents statistics for ten countries on labour force participation. These statistics show clearly that historically men have participated more than women but this gap is narrowing as the participation of women rises (except in Japan) and the participation of men declines. In Figures 11 and 12, we report a more detailed examination of labour force participation for the US. These figures give the proportion of full time workers by age and marital status

[2]Note that child care is underreported since it is a residual category in time use diaries. Typically respondents record some other activity they are doing even when they are also looking after their children.

for two birth cohorts, 1945-54 and 1960-69.[3] We see a very clear pattern. At any age, married men are more likely to be fully employed than single men and married women are less likely to be fully employed than single women. Married men are substantially more likely to be fully employed than married women, suggesting a division of labour between married partners. This gap in labor market attachment initially rises with age (and time) and then declines within cohorts; it also declines across cohorts at given ages (compare Figure 12 to 11). These patterns can be related to the impact of children on the division of labor. When couples have young children, married women are more likely to reduce their labor force participation and, therefore, the participation gap between men and women is larger. Figures 13 and 14 compare the work patterns of married and divorced women and also show a strong impact of having children. Divorced women with children $0-18$ work more than married women with children $0-18$, suggesting that, due to the absence of partner and limited transfers, division of labor between parents is not feasible and divorced women with children are, therefore, "pushed" into the labor market. The higher participation rate of young married women in the younger cohort relative to the older cohort is associated with lower fertility, a delay in having children and a higher participation rate for mothers of young children in the younger cohort.

The gap in labor market attachment between married men and women may not capture the full extent of the division of labor within couples, because no control is made for the behavior of the spouse. In Figures 15 and 16 we display the work patterns of individuals who are married to each other for two age groups, women aged $40-60$ and $30-40$ respectively. As seen, the most common situation before 2000 was that the husband works full time and the wife works part time or does not work in the market at all. The differences between the age groups in the earlier years probably reflect the presence of children in the household. However, with time, the proportion of such couples has declined and the proportion of couples in which *both* partners work full time has risen sharply, reflecting the increase in the participation of married women into the labor force. On the other hand, the proportion of couples in which she is full-time and he is not remains small.

3.2 Wages

The gender differences in the employment of married individuals are closely related to the gender differences in market wages, because a wage gap may lead to different household choices for the husband and wife, based on comparative advantage. But, in parallel, differences in past and expected participation can cause different rates of investment in human capital that result in lower wages for married women compared with married men (see Mincer and Polacheck, 1974, and Weiss and Gronau, 1981).

Figures 17 and 18 display the development over time of weekly wages (in logs) of

[3] In each subsample, we count the number of fully employed individuals and divide by the number of all individuals, including those who do not work.

US full time workers by marital status for two birth cohorts, 1945-54 and 1960-69. The graphs show that married men have consistently the highest wage among men while never married women have the highest wage among women. In recent cohorts, divorced women are the lowest paid group, while in earlier cohorts the married women had the lowest pay. Within each cohort, these differences in log wages by marital status increase with age (and time), reflecting the cumulative effects of marital status on the acquisition of labor market experience. In contrast, the differences in wages by marital status decline with time as we move towards the more recent birth cohort, holding age constant. This reflects the stronger attachment of married women to the labor market noted above. As married women participate more, their wage becomes more similar to that of men and marital status becomes less important as a determinant of the wages.

3.3 The marriage premium

The proportional wage gap between married and single individuals is often (and somewhat misleadingly) referred to as the "marriage premium" which is positive for men and negative for women. In Figure 19, we compare married men to divorced and never married men and married women to divorced and never married women. We make these wage comparisons for individuals who are 30 to 39 old, using three year averages. We see that the marriage premium of both men and women has risen over time but the rise is sharper for women. The rise of the marriage premia is consistent with the notion that when fewer individuals marry, the quality of partners that do marry relative to those who do not rises. The sharper increase in the marriage premium for women in Figure 19 is a reflection of the rising participation of married women (see Figure 20) which is associated with higher wages and schooling (see Goldin, 2006). Because we report wage patterns only for women who work full time, an increase in the participation of married women can increase the marriage premium if the added workers are of relatively high ability (see Mulligan and Rubinstein, 2008).

4 Who Marries Whom?

Marriages are not formed randomly. Rather individuals sort themselves into marriage based on the attributes of both partners, because *interactions* in individual attributes generate mutual gains from marriage. For instance, an educated man may benefit more from marrying an educated woman than a less educated man, who may even resent having a wife who is more educated than him. Similarly, a marriage in which both partners are similar in age may create higher gains than a marriage with a large discrepancy in ages. Consequently, 'suitable marriages' are more likely to form and less likely to dissolve. This means that the observed attributes of married individuals may be quite different from the attributes of men and women in general. Additionally,

assortative mating arises in which men and women with similar characteristics, such as age, race and education, marry each other.

Figure 21 records the distribution of age differences among married couples in the US. In most marriages, the husband is older than the wife but this proportion of such couples had declined from about 70 percent during 1968-78 to about 60 percent in 2000-2005. Among couples in which the wife is of the same age or older than her husband, the sharpest increase is in the proportion of couples in which the wife is older by 3 or more years than her husband, which has risen from about 5 percent in 1968-78 to about 13 percent in 2000-2005. Together, these trends suggest a moderate but steady reduction of age difference over time. This reduction in age differences is partially influenced by the changes in the age distributions of men and women (see Figures 22 and 23). Over time, the sex ratio of women to men has increased, especially at older ages because women live longer. This excess supply of older women raises, to some extent, the likelihood that men who are $30-40$ will marry older women, although as we have seen, an increasing proportion of the older women remain single.

Couples often sort based on schooling; see Lewis and Oppenheimer (2000). This process is driven not only by the mutual gain from marriage, but also by the availability of partners with different levels of schooling in the population and the chance of meeting them in school or the work place (see Oppenheimer, 2000). The US (and other countries) has experienced a dramatic increase in the stock of educated women relative to educated men (see Figure 24). This change in relative supplies had a marked effect on the patterns of assortative mating by schooling (see Figure 25). While the proportion of couples in which the husband and wife have the same schooling has remained stable at about 50 percent, the past pattern whereby in 30 percent of the couples the husband is more educated has been replaced by the opposite pattern whereby in 30 percent of the couples the wife has a higher degree. Figures 26 and 27 show the distribution of the spouse's education for husbands and wives with different level of schooling, by cohort of birth. At lower levels of schooling (up to high school graduates), each gender mainly marries with individuals of the opposite sex with similar education. This was not the case for higher levels of education for earlier cohorts but becomes more common with time as the distributions of education among women and men become more similar. In particular, we see a large increase in the marriages in which husband and wife have some college education. Because the number of women with some college education has risen sharply relative to men, we see that husbands with some college have replaced wives with high school by wives with some college, while wives with some college replaced men with college and higher degree by men with some college. However, at higher levels of schooling, BA and more, where women are still relatively scarce we see that men of high education marry down while women with college education marry up. We should note that between the two periods, the proportion of couples in which both spouses are highly educated has risen while the proportion in which both are less educated declined. In this regard, the rise in education of men and women combined with assortative matching in schooling has

contributed to the trend of rising inequality between households.

In contrast to other attributes, such as country of origin or race, schooling is an *acquired* attribute and investment in schooling is partially motivated by the prospect of marriage as well as enhanced market power (see Goldin, Katz, and Kuziemko, 2006 and Chiappori, Iyigun and Weiss, 2006). In Tables 10a and 10b, we present some evidence on the interaction between marital status and investment in schooling from the NLS panel. As seen in Table 10a, more educated men and women are more likely to be married and less likely to be separated or divorced at age 35 (after they have completed most of their schooling). The proportion of unmarried women at age 35 rises with schooling which is not the case for men. Table 10b presents mean cumulated schooling for men and women at marriage and at age 35. This Table shows, unsurprisingly, that most of the schooling acquired up to age 35 is taken prior to the first marriage. Those who married and never divorced acquired about 4 months of additional schooling during marriage out of 13.8 years, while those who married and divorced acquired about 6 months for men and 10 months for women after their first marriage, which is a relatively large effect given that these are means in which most women have no extra schooling after marriage.

Having considered schooling, it is natural to consider wages. Figure 28 provides a comparison of husband-wife correlations in wages and schooling (measured here in years). We examine the correlation in wages in two ways; wages (in logs) and wage residuals (in logs) netting out observable differences in schooling and age.[4] Thus the correlations in residuals represent correlations in unobservable factors that affect the wages of the two spouses.[5] The correlation by school years is relatively stable over time, at about 0.65. The correlations in wage residuals are also stable at a low level of about 0.1. However the correlations in wages rise from 0.2 to about 0.4.[6] The difference between the correlations for schooling and wages is striking. Some of the difference may be due to spurious factors such as higher measurement error for wages, the use of wages at the 'wrong' point in the life-cycle, the imputation of wages for non-participants etc.. However there may also be systematic reasons for the difference. For instance, the stronger sorting by education may be due to similar educations facilitating joint consumption and reducing conflicts on the choice of public good. In contrast, specialization within the household generates a *negative* correlation between the spouses' wages. The rise in the correlation for wages can then be attributed to a reduction in specialization within households associated with the rise in female labour force participation.

[4] Wages were imputed for men and women who did not work at all or worked less than 10 hours a week.

[5] The wage correlation will be higher than for the residuals since the latter removes the correlation due to age and schooling.

[6] We have also calculated the correlations between the *percentiles* of husbands and wives in the respective (log) distributions of men and women each year. The correlation in wage percentiles is slightly higher than the correlation in wages but the trend over time is very similar. The correlation in residual percentiles is the same as the correlation in residuals.

One reason for couples to sort based on schooling is that the schooling levels of the two spouses complement each other in generating marital surplus. Weiss and Willis (1977) found supporting evidence for this hypothesis showing that, among couples with the same schooling, divorce declines with schooling. We should then also expect that, as the proportion of couples in which *both* partners are highly educated rises, education will have a stronger impact in reducing the probability that a given man or woman will divorce. Figure 29 shows that this is indeed the case.

5 Children

Children are the most important 'products' of the family. The decision about how many children to have, when to have them and how to care for them interacts importantly with a whole host of other decisions including schooling, marriage, divorce and re-marriage.

5.1 Fertility

As we saw, for marriage and divorce there is considerable heterogeneity across countries and time and this is even more true for fertility. Figure 30 presents the time path for completed fertility for cohorts of US women born between 1903 and 1956.[7] The most important feature of this figure is that there are significant variations across cohorts in the mean number of children per woman. Thus, women born early in the century had about 2.2 children, those born in the mid-1930's (the mothers of the 'baby-boom') had over three children and those born in the fifties had close to two. Table 11 shows the change in the distribution of children born for women born in the mid-1930's and in the late 1950's. As can be seen the change in the mean is partly a result of fewer women born in the 1930's being childless and partly a result of these women having larger families, conditional on having a child at all. Particularly striking is that the modal family size for the older cohort is 4+ but only 2 for the younger cohort. Figure 31 shows data on the number of children less than 18 of US women (married or single), aged $35-45$, at different periods of time.[8] As seen, the reduction in fertility and marriage rates during the second half of the 20'th century is associated with a decrease in the proportion of women with more than 3 children

[7] Completed fertility is defined as the mean number of children born to women of a given generation at the end of their childbearing years. This is calculated by adding the fertility rates by age of the mother observed for successive years, when the cohort has reached the age in question (in general, only ages between 15 and 49 years are considered). In practice, the fertility rates for older women can be estimated using the rates observed for previous generations, without waiting for the cohort to reach the end of the reproductive period.

[8] Table 11 and Figure 20 provide different but complementary information. The table shows completed fertility whereas the figure shows the number of children less than 18 living with the mother. Therefore, the proportion of women who have no children living with them in the figure is larger than the proportion of women who never had children in the table.

and an increase in the proportion of women with no children, while the proportion of women with 1 or 2 children remained unchanged at about half. By 2000-2005, the proportion of women with children is still high (67 percent) indicating that the natural desire to have children remains strong.

Figure 32 shows that the birth rate fluctuates dramatically over time. We see a large increase from the mid-1930's to the early 1960's and then a sharp decrease. This is consistent with Figure 30 which shows a peak in fertility for mothers born in the mid-1930's; this is the baby boom generation. The median age at first marriage has also increased at the same period suggesting fewer "forced marriages" (see Michael, 1988 and Goldin and Katz, 2002).

Figure 33 presents evidence on completed fertility for a cross-section of six western European countries for women born between 1931 and 1967. In common with the USA, all of theses countries display a falling pattern from the mid-1930's, although the US has a much higher value in the early years (3.1 as compared to 2.65 for the highest European values). Thus all these countries indicate a 'baby-bust' even though the trends show significant differences across countries. For example, Italy has the lowest values throughout this period with a steady decline from 2.3 to 1.5 children per women. In contrast, the Netherlands starts off with a high value of 2.6 and falls quickly by about 0.7 children in 1946 and then falls much more slowly over the next twenty years by about 0.2 children. Most dramatic is the case of Spain which has the highest value in the early 1940's (at 2.6 children per woman) and one of the lowest 25 years latest (at 1.6).

The timing of children is also of interest. In Figures 34 and 35 we show the timing of first marriage and first birth for the same countries as in Figure 33. There is a clear relationship between reduced fertility and the delay in marriage. On the average, age of first child is only two years after year of marriage (28 and 26, respectively for the latest cohort born in 1963). In these figures, marriage does not include cohabitation. In most countries the latter is low for women born before 1960 but for some countries there is considerable cohabitation. For example, the dramatic rise in the Danish age at first marriage largely reflects the fact that marriage before the birth of a child is increasingly rare amongst younger cohorts.

5.2 Children under different household arrangements

One consequence of the increasing marital turnover is the sharp rise in the number of children who live in single parent and step parent households (see Table 12). In the US, 2005, 68 percent of children less than 18 years old lived with two parents (including step parents), 23 percent lived only with their mother and 5 percent lived only with their father whilst the rest lived in households with neither parent present. The impact of living with single parents on the children depends on the amount of transfers between unmarried parents. Generally, such transfers are small with a substantial proportion of eligible mothers receiving no transfer at all. Only about half

of eligible women receive any child support and when a transfer is received it is about 20 percent of the mother's income (see Table 13 and Figure 36). The consequence is that divorced mothers have less than half of the family income of married mothers and, therefore, children living with single mothers are often in poverty. The impact of marital turnover on children is a major policy concern and much research has been directed to the analysis and measurement of this effect (see Weiss and Willis, 1985, Chiappori and Weiss, 2006, Piketty, 2003, Gruber, 2004, and Bjorklund and Sundstrom, 2006).

6 Saving and life stages

Progression through life-stages has a major impact on consumption, saving and wealth. In the savings literature the traditional picture of the life-cycle is very circumscribed. Agents are born, they receive education, they work and then retire and finally they die. Within such an environment the natural emphasis is on financing schooling decisions, smoothing consumption in the presence of income fluctuations and saving for retirement and bequests. When we take account of leaving home, marrying, having children, divorce and remarriage, a much more nuanced pattern emerges.

The empirical evidence suggests that savings rates vary substantially across family types. The evidence for the US presented in Avery and Kennickel (1991), Bosworth *et al* (1991) and Lupton and Smith (2006) suggests that couples without children have the highest savings rate and lone parents have the lowest rate. Avery and Kennickel (1991) show that married couples have the highest wealth and the highest savings rate whereas divorced people dissave from substantial wealth holdings. Bosworth *et al* (1991) investigate more closely the variations with children and show that households with children present save less than those without. The latter group is largely split between younger couples, many of whom will have children later and those who have children who have left home. Lupton and Smith (2000) use three waves of the PSID and concentrate on changes in savings rates consequent on transitions between marital states. Finally, Zagorsky (2005) presents evidence based on the NLSY79 that suggest that the wealth of divorcees is much lower than the wealth of continuously married individuals and those who never married. Overall, the main finding is that transitions into being married raises savings rates[9] and transitions out of being married lowers them. Although all these studies present a consistent picture, much still remains to be found out about saving and marital status.

Measuring (or even defining) wealth and/or savings in surveys is fraught with difficulties. Using consumption we can illustrate some of the patterns associated with children more clearly. To do this we shall break the evolution of married life

[9]Blow, Browning and Ejrnæs (2009) find similar results for the transition into marriage using UK expenditure data.

into four life stages: being a couple before having children; having young children in the household; having only older children in the household and living together after the children have left; see Apps and Rees (2009), chapter 5 for a similar analysis using Australian data. Unfortunately in cross-sections we do not observe whether younger households that do not currently have children will have them in the future. On the other side, for older households with no children present, we do not observe whether they have had children. Instead we take the earliest life stage to be being a couple with no children and the wife aged less than 41 and the fourth life stage to be having no children with the wife aged over 40.[10] Table 14 presents some facts on income, nondurable expenditures and budget shares for some goods. The data are drawn from the Canadian Family Expenditure Surveys (FAMEX) for 1986, 1990 and 1992. [11]We select out households in which the husband reports less than 35 hours of full-time work in the year to take account of long spells of unemployment and retirement. There is no selection on the wife's labour force participation. The top panel of Table 14 gives details of income and nondurable expenditure. Through the four life stages, expenditure is highest when there are older children present and drops significantly when they leave home. This is partially reflected in the evolution of income but changes in income are not the sole driving force, as can be seen from the expenditure/income ratio. To show this more clearly, Table 15 presents the results from regressing log nondurable expenditure on log income and dummies for the last three life-stages. As can be seen, even when we control for income the life-stage has a large and highly significant impact on nondurable expenditures. The bottom panel of Table 14 shows how patterns of demand, conditional on total expenditure, evolve through life stages. In the earliest period budget shares for restaurants and alcohol and tobacco are high. These fall on the arrival of the first child and budget shares for food at home rise. As children age, more is spent (relatively) on clothing. Interestingly, although the post-children life stage patterns show some reversion to the pre-children patterns the two are not the same, even though net income is similar.

The impact of children on consumption emerges even more clearly if we follow quasi-panels through time. To do this we use UK Family Expenditure Surveys from 1968 to 1995.[12] We consider only married or cohabiting couples. To construct quasi-panel data we first construct cohorts according to the wife's age and her level of education ('minimum' or 'more than minimum'). We then take cell means for each cohort and year. That is, we have means for, say, high educated households aged 37 in 1981 and those aged 38 in 1982. This allows us to follow quasi-individuals through

[10]Browning and Ejrnæs (2009) present a quasi-panel analysis on UK data that takes into account that some younger 'childless' households will never have children and some older 'childless' households have never had them.

[11]We use the FAMEX since it is the only large expenditure survey that collects information on annual expenditures. Most budget surveys employ a two week diary which induces problems with infrequency.

[12]We use the UK data since it gives a very long time series of cross-sections with consistent coding throughout the period.

time. We consider cohort/year means of log nondurable consumption and equivalent household size. To construct the latter we first assign each member a consumption weight according to their age; we take values of 0.1, 0.15, 0.25, 0.35 and 0.65 for children aged $0-2$, $3-4$, $5-10$, $11-16$ and $17-18$ respectively. Each adult is given a weight of unity. We then sum these weights for each household and raise this to the power 0.7 to capture scale effects.[13] In Figures 37 and 38 we show the smoothed paths of cohort means of log nondurable consumption and equivalent household size against the wife's age. As can be seen, the patterns of consumption and family size coincide very closely. The variation over the life-cycle is substantial and much larger than variation induced by fluctuations in income or employment.

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7 Tables and Figures

Table 1: Marital Status of Men and Women, over 20 Years Old, in different Countries and Years

Year	Never married		Married		Divorced		Widowed	
	Women	Men	Women	Men	Women	Men	Women	Men
Canada								
1951	17.6	24.0	71.4	71.5	0.4	0.3	10.6	4.3
1981	15.3	21.5	69.6	73.5	3.5	2.5	11.3	2.5
2003	19.1	26.0	63.5	66.1	7.1	5.4	10.3	2.5
Denmark								
1950	18.2	21.8	67.5	70.5	3.9	2.7	10.7	5.1
1980	16.8	24.5	62.1	65.5	7.2	5.8	14.0	4.2
2002	24.8	33.5	51.8	54.2	12.8	3.7	10.5	8.6
France								
1954	16.7	21.6	62.6	71.7	2.2	1.5	18.6	5.3
1980	16.5	23.0	63.4	70.4	4.3	3.1	15.8	3.5
2001	24.8	31.9	53.2	59.0	7.8	6.2	14.2	3.0
Italy								
1950	24.1	28.5	61.3	66.5	0.3	0.3	14.3	4.8
1980	16.7	22.2	66.3	73.1	1.5	1.3	15.6	3.5
2001	22.0	29.8	60.7	65.8	1.7	1.3	15.7	3.1
United Kingdom								
1950	19.8	20.7	65.5	73.7	0.7	0.5	13.9	5.1
1980	14.0	19.8	66.2	72.9	4.2	3.3	15.6	4.0
2002	22.9	30.1	54.0	58.1	9.8	7.9	13.2	3.9
USA								
1950	11.8	17.0	72.3	76.1	2.7	2.2	13.3	4.7
1980	14.1	19.7	64.1	71.4	7.9	6.0	13.9	2.9
2002	18.5	25.0	56.3	61.5	14.3	10.8	10.9	2.7

Source: Census of different countries.

Table 2: Cohabitation in the US and Denmark (percentage of households) by Age of the Household Head

Age group	USA			Denmark		
	1980	1990	2000	1980	1990	2000
$20-24$	11.5	25.6	36.3	59.2	76.1	80.8
$25-29$	7.0	12.4	20.2	25.4	41.7	53.1
$30-34$	3.8	7.2	11.7	10.5	20.8	20.4
$35-39$	2.0	5.1	7.0	6.2	9.7	11.5
$40-44$	1.6	3.4	5.3	4.4	6.6	9.0
$45-49$	1.3	2.4	5.1	3.9	5.9	9.0
$50-54$	1.2	2.2	4.1	3.9	5.6	7.2
$55-59$	1.2	1.6	5.0	4.1	5.4	8.2
$60-64$	1.4	1.8	3.1	4.4	5.3	6.1

Source: US Census and Statistics Denmark.

Table 3a: Household Arrangements, Denmark 2000

	Single head		Married couples		Cohabiting couples	
Age	% of all HH	% of single HH	% of all HH	% of married	% of all HH	% of cohab.
		with child.		with child.		with child.
$20-24$	69.1	2.1	5.3	51.7	25.6	14.2
$25-29$	42.0	8.3	22.4	72.8	35.7	33.4
$30-34$	28.9	23.4	46.2	88.0	25.0	61.5
$35-39$	25.7	37.4	56.1	91.7	18.3	73.6
$40-44$	25.4	37.4	61.1	82.7	13.4	66.3
$45-49$	25.4	20.0	64.5	51.4	10.2	43.0
$50-54$	23.6	6.9	69.0	18.7	7.5	20.0
$55-59$	24.3	1.8	69.8	5.5	6.0	7.9
$60-64$	26.4	0.3	68.7	1.5	4.9	2.5

Source: Statistics Denmark.

Table 3b: Household Arrangements, USA, 2000-2005

	Single head		Married couples		Cohabiting couples	
Age	% of all HH	% of single HH	% of all HH	% of married	% of all HH	% of cohab
		with child.		with child.		with child.
$20-24$	57.4	15.4	27.9	58.3	14.7	36.5
$25-29$	42.1	21.5	47.7	65.4	10.2	39.1
$30-34$	34.4	29.5	59.1	77.9	6.5	47.1
$35-39$	33.6	36.2	61.7	83.9	4.7	47.1
$40-44$	33.9	33.3	62.3	77.2	3.8	37.6
$45-49$	34.8	22.6	62.4	56.3	2.8	20.8
$50-54$	35.5	9.5	62.0	28.6	2.5	12.8
$55-59$	36.1	3.4	62.0	11.0	1.9	5.2
$60-64$	38.3	1.4	60.2	4.4	1.5	1.6

Source: Current Population Surveys.

Table 4: Marital History by Age and Sex, US, 2001 (percents)

Sex, Age	Number of Marriages					Divorced		Widowed	
	0	1	2	3+	1+	Now	Ever	Now	Ever
Women									
30 – 34	21.7	67.3	10.0	1.0	78.3	9.3	18.6	0.4	0.6
35 – 39	15.6	66.8	15.7	1.8	84.4	13.7	28.1	0.6	1.1
40 – 49	10.5	65.1	19.8	3.3	89.5	16.8	35.4	2.4	3.5
50 – 59	6.4	65.2	22.1	4.1	93.6	17.9	38.9	7.1	9.5
60 – 69	4.1	72.9	17.4	3.1	95.9	12.6	28.4	19.7	23.3
Men									
30 – 34	29.5	60.8	8.7	1.1	70.5	7.0	15.4	–	0.3
35 – 39	21.5	66.2	10.9	1.4	78.5	12.5	22.9	0.2	0.5
40 – 49	14.2	65.1	17.1	3.6	85.8	12.5	29.5	12.5	1.3
50 – 59	6.3	62.6	23.2	8.0	93.7	16.9	40.8	1.8	2.9
60 – 69	4.3	67.5	21.3	6.8	95.7	9.7	30.9	4.5	7.6

Source: U.S. Census Bureau, Survey of Income and Program Participation (SIPP), 2001 Panel, Wave 2 Topical Module.

Table 5: Marital History, US, of the 1931-36 and 1937-41 Birth Cohorts

Birth cohort 1931-36								
		1960	1965	1970	1975	1980	1985	1990
Married, first time	men	60.84	74.25	74.56	70.25	65.06	61.39	57.45
	women	69.45	69.00	65.28	58.92	52.51	45.36	38.75
Married, second time or more	men	2.08	5.57	8.26	12.16	15.15	18.88	20.21
	women	4.95	8.79	11.28	12.95	13.87	13.84	11.5
Divorced, first time	men	3.05	3.73	5.02	8.67	8.31	7.76	8.97
	women	4.45	6.37	7.86	13.25	13.50	15.64	17.24
Never married	men	26.90	14.64	10.74	9.01	8.30	7.90	7.52
	women	20.10	13.30	10.64	9.29	6.78	8.41	8.03
Birth cohort 1937-41								
Married, first time	men	19.59	60.57	71.33	67.38	62.49	58.52	55.09
	women	47.13	66.95	66.05	58.52	50.61	44.05	36.72
Married, second time or more	men	0.47	2.60	7.47	12.27	16.92	19.24	21.49
	Women	2.01	6.31	10.17	12.89	14.96	16.33	16.82
Divorced, first time	men	1.04	4.20	5.40	6.90	9.86	10.52	9.78
	women	2.65	5.59	8.88	11.03	16.68	18.48	21.40
Never married	men	63.90	26.43	13.57	9.88	8.32	7.66	7.24
	women	47.70	20.22	12.54	10.24	9.23	8.81	8.59

Source: Health and Retirement Survey, 1992 wave.

Table 6: Marital History of the NLS Panel

Marital and educational	Males	Females
Status	N=2085	N=2202
Not married no child at age 35	.15	.08
Married before age 36	.81	.89
Had child before age 36	.67	.78
Divorced before age 36	.26	.35
Finished school before age 36	.90	.90
Had child before first marriage	.10	.16
Married before finishing school	.16	.21

Source: National Longitudinal Survey, Youth, 1979.

Table 7a: Individuals Living Alone

	%
Belgium	9
Denmark	21.9
Germany	17
Greece	9
Spain	5
France	13
Ireland	8
Italy	10
Netherlands	14
Austria	14
Portugal	5
Finland (2000)	23
UK	13
USA	13.7

Source: Census of different countries.

Table 7b: Individuals Living Alone, Denmark

Age group	Percentage living alone
18-30	19.8
31-40	13.2
41-50	13.4
51-60	17.7
61-70	25.9
71+	51.9

Source: Statistics Denmark.

Table 8a: Hours of Work and Leisure per Day

	USA		Can		UK		Norw	
Survey	1975	2003	1971	1998	1975	2000	1971	2000
Paid work								
single men	5.55	5.39	5.31	5.30	6.48	4.80	6.01	5.18
single women	4.39	4.71	4.84	4.27	4.11	3.49	4.17	3.59
married men, no child	6.13	6.32	6.37	6.39	6.64	5.91	6.20	5.89
married women, no child	3.42	4.51	3.38	4.39	3.38	3.99	3.12	4.60
married men, child 5-17	7.17	6.40	6.16	6.80	6.70	6.17	6.06	5.78
married women, child 5-17	2.71	3.68	1.97	4.08	2.46	3.54	1.86	4.28
married men, child<5	6.98	6.39	6.13	6.21	6.59	6.16	6.58	5.73
married women, child<5	1.55	2.81	1.11	2.64	0.82	2.45	0.91	2.58
Leisure								
single men	6.94	6.82	7.20	7.29	6.49	7.22	5.91	7.04
single women	6.23	6.04	5.86	6.43	6.05	6.44	5.13	6.86
married men, no child	6.14	6.09	6.25	5.96	5.83	6.13	5.33	6.21
married women, no child	6.29	5.99	5.93	5.99	5.86	5.87	5.17	6.11
married men, child 5-17	5.38	5.49	5.92	5.41	5.67	5.66	5.10	6.06
married women, child 5-17	6.14	5.61	5.57	5.51	5.76	5.38	4.75	5.98
married men, child<5	5.43	4.93	5.39	4.93	5.78	5.10	4.93	5.43
married women, child<5	5.98	5.01	5.17	4.87	6.25	5.09	4.98	5.70

Source: Multinational Time Use Study.

Table 8b: Hours per Day of Home Production, Childcare and Shopping

	USA		Can		UK		Norw	
Survey	1975	2003	1971	1998	1975	2000	1971	2000
Home Production								
single men	1.05	1.27	1.19	1.14	0.61	1.28	1.12	1.19
single women	2.06	1.72	1.84	2.03	2.47	2.34	2.74	1.77
married men, no child	1.25	1.52	0.79	1.57	1.07	1.65	1.53	1.64
married women, no child	2.88	2.51	3.80	2.77	3.38	3.02	4.20	2.47
married men, child 5-17	1.18	1.52	1.56	1.63	0.97	1.70	1.61	1.93
married women, child 5-17	3.63	2.83	4.55	3.29	4.01	3.37	5.48	2.75
married men, child<5	1.10	1.38	1.83	1.66	0.90	1.42	1.37	1.64
married women, child<5	3.67	2.64	4.79	3.03	4.13	3.03	5.03	2.65
Child Care								
single men	0.03	0.08	0.03	0.04	0.02	0.03	0.02	0.04
single women	0.36	0.48	0.15	0.43	0.23	0.47	0.19	0.33
married men, no child	**	**	**	**	**	**	**	**
married women, no child	**	**	**	**	**	**	**	**
married men, child 5-17	0.20	0.57	0.14	0.41	0.06	0.26	0.23	0.32
married women, child 5-17	0.65	1.13	0.64	0.77	0.30	0.58	0.65	0.59
married men, child<5	0.40	1.24	1.21	1.47	0.28	1.04	0.54	1.23
married women, child<5	1.63	2.67	2.16	2.97	1.28	2.57	2.08	2.61
Shopping								
single men	0.24	0.35	0.31	0.41	0.24	0.33	0.21	0.28
single women	0.49	0.49	0.23	0.57	0.53	0.55	0.29	0.46
married men, no child	0.32	0.37	0.82	0.42	0.24	0.33	0.19	0.31
married women, no child	0.53	0.54	0.37	0.53	0.56	0.54	0.28	0.37
married men, child 5-17	0.24	0.34	0.33	0.35	0.25	0.33	0.22	0.35
married women, child 5-17	0.59	0.61	0.54	0.59	0.63	0.57	0.34	0.39
married men, child<5	0.28	0.39	0.23	0.37	0.23	0.34	0.22	0.26
married women, child<5	0.50	0.60	0.55	0.58	0.66	0.58	0.36	0.42

Source: Multinational Time Use Study.

Table 9: Labor Force Participation of Women and Men in Ten Countries

Country	Male Participation Rates					Female Participation Rates				
	1965	1975	1985	1995	2005	1965	1975	1985	1995	2005
US	80.7	77.9	76.3	75.0	73.3	39.3	46.3	54.5	58.9	59.3
Canada	79.9	78.4	77.4	72.7	72.7	33.8	44.4	54.9	57.3	61.4
Australia	85.1	82.2	76.7	74.6	73.0	34.8	44.5	47.1	74.7	58.1
Japan	81.1	81.2	77.9	77.5	73.1	48.8	44.8	47.6	49.3	47.7
France	79.2	74.4	68.4	63.4	63.3*	38.2	41.7	46.4	48.2	51.1*
Germany	80.9	73.4	70.1	68.1	63.9*	40.0	39.3	41.1	47.1	49.6*
Italy	77.5	70.6	65.3	61.6	61.1*	27.8	26.8	30.7	34.4	38.2*
Nether.	NA	80.0	73.8	69.8	72.7	NA	29.5	37.9	48.1	57.8
Sweden	82.2	77.0	72.5	68.9	67.8*	46.6	55.2	61.5	59.5	59.7*
UK	85.4	81.2	76.1	72.0	70.5	41.7	46.6	50.7	53.5	56.2

Source : Comparative Civilian Labor Force Statistics, 10 Countries, 1960-2005, US Department of Labor, 2006.

Note: *Observation from 2004.

Table 10a: Marital Status at Age 35, by Education at Age 35 and Sex

Marital Status	School years							
	Women				Men			
	<12	12	13-15	16+	<12	12	13-15	16+
Unmarried	9.7	9.2	10.6	14.3	19.7	18.8	18.9	18.6
Married	28.3	50.8	50.2	61.9	34.9	50.8	52.7	64.0
Separated	31.4	19.1	22.0	11.4	26.1	15.2	16.9	7.8
Divorced	30.6	20.9	17.2	12.7	19.4	17.2	11.6	9.6

Source: National Longitudinal Study, Youth, 1979.

Table 10b: Years of Schooling at Marriage and at Age 35, by Marital Status at Age 35 and Sex

Marital Status at age 35						
	Women			Men		
		Years of education			Years of education	
	%	at age 35	at marr.	%	at age 35	at marr.
Never married	8.5	13.9	–	15.7	13.6	–
Married,never divorced	54.0	13.9	13.5	56.0	13.8	13.5
Married with prior separation	37.6	12.7	11.9	28.3	12.3	11.9

Source: National Longitudinal Study, Youth, 1979.

Table 11: Completed Fertility for Two Cohorts

	Number of Children				
	0	1	2	3	4+
Born 1932-1936	10.2	9.6	21.7	22.7	35.8
Born 1956-1960	19.0	16.4	35.0	19.1	10.5

Source: US Census.

Table 12: Living Arrangements of U.S. Children, Aged less than 18, by Year

	Children with	Children	Children
Year	two parents	with mother	with father
1950	.927	.059	.013
1960	.914	.074	.012
1970	.877	.107	.015
1980	.805	.168	.027
1990	.761	.195	.044
2000	.718	.219	.063
2005	.677	.234	.047

Source: US Census.

Table 13: Child Support and Alimony Received by Mothers with Children 0-18 (in 1982-84 dollars) by Mother's Age and Time Period

Mother's Age	20-30		31-40		41-60	
1979-92	Div.	Mar.	Div.	Mar.	Div.	Mar.
Prop. with CS>0	0.452	0.062	0.509	0.068	0.428	0.037
CS, if CS>0	1905	1320	2947	1797	3660	1859
Mother's Inc. if CS>0	10728	7190	15230	11444	17138	12858
Mother's Inc.	8834	5218	12952	7618	13398	7725
Family Inc. if CS>0	11210	25868	16085	36945	20499	44399
Family Inc.	9918	23867	14045	33247	17894	38095
Observations	8071	74900	14410	107108	7536	57936
1993-2004	Div.	Mar.	Div.	Mar.	Div.	Mar.
Prop. with CS>0	0.463	0.049	0.502	0.054	0.454	0.034
CS, if CS>0	1920	1664	2959	2368	4023	2775
Mother's Inc. if CS>0	11351	9195	16873	13854	21958	17564
Mother's Inc.	9699	7086	14544	10989	17779	13550
Family Inc. if CS>0	11731	27313	17644	39240	23929	49227
Family Inc.	10825	26298	15720	39599	21675	49148
Observations	4171	40686	12312	88472	10427	63332

Source: Current Poulation Surveys.

Table 14: Consumption Through Life Stages

	No children wife ≤ 40	Children, at least one ≤ 6	Children all aged > 6	No children wife > 40
Sample size	$1,255$	$2,367$	$1,965$	$1,217$
Net income	$50,060$	$48,425$	$52,889$	$50,045$
Nondur expend	$23,484$	$25,768$	$27,947$	$21,560$
Ex/inc ratio	0.50	0.56	0.56	0.47
Selected budget shares (%)				
Food at home	16.1	22.1	23.1	21.7
Restaurants	10.9	6.6	7.0	8.1
Clothing	13.7	11.6	13.6	10.9
Alc and tob	9.2	6.1	6.0	7.7
Recreation	13.6	11.3	12.9	11.1
All monetary values in 1992 (Ontario) Canadian dollars.				

Source: Canadian Family Expenditure Surveys.

Table 15: Descriptive Regression for Log Nondurable Consumption

Variable	Constant	Log income	Stage 2	Stage 3	Stage 4
Coefficient	3.38	0.62	0.12	0.14	-0.08
t-value		78	13	16	-8
$R^2 = 0.51$					

Source: Canadian Family Expenditure Surveys.

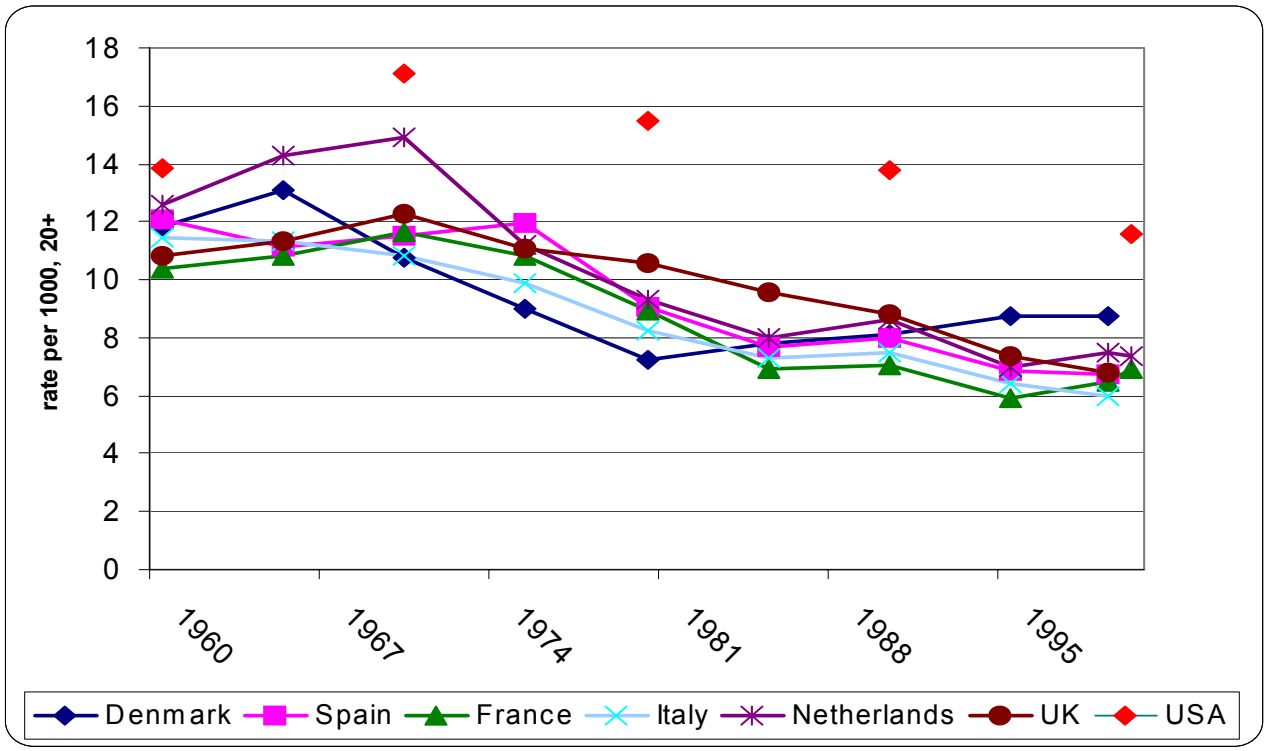

Figure 1: Marriage Rates for Selected Countries. Source: Eurostat.

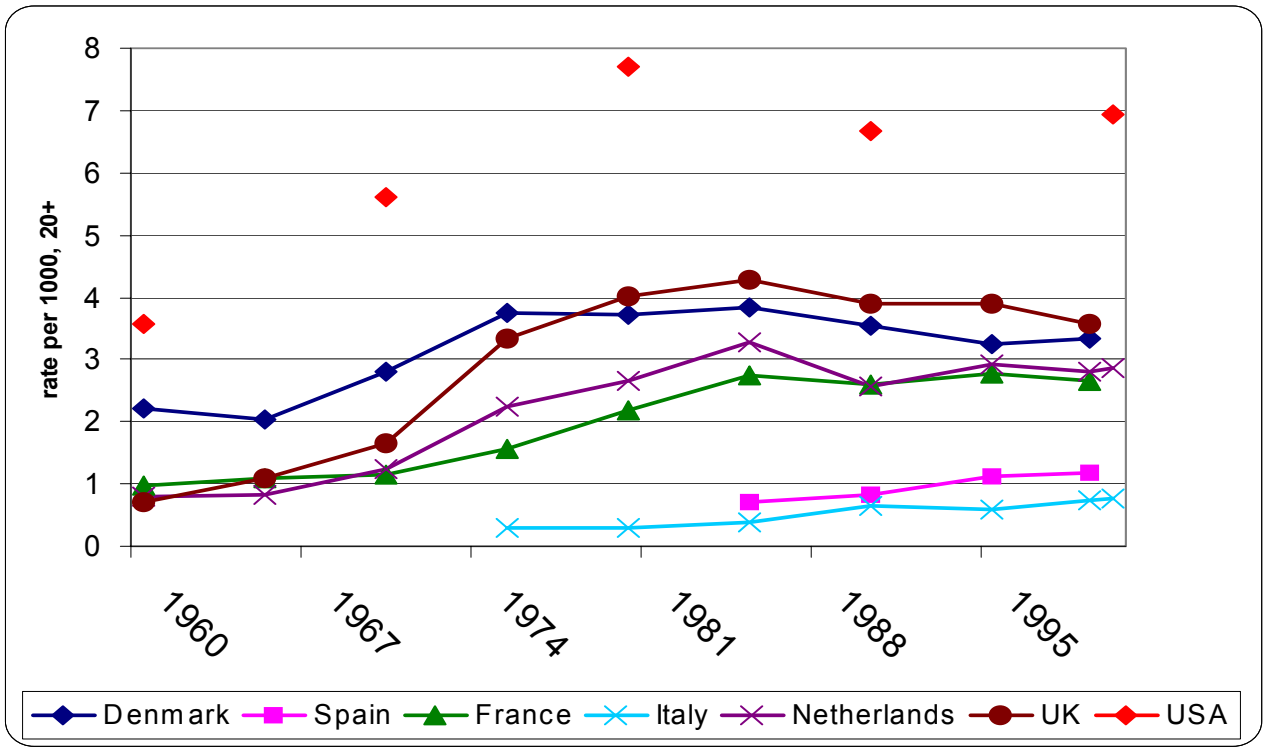

Figure 2: Divorce Rates for Selected Countries. Source: Eurostat.

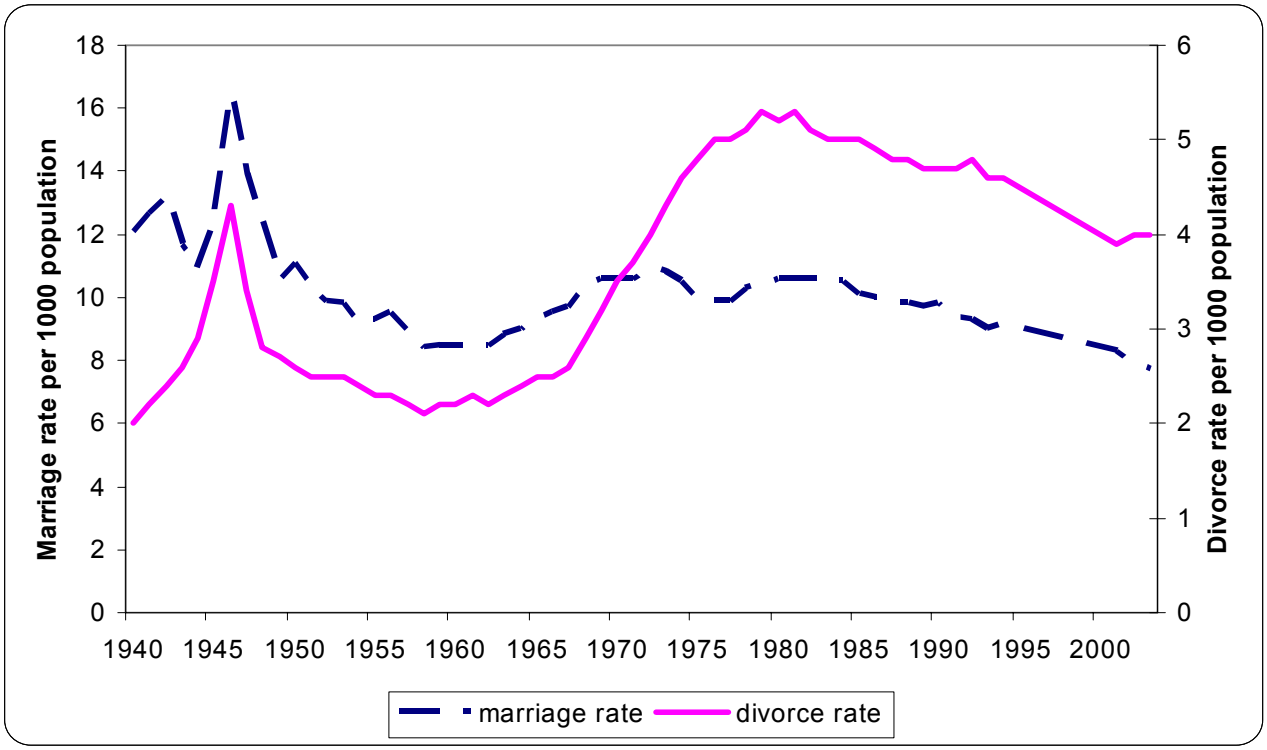

Figure 3: Marriage and Divorce Rates, US 1940-2002. Source: National Center of Health Statistics.

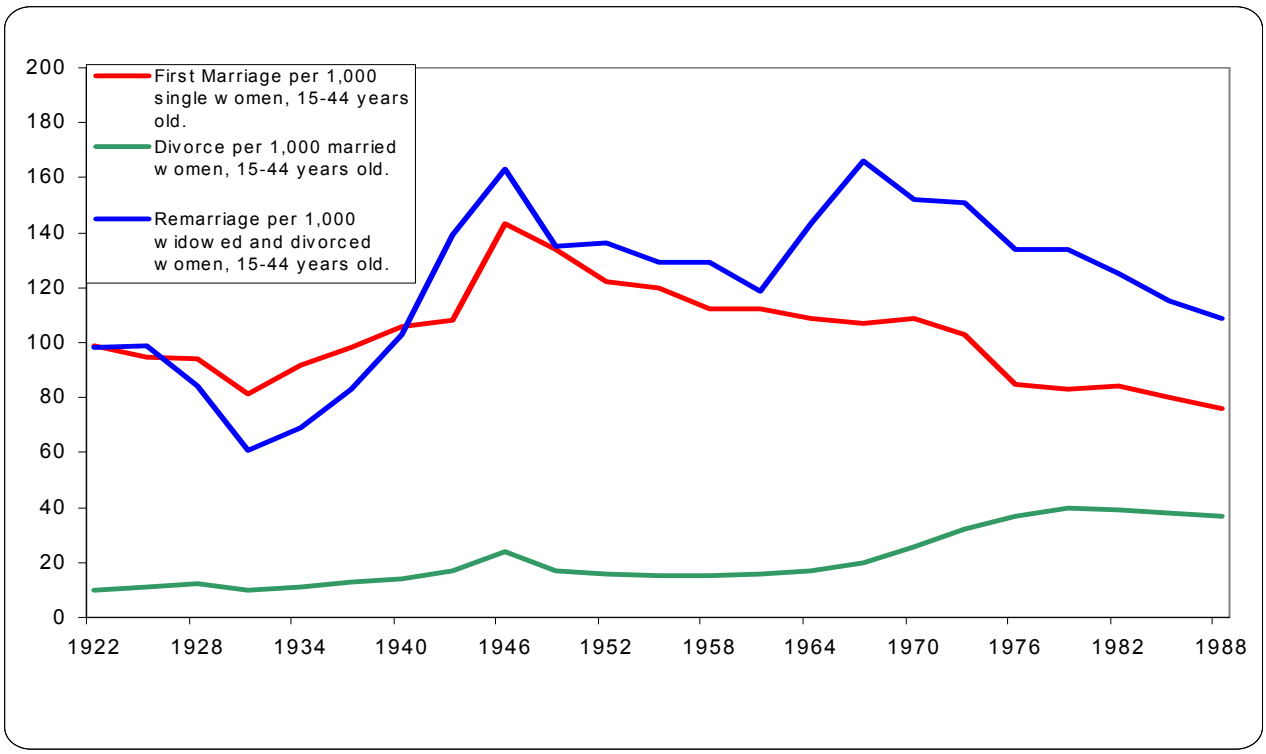

Figure 4: Marriage, Divorce and Remarriage Rates, US 1921-1989. Source: National Center of Health Statistics.

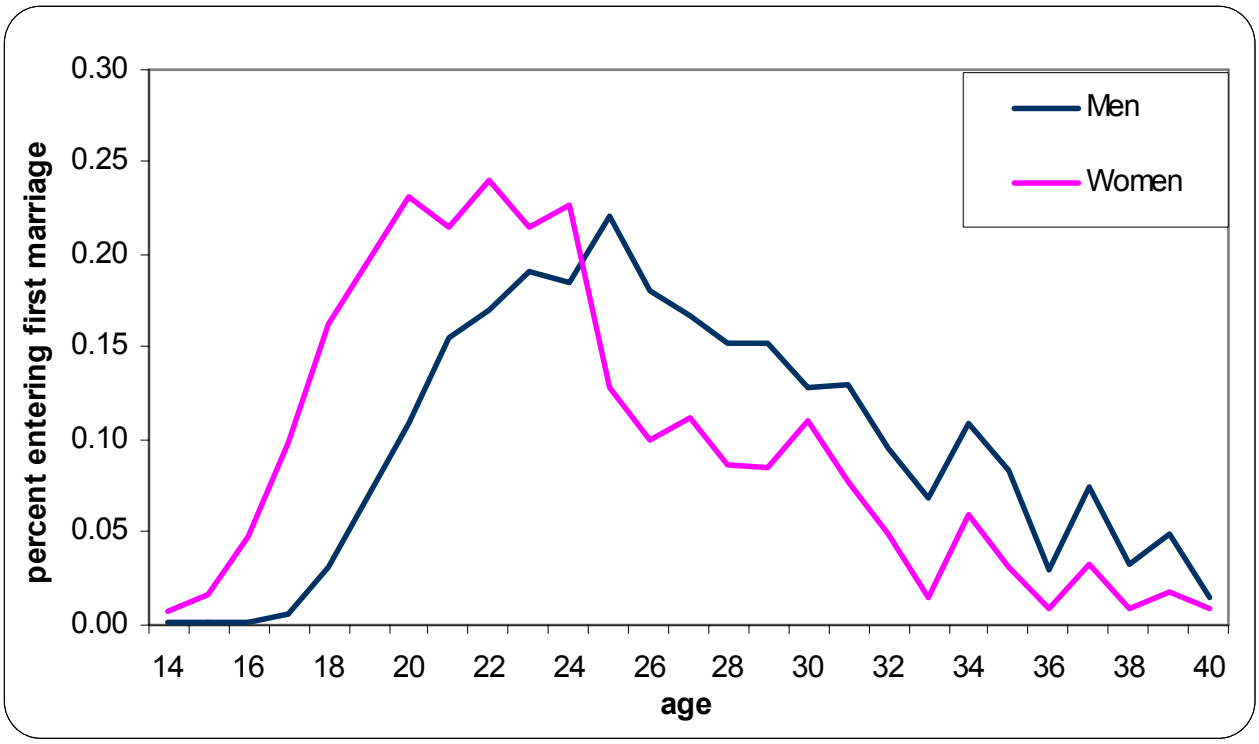

Figure 5: Entry into First Marriage, US, HRS Cohort. Source: Health and Retirement Survey, 1992 Wave.

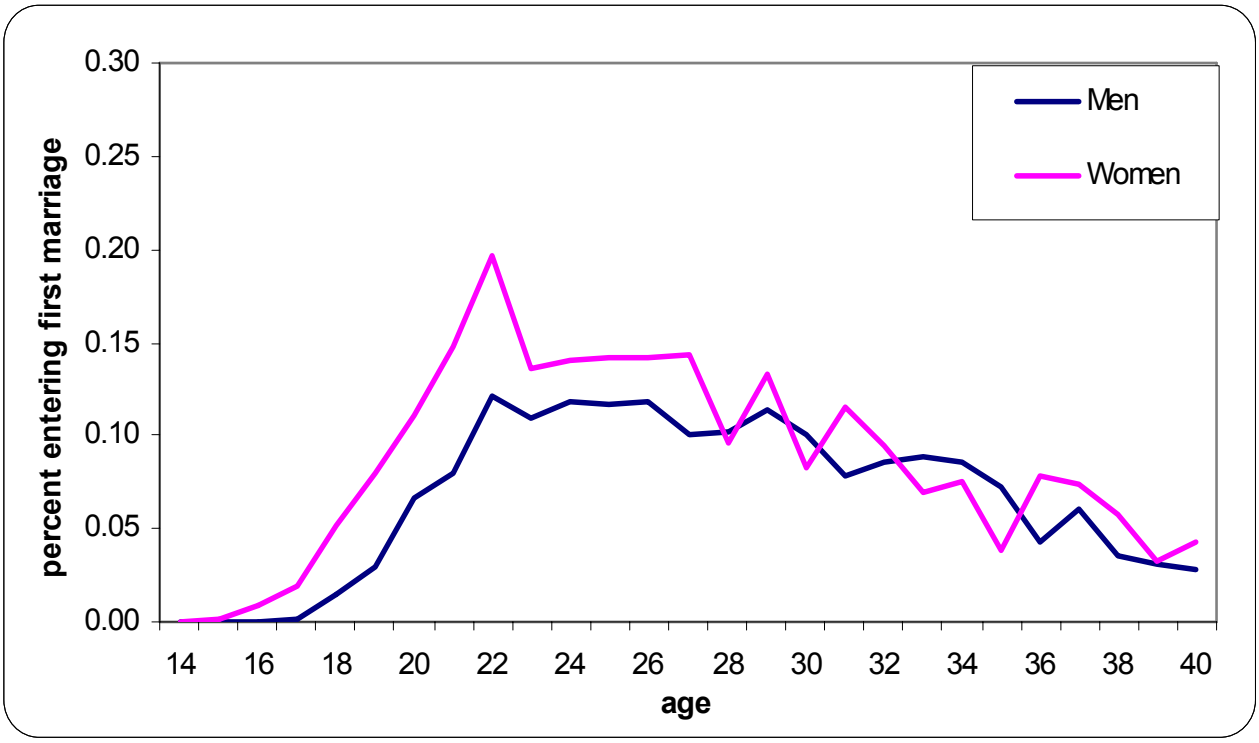

Figure 6: Entry into First Marriage, US, NLS Panel. Source: National Longitudinal Survey, Youth,1979.

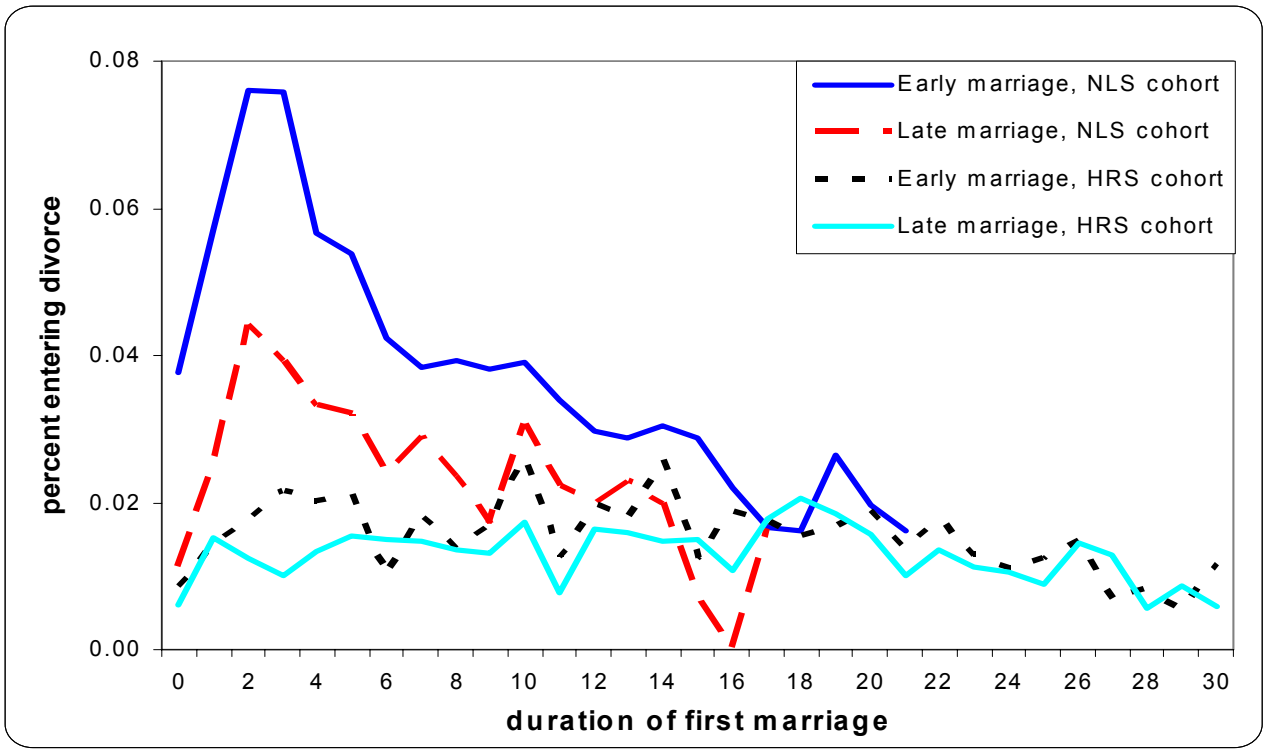

Figure 7: Hazard of Divorce for two Birth Cohorts, US. Source: National Longitudinal Survey, Health and Retirement Survey.

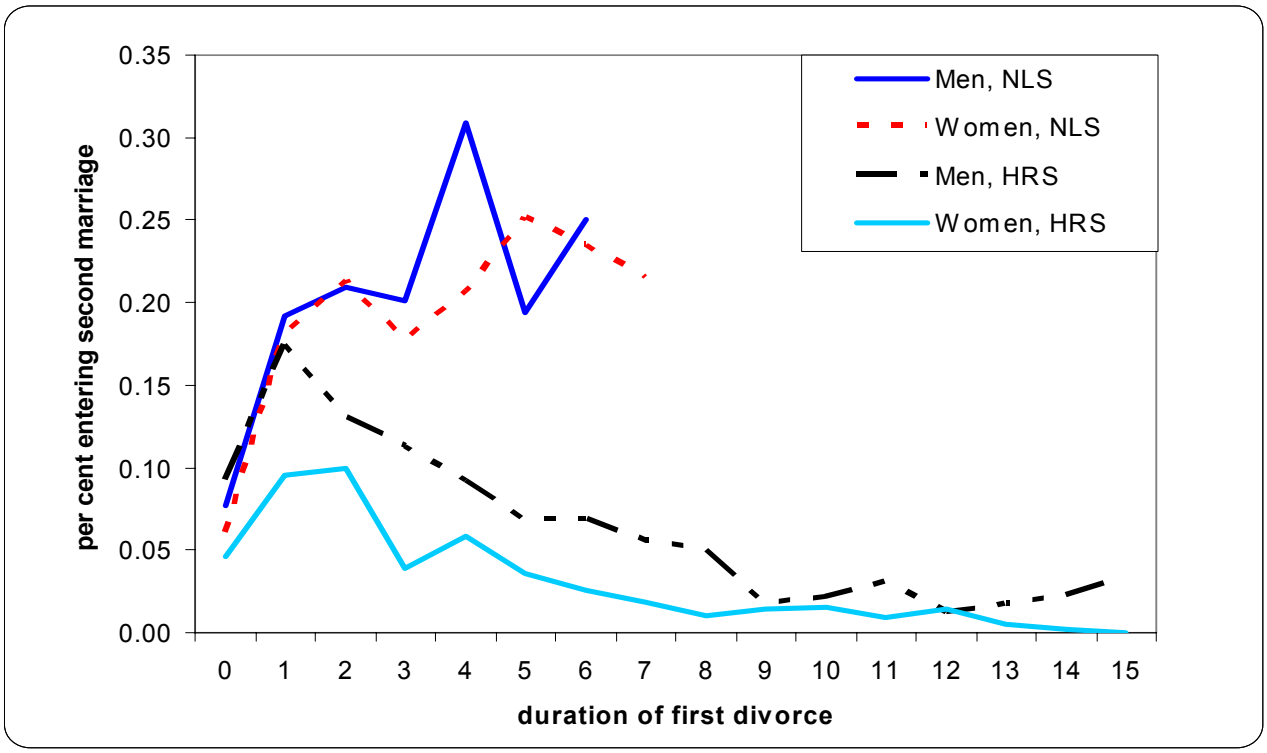

Figure 8: Hazard of Reamarriage, US. Source: National Longitudinal Survey, Health and Retirement Survey.

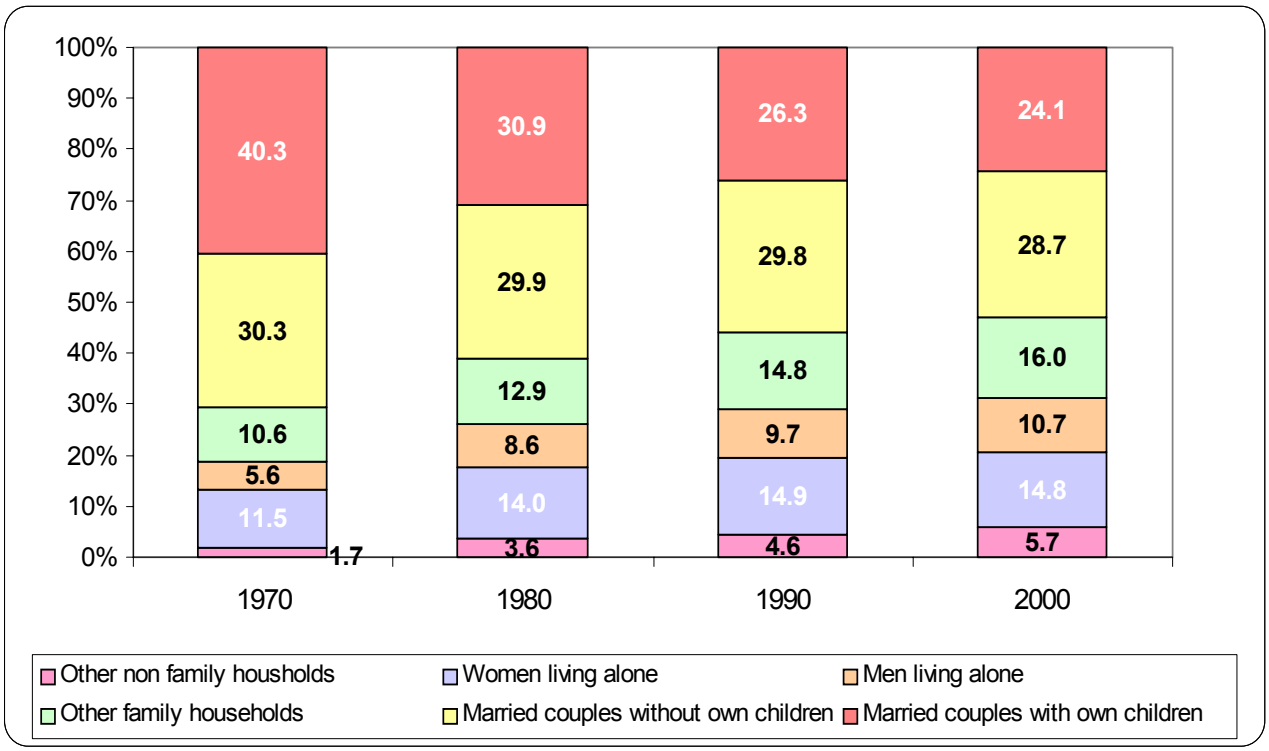

Figure 9: Households by Type: Selected Years, US. Source: US Census.

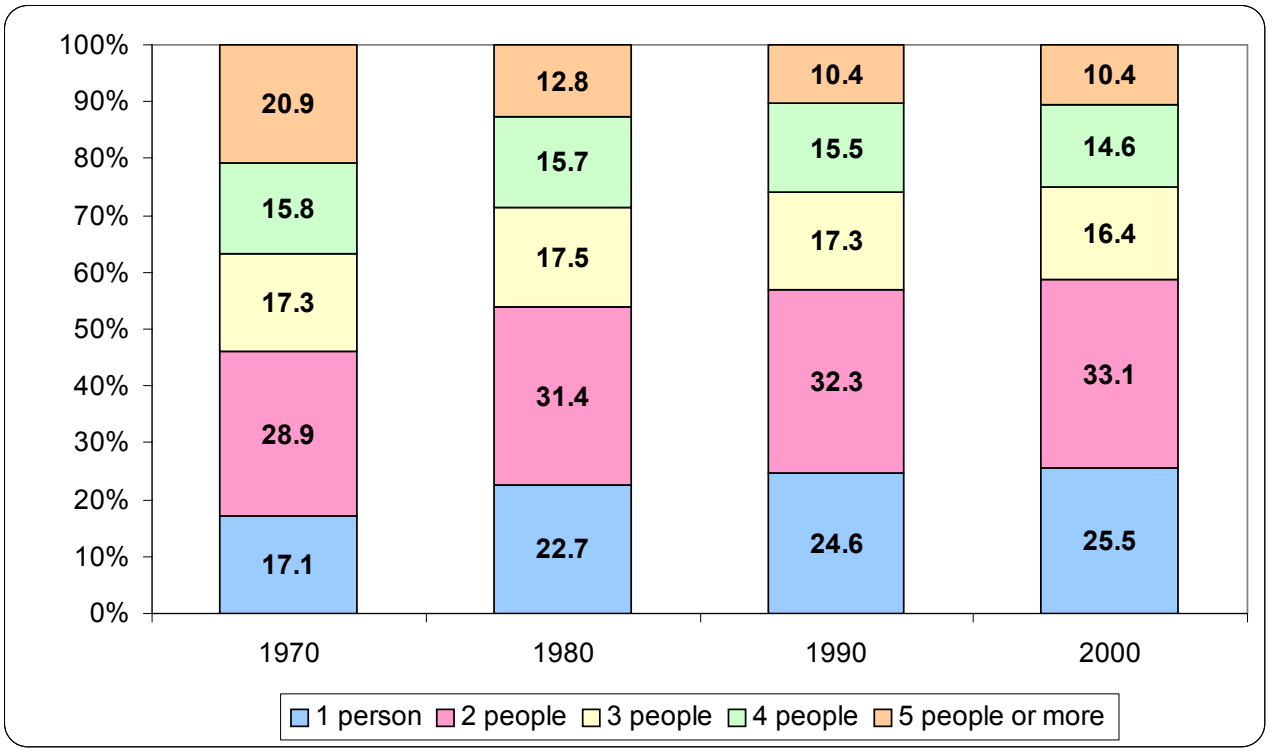

Figure 10: Households by Size, Selected Years, US. Source: US Census.

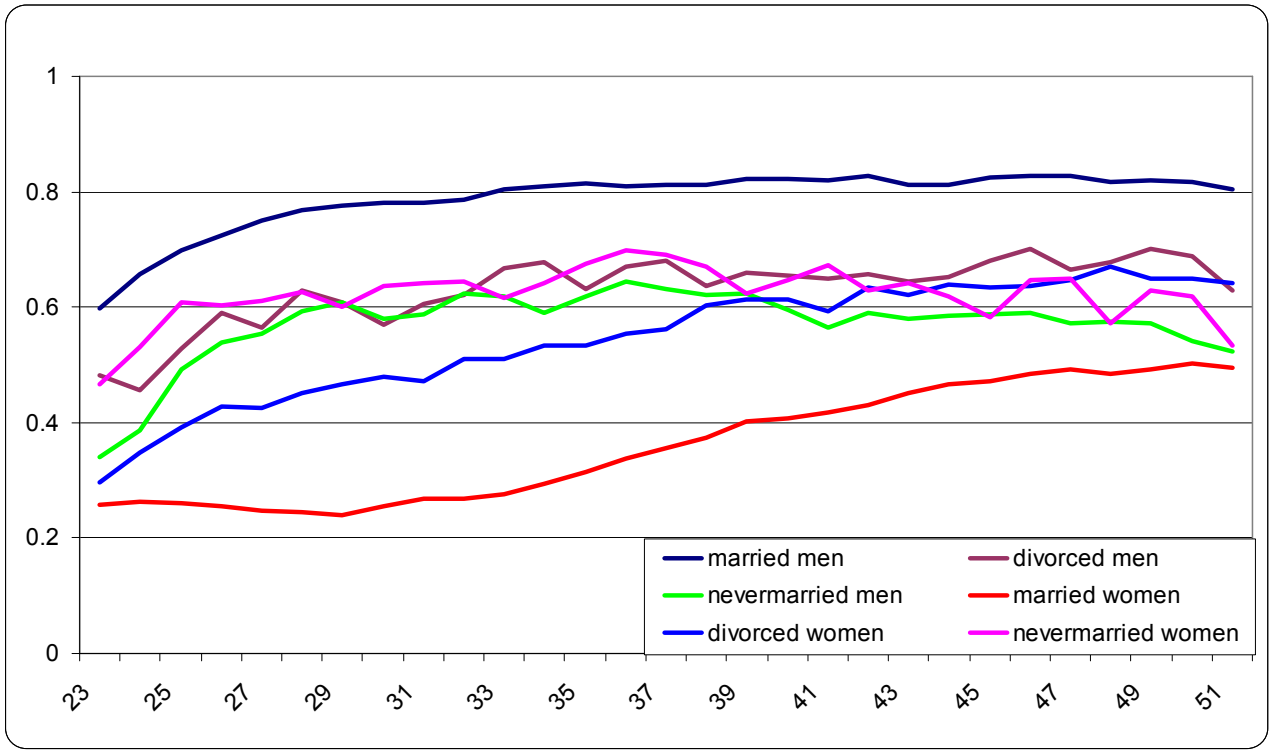

Figure 11: Full-Time Workers, by Marital Status and Sex, US Birth Cohort 1945-54. Source: Current Population Surveys.

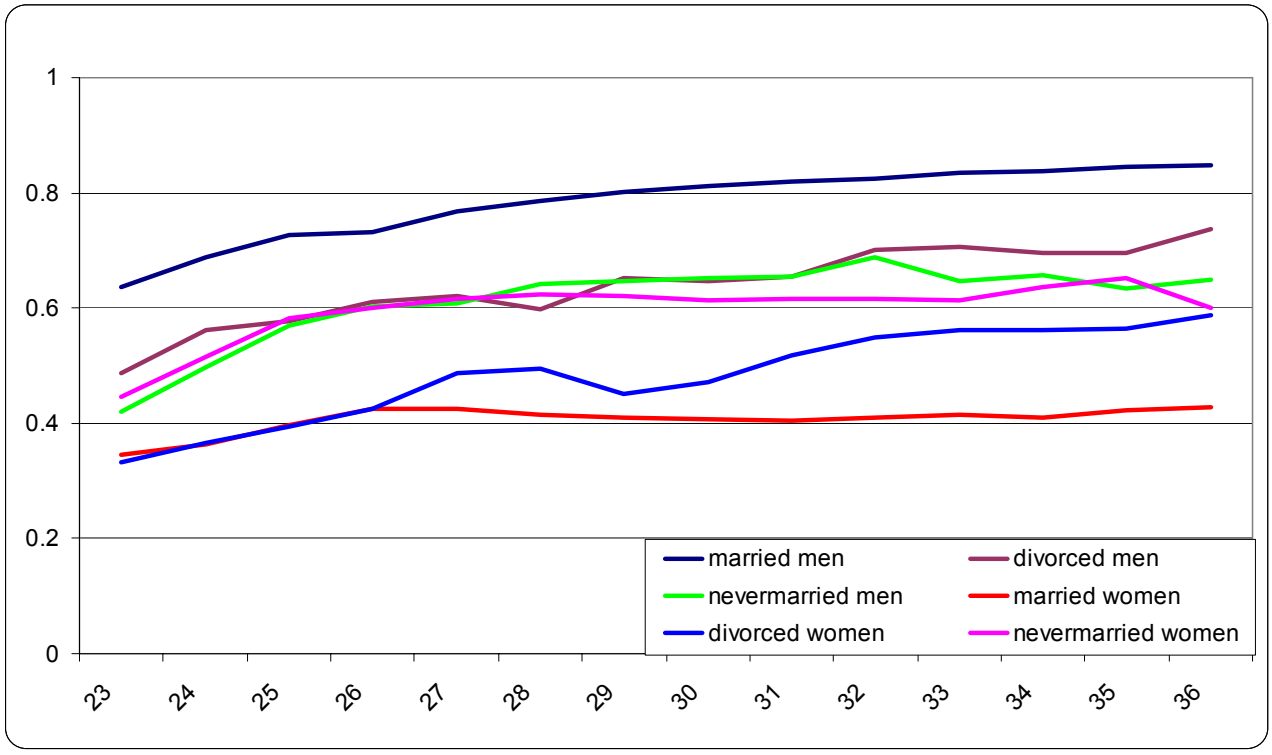

Figure 12: Full-Time Workers, by Marital Status and Sex, US Birth Cohort 1960–69. Source: Current Population Surveys.

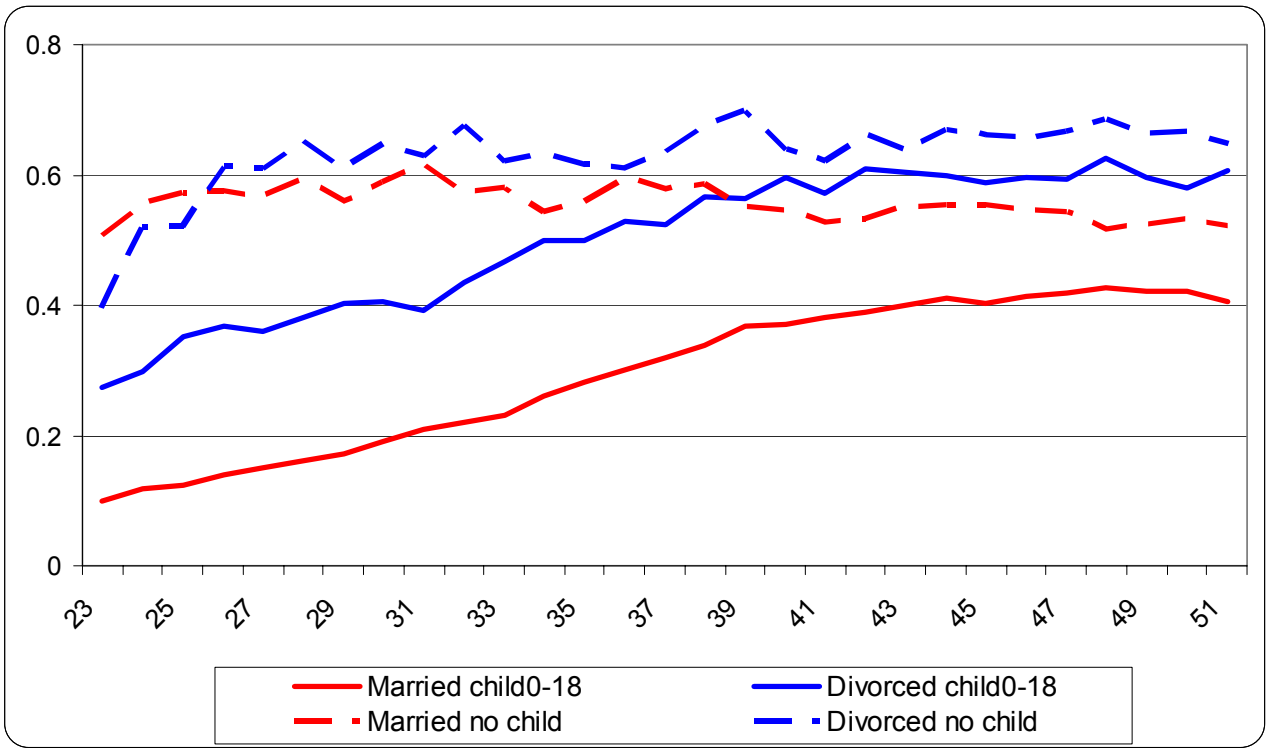

Figure 13: Full-Time Female Workers, by Marital Status and Child, US Birth Cohort 1945-54. Source: Current Population Surveys.

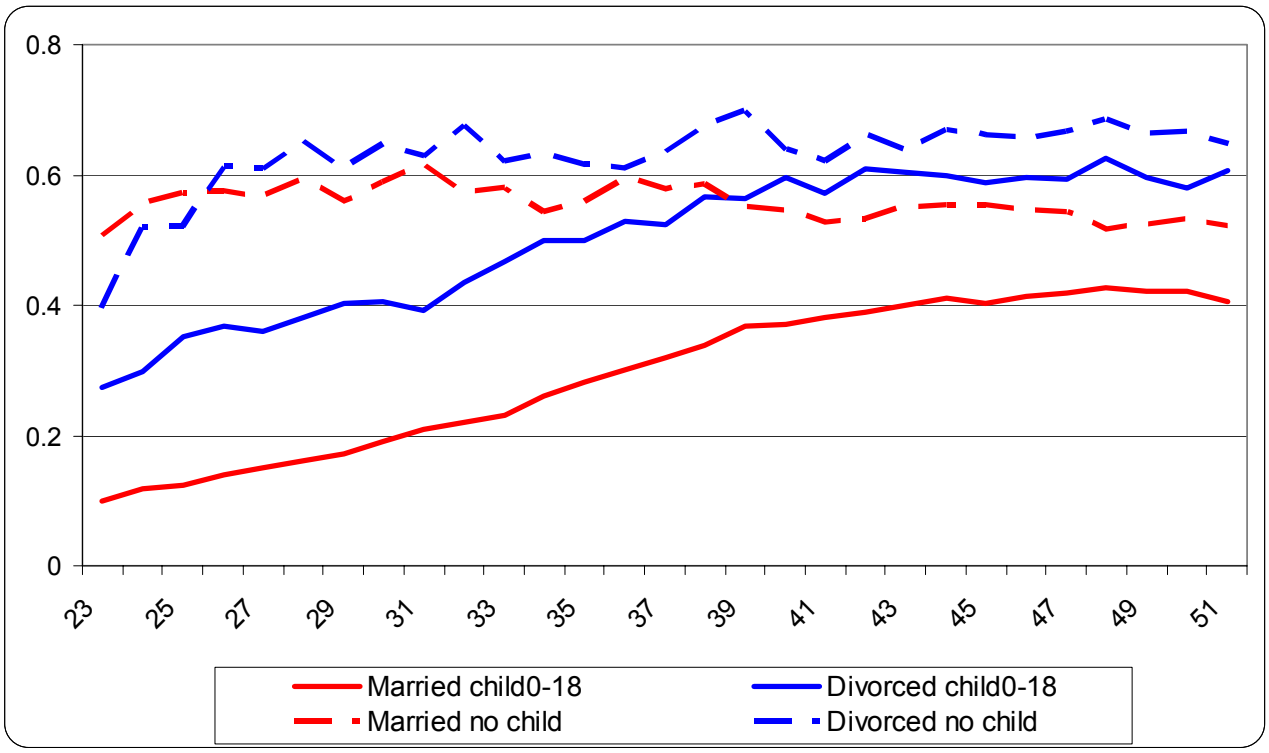

Figure 14: Full-Time Female Workers, by Marital Status and Child, US Birth Cohort 1960-69. Source: Current Population Surveys.

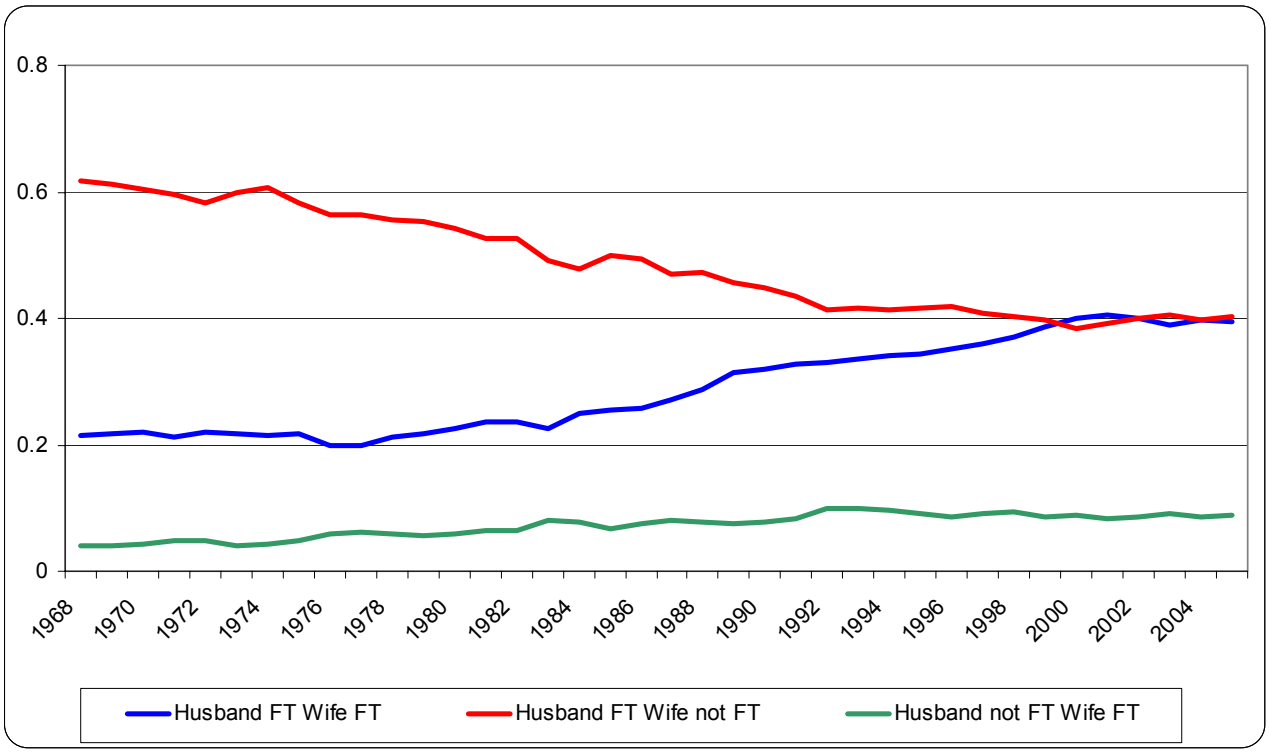

Figure 15: Work Patterns of Husbands and Wives (Aged 40-60). Source: Current Population Surveys.

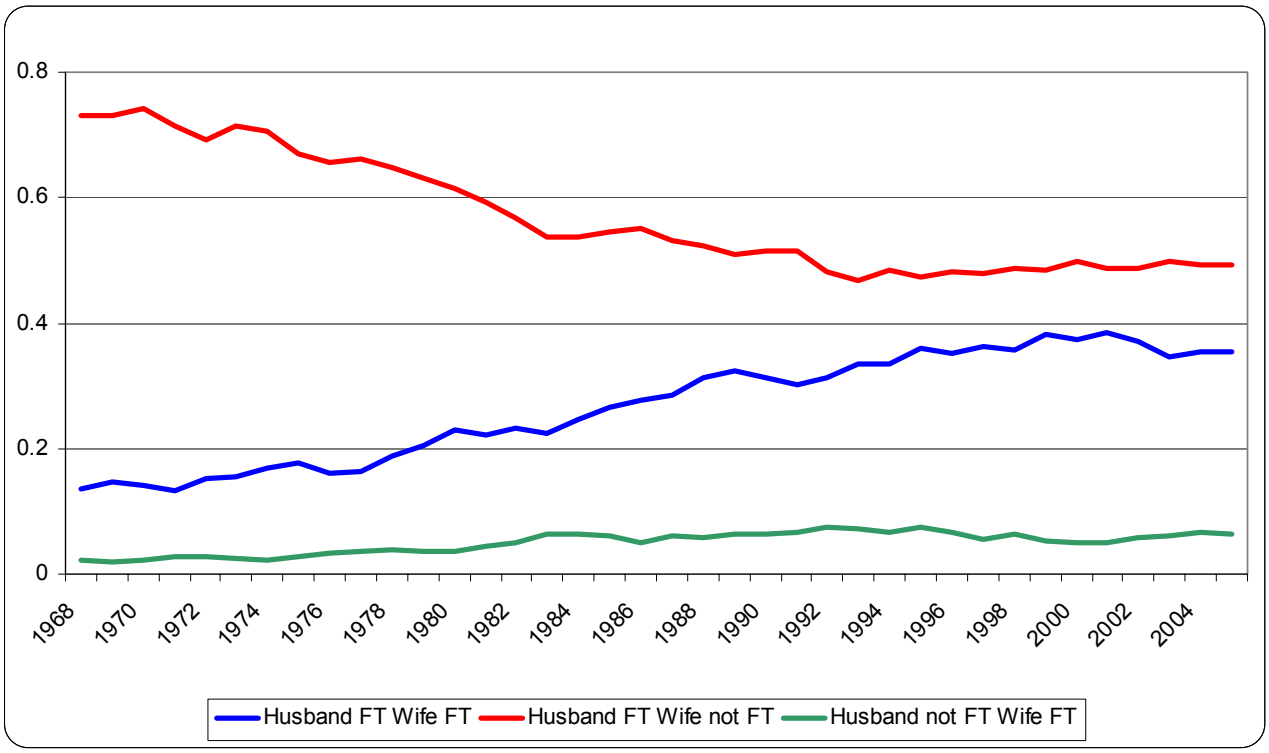

Figure 16: Work Patterns of Husbands and Wives (Aged 30-40). Source: Current Population Surveys.

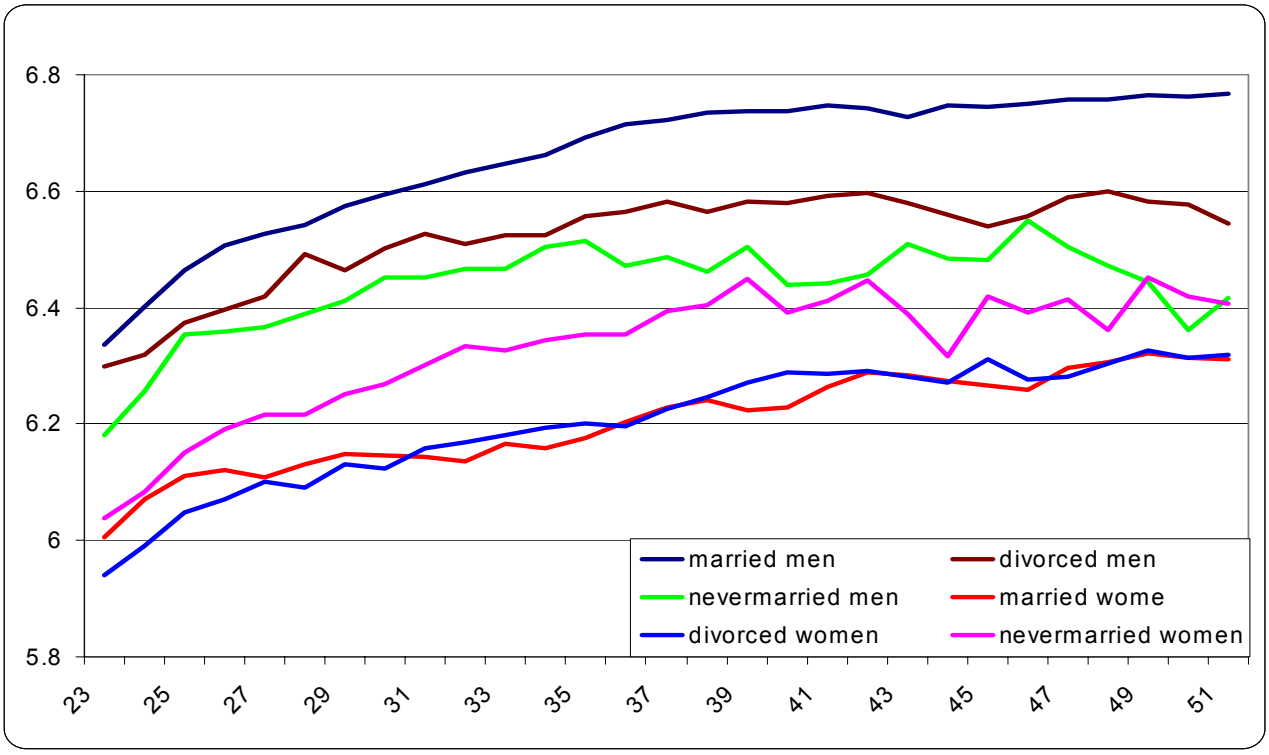

Figure 17: Weekly Wages of FT Workers, by Marital Status and Sex, US Birth Cohort 1945-54. Source: Current Population Surveys.

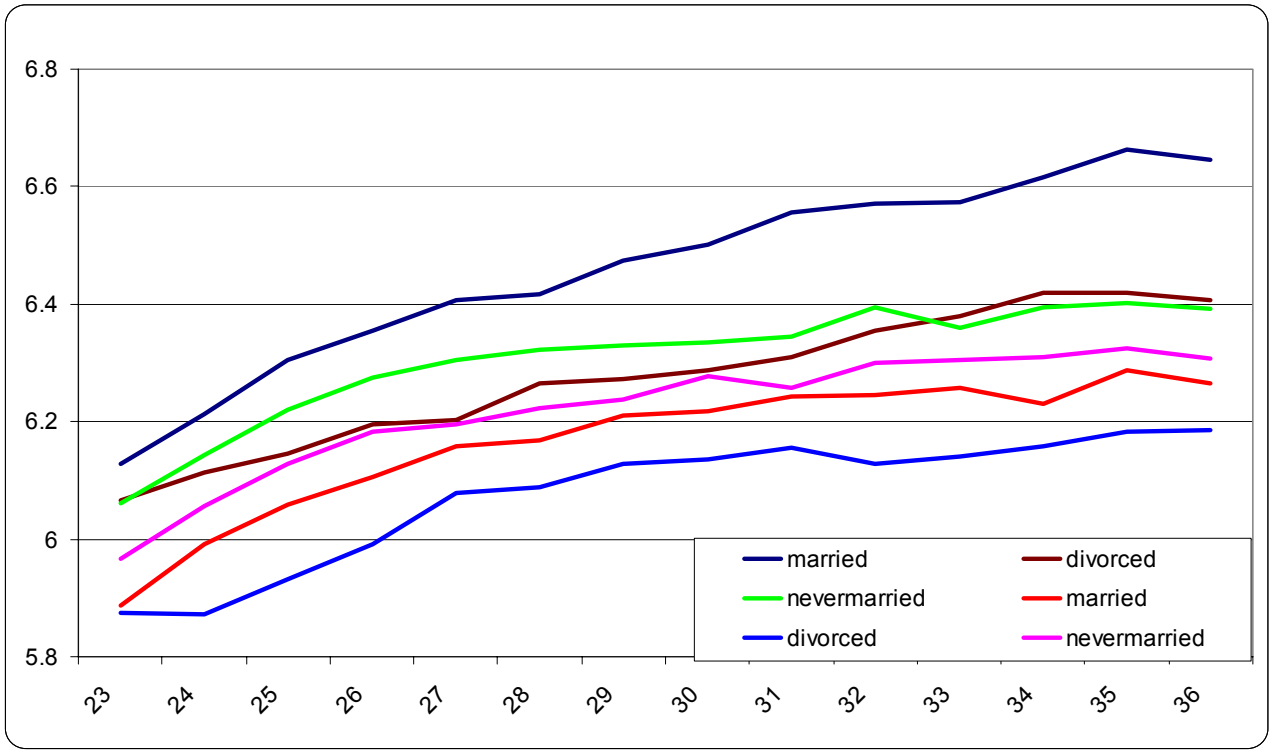

Figure 18: Weekly Wages of FT Workers, by Marital Status and Sex, US Birth Cohort 1960-69. Source: Current Population Surveys.

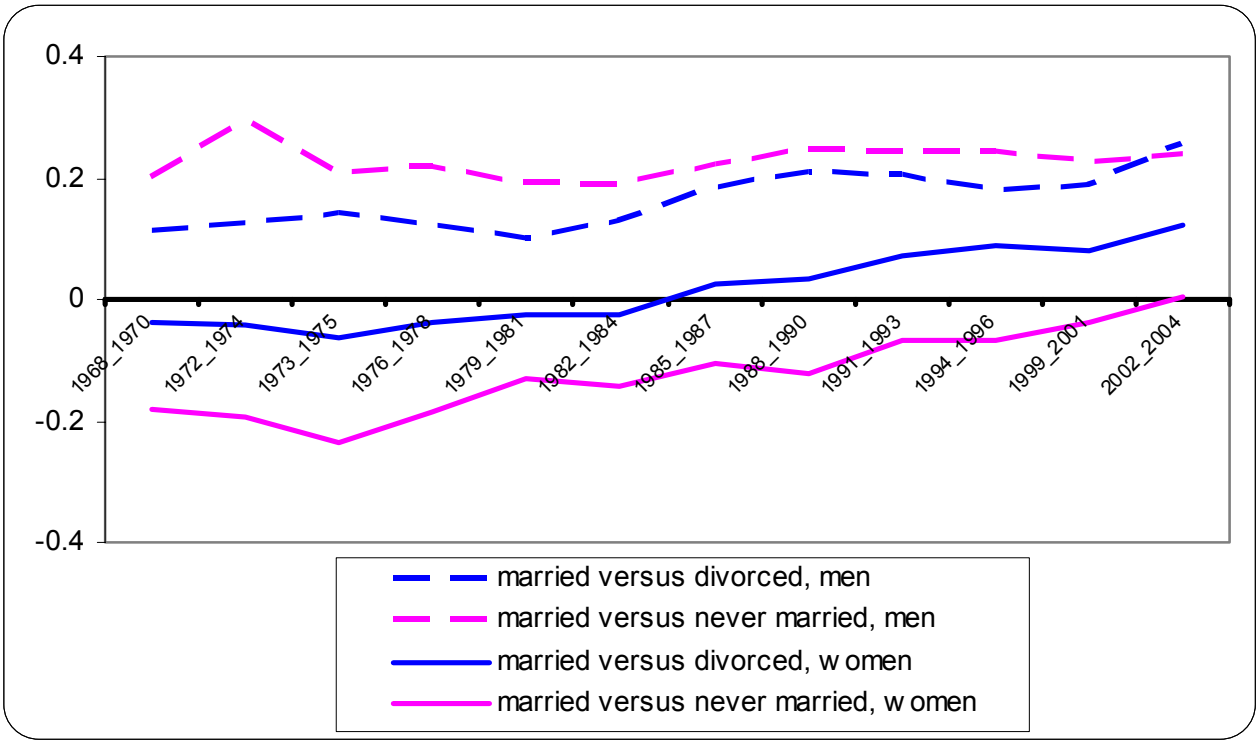

Figure 19: Log Wages Differnces between Married and Singles, by Sex, US 1968–2005. Source: Current Population Surveys.

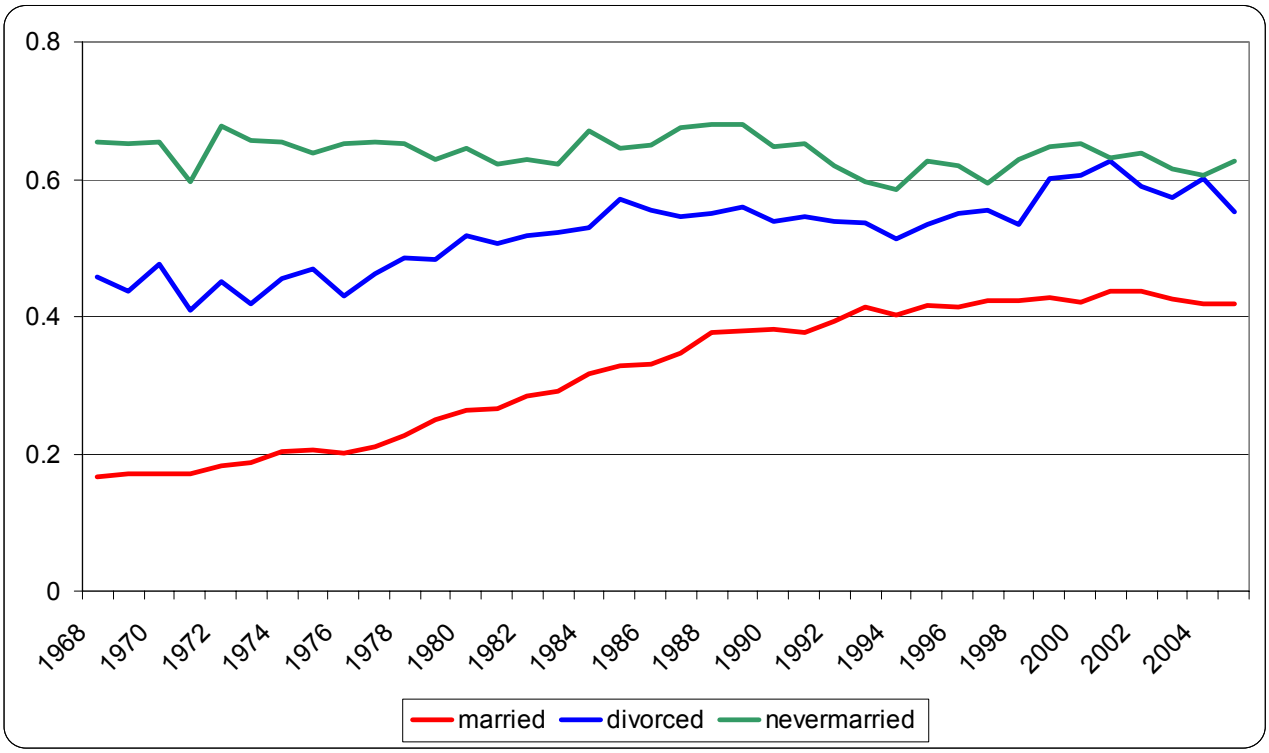

Figure 20: Women Working Full Time, by Marital Status, US 1968–2005. Source: Current Population Surveys.

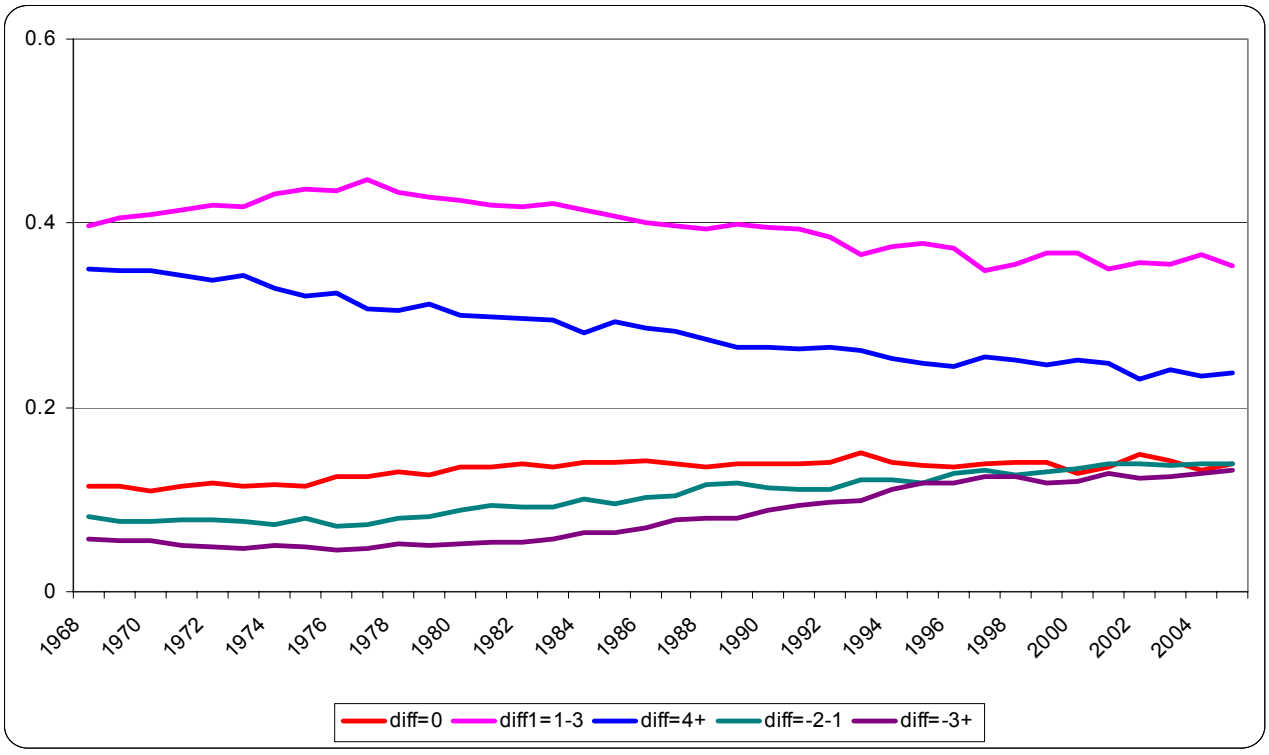

Figure 21: Age Differences between Husbands and Wives, US 1968-2005. Source: Current Population Surveys.

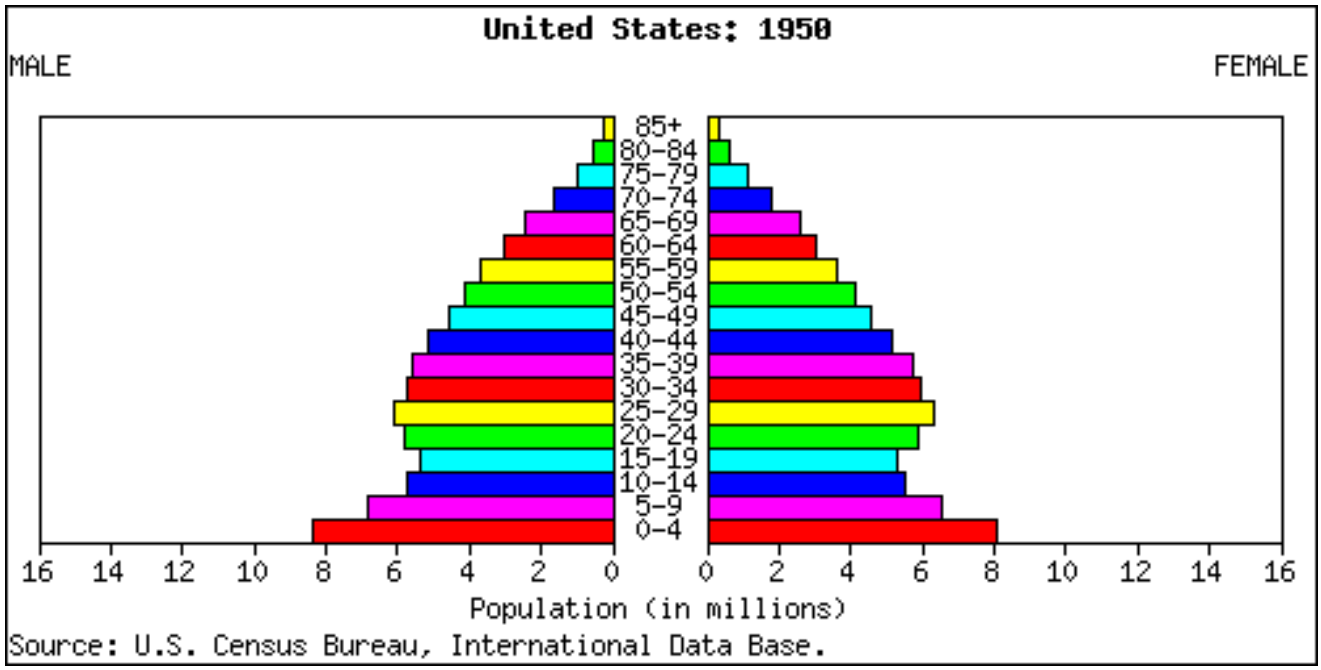

Figure 22: Age Pyramid , US 1950. Source: US Census.

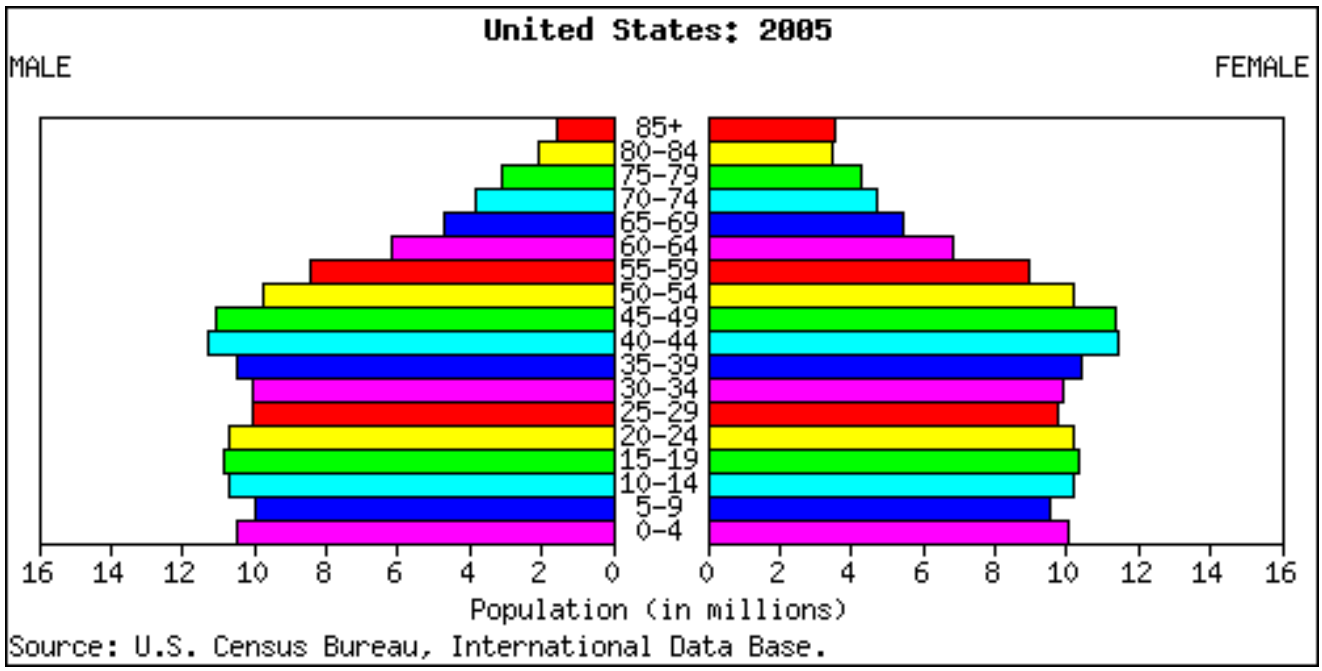

Figure 23: Age Pyramid , US 2005. Source: US Census.

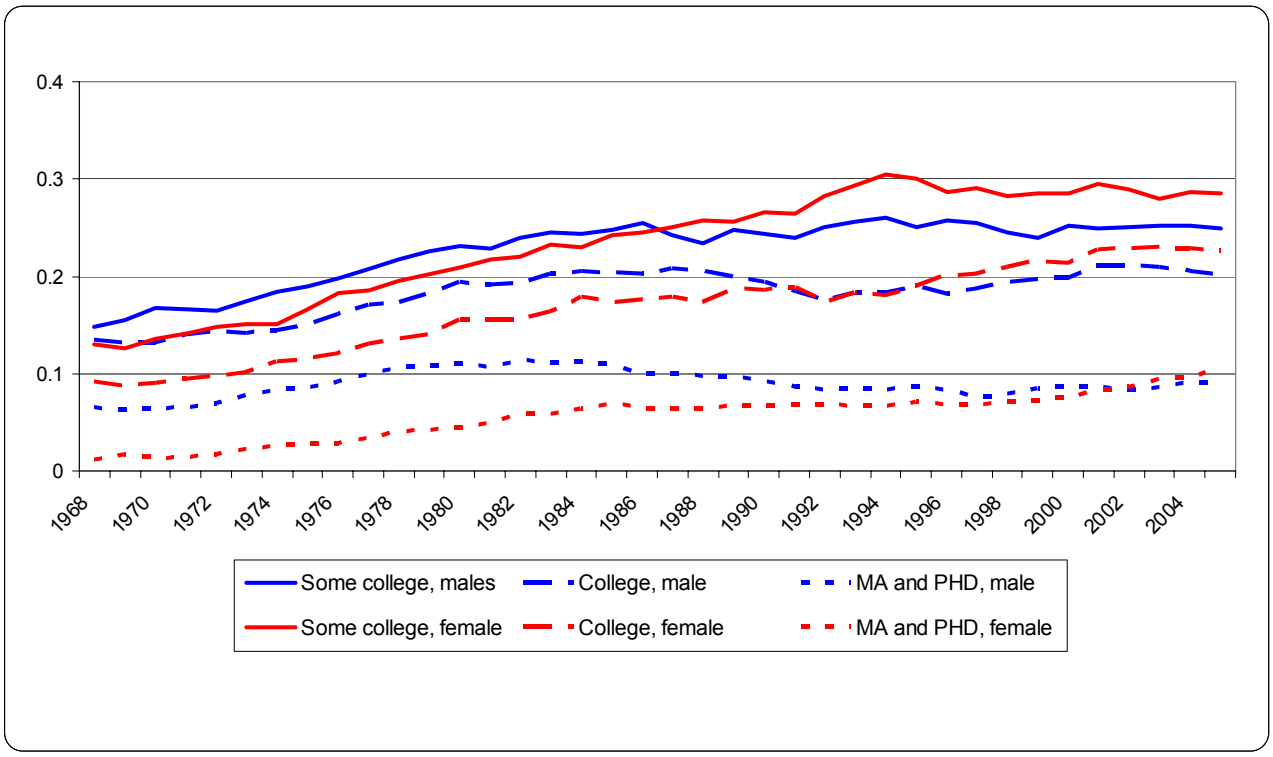

Figure 24: Completed Education by Sex, Age 30-40, US 1968-2005. Source: Current Population Surveys.

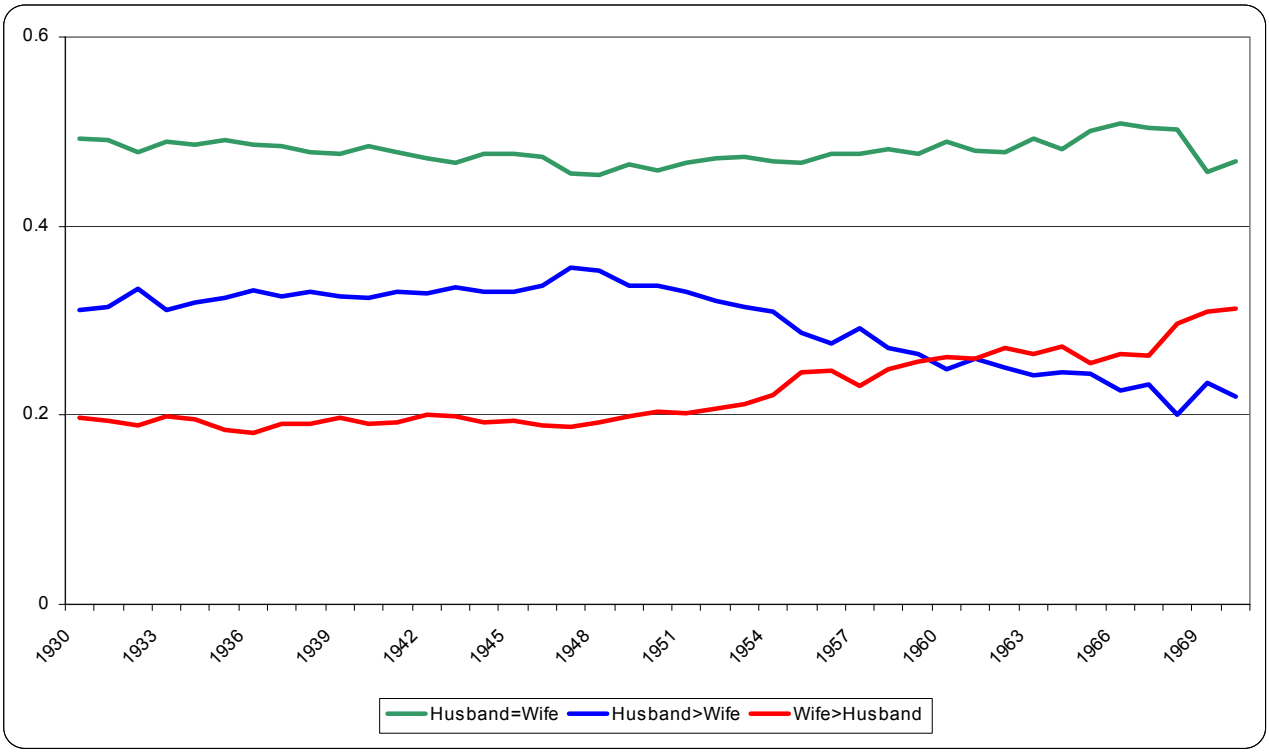

Figure 25: Education of Spouses, by Husband's Year of Birth, US. Source: Current Population Surveys.

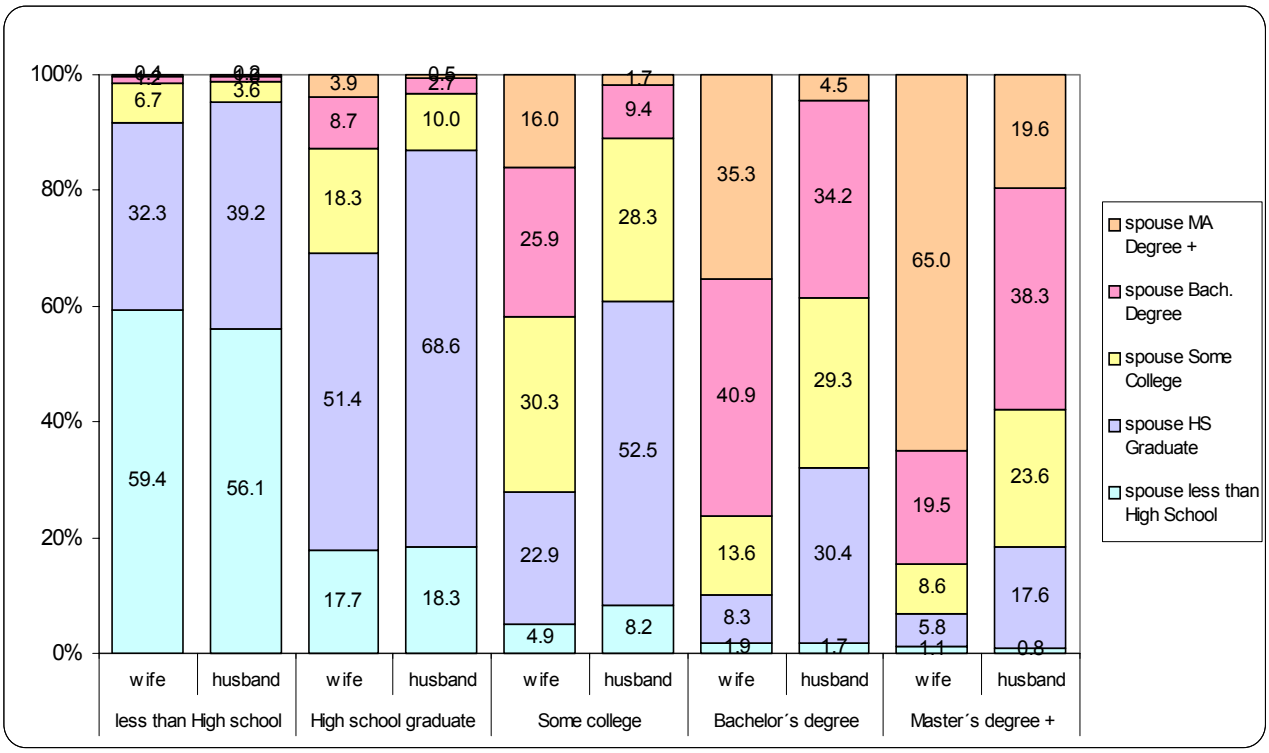

Figure 26: Spouse Education by own Education, Ages 30-40,US 1970-79. Source: Current Population Surveys.

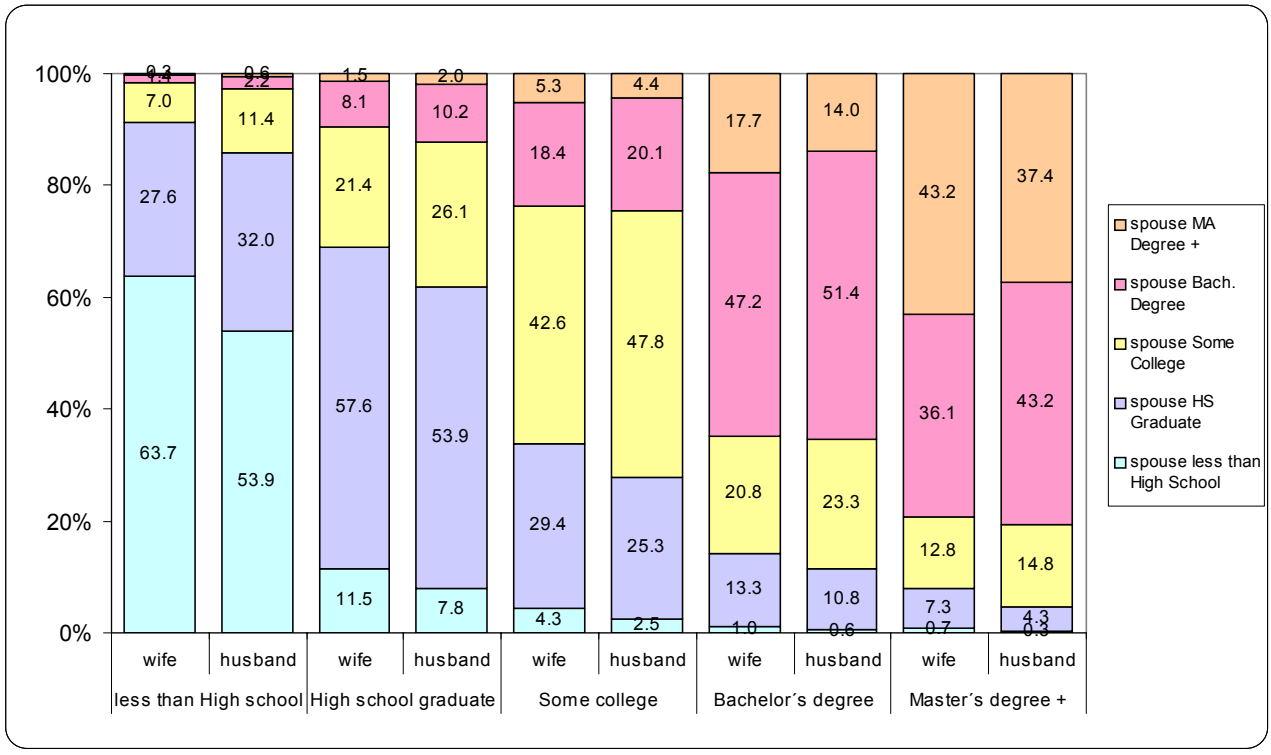

Figure 27: Spouse Education by own Education, Ages 30-40, US 1996-2005. Source: Current Population Surveys.

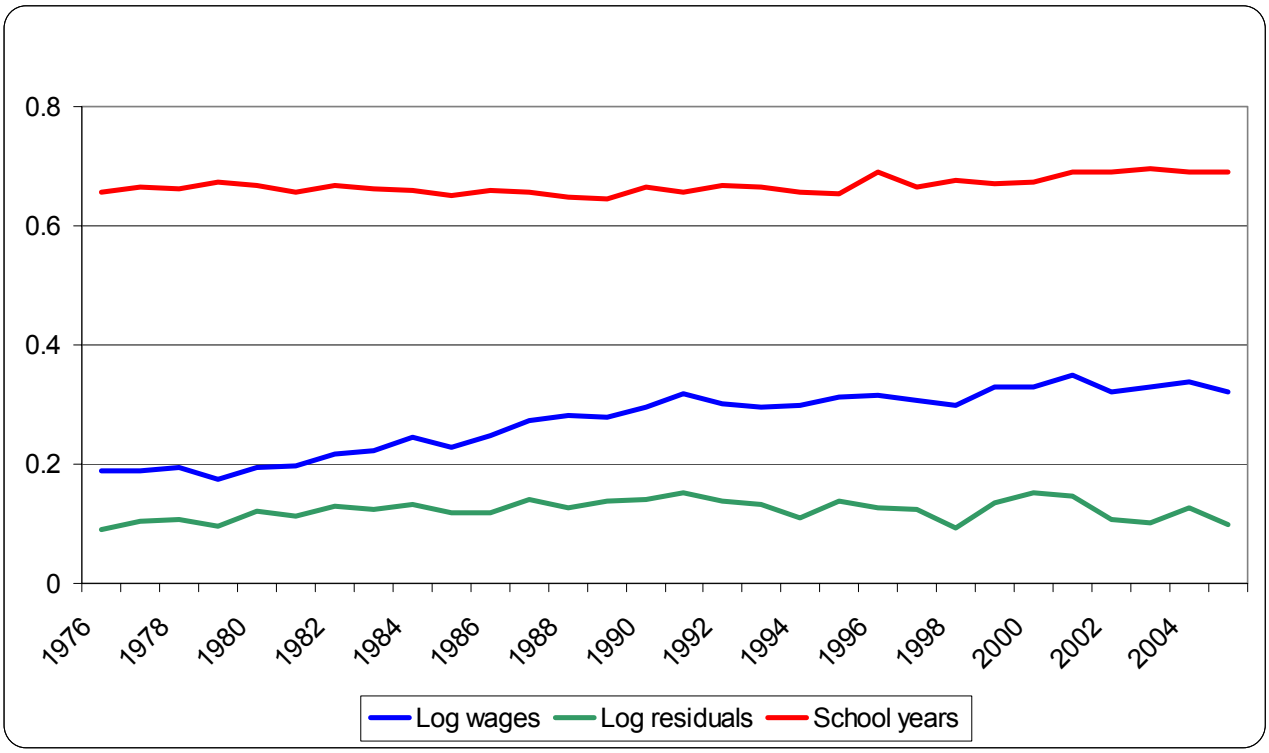

Figure 28: Husband-Wife Correlations of Schooling and Wages, Ages 25-40, US 1976-2005. Source: Current Population Surveys.

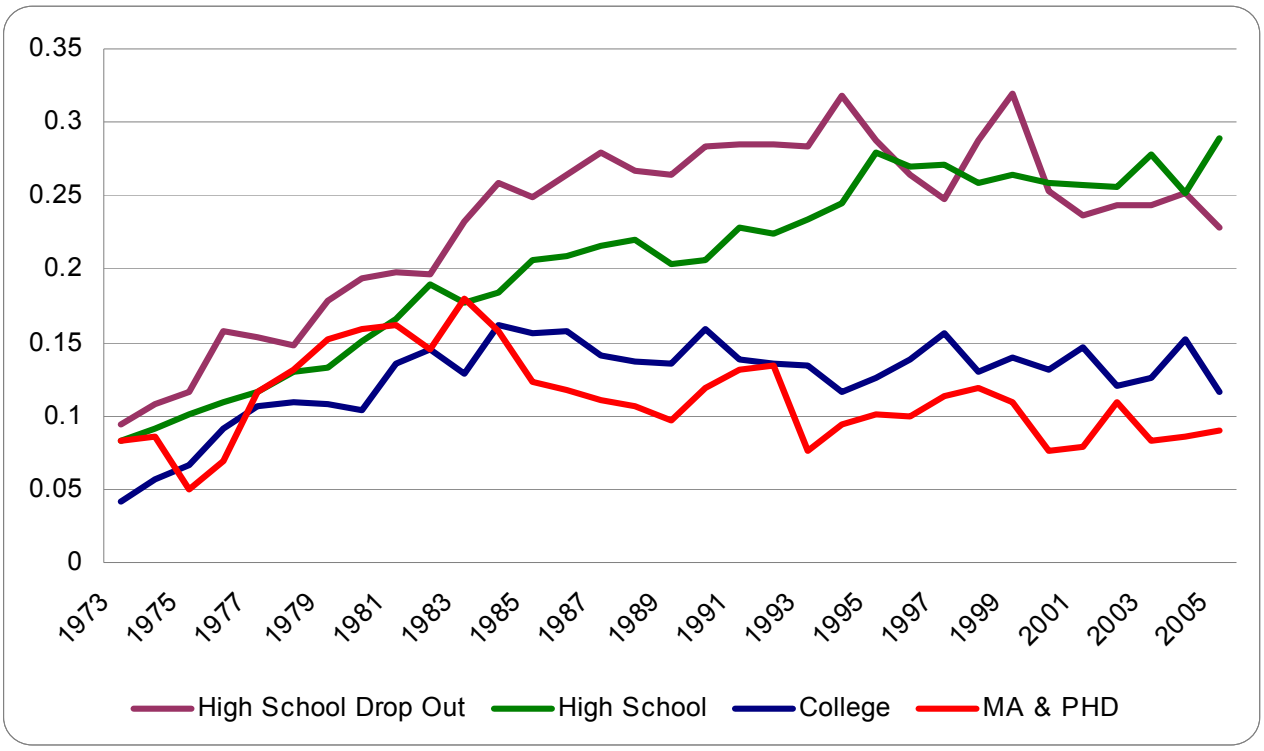

Figure 29: Divorce Rates of Men+Women by Schooling, US 1973-2005 (% divorced age $30-35$ year t) /(% marrried age $25-30$ year $t-5$). Source: Current Population Surveys.

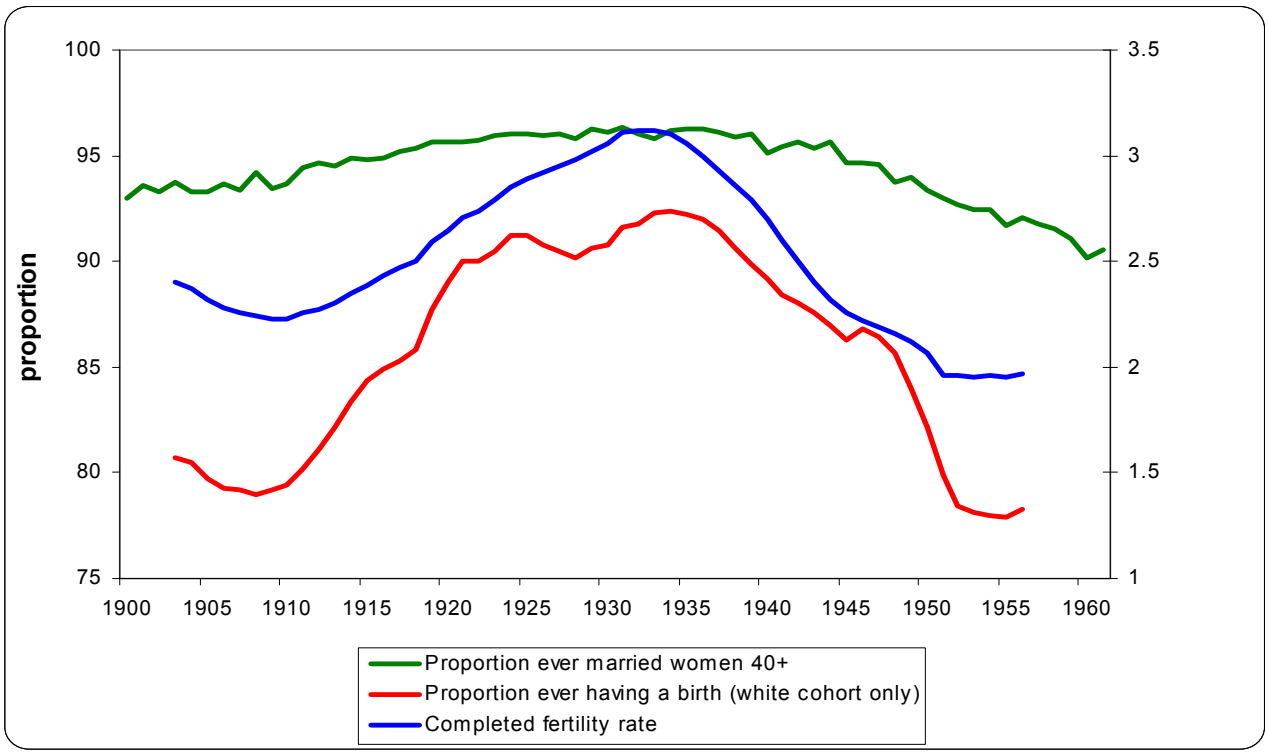

Figure 30: Completed Fertility, US by Birth Cohort. Source: National Center of Health Statistics.

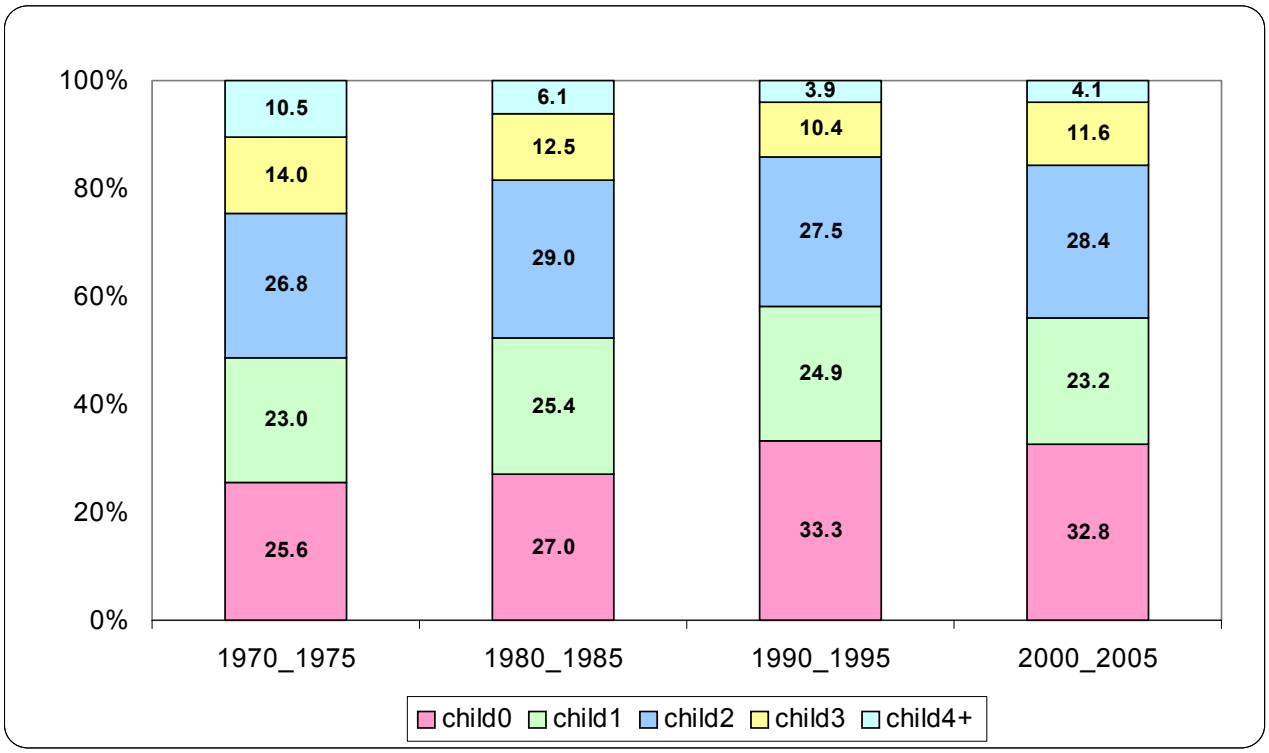

Figure 31: Number of Children 0-18 of US Women, Aged 35-45 at Selected Years. Source: Current Population Surveys.

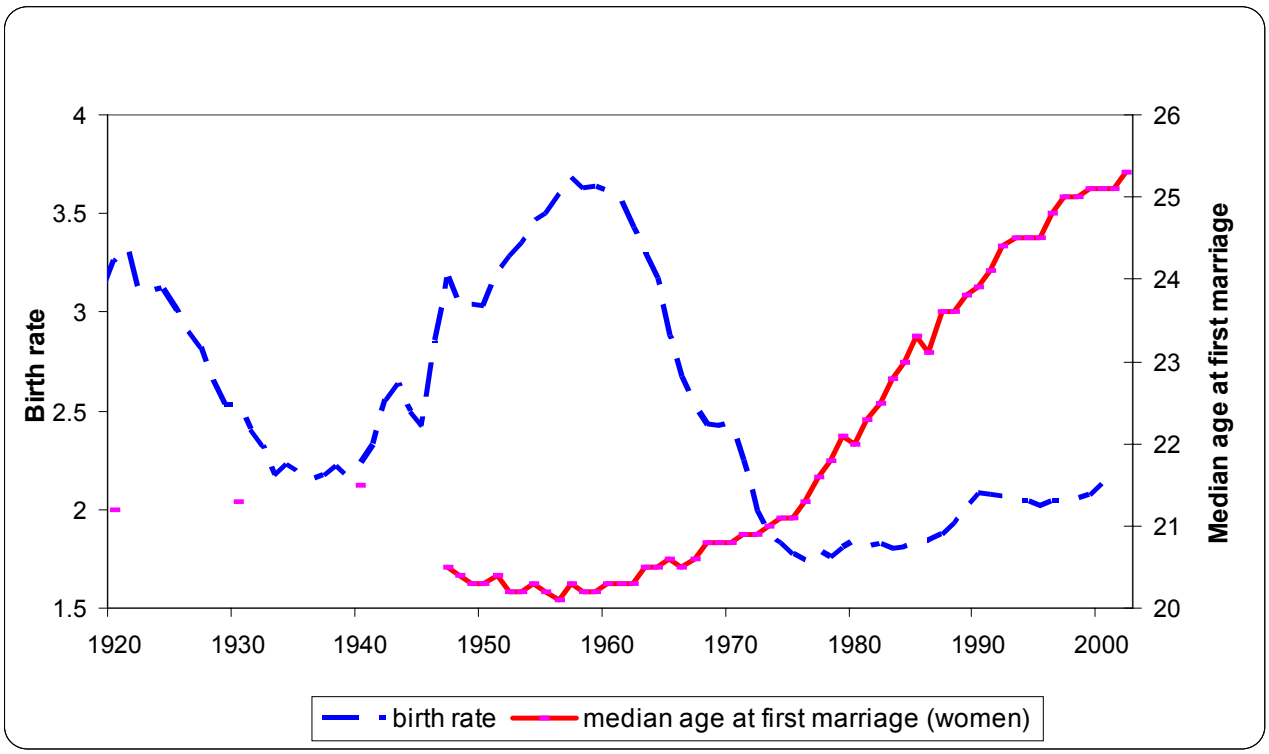

Figure 32: Birth Rates and Median Age at First Marriage, US 1900-2000. Source: National Center of Health Statistics.

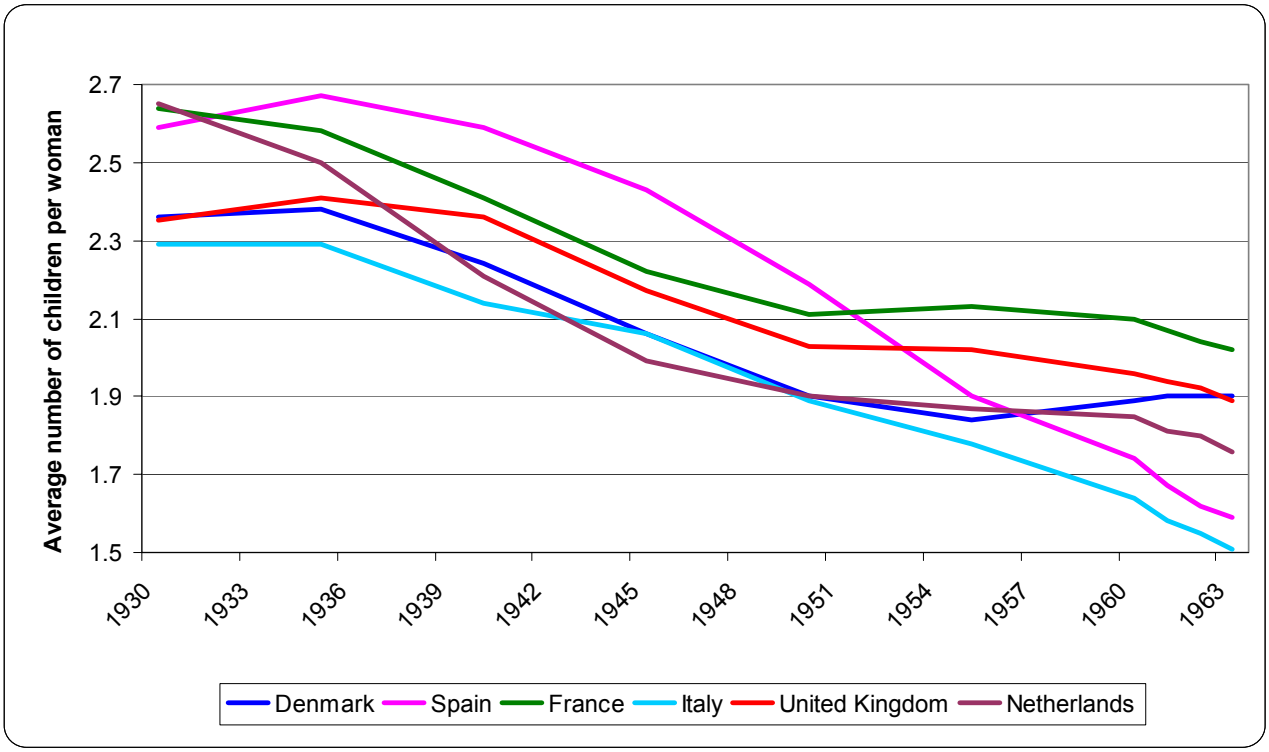

Figure 33: Completed Fertility by Generation. Source: Eurostat.

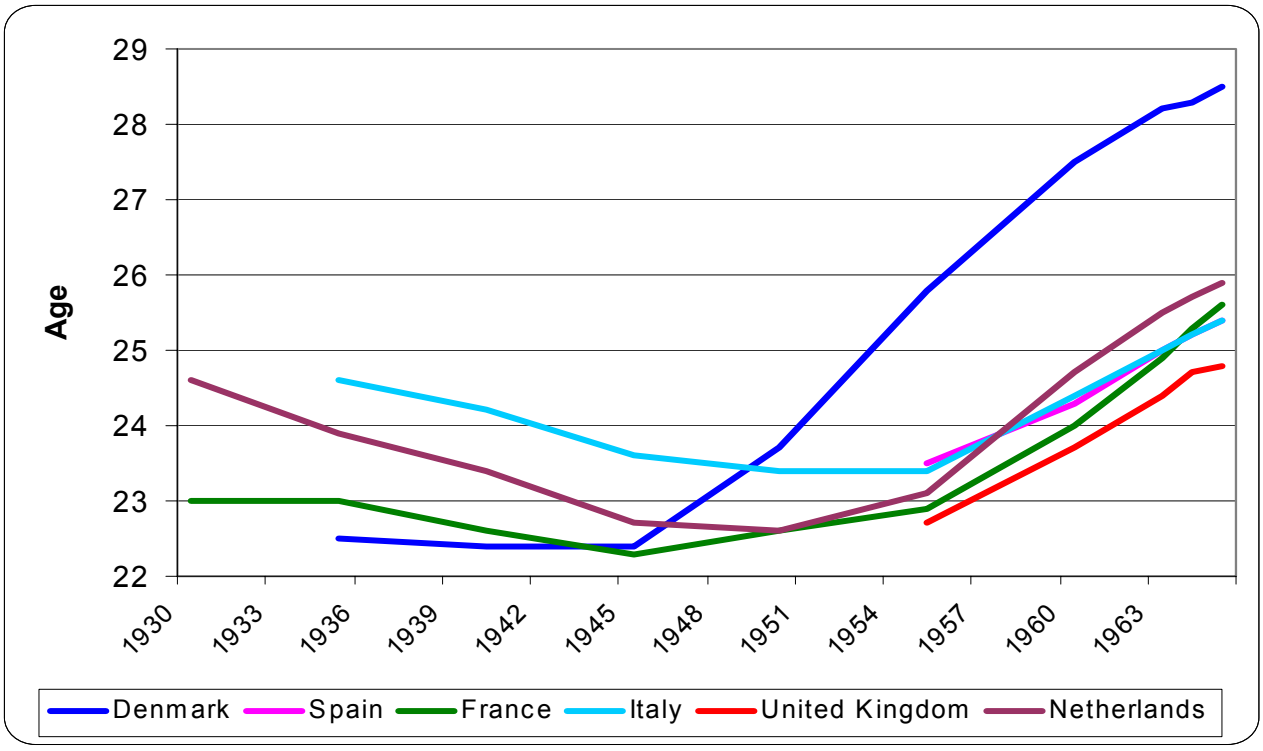

Figure 34: Mean Age at First Marriage by Generation, Mean Age at First Marriage by Generation. Source: Eurostat.

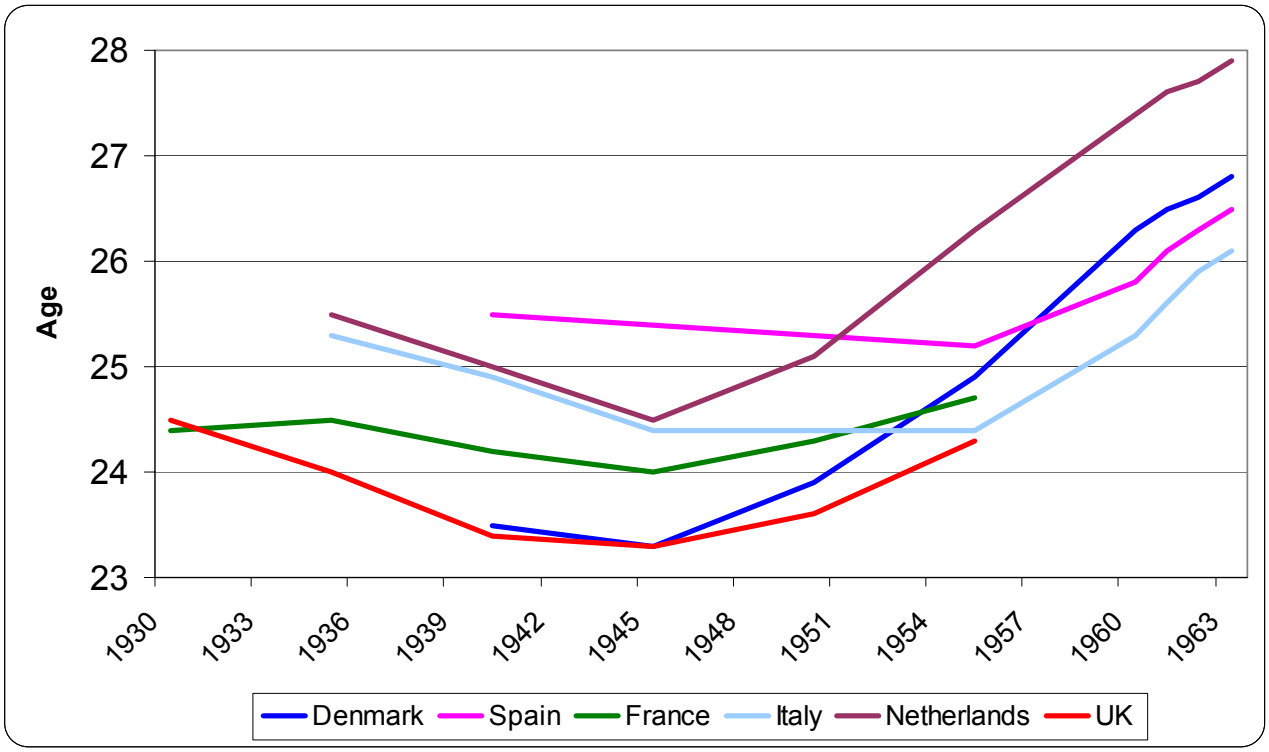

Figure 35: Age of Women at First Birth by Generation. Source: Eurostat.

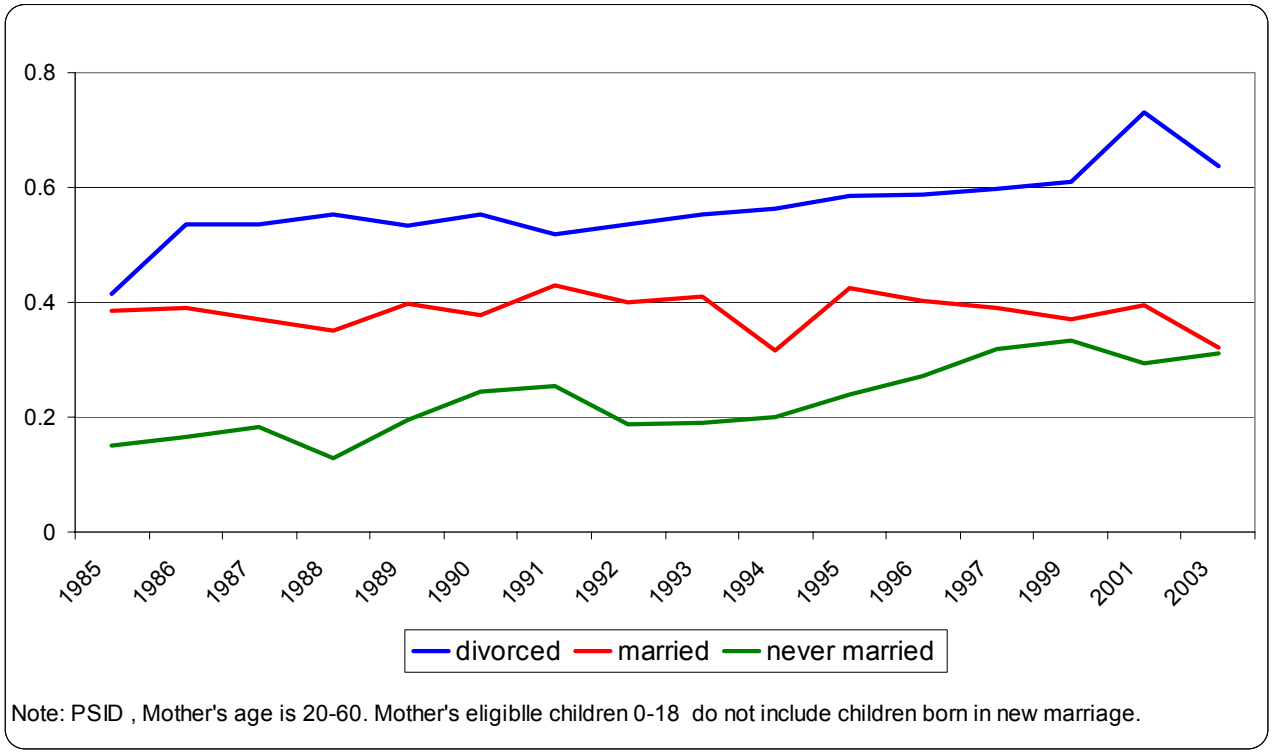

Figure 36: Percent of US Mothers Receiving Child Support, by Marital Status. Source: Panel Study of Income Dynamics.

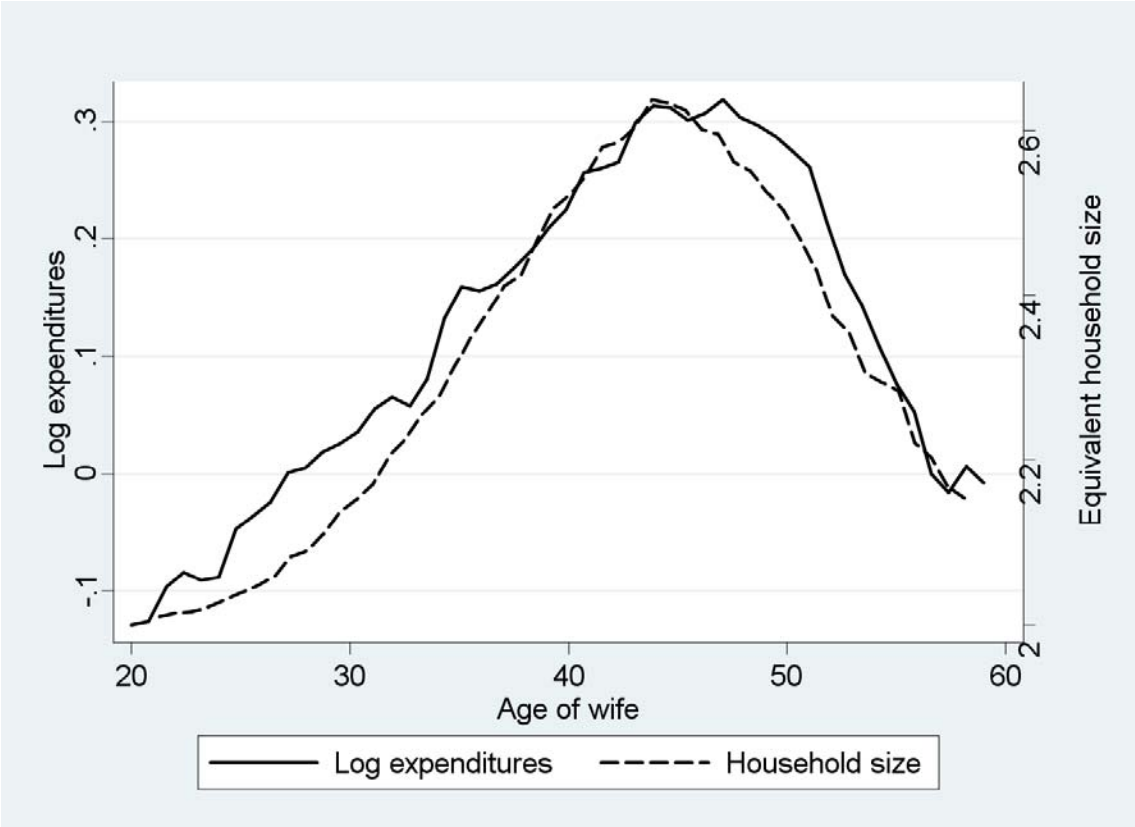

Figure 37: Consumption and household size - more educated wives. Source: UK Family Expenditure Surveys.

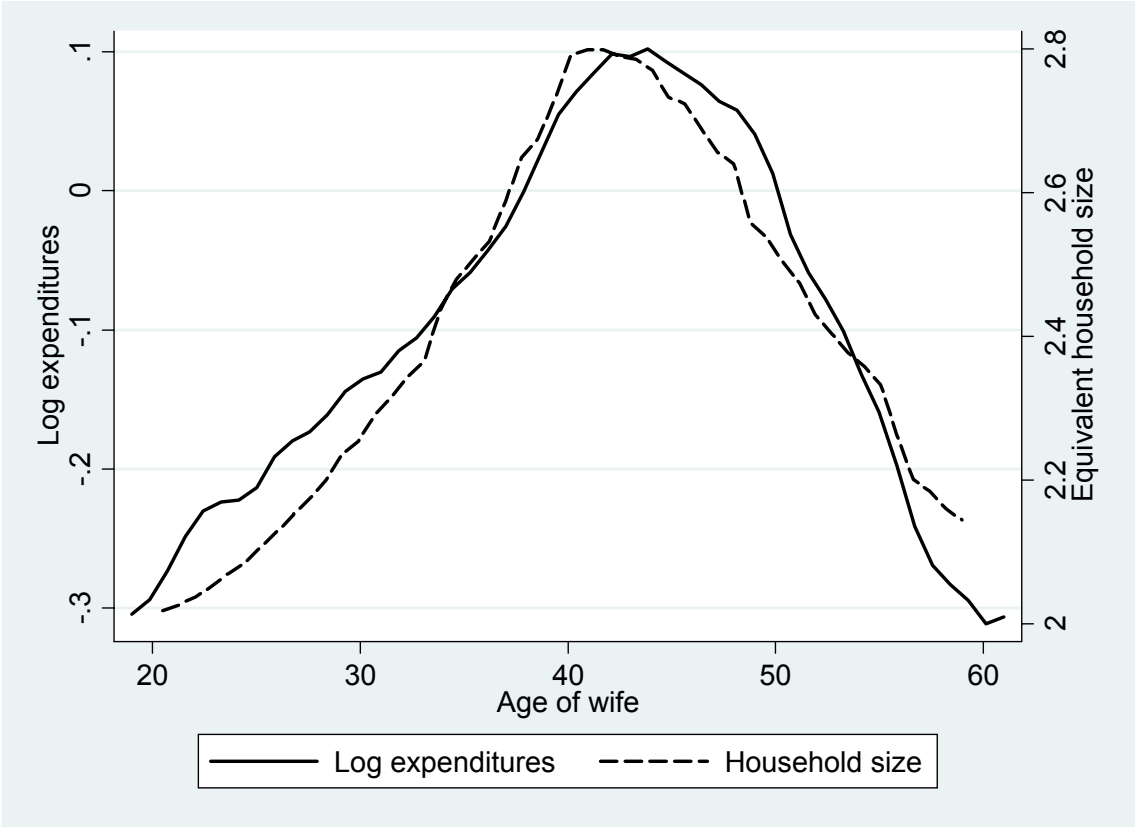

Figure 38: Consumption and household size - less educated wives. Source: UK Family Expenditure Surveys.