Family Formation among Highly Educated Women in the US: Examining Trends in Age at First Birth and Levels of Childlessness for Birth Cohorts 1921-1975

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Paper prepared for submission to the PAA Annual Meeting 2011

September 2010

INTRODUCTION

Although a large body of research focuses on the relationship between fertility and education, only little is known about the timing and sequencing of family formation and career transitions of women with postgraduate education. Recent scholarship which focuses on college-educated women in general suggests that their strategies in navigating work and family and resulting life course outcomes have changed considerably during the course of the 20th century (Goldin 2004). More specifically, women graduating before the 1920s had either career or family, and more than 50% had remained childless by age 40; those graduating between 1920 and the mid-1940s had jobs first, and then family; those graduating between 1946 and the mid-1960s had a family first, and then career, and less than 20% were childless at age 40; those graduating between the late 1960s and late 1970s had careers before they had family, and finally, those graduating in the 1980s and 1990s had the objective to have both career and family simultaneously, which 21% to 27% achieved (Goldin 2004: Table 1). Women with postgraduate education face an even heightened conflict between education and career on the one hand and family formation on the other hand because they usually spend longer years in education, and their graduate school years tend to overlap with their peak fertility years. Also, career formation in the professions can be demanding, time consuming, and not being perceived as a good time to start a family.

Thus, there is considerable ambiguity with respect to whether and how career goals and personal goals (for example, meaningful lives with partners and/ or children) can be reconciled in the life course of highly educated individuals. It is, for instance, an open question what the best time for having children is: before, during, or after graduate/professional school? What are the consequences of choosing one pattern over another?

Unfortunately, data on the life courses of highly educated women (and men) with postgraduate degrees which could help answering those questions are sparse. To our knowledge, there are no studies that describe change over time in the life course strategies and outcomes for representative samples of this

population, although there are scattered reports on particular fields and cohorts. For example, simultaneity of family and career among sociologists has become one focus of research sponsored by the American Sociological Association (ASA 2004). A report on gender differences in the careers of scientists shows that gender differences in marriage rates and parenting have generally declined over the past 3 decades. In 1995, men were still more likely to be married than women but the difference was only 7 percentage points, compared to around 60% in 1935. However, marriage and childbearing continue to have a greater impact on women scientists' labor force participation patterns (National Research Council 2001).

While investigating changes in life course patterning, exploring some explanations for such patterns and conceptualizing a model for changes in the life courses of highly educated men and women is our ultimate research interest, we are unable to accomplish this aim with the data currently at hand. Therefore, in the present paper, we concentrate on reporting results from a descriptive analysis of age at first birth and levels of childlessness at age 44 among highly educated women in the U.S. for women born between 1921 and 1975, drawing on data from the Fertility Supplement of the Current Population Surveys (June series) 1979-2006. Moreover, in order to investigate the family formation process from a life course perspective, we show descriptive data for median ages and parenthood status of graduate students over time, using the cross sectional October supplement on educational enrollment for the years 1978-2007.

Our results show that the median age at first birth increased for much of the 20th century among women with postgraduate education and leveled out at age 34 for cohorts born in the late fifties. Levels of childlessness by age 44 are much higher for highly educated women than among women with less education and peaked for women born between 1956 and 1960. In addition, highly educated women remain childless at higher levels throughout all cohorts than college educated women. We also find that the median age of graduate students in the US has increased steadily since the 1970s, while the share of those graduate students living with children has remained at about 30% with a recent tendency of

decrease. Taken together, these finding indicate that a strong postponement of first birth has taken place among women with graduate education over the 20th century, that they remain childless more often than any other educational group, and that there is no evidence for increases in the strategy to combine childbearing during graduate school. However, we find suggestive evidence for a recent decrease in levels of childlessness among highly educated women.

Our research is descriptive in its nature. Hence, we are unable to speak to questions of explanation and causation. While selection effects might be a major force behind the differences in family formation between highly educated women and women of other educational background, for example women with college education only, it is well possible that structural factors contribute to those outcomes. Possibly, both mechanisms are at play; however, our analysis can only give a descriptive account of the occurrence and postponement of first birth, parity at age 40 and beyond, and percentage of graduate students living with children over time.

TIMING AND SEQUENCING OF FAMILY FORMATION

Delaying entry into professional or graduate school until after the children are "out of the worst" was one of the traditional strategies followed by women who graduated in the 1950s and 1960s, although career prospects for those who followed this strategy were not great (Goldin 2004). The best-documented response by women is delay of childbirth until they have established themselves in their careers. This strategy is probably perceived as the 'safest' with respect to career outcomes. On the downside, the inexorable advance of the biological clock may jeopardize the realization of personal goals, especially in periods and fields with considerable career uncertainties, because career stabilization, if any, occurs in one's late thirties or early forties. Fertility for women begins to decline in their late twenties and accelerate in the thirties. Delaying parenthood hence carries the risk of not realizing fertility preferences. In fact:

> "Twelve to fourteen years out from the Ph.D., 62 percent of tenured women in the humanities and social sciences and 50 percent of those in the sciences do not have children in the household. By contrast, only 39 percent of tenured men in social sciences and humanities and 30 percent of those in the sciences do not have children in the household 12 to 14 years out from the Ph.D." (Mason & Goulden, 2002).

The analyses presented in this paper show that childlessness is quite common among women with postgraduate schooling and has increased for much of the 20th century. The problem is perhaps worst for Ph.D.s and M.D.s because training goes on well into their thirties. Law school graduates are typically somewhat younger. In 2000, the median age for graduation from law school was 27, but one third were older than thirty (NALP 2004). Median age for Ph.D. at graduation from the 60s onwards is shown in figure 1. Age at graduation is always higher for women, and generally well past age 30. In the 60s, women Ph.D. were on average 36 years old (and thus likely to either have had children before graduating, or to forego having children altogether). Median age at graduation subsequently fell to about 33 in the 70s. Beginning in the early 80s, it rose again to reach 36 in the early 90s and then steeply declined to reach 33 in 2006. While there may be many reasons for these changes, three years can make a considerable difference for fertility decisions in the tight timeline of early academic careers.

Among university faculty, there is a growing perception that young women today may think that it is easier to combine school and children and to be "out of the worst" by the time they enter the demanding entry positions into their respective fields. While this view may have merit, many are concerned that students' progress and career prospects will be diminished by parenthood obligations. The best available data, for cohorts that graduated in the mid-eighties, suggest that women who have children early are much less likely to achieve tenure, across all types of institutions and disciplines (Mason & Goulden 2002).

Meanwhile, students and advocates for policy changes in the academy are concerned that parenting graduate students are discriminated against because they do not fit the expectations of their faculty mentors and because they defy the norms associated with the academic career. It is an open question whether the gender bias in academia will be replaced with, or compounded by, a caregiver bias. We do not even have good data on whether graduate and professional students are more likely to become parents while still in school than, say, 20 years ago, or whether parenting graduate students have simply become more visible, and, perhaps, vocal.

The discussion of life course patterning and strategies has centered on women, so far. There are at least two reasons to expect increasing ambiguity for men, as well. First, with increasing educational attainment among women, educational homogamy has increased as well (Blossfeld & Timm 2003). Thus, unless they marry women that are much younger, men are increasingly exposed to the same uncertainties than women, because they are married to them.[1] Second, the discourse about combining parenting and graduate and professional training may focus on women, but family and children were traditionally off limits for male students, as well, at least for those who were not independently wealthy. The expectation was that students make poor breadwinners, and breadwinners make poor students; thus, historically, in the male-dominated culture of the institutions of higher education fatherhood doubly violated the prevailing norms – distracting the aspiring academic from the purity of scholarly activities and hence violating norms of academic conduct, but also because graduate student fathers were often associated with a working mother, namely their wife or partner. Such violations of middle class norms may have added incentives for everyone to keep discourses about parenting out of the academy, even where parenthood may have been common.[2] It is quite possible that parenting in graduate school was and is never very

[1] A recent study of 12,000 couples undergoing fertility treatment showed that successful pregnancies were much less likely for mothers *and fathers* over age 35 (Belloc 2008). If these findings can be corroborated, the biological clock would seem to tick for men, as well.

[2] While we do not have good data on the historical trend, it is certainly the case that graduate student parents should and do place greater demands on institutions of higher education, with respect to salaries, benefits, and services. Arguably, even salaries for untenured faculty were probably historically not meant to support families without supplemental income, and sometimes fail to do so even today.

prevalent – it just became much more visible. The same is, of course, true for male and female faculty, adding to the mistaken perception that combining career and children is a problem for women, not for men. The integration of women into graduate training and the academy has simply brought the question into the foreground and turned it into a question of gender. Unfortunately, the data availability for men is even worse than that for women and we were not able to locate suitable data for the purposes of this paper. We plan to address this question in the future. For the time being, we focus on cohort differences in fertility outcomes for women with postgraduate training.

DATA AND METHODOLOGICAL CONSIDERATIONS

To answer questions about sequencing of training, career, and childbirth longitudinal data are needed. Unfortunately, the national longitudinal studies such as PSID or NLS/NLSY are not large enough to contain sufficient numbers of highly educated women, who, for much of the last century were a very small group relative to their birth cohorts. The data that is currently available and most suitable to answer our research questions are the June Supplement on Fertility and the October Supplement on Education of the Current Population Survey (CPS). The June supplement collects information on the number and timing of live births a women has had, while the October supplement measures educational enrollment and allows for the identification of those enrolled in graduate school programs.

We will use the June CPS to analyze family formation processes of the highly educated, and the October CPS to look at age distribution and parenthood status of graduate students over time. Both samples are very large, which allows us to look at the group of the highly educated in the June series and the groups of graduate students in the October Series separately and still have high numbers of observations. The fertility supplement started in 1971, which makes this the only dataset available collecting information on fertility for a time span of more than 30 years. The October series was collected yearly from 1970, but we had to exclude years 1970-77 because here educational enrollment was only surveyed of persons 30 years and younger. Albeit these advantages, there are also many shortcomings in

the CPS data. As a cross sectional dataset, the CPS does not allow to follow individuals over time. In addition, information on current schooling varied between waves and was only collected for the subset of respondents aged 16-24. Moreover, the fertility supplement only includes women, so that we have no information on the fertility of men. Finally, there are no overlapping observations in the CPS October and June supplements, so that we cannot link the two datasets. This means, that we have no direct information on the number of births for the graduate students identified by the October supplement, but need to estimate parenthood from the household composition.

The fertility supplement is available annually or bi-annually since 1971. The target population has changed from time to time. From 1971-1977, only married women were asked to report their fertility. In order to avoid selection bias and to gain a full picture of the fertility process, we therefore limit the analysis to the data collected in and after 1979. With the purpose of keeping the sample population from year to year as comparable as possible, we selected 14 out of the 23 available survey years.[3] In recent years, only women up to age 44 were included in the fertility supplement. Because of the steep decline in fertility after age 40, however, we should be able to describe the process fairly well, especially for first births.

Education and graduate school enrollment

Until 1990, data on educational was collected as years of schooling, from 0-18+ years.[4] In 1992 and later, the educational variable switched to a measurement of highest degree completed, with 16 categories in total. We collapsed the information on education into one educational variable with five categories: less than high school, high school, some college, college and postgraduate education. We include those

[3] The sample population of the years included in our analysis: 1979: all women 18-59 (and 14-18 if ever married), 1980: all women 18+ (and younger if ever married), 1981-83: all women 18-59 (and 15-18 if ever married), 1985: all women 18+ (and younger if ever married), 1990: all women 15-65, 1992: all women 15-44, 1998-2006: all women 15-44.

[4] Before 1992, respondents were asked some version of two questions: What is the highest grade (or year) of school this person has ever attended? Did he finish the highest grade (or year) he attended?

individuals into the groups of the highly educated that have 17 or more years of education (before 1992) or a Master's degree, a professional degree, or a PhD (1992 and later). As mentioned earlier, in the June CPS, which is our central sample for estimating timing of first birth, we unfortunately cannot identify those with a Bachelor's degree that are in graduate training because information on current school enrollment in the survey is inconsistent and incomplete. Therefore, by including individuals with 17+ years of schooling for the years 1990 and earlier, we might include some who are in graduate training but did not achieve a degree yet, but for the survey years after 1990, we can, based on the measurement of the educational variable, only include individuals with a completed postgraduate degree, although this might still include some individuals who received their Master's degree and are still in training en route to a PhD. This is unfortunate because it is thus not possible to look at the enrollment of mothers versus non mothers in higher education over time, which is necessary to make any statements about a change in the strategies to sequence family formation and career building.

However, we use the October CPS to identify graduate students and measure the number of graduate students who lived with children over time. The October CPS contains detailed information on school enrollment, measured in the same way throughout the survey years. We classify all individuals who are enrolled in any year of graduate school at the time of survey as graduate students.

Age at first birth

The only two variables that have been collected consistently throughout all survey years are the number of live births household members experienced and age at most recent birth/age of most recent child. The variable we are most interested in, age of the mother at first birth, was included in the survey until 1995, but unfortunately was discontinued in 1998. For survey years 1998-2006, we reconstructed age at first birth based on the women's age, the number of live births, and the age of the oldest child living in the household. First, we derived the age at first birth for those women who had only one birth directly from the 'age at last birth' variable, accounting for roughly 30% of the mothers in the years 1998-2006. Second, for all other mothers, we compared the number of births a woman reported to have ever had to

the number of children living in her household. If the two numbers matched, we subtracted the age of the oldest child in the household from the age of the mother to calculate age at first birth. If the numbers did not match, we assigned a missing value. The number of mothers without a match was for about 30% for all years, however, this number decreased with higher education, resulting in 15-20% missing cases for the group of the highly educated. Of course, one might think of selection bias here, because certain groups will be more likely to not be living with all and exclusively their own children in one household. For example, women who had their children early, so that they already left the house, women who are separated with children living with the father, or women with a new partner who brings own children into the household, and women with higher parity. We are confident that we can adjust for this bias by using a birth cohort approach in constructing the sample. This is because we can 'catch' birth cohort members early in their life course, when they were still living with all and exclusively their own children in one household so that we count them as a 'match' at least once. Thus, the group of women who had their first birth and two or more children after 1995 is the one that is affected most by our method. Moreover, there are certainly woman that have wrong positive matches, because the number of children that live in the household coincidentally reflects the number of births a women has had, but those children are not (all) her own children. We of course cannot identify those cases, but at least excluded those women who had a computed unrealistic age at first birth of 11 and younger from the analysis. We recognize therefore that we have some error margin in the age at first birth variable for the survey years 1998-2006 and are working on cross-checking our estimates with other data.

Parenthood Status of Graduate Students

We use the October series of the CPS to gain insight into the parenthood status of graduate students over time. The October CPS does not collect direct data on number of children had, therefore we can only estimate the percentage of graduate students who are living with children in one household. We used two strategies to derive the parenthood status from the household information. The first is to derive parenthood status from the family relation classification variable, the second is to ignore this variable and

derive parenthood status from the age structure of the household members alone. We used these two strategies because the variable that measures family relationships has changed over time in the CPS, and we wanted to have a second estimation strategy to compare our results. For both strategies, we limited the sample of graduate students to those ages 50 and younger, assuming that older graduate students did not typically live with their children. With the first strategy to compute parenthood status, we looked only at those graduate students who were classified as heads of household or spouses themselves. Hence, we lost about 10% of the sample, who were classified as 'children' themselves, thus were living with their parents. For the second strategy, we only relied on age, allowing all graduate students age 20 and older to be potential parents, while all individuals aged 19 and younger were potential kids. Finally, we excluded all those who would have had an unrealistic age at first birth (14 and under).

Limitations

For the present analyses, we have used all available cases, i.e. have not restricted the estimates by race, type of graduate degree, or field of study. On the one hand, one can assume that highly educated women are a fairly homogeneous group and that they, moreover, face very similar challenges with respect to reconcile work and family, regardless of race or study discipline. On the other hand, a separate analysis that we have conducted for another paper clearly indicates that differences between white and black highly educated women in age at first birth and levels of childlessness have developed in the younger cohorts among highly educated women (Nitsche and Brueckner 2009). Moreover, recent research has shown that the degree of postponement of first birth differs between college educated women depending on their field of study (Van Bavel 2010). Therefore, for the next version of this paper, we plan to restrict our analyses to white women and, if case numbers allow, differentiate between which type graduate degree was achieved (MA, Prof. Degree, PhD).[5]

[5] The field of study is unfortunately not included in the CPS June files.

SAMPLE DESCRIPTIVES

Table 1 shows the distribution of cohorts and the number of women with postgraduate education in each cohort in our final sample. Our final sample is only a subset of all women who have been surveyed for their fertility in the years we use, because we exclude those cases for which we cannot reconstruct the fertility history. The complete sample of all women interviewed in the fertility files of the years we use (see footnote 5 for years) is N=590,295, our final dataset consists of N=546,722 cases. The proportion of highly educated women increased from 3.33 % in the birth cohort 1921-25 to 9.28% the birth cohort 1946-50, then decreases again to 1.46% for the birth cohorts younger than 1975. This is of course because the younger the cohorts, the more women still did not begin/complete their graduate training at the time of survey. Table 2 shows the basic descriptive of the final sample. When reading the tables it should be kept in mind that these figures are not representative of the whole female population at the time of the survey, but only of the sample population of the fertility supplement, which varies in age range for every year with the core sample being between 15-44 years of age (see footnote 5).

Table 1 and 2 about here

In the October supplement on educational enrollment, we have roughly 1500 graduate students in each survey year of the sample, summing up to 44438 individuals for the years 1978-2007. The sample we used to derive the parenthood status excludes individuals over age 50 and contains 41703 cases.

RESULTS

Timing of first birth and levels of childlessness

Kaplan Meier estimators are the most suitable method to estimate the median age at first birth. Right censoring is taken into account, and the fertility process, that is still ongoing, can be captured best. We estimate the rate of women experiencing the event of first birth at every age (15-44) out of the risk set of women who have not yet experienced a life birth.

Figure 2 shows the estimates for median age at first birth for all women born between 1921 and 1984 by birth cohort. The trend is a small but steady decrease in age at first birth from birth cohorts 1921-36, with a pronounced increase of 6 years in age at first birth from cohort 1936 to birth cohort 1957. For the cohorts younger than 1957 it is not clear whether a slight increase with yet a recent decrease (birth cohort 1972 and younger) in age at first birth has taken place or whether we observe rather a plateau around a median age of 29 for the first birth for cohorts 1957 and younger. Note the change in the interquartile range of age at first birth over time. It increased markedly for cohorts 1945 to cohorts 1963 and appears to shrink again for younger cohorts. Figures 3-7 show the median and the interquartile range of age at first birth by educational group, figure 8 gives a comparison of all group medians. The pattern of a slight decrease followed by a clear increase and most recently in time a plateau/slight decrease in age at first birth can be seen for all educational groups except women with less than high school education. For the latter group, median age at first birth remains almost constant around age 20, with a small but clear peak for cohorts born around 1960.

Figure 2-8 about here

Figures 2-8 demonstrate that the median age at first birth rises with increasing education for all cohorts. For the older cohorts, the group age differences at first birth are relatively small, about 5 years for the oldest cohorts (1921-ca. 38). The median age for later born cohorts spreads out increasingly between

educational groups. For cohorts born around 1960, there is almost a 15 years difference in median age at first birth. Thereafter we again find a narrowing trend to about 10-12 years. This is one part of an overall pattern we are able to uncover in the analysis showing that the trend across cohort first shows increasing differences between educational groups up till women born in the mid fifties followed by a slow decrease in differences for women born later.

The analysis shows a trend towards an increasing age at first birth that is initiated by the highly educated. Their increase of age at first birth is steepest, and the peak the highly educated experience in age at first birth around cohorts 1957 is followed by peak for those with college/some college for cohorts born around 1960, and then for those with high school education and less than high school education for cohorts born in 1963. For the highly educated the process of delaying first birth is running up against the biological fertility clock; the median age is for all cohorts born after 1950 well above 30, with a peak of 34 years for cohorts born around 1958.

The survivor functions contain more information on the fertility process, since they show the proportion of women remaining without birth at each age. Figure 9 shows the survivor function of first birth for all women by birth cohorts. Figure 10 shows the survivor curve of first birth for women with postgraduate education only.

Figure 9 & 10 about here

Overall, the level of childlessness at age 44 is about 10-12% higher for women with postgraduate education than for the average population. The cohorts in our analysis show similar distributions for the whole population and for the population of women with postgraduate schooling (figures 9 and 10). In both groups the baby boomer cohorts have their first children earliest and reach the highest level of fertility and the cohorts born between 1956-65 have the lowest level of fertility at age 44 in both groups.

Focusing on the percentage of women in the different educational groups at age 44, we find that women born between 1956 and 1960 with a postgraduate degree have overall the lowest fertility (about 35% childlessness). Cohorts with postgraduate education born after 1965 are, compared to the 1956-60 cohort, younger at their first birth, and reach higher levels of fertility even though their fertility process has not ended yet (figure 11). It might thus well be, that the peak of postponement of first births has already passed, and that young highly educated women today are more likely to have children earlier again, possibly to avoid the risk of postponing childbirth to a point where fecundity is substantively decreased.
It is also interesting to note that childlessness has gone up in the other educational groups, most markedly among women with college education, which has caused the gap in childlessness between women with college education and women with postgraduate education to narrow over cohorts.

Figure 11 about here

Parity

Figure 12 shows the mean number of births at and beyond age 40 for women with college education only and women with postgraduate education. The mean number of births has changed over the cohorts. Those born between 1924 and 1943 had the highest number of births both among college and highly educated women, with 2.5 and ca. 2.1 respectively. Cohorts 1944-57 and 1958-68 have lower number of average births, about 1.5 for highly educated women and 1.7-1.8 for college educated women. What is most obvious is that the difference in average number of births between women with college and postgraduate education has declined over cohorts from about .5 to .2. Thus, highly educated women stay childlessness more often and have fewer children than women with college education only; however, both gaps seem to have narrowed over time.

Figure 12 about here

Age and Parenthood Status of Graduate Students in the US

While we have been able to show that age at first birth and levels of childlessness have increased for highly educated women over cohorts, we do not have any data on the timing of other family formation or career transitions like first marriage, entry into graduate school, age at grad school completion or entry into first professional employment. Hence, we cannot discuss how highly educated women sequence career and family transitions or how the sequencing has changed over cohorts. To nonetheless at least somewhat understand how the first birth is embedded into the life course of women with postgraduate education and how this might have changed over cohorts, we use the CPS October files on educational attainment in order to look at median ages of graduate students and on the proportion of graduate students living with children in the household in the US over time.

Figures 13 and 14 about here

The median age of graduate students has increased since the mid 1970s from 28 to 31 in 1996. Since then, it has remained stable or even slightly decreased to 30 years. Female graduate students are somewhat older than male graduate students. This and the limited female fecundity over the life course are reflected in the fact that more female graduate students live with children during their graduate school attendance than male graduate students do. The proportion of those who are presumably parents during their graduate school years has declined somewhat over time. This is on the one hand surprising given that graduate students have become older in the last 30 years; on the other hand, it confirms the postponement of first births among women with postgraduate education. Although we do not have data on the age of first birth for men, the decline in male graduate students living with children leads us to suspect that a similar postponement of first births might have taken place among highly educated men. From this, we can conclude there is no immediate indication for a change in the strategy to combine motherhood and career towards having children increasingly during the period of graduate education acquisition, even though we have found evidence for a decrease in age at first birth among the cohorts born in the mid 1960 and

later. The proportion of graduate students living with children has, quite to the contrary, decreased from ca. 30% to ca. 27% between 2000 and 2007. It might, however, be that female graduate students are increasingly planning to have births towards the very end of their graduate school years or during the early career entry phase, a hypothesis that should be investigated further by future research.

CONCLUSION

In 2006, 60% of students enrolled in graduate programs and 50% of students enrolled in professional schools were women (NCES 2008). Our data show clearly that they are facing difficult choices. Those who came before them responded to the challenges of combining career and family formation mainly by delaying childbirth, a process that resulted in ever growing numbers of women who remained childless by age 44. We do not know to what extent foregoing fertility was a choice these women made or whether by the time they felt ready to have children it was simply too late. It is well known that as late as the nineties, many people underestimated the decline of fertility with age. Increased awareness of these issues and increasing information about infertility and infertility treatments may influence the life course strategies of young women today. Among recent cohorts of women with postgraduate schooling we saw a reduction in childlessness at age 44 from 35% to 30%. With the available data, it is impossible to judge whether these cohorts simply did everything faster, including completion of training, or whether they pursued different strategies than their older sisters. What we can say, though, is that the proportion of graduate students living with children has not increased but slightly decreased since the mid 1970s, while the median age of graduate students has gone up from 28 to 31 years. Hence, there is no immediate evidence for an increase in the strategy to start families during graduate school among younger cohorts. Some graduate schools have begun to respond to the needs of their parenting students by offering family leaves and benefits for dependents. We know little about how parenting graduates fare in job market. In the academic and corporate workplace, however, disadvantages for mothers are well documented.

Further research is needed to investigate the sequence of completing training, establishing a career, and forming a family. The principal difficulty is the dearth of available data on this group, especially of data that affords insight into changes in these patterns. Retrospective surveys, perhaps in combination with panel studies on some groups such as lawyers that were begun in the late 1990s and 2000, are needed to address this problem.

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Table 1
Distribution of Birth Cohorts and Women with Postgraduate Education in the Final June CPS Sample

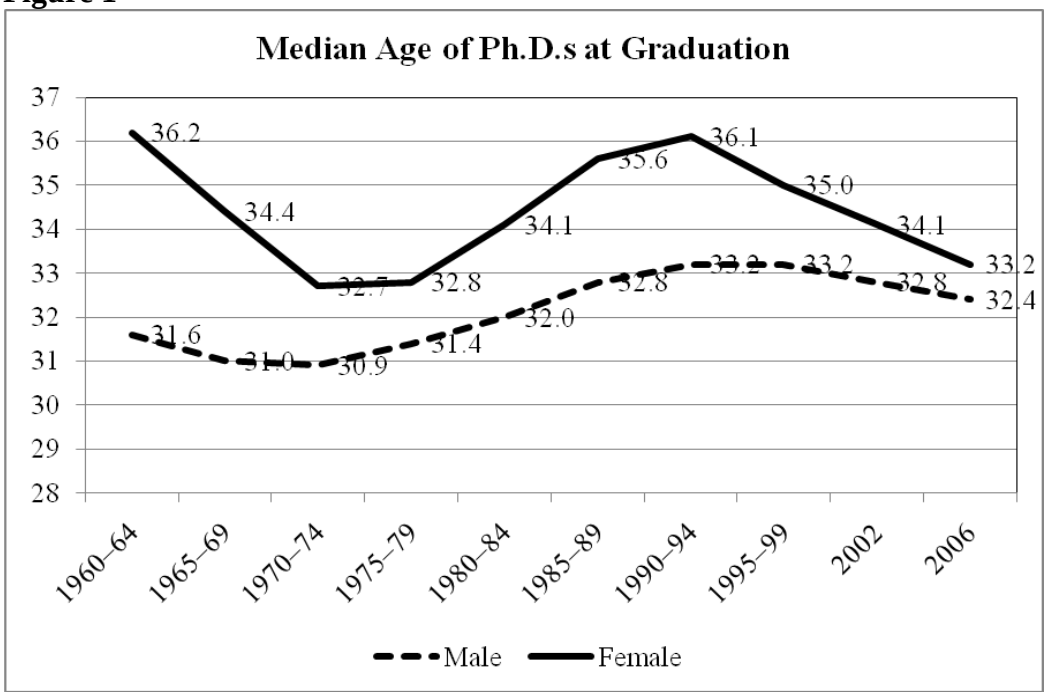
Cohort	N Sample	% Sample	N Postgrad.	% Postgrad.
1921-1925	20,600	3.77	685	3.33
1926-1930	29,030	5.31	1,189	4.1
1931-1935	29,908	5.47	1,491	4.99
1936-1940	31,723	5.8	1,788	5.64
1941-1945	37,543	6.87	2,788	7.43
1946-1950	50,525	9.24	4,688	9.28
1951-1955	59,681	10.92	4,774	8
1956-1960	72,455	13.25	3,659	5.05
1961-1965	74,255	13.58	2,967	4
1966-1970	49,341	9.02	2,546	5.16
1971-1975	34,849	6.37	1,680	4.82
>1975	56,812	10.39	832	1.46
Total	**546,722**	**100**	**29,087**	**5.32**

Table 2
Basic descriptive statistics of final June CPS sample

Variable	N	Mean	Std. Dev.	Min	Max
mother	546722	0.616469	0.486246	0	1
age first birth**	337037	22.48744	4.624281	12	57
Babies**	337037	2.505903	1.516895	1	15
age	546722	33.71803	12.36228	14	65
white	546722	0.773497	0.418568	0	1
black	546722	0.110643	0.31369	0	1
less than HS	546722	0.235436	0.424271	0	1
HS	546722	0.369424	0.482649	0	1
some Col.	546722	0.22058	0.414638	0	1
college	546722	0.121358	0.326543	0	1
postgraduate	546722	0.053203	0.224437	0	1

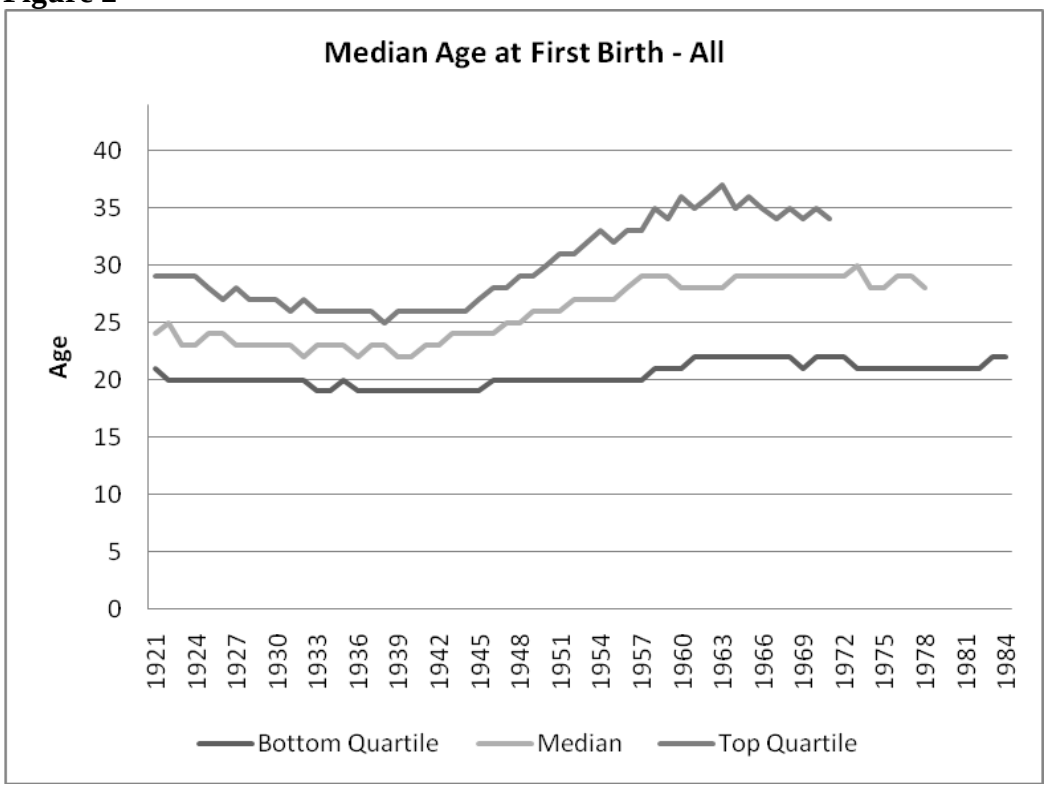
** mothers only

Figure 1



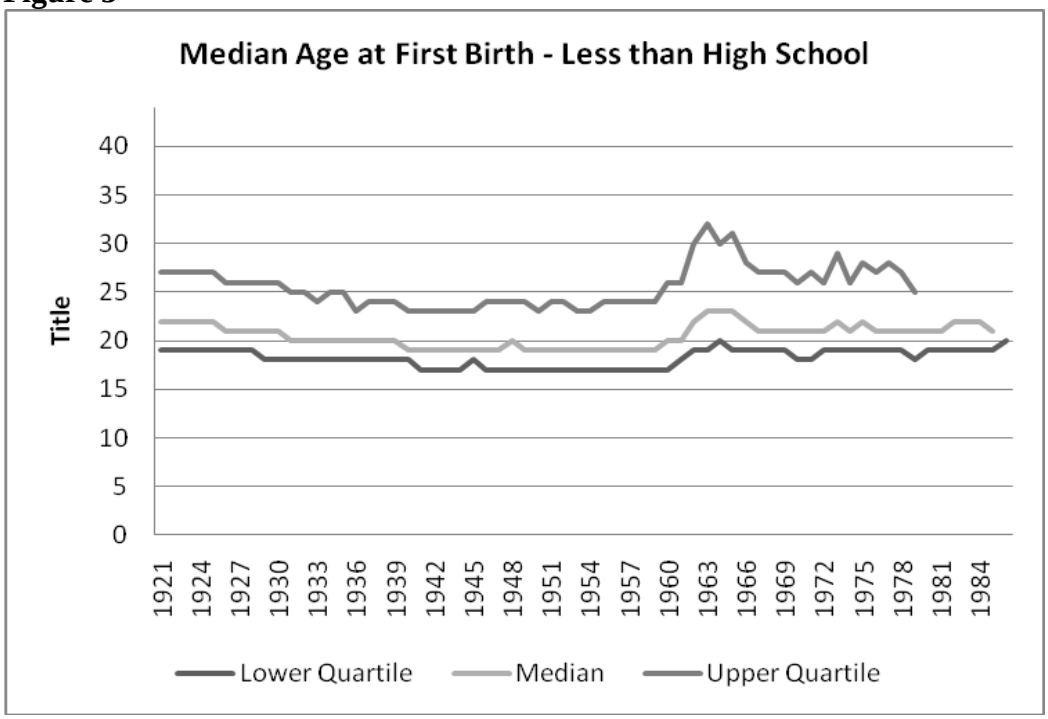
Source: June Series CPS, 1979-2006

Figure 2



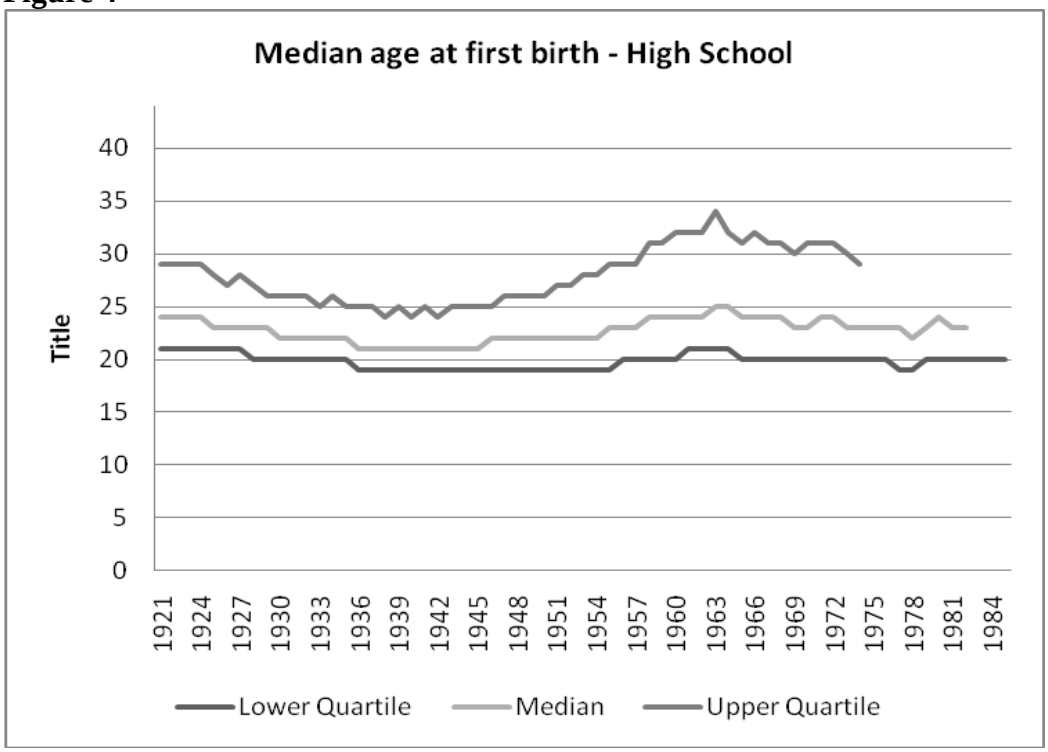
Source: June Series CPS, 1979-2006

Figure 3



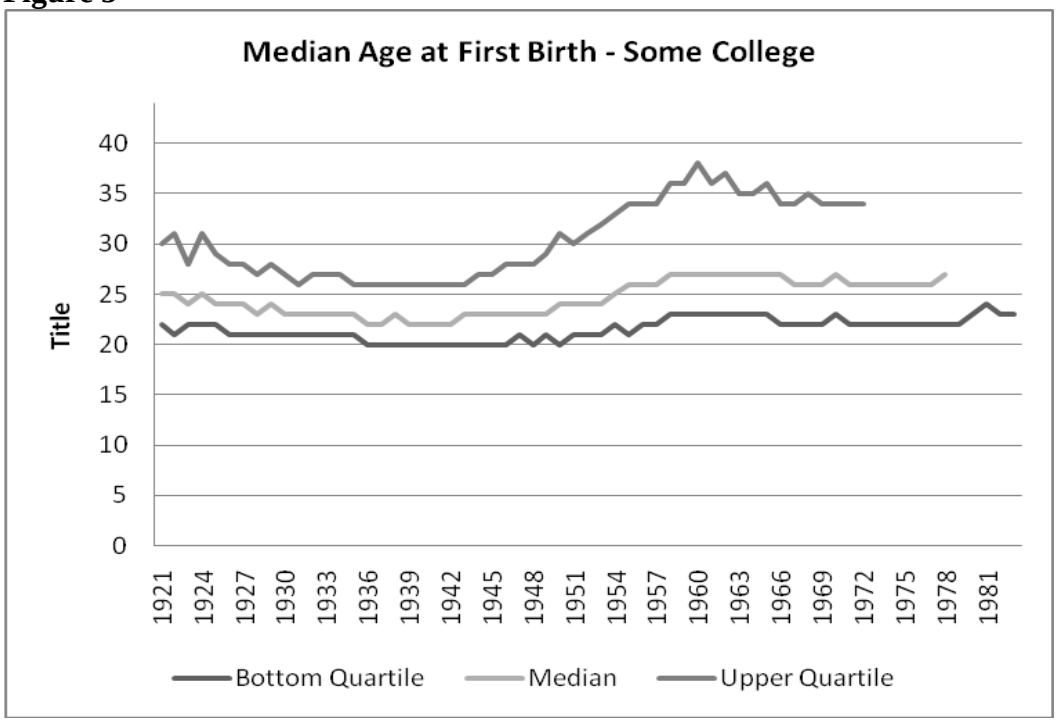
Source: June Series CPS, 1979-2006

Figure 4



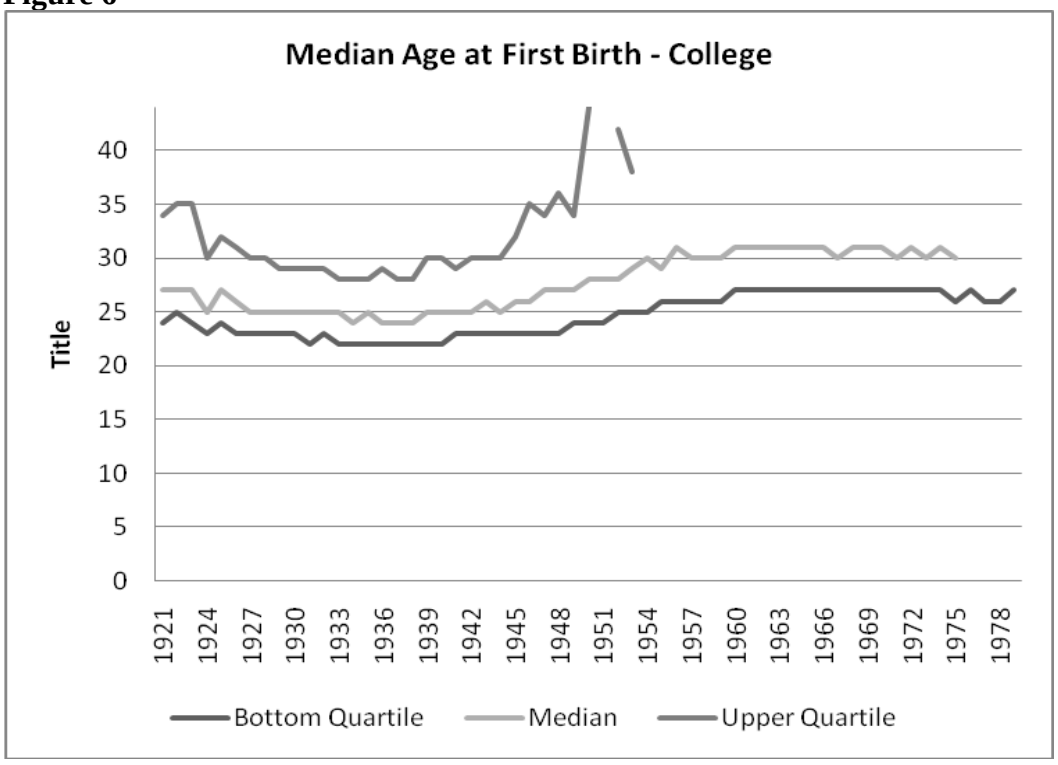
Source: June Series CPS, 1979-2006

Figure 5



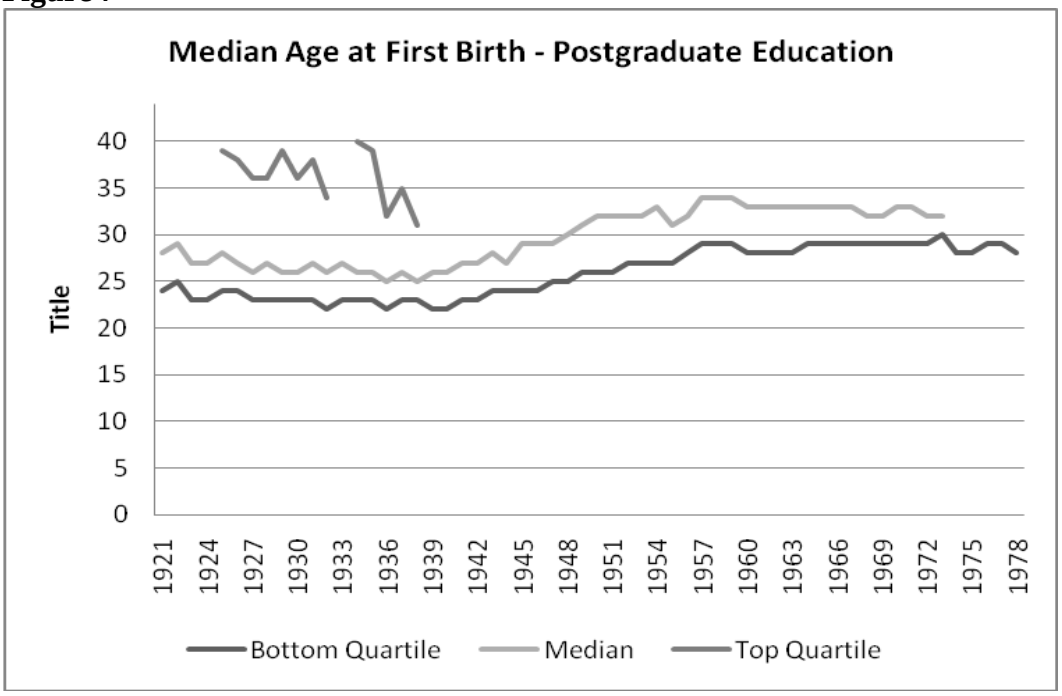
Source: June Series CPS, 1979-2006

Figure 6



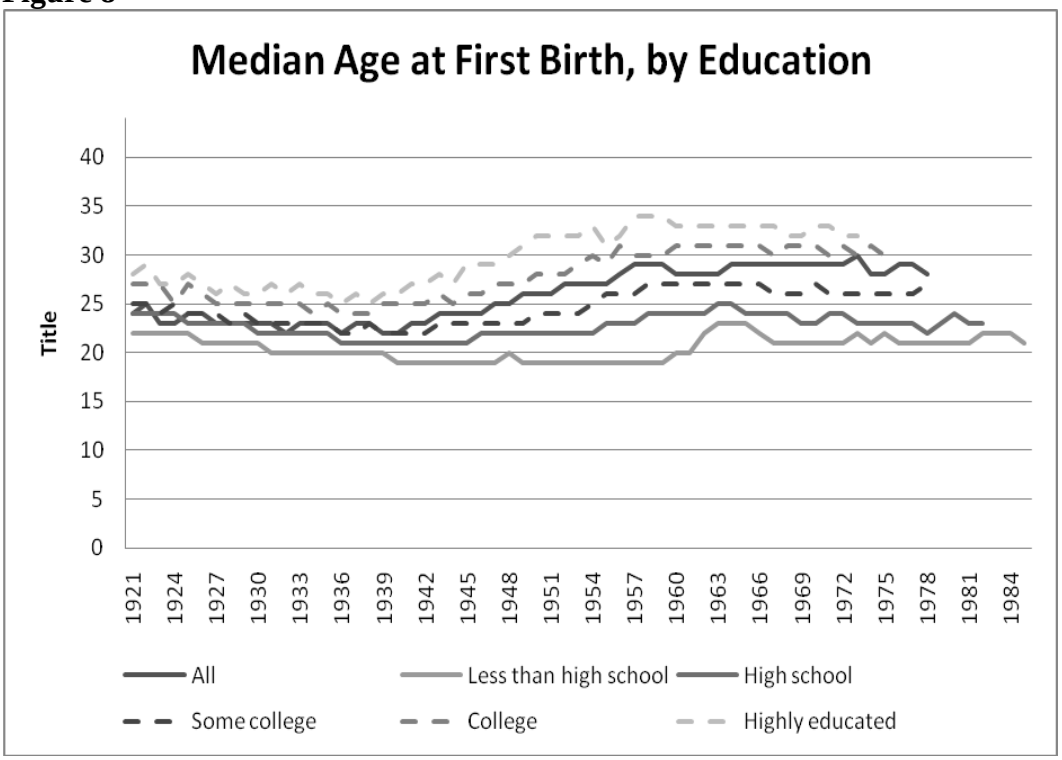
Source: June Series CPS, 1979-2006

Figure 7



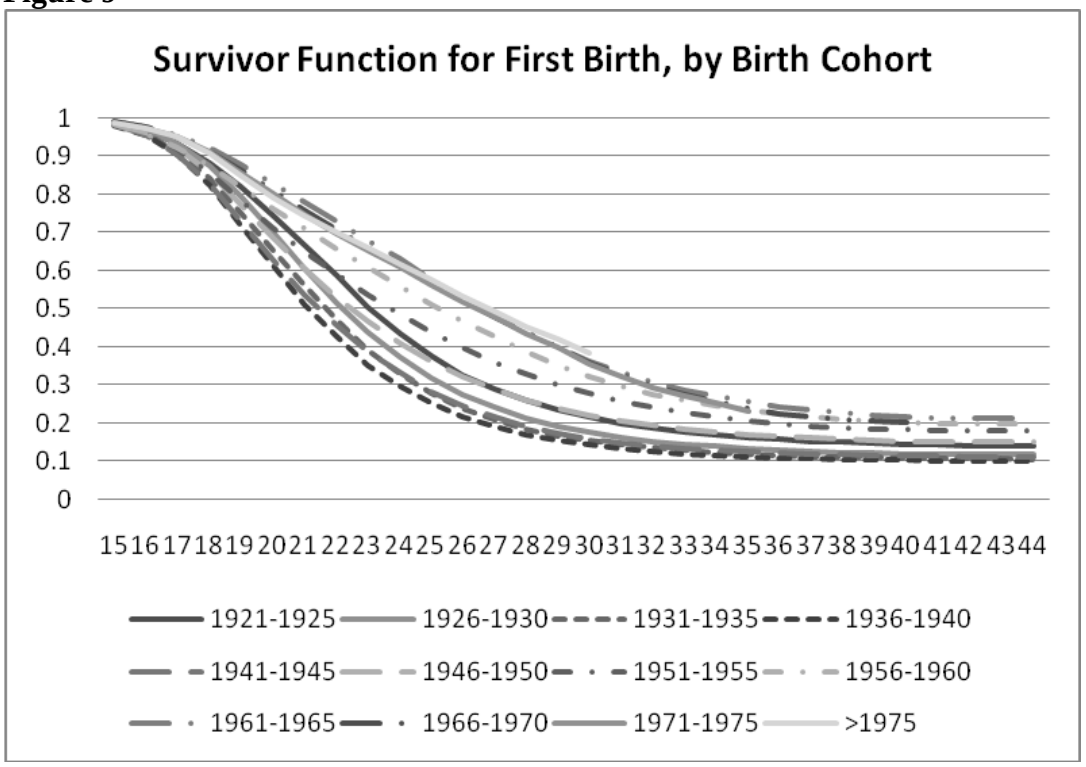
Source: June Series CPS, 1979-2006

Figure 8



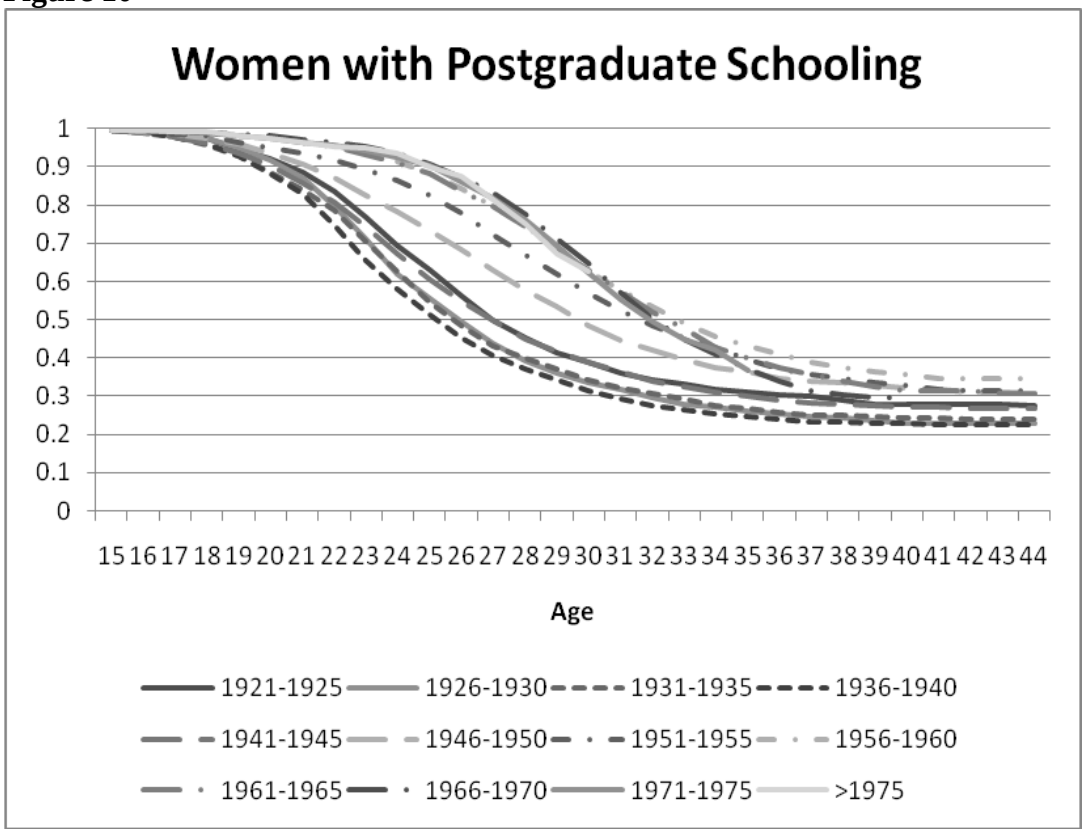
Source: June Series CPS, 1979-2006

Figure 9



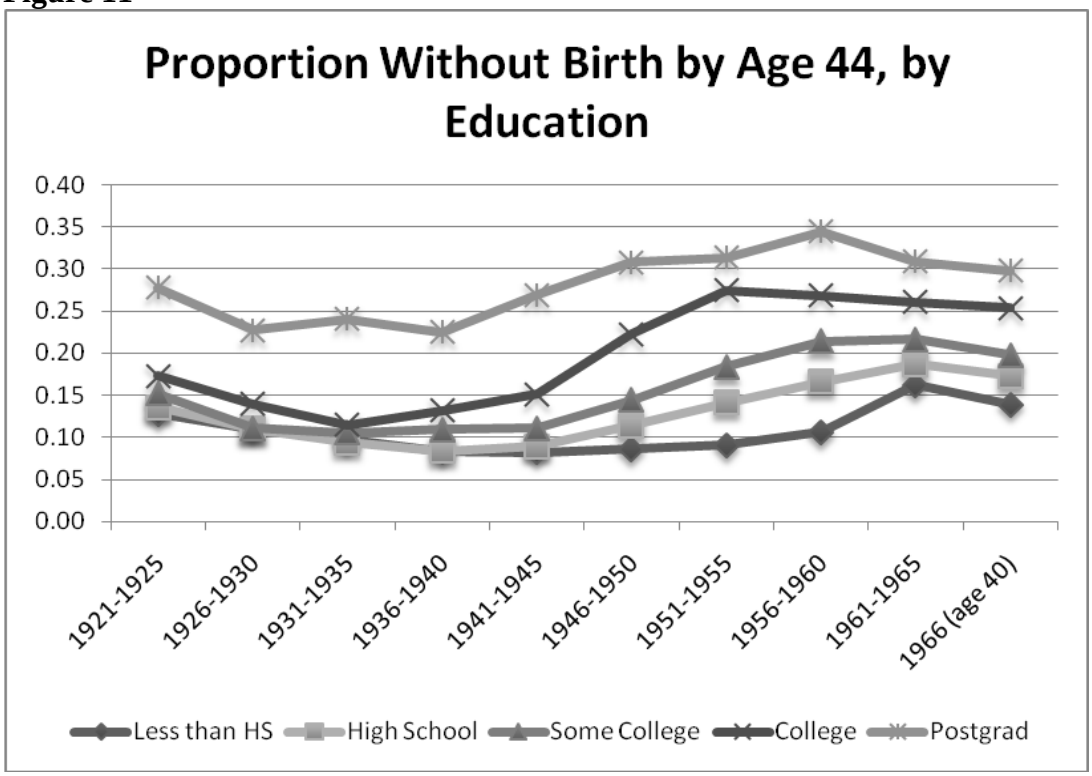
Source: June Series CPS, 1979-2006

Figure 10



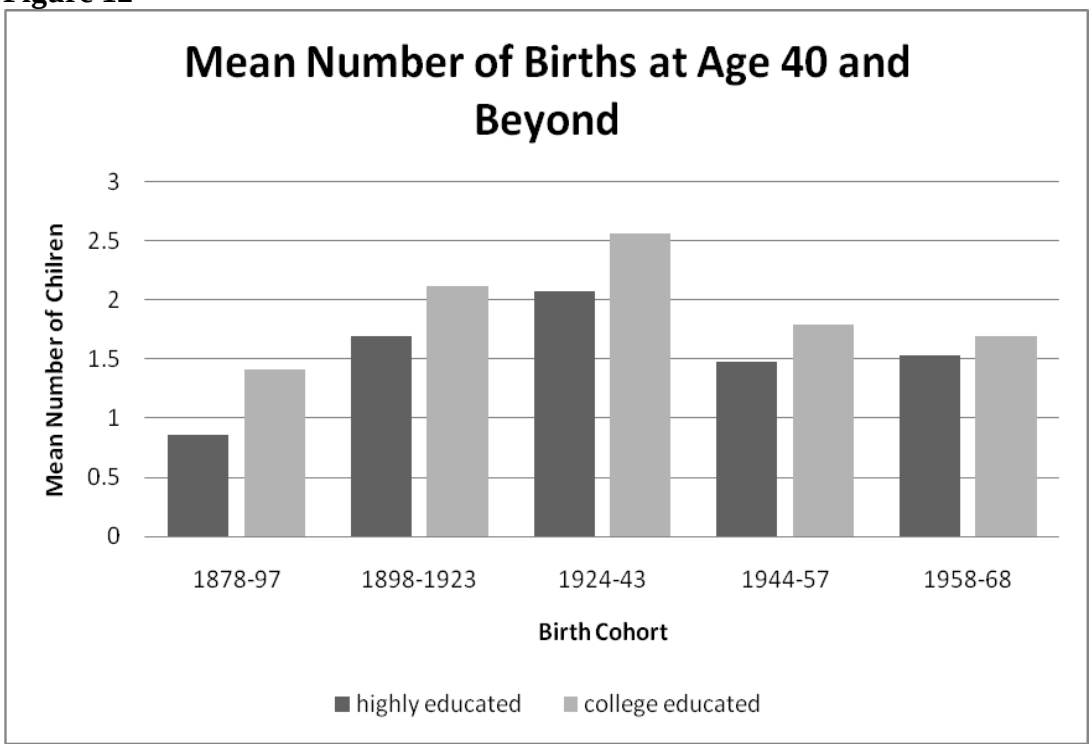
Source: June Series CPS, 1979-2006

Figure 11



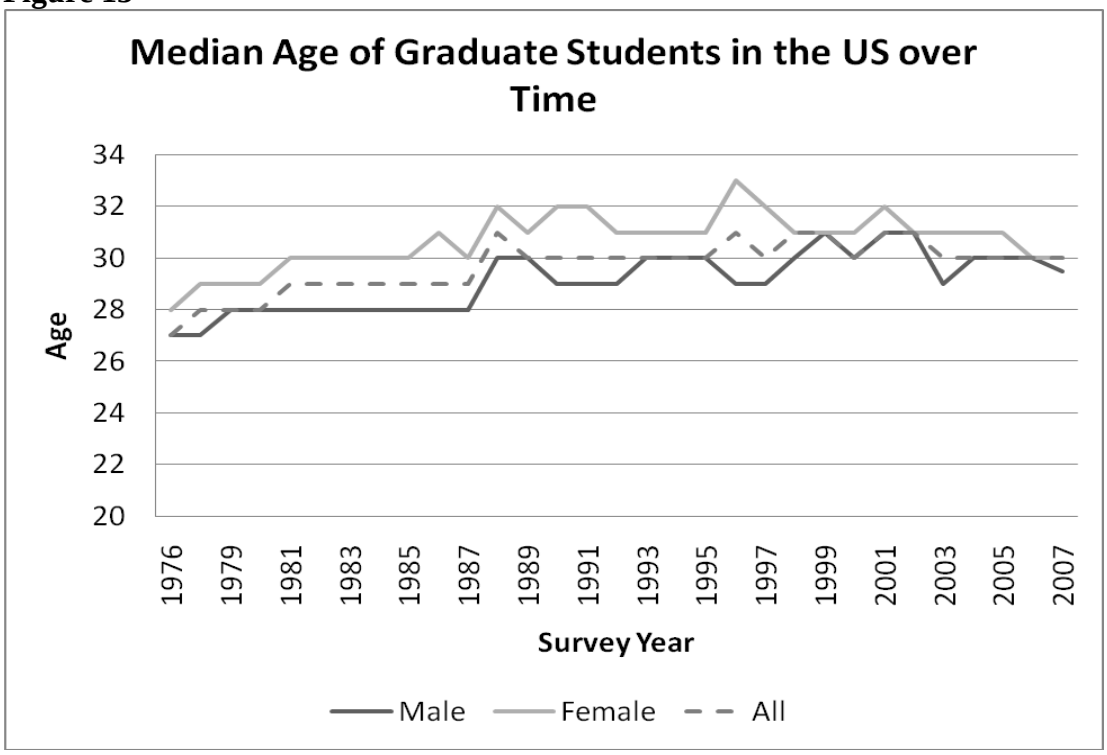
Source: June Series CPS, 1979-2006

Figure 12



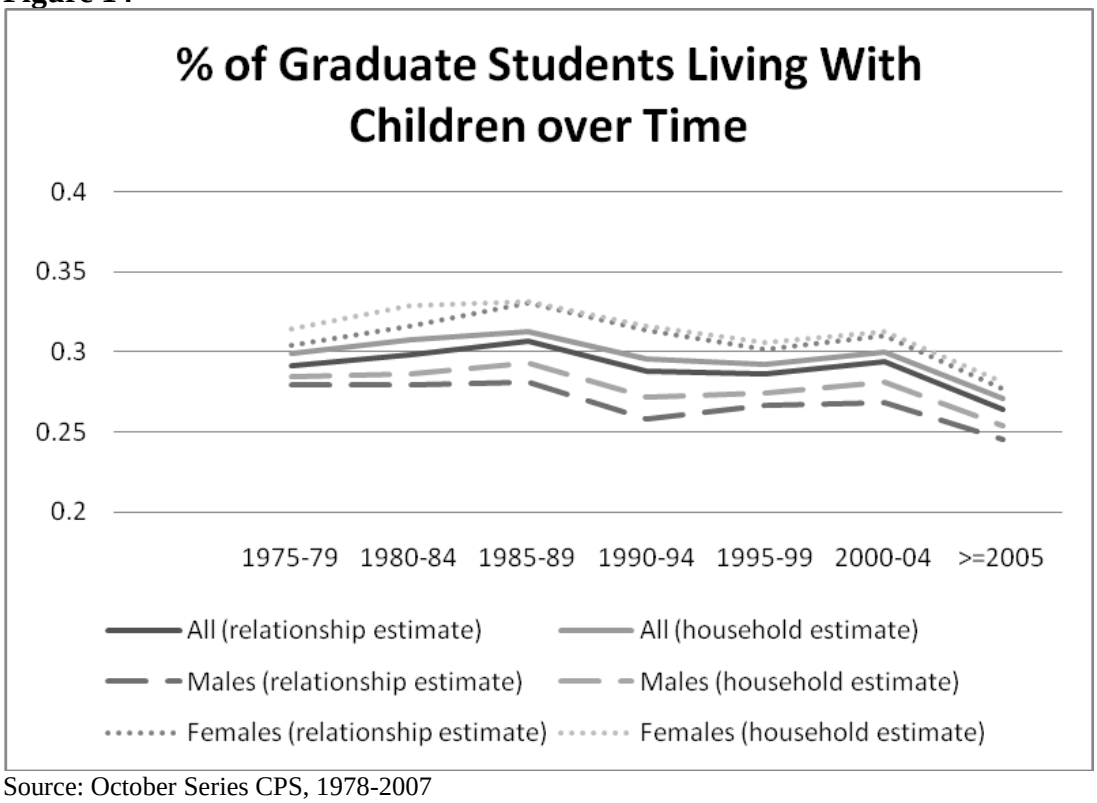
Source: June Series CPS, 1979-2006

Figure 13



Source: October Series CPS, 1978-2007

Figure 14



Source: October Series CPS, 1978-2007