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Do Men Matter? A Current Population Survey Study Of Characteristics Affecting Delayed Fertility

Patrick Mobley

DO MEN MATTER? A CURRENT POPULATION SURVEY STUDY OF CHARACTERISTICS AFFECTING DELAYED FERTILITY

by

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This thesis, submitted by Patrick Daniel Mobley in partial fulfillment of the requirements for the Degree of Master of Science in Applied Economics from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done, and is herby approved.

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Patrick D. Mobley
7 July 2014

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To Sarah

ABSTRACT

Fertility research has traditionally assumed male fertility behavior was constant, overlooking the role of male economic factors, due largely to data restrictions. I use three models to analyze separate perspectives of data from the 2011 – 2013 Annual Social and Economic Supplement (ASEC) of the Current Population Survey (CPS) to determine whether male circumstances have a statistically significant effect on fertility behavior. This paper shows that the assumption that male fertility behavior is constant is invalid. Just like women, men prefer childbearing at certain life stages and will delay to maximize their own utility. Student enrollment has a particularly strong affect on delayed fertility. As such, policy measures that help society adapt to qualification inflation and other issues are important for continued near-replacement fertility in United States.

CHAPTER I

INTRODUCTION

Historically, fertility research was highly gender specific, focusing on female experience and variables while overlooking much of the male experience. There are a couple reasons for this. First, appropriate data with the necessary characteristics is difficult to find. Few sources include information about the mother, father, and offspring, especially when you seek to include divorce or non-marital childbearing. However, the quality of data has been improving, and this paper analyzes one such source of recently improved data. Secondly, entry into parenthood continues to have more consequences for women than men. As a result, there is a generally accepted assertion that shifting fertility trends are caused by changes in female fertility behavior, with male fertility behavior assumed to be more or less constant (Lappegård, Rønsen, & Skrede, 2011). This assertion is probably inappropriate as many societies elevate the importance of individual autonomy relative to childbearing. Increasingly, it may be that couples only have an additional child when both agree to it (Berrington, 2004). For these reasons and others, male fertility behavior could exert currently a greater impact on overall fertility than theorized in the past.

Additionally, it is more common for the roles of men and women to overlap—especially in Western countries. As couples within a given society begin to adopt a dual-earner/dual-caregiver family model, more emphasis will be given to a man's ability to care for children than before (Lappegård, Rønsen, & Skrede, 2011). This change could be interpreted as a rise in the relative "cost" of childbearing for men, possibly affecting a couple's decision on when and how many children they will have. More importantly though, I theorize that male characteristics such as educational enrollment and/or attainment, unemployment, and others, are likely to delay female fertility regardless of the desire both may have for an additional child. This theory is supported by the results of a study conducted by Morgan and Rackin (2010), which suggest "that social norms and other constraints affecting the timing of parenthood weigh heavily on men as well as on women."

In the United States, social norms strongly pressure against childlessness and against large families often resulting in couples adopting the "two-child norm" (Hayford, 2009). In 2004, a British study comparing partners' preferences for future fertility found "considerable consistency" in the responses between men and women who wanted up to two children; however beyond this point the data suggested that conflicting responses were likely (Berrington, 2004). When these conflicts arose, men were more likely to want fewer children effectively pressuring partners who wanted larger families down to the two-child norm. While this study was conducted in Great Britain, the social and cultural norms in the United States are similar and would likely suggest a similar outcome. Assuming that there is a difference in the desire for either the quantity or timing of childbearing, couples

may opt for the more conservative preference between the two (by not having a child), or may try to convince one another that an additional child is warranted.

If they try to convince one another, their ability to do so may depend on bargaining power. A model by Klawon and Tiefenthaler (2001) asserts that men and women with different fertility preferences may use bargaining power within the household to convince one another to change their fertility preference. In their model, the recipient of nonwage income mattered and determined the bargaining power of that individual. This model contrasts with unitary models in which husbands and wives pool their income and act together to maximize a joint utility function (Klawon & Tiefenthaler, 2001). Studying families in Brazil, Klawon and Tiefenthaler's results reject the assumption that households follow a unitary model. Certainly, there are cultural differences between the United States and Brazil; however this paper clearly illustrates the potential for bargaining for fertility by couples. With an increasing number of couples following the dual-earner/dual-caregiver family model, the potential for bargaining may increase because both parties experience explicit opportunity costs. In the United States there are also other major trends that affect fertility: the rise of cohabitation and non-marital childbearing, changes in education and employment, and an increase in delayed childbearing.

Cohabitation and Non-Marital Childbearing

The disassociation between marriage and childbearing is one of the most distinctive features of modern parenthood (Bailey, Guldi, & Hershbein, 2013). It

results from the considerable increases in cohabitation and non-marital childbearing. Between the years 1970 to 2009 the percentage of live births to unmarried women (i.e., single, divorced, separated, widowed) increased from 11% to 41%; about half of these births occurred within cohabitating unions (Martinez, Daniels, & Chandra, 2012). Much of this increase is a recent development. In 2002, only 12% of first births occurred within cohabitating unions but in 2006 – 2010 this percentage increased to 22% (Martinez et al., 2012). Figure 1 shows the percentage of first birth by married, cohabiting, and neither married nor cohabitating for 2002 and 2006 – 2010. Overall, about 6% of all U.S. adults (ages 15+) live in a cohabitating union with a different-sex partner; this number is the highest (12%) among adults between the ages of 20 – 29 (Kennedy & Fitch, 2012). And because

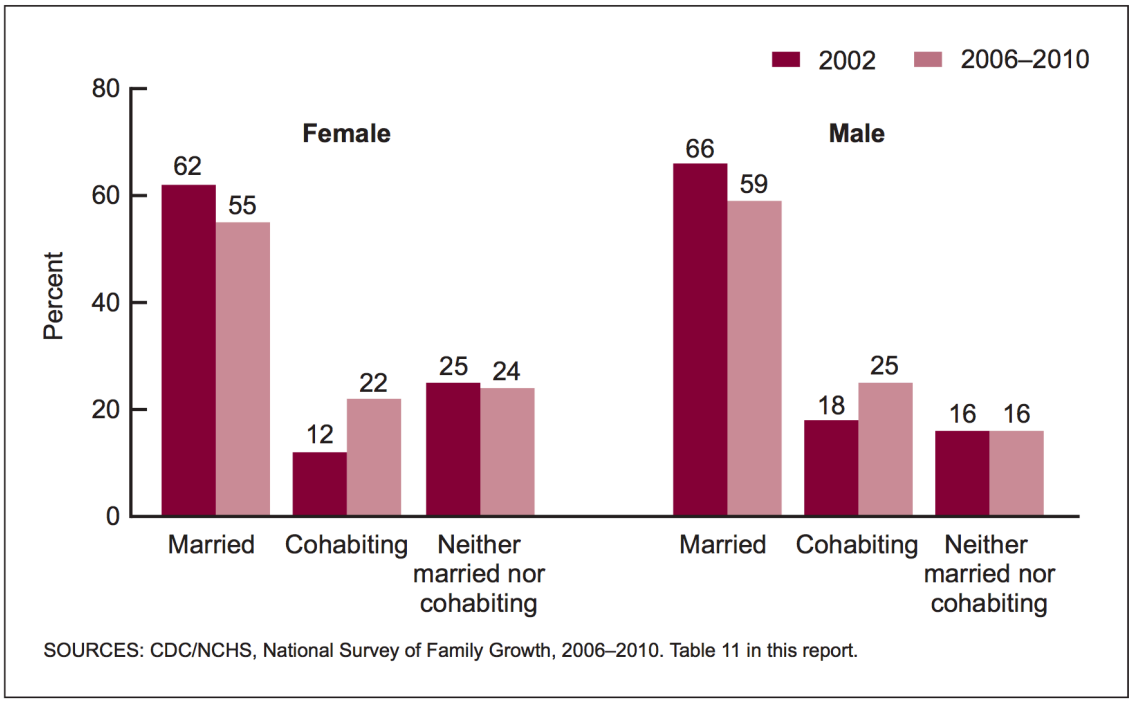


Figure 1: Marital or cohabiting status at first birth for females and males aged 15–44 years (Martinez et al., 2012)

partners occasionally change, many children do not have a consistent pair of parents. About 40% of all children in the United States live at some point in a cohabitating family during childhood (Kennedy & Bumpass, 2008). Consequently, fertility research aimed at only married couples will overlook an increasingly large demographic from the analysis.

The reasons behind this drastic change in fertility behavior are not completely understood by researchers. However, many attribute these changes to women's empowerment that has continued since the contraceptive revolution and women's rights movement that both began in the 1960s (Christensen, 2011; Hakim, 2003; Romeu Gordo, 2009). Advances in contraceptives offered heterosexual women independent control over their fertility without the necessary agreement or cooperation of male partners for the first time in history (Hakim, 2003). The resulting economic and social changes from women's empowerment gave women greater control over their own fertility, whom to mate with, or whether to mate at all (Aarssen, 2005). As divorce rates have increased and women's economic opportunities improved, single motherhood also became financially possible and more socially acceptable (Upchurch, Lillard, & Panis, 2002). Given these factors, it is possible the relative benefit of marriage has decreased to the point at which we are now substituting non-marital cohabitation for marriage under certain circumstances.

Choosing a mate has also become a more selective process than before. Under the dual-earner/dual-caregiver family model, individuals are judged not only on their ability to earn money for the household, but also how willing they are to

help clean the house and care for children. As such, there are no guarantees they will find a suitable marital partner. Women who cannot find a suitable mate may opt for non-marital childbearing, rather than give up on both marriage and motherhood (Upchurch, Lillard, & Panis, 2002). Data from 2006 – 2010 in the United States show that at the time of first birth, 24% of women were neither married nor cohabitating (Martinez et al., 2012). For many other women, finding a suitable partner remains a prerequisite for childbearing. Therefore, a possible explanation for the aggregate underachievement of intended fertility[1] in the United States could be found in the decline in marriage rates and/or an increase of marital disruption (Morgan & Rackin, 2010). In order to gain a more complete picture of fertility, cohabitation and non-marital childbearing become important considerations while undertaking research using United States data.

Education and Employment

Education and employment characteristics, and their role in fertility research, have changed significantly in recent decades. This is certainly true for women. For instance, women's employment has continued to rise over the last half century in the United States until in June of 2009, women made up an unprecedented 50% of all nonfarm employment (Wood, 2014). Figure 2 shows this change in the United States since 1964. This was partially due to the fact that the

[1] Intended fertility is the number of children parents plan to have over the lifetime of their reproductive years and may differ from actual completed fertility. For the 1957 – 64 US birth cohort Morgan and Rackin (2010) found a modest difference between intended and actual fertility: -.25 and -.40 fewer children than intended, for women and men respectively; however this modest difference was due largely to compensating errors in fertility since only about 40% of the cohort exactly achieved their intentions.

Great Recession disproportionally affected men (Wood, 2014). Yet, this statistic is still important because women tend to consolidate their careers before motherhood in order to reduce the impact to their career (Romeu Gordo, 2009). If men do this as well, then couples may wait until both have attained stability in their respective careers before having children. Women's increased share of employment also illustrates the likely prevalence of the dual-earner/dual-caregiver family model in America.

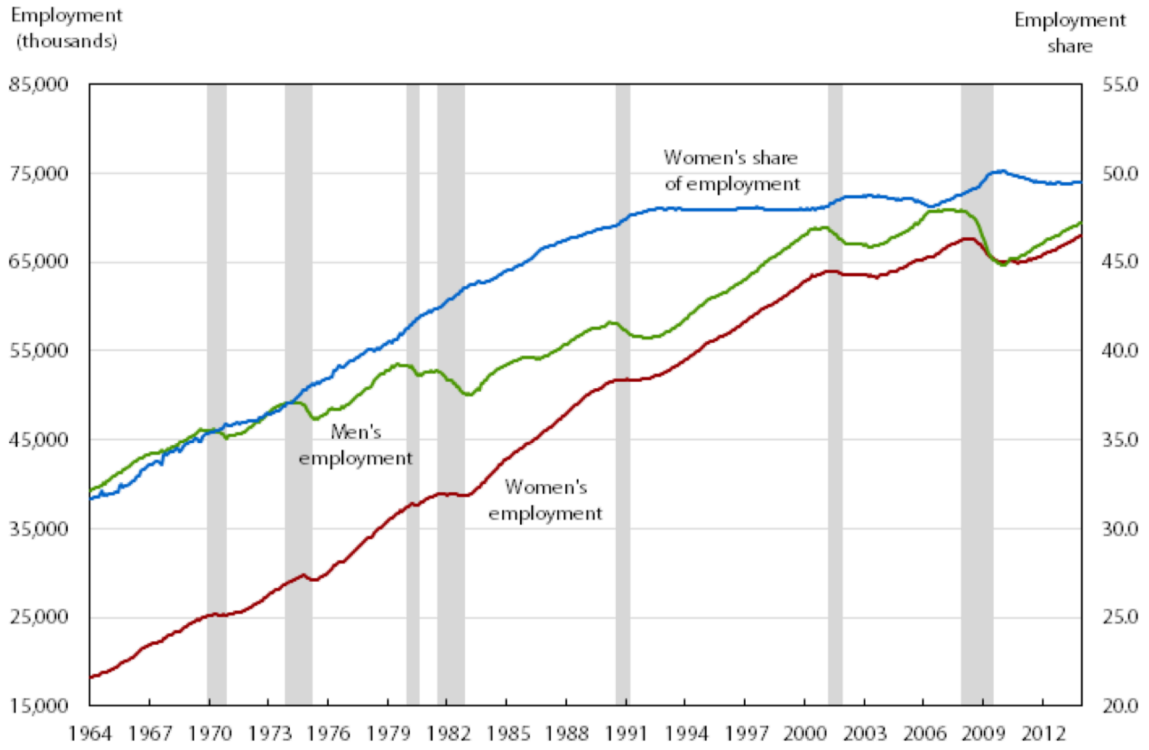


Figure 2: Employment of women and men, in thousands, and women's share of employment, seasonally adjusted (Wood, 2014)

Furthermore, both women and men are going to school far longer in order to become competitive in the workplace. In the last decade alone, the percentage of women (ages 25 and older) holding a bachelor's degree has increased by 28.8% and for those holding an advanced degree it has increased by 52.2%. Men's (ages 25 and older) educational attainment has also increased by 21.5% and 28% respectively

over the same period (U.S. Census Bureau, 2013a). Figure 3 displays this information. More people are getting more education, and in this race women are leading the pack. Presently, women in the United States make up 57% of all students in tertiary education (European Commission, Eurostat, 2012). These changes are

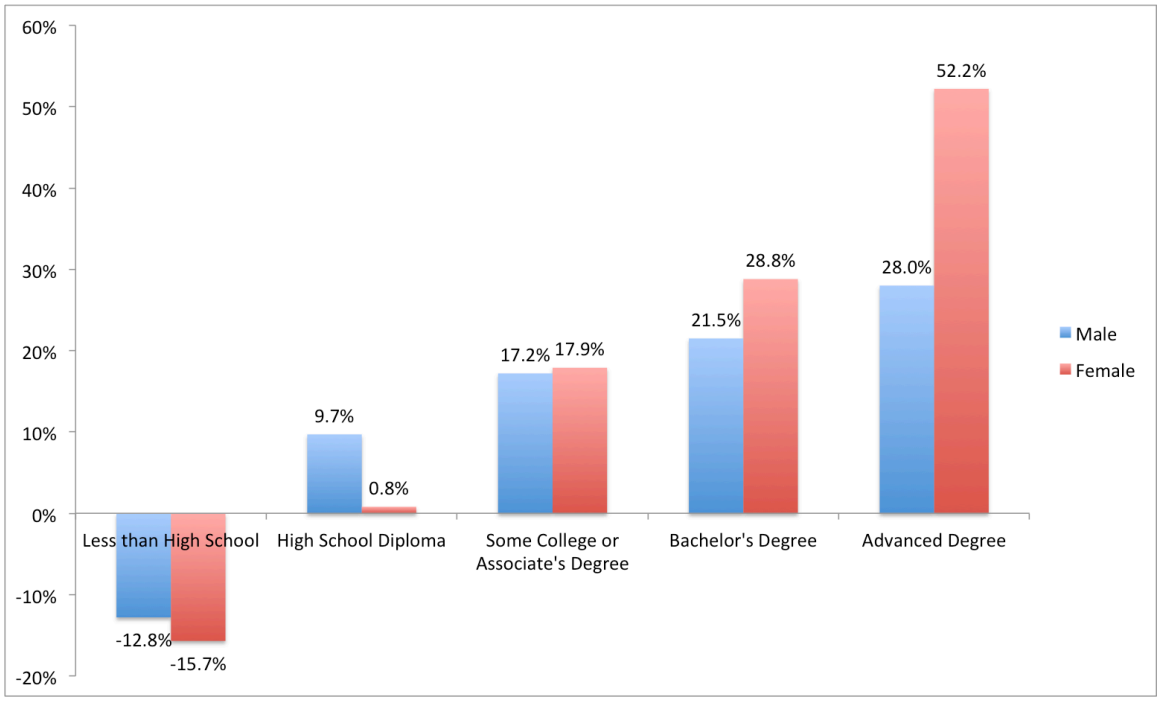


Figure 3: Percent change from 2003 to 2013 in the number of men and women 25 and over who have completed selected levels of education (U.S. Census Bureau, 2013a)

important because education and employment are widely recognized to impact fertility behaviors (Bratti, 2003; Dreze & Murthi, 2001; Keng & Sheu, 2011; Klawon & Tiefenthaler, 2001; Sabia & Rees, 2009; Shang & Weinberg, 2012).

Extended educational enrollment has a particularly acute potential to impact fertility. This is partly because an extended period of schooling often postpones the transition to marriage and therefore affects fertility timing (Romeu Gordo, 2009). There are also behavioral differences: women with more education are more likely to use contraception, have lower levels of unintended births, and have later and

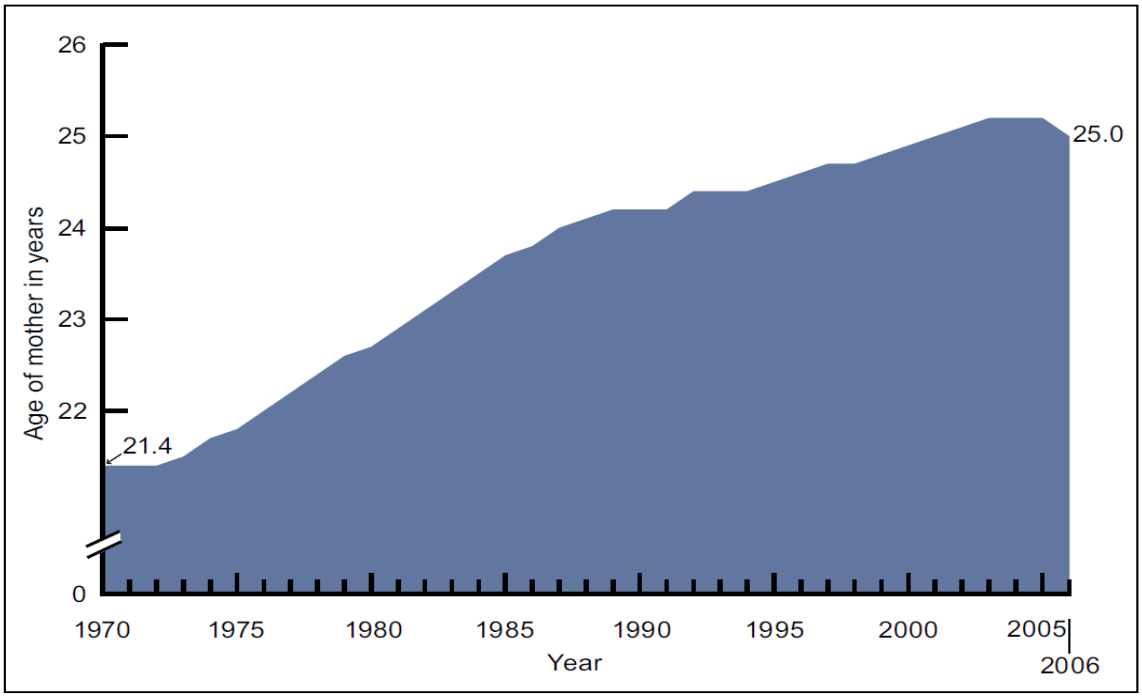
lower total fertility (Martinez et al., 2012). They are also more likely to be married, work, delay birth, and live in higher income households than women with lower relative education (Bailey, Guldi, & Hershbein, 2013).

A fairly recent accumulation of research shows that educational enrollment is a strong determinant of delayed fertility. For both men and women a close relationship exists between the duration of education and the delay in first birth (Dey & Wasoff, 2010). In their paper, Ní Bhrolcháin and Beaujouan (2012) showed the rise of educational enrollment was a substantial contributor to postponed childbearing in Britain and France. Interestingly, the net effect of educational attainment was less clear when enrollment was present in the model. Studies in Germany have also found that a women's fertility timing is determined more by their extended participation in schooling and less by their level of education (Romeu Gordo, 2009). This makes sense since many students prefer to not have children while they attend school. In fact, men and women enrolled in school are often subject to environments that have strong norms against childbearing (Morgan, & Rackin, 2010). However, it is possible that the field of study could impact these social norms. A study by Bavel (2010) indicated that fewer women postponed motherhood when they studied disciplines where stereotypical attitudes about family roles prevail and most of the graduates are female[2]. After graduation, there are various reasons why they may continue to postpone.

[2] In general, people trained to work in personal care services, or have a degree in engineering, natural sciences, or "other" degree are more likely to have stronger stereotypical family attitudes than people trained to work in health care, legal services, education, or have a degree in arts and the humanities (Bavel, 2010).

While pursuing a career has become commonplace for women, a career also provides competition for childbearing activities. The general argument is that women are not having children at younger ages because career orientations and demands for costly childcare force them to delay the beginning of family formation (Martin, 2000). Following this logic, an increase in the supply of childcare services would reduce women's opportunity cost for having children and allow them to shift some of the burden to the market (Shang & Weinberg, 2012). However, this argument is not always consistent with the empirical findings. After graduation, a higher starting wage and accelerated earnings both increased postponement of childbearing (Romeu Gordo, 2009; Bavel, 2010). It is quite believable that highly educated women find their work more fulfilling than women with less education and so they rely less on children for their identity (Hayford, 2009). For instance, a highly educated woman may be more likely to work in a male-dominated career where they may put in long hours and suffer from a difficult working environment. Yet this same career also may provide them with self-fulfillment, a generous income, status, prestige, and other benefits they highly value (Morgan & Rackin, 2010). This could explain why many women devoted to their career choose not to have children. The existence of competing activities, such as a demanding career, generally makes it difficult to distinguish between voluntary and involuntary childlessness (Berrington, 2004). That being said, the demands of a career and education often serve to delay childbearing rather than to cause childlessness.

Demographers consider postponed motherhood to be one of the key determinants of reduced fertility (Romeu Gordo, 2009). While there may be some compensation associated with delayed fertility (Martin, 2000; Shang & Weinberg, 2012), there is a body of evidence that suggests the longer women delay the less likely they are to realize their ideal family size. Morgan and Rackin (2010) found that both women and men who delay childbearing or marriage did not have as many children as they expected. Dey and Wasoff (2010) showed that those who delay their first birth until their late 20s to early 30s have difficulty meeting their fertility aspirations. And in a British cohort study, Berrington (2004) found that during a six-year period, only 50 percent of women who intended an additional birth actually had one. This compares with only 11 percent who unintentionally had an additional child. This research is particularly interesting when we consider the extent to which women delay birth in the United States. From 1970 to 2012, the average age at first birth has increased from 21.4 to 25.8 years old (Mathews & Hamilton, 2009; U.S.



SOURCE: CDC/NCHS, National Vital Statistics System.

Figure 4: Average age of mother at first birth: United States, 1970 – 2006 (CDC, 2012)

Dept. Health and Human Services, Center for Disease Control and Prevention [CDC], 2012). Figure 4 illuminates this trend. The time for parenthood is never quite right for many couples and so they repeatedly postpone childbearing until their circumstances stabilize. People wait to get married, move out of their parent's residence, or until they finally get that good job (Lutz & Skirbekk, 2005). Beyond the women's situation, men's circumstances could contribute to these delays. Clearly though, the longer women delay birth, the shorter their window to have children becomes.

Fecundity drops as we age. A fairly small population of women and men cannot have children even at young ages, and this proportion continues to increase as disease and age-related declines in fecundity accumulate (Schmidt, 2008). In fact, modeling work by Leridon (2004) has shown that even with artificial reproductive

technologies, if all women start to conceive at age 35, 14% will remain childless and at age 40 this number rises to 36%. Therefore the total number of children may be reduced in large part due to biological restrictions (Romeu Gordo, 2009). Furthermore, postponement may cause women to underestimate age-related fecundity declines as well as normative and structural difficulties for childbearing at advanced ages (Morgan & Rackin, 2010). So if women want to have children at later ages due to educational and career goals, they will incur additional risk, making childbearing less likely or reducing the number of children possible. Schmidt (2008) found that high-risk tolerant women are more likely to delay both childbirth and marriage and are less likely to become mothers. In this study, a woman was risk tolerant if they were willing to give up their current job for a 50/50 chance at either a job that pays double or only two-thirds of their current annual pay. For these reasons, women are more likely to delay in developed countries where social norms encourage, and reward, individual careers and educational attainment at the expense of having children at an earlier age. And since more women now participate in the labor force, unmet fertility aspirations are less associated with the availability of resources and more with the opportunity cost of childbearing (Dey & Wasoff, 2010). The opportunity cost against having children is higher and therefore more people are willing to tolerate higher risk for the benefits of employment.

In the aggregate, delaying fertility also effects how we measure fertility. This is because, without adjustment, measures of fertility gauge two separate aspects of fertility: the quantum and tempo effects (Bongaarts & Feeney, 1998). The quantum component measures actual changes in the number of children born to women. On

the other hand, the tempo component measures the gaps between each generation; these gaps widen as delays to childbearing increase. These two components play off one another making accurate fertility forecasts difficult. This is because an entire year's worth of births are lost/gained for every one-year rise/decline in the timing of childbearing (Bongaarts, 2002). Also, demographers have not always understood how the tempo component distorts fertility. Past concern over below-replacement fertility in the United States during the 1970s and 1980s was largely misplaced for this reason (Bongaarts & Feeney, 1998). However, this does not mean that we should ignore the tempo component of fertility measurement. Deferring childbearing leaves a shorter period to complete subsequent births, and so many women may have fewer children than they desire the longer they wait. This consequence is referred to in the demographic literature as the tempo-quantum interaction (Berrington, 2004). Because of this, delayed fertility is interestingly also a cause for decreased fertility.

CHAPTER II

METHOD

My analysis attempts to incorporate the major trends affecting fertility in the United States while using the general fertility theory discussed later in this chapter to determine whether male circumstances have a statistically significant effect on fertility behavior. I also contribute to existing theories of female fertility behavior by applying them in concert with male fertility behavior. To test whether male circumstances affect fertility behavior, I use three different models to capture alternative features of the data. The models use the probit regression followed by a marginal effects post-estimation to analyze the period fertility behavior. The binary dependent variable, recent birth, represents a completed birth in the last 12 months. For the purposes of this study, the birth is considered completed if the pregnancy resulted in a live birth and the child survived until the time of the survey. As such, pregnancies ending due to miscarriage, stillbirth, or abortion are excluded. If a responsible parent has a birth in the last 12 months of the survey, the value is 1 (yes); otherwise it is 0 (no). A responsible parent is defined as an individual who takes responsibility for, and therefore desires, the child. This will not always be the biological parent; however the likelihood is great that in the last 12 months, the responsible parent is also the biological parent.

The first model includes women and data about their male partners: married or otherwise. The observations for the first model are selected from women in their reproductive years (ages 15 to 44 years). To include male data, I created new female variables with data copied from their male partner. Consequently, single males are excluded from the first model. The second model includes just women, and contains the same observations as the first model. Traditional fertility research is most similar to the second model. The third model includes just men, and observations are selected from men in their reproductive years (ages 15 to 44 years[3]). The third model includes single men whereas the first two models do not. For all three models, men and women each have the same set of independent variables. Age is included in this set and serves to reduce age bias in the models. After all, fertility and fecundity decline as we age. There is also a set of general variables, which apply to both members of the household. All variables are chosen based on the availability of data and on fertility theory. Using these three models, I can analyze fertility from multiple perspectives using the same dataset and hopefully gain otherwise hidden insight.

Fertility Theory

The general economic theory of fertility assumes that the demand for children is based on family preferences for a particular number of surviving

[3] In their paper on fertility intentions and behavior, Morgan and Rackin (2010) found smaller and fewer differences by sex than hypothesized, "suggesting that social norms and other constraints affecting the timing of parenthood weigh heavily on men as well as on women and thus may largely negate the fact that men are biologically capable of fathering children much later in life."

(relevant for regions with high mortality) children, by the opportunity cost of (traditionally) the mother's time, and the cost of caring for the children to maturity (Todaro & Smith, 2011, p. 288). As such, the demand-side of fertility theory includes changes to preferences (cultural forces), family formation (structural forces), and the opportunity cost (economic forces) of childbearing. Alternatively, the supply-side of childbearing is characterized by the cost and availability of various contraceptive devices (Bailey, Guldi, & Hershbein, 2013). Unfortunately there is not always clear distinction between the demand and supply sides of fertility since they often affect one another. While more income (economic forces) makes it easier to afford children and childcare, more income also makes contraceptives more affordable. Popular use of contraceptives change culture and increases the occurrence of cohabitation (structural forces) (Christensen, 2011). Moreover, the supply side may not be limited to just contraceptives but could also include other aspects that affect fertility.

I would argue that advancements in artificial reproductive technologies and the availability of healthcare in developed countries also affect the supply-side of childbearing. Artificial reproductive technologies allow many women to have children whom would otherwise remain childless, and healthcare redistributes the escalating cost of childbearing. A study conducted by Truven Health Analytics (2013) found that in the United States the "average total Commercial insurer payments for all maternal and newborn care with vaginal and cesarean childbirths were $18,329 and $27,866, respectively." Compare this with the $300 to $950 for an abortion in the first trimester (Planned Parenthood, 2014) and a couple without

insurance could be forced to have an abortion in order to avoid heavy debt. These issues could have potentially large impacts on fertility.

A notable theory only alluded to before this point states that a rise in the female labor participation rate corresponds with a decrease in fertility (Martin, 2000; Maxwell, 1998). The idea is that when women work, their opportunity costs rise and they trade-off having children in favor of less time-consuming activities. But while this theory may account for the general reduction in fertility rates, it cannot explain the reversal of the traditionally negative correlation between fertility and female labor participation rates (Adserà, 2003). In fact, the baby boom occurred during an environment of increasing income, urbanization, educational attainment, and women's labor force participation—all of which are associated with declining fertility in the early twentieth century (Bailey, Guldi, & Hershbein, 2013). If women are especially committed to the workforce, then this theory may not ring true. Depending on social norms, women may feel more actualization from working than childbearing. A study conducted in Russia, where women are expected by society to work, found little empirical support of policies aimed at stimulating fertility by reducing employment (Maxwell, 1998). Actually, as societies adopt a more dual-earner/dual-caregiver family structure, childcare may be the key to improving fertility. In the United States, women who want to work and have children can do so largely in part because of the increased availability of childcare (Martin, 2000). Likewise, the affordability of childcare is in part dependent on the availability of resources and the status of the economy.

The relationship between the availability of resources and fertility is complicated at best. One might expect that people with more resources to care for children would have more children. After all, parents with more disposable income should be able to afford to put more children in childcare. Paradoxically, parents with the most resources and most favorable circumstances are least likely to expect more children (Dey & Wasoff, 2010). This could result from the higher opportunity cost children pose to parents with more resources. Another explanation for the paradoxical relationship follows that declining fertility results from increasing wealth because parents trade-off between quantity and quality (Klawon & Tiefenthaler, 2001). This occurs when parents invest more into each child knowing that there is a good chance of the child surviving into adulthood. Therefore, parents with more disposable income may opt for higher quality childcare rather than put more children into childcare. That being said, this does not always mean that there is a negative correlation between resources and fertility. The relationship could just exist on a different scale. Both unemployment and economic growth rates were found to be good predictors of the fertility rate, whether taken separately or together; prosperous economic conditions provide part of the explanation for improved fertility (Goldstein, Sobotka, & Jasilioniene, 2009). Therefore an increase on a macro-economic scale in the availability of resources may increase the fertility rate where increases on the micro-economic scale do not.

Data

The data for this study are from the 2011 – 2013 Annual Social and Economic Supplement (ASEC) of the Current Population Survey (CPS) provided by the Integrated Public Use Microdata Series (IPUMS) at http://cps.ipums.org (King et al., 2010). For over 50 years, the U.S. Census Bureau and the Bureau of Labor Statistics have jointly conducted the CPS every month in order to gather statistics on employment and unemployment. The survey interviews monthly around 54,000 households scientifically selected to give a representation of the nation, individual states, and other specified areas (U.S. Census Bureau, 2013b). The ASEC supplement of the CPS is conducted every March and provides labor force data in addition to supplemental data on income, work experience, employment status, and health insurance. The CPS also includes extensive demographic data and is the largest monthly dataset in the United States of its kind.

While a potentially rich source of data, there are various limitations to ASEC data for fertility research. First, because this is household data, it does not include anyone not living in the household. Consequently, fathers who do not live with their children appear childless. Also, only in very rare instances will a single man care for a newborn, since newborns are much more likely to stay with the mother. Second, there is up to a year time-gap between the earliest recent birth observation and the time of the interview. Therefore, some students who were in school at the time of childbirth may have dropped out to provide for the family. The exceptions to this brief time-gap are the employment status, personal income, and household income: for these, interviewees were asked about the previous calendar year. Third, CPS data is designed to be the primary source of labor force statistics in the United

States, and so it does not include detailed questions about fertility (e.g., childbearing expectations and preferences, contraceptive use, etc.). Hence, fertility preferences (cultural forces) is the demand-side element of fertility not represented in the models. I can only infer these preferences after looking at the results.

Thankfully, there are significant benefits to using the ASEC data for fertility research. First, the incredibly large dataset allows me to analyze fertility without selecting specific segments of the population. Everyone in reproductive ages 15 – 44 years of age[4] are included in the sample. For this reason, my analysis can include married, single, and cohabitation family structures: whether or not they have had a recent birth (birth in the last 12 months). I could only accomplish this with a large dataset since the fertility rate is only 63 births per 1000 women aged 15 – 44 years (CDC, 2012). Additionally, a large dataset is required to overcome any noise created by unintended births. According to Mosher, Jones, and Abma (2012), about 37% of births are unintended, 23% of which were mistimed and 14% of which were unwanted. This being said, the analysis will find patterns in the data regardless of intention. The large dataset also allows for studying more unconventional characteristics that might be present only in a small percentage of the 63 births per 1000 women. Second, the ASEC data contains a variety of variables both commonly and uncommonly associated with fertility research. The combination of these variables could lead to surprising results and possibly uncover a hidden side of fertility. Third, this dataset is representative of the U.S. population. Selection bias is minimized to every extent possible during the data collection process. Bias is also

[4] In 2008, only about 7,500 women gave birth at age 45 and over comprising 0.2% of all births (Martinez et al., 2012).

mitigated using weighting variables to even out characteristics that may over- or underrepresent the true national demographic. Using Stata (StataCorp, 2011) survey procedures, I utilized the ASEC supplement person-level weight variable and replicate weights to adjust for clustering and stratification and to calculate variances.

This dataset affords a great chance to study the opportunity cost of childbearing (economic forces). It has very detailed information on total personal income, household income, student status, educational attainment, employment status, etc. All of which have the potential as great variables for fertility research. I included both total personal income and household income for the previous calendar year. To prevent multicollinearity, personal income was subtracted from household income for each model. Consequently in the first model, household income represents the total household income minus the total personal income of the couple. Women's personal income is excluded from household income for model 2 and men's income is excluded in model 3. Additionally, I included an interaction variable between total personal income and employment status. This variable essentially accounts for the fact that income is largely dependent on the employment status of the individual. This variable considers this dependent relationship behind the scenes and is not reported in the final post-estimation results. I also incorporated whether they had any additional children in the models. Theoretically, the marginal opportunity cost increases for each child, otherwise families would continue to have children until their reproductive capabilities cease. Home ownership and public housing were also interesting variables. Public housing

is housing sponsored by the government for low-income families. Therefore, public housing is a proxy variable for welfare and/or poverty. By including this variable, a different relationship between household income and fertility could emerge. Home ownership is effectively the opposite of public housing. There is also a variable for people living with their parents. Dubbed by popular culture in America as the "failure to launch syndrome", people are living with their parents well into adulthood, which could impact their desire for children[5].

The ASEC is also particularly well suited to analyze the family formation (structural forces) element of demand-side fertility. This is due to a recent change that has greatly improved the reporting of cohabitation. In 2007, the CPS started identifying all cohabiting partners in a household, and links children to their biological, step-, and adoptive parents within the household (Kennedy & Fitch, 2012). Now, all cohabiting partners are identified whether or not they describe themselves as "unmarried partners" to the householder[6]. This improvement is especially important since over 40% of all births in 2011 were to unmarried women (Bailey, Guldi, & Hershbein, 2013). The improvement is significant too. The old method missed 18% of all cohabiting unions and 12% of children living with cohabitating parents (Kennedy & Fitch, 2012). I include both married and cohabitating as variables in all three models to distinguish any structural forces that may affect fertility.

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[5] According to the Pew Research Center (Wang & Morin, 2010), 10% of 18 – 34 year olds said that they moved back in with their parents because of the Great Recession; 14% of 18 – 34 year olds said that they postponed having a baby because of the Great Recession.

[6] In previous years, individuals with relationship labels such as boyfriend/girlfriend or fiancée might not consider themselves "unmarried partners". Therefore, the survey data would not capture the relationship of these individuals.

For the supply-side of fertility, my options were more limited. The CPS does not include information on contraceptive use. As I argued before, the presence of healthcare affects the supply-side of fertility, and the CPS does contain healthcare information. As such I included a binary variable to determine whether the member has any health coverage. However, chances are good that if one member in a relationship has healthcare so does the other. For this reason, in the first and second model the healthcare variable applies to only women. In the third model, the healthcare variable only applies to men. This is to prevent multicollinearity in the model since healthcare within a household is highly correlated for both men and women. As for other supply-side variables, the ASEC CPS does not include information on advanced reproductive technologies so those could not be included either. However I did include a health variable, which stratifies health into five different categories: excellent, very good, good, fair, and poor. Presumably, health could be a restrictive factor to fertility, thus limiting the supply for a desired child.

CHAPTER III

RESULTS

Table 1 presents the estimates for my three models using ASEC CPS 2011 - 2013 data. These results illustrate which characteristics are indicative of people who delay childbirth. Since, raw probit data is difficult to interpret due to its nonlinear nature, a marginal effects post-estimation is useful for providing a good linear approximation of the change in Y produced by one unit change in X. The estimates presented on table 1 are these final post-estimation results. It is helpful to interpret the results in the context of the mean prediction. The mean prediction represents the probability of an average woman (man for model 3) having a child in the last year. This probability is 7.26% for model 1, 6.46% for model 2, and 5.06% for model 3. In reality, this average woman cannot exist because they are the average of each variable in the model. This woman would have a total personal income of $23,407, be 15.3% of a full-time student, 2.3% part-time student, have 40.4% of up to a high school education, but also 31.2% of some college, 19.8% of a college degree, 7.8% of a masters or professional degree, and .88% of a doctoral degree, etc. Yet conceptually, the idea of an average woman makes the rest of it much easier to understand. For instance, the difference between the probability of having a child in the last year for an average woman and a woman who is a full-

Table 1: Model Results (ASEC CPS 2011 - 2013)

	Model 1		Model 2		Model 3	
Variables	dy/dx	p-value	dy/dx	p-value	dy/dx	p-value
Women						
Personal income last year	6.56E-08	0.517	1.91E-09	0.983		
Student (full)	-0.0552	0	-0.0494	0		
Student (part)	-0.0285	0	-0.0227	0		
Some college	0.0039	0.131	0.0053	0.012		
College graduate	0.0019	0.559	0.0059	0.022		
Masters/professional	0.0103	0.028	0.0147	0		
Doctorate	0.0257	0.034	0.0324	0		
Employed last year (full)	-0.0224	0.002	-0.0133	0.015		
Employed last year (part)	-0.0129	0.103	-0.0055	0.344		
One parent foreign born	0.0003	0.96	0.0011	0.796		
Both parents foreign born	0.0070	0.165	0.0021	0.566		
Health (excellent)	0.0215	0.011	0.0235	0		
Health (very good)	0.0201	0.011	0.0219	0		
Health (good)	0.0139	0.079	0.0177	0.002		
Health (fair)	0.0030	0.736	0.0102	0.105		
Age	-0.0041	0	-0.0037	0		
Men						
Personal income last year	-2.11E-08	0.687			1.17E-07	0.015
Student (full)	-0.0332	0			-0.0301	0
Student (part)	-0.0175	0.048			-0.0079	0.218
Some college	0.0029	0.237			0.0055	0.004
College graduate	0.0030	0.358			0.0073	0.001
Masters/professional	0.0092	0.041			0.0162	0
Doctorate	0.0087	0.41			0.0102	0.121
Employed last year (full)	0.0043	0.269			0.0046	0.359
Employed last year (part)	0.0051	0.333			-0.0007	0.895
One parent foreign born	0.0004	0.949			-0.0068	0.062
Both parents foreign born	-0.0038	0.402			-0.0056	0.061
Health (excellent)	0.0050	0.531			0.0066	0.356
Health (very good)	0.0005	0.948			0.0025	0.719
Health (good)	-0.0011	0.89			0.0012	0.868
Health (fair)	0.0043	0.59			0.0028	0.721
Age	-0.0006	0			-0.0024	0
General						
Household income last year	-1.3E-07	0	-1.2E-07	0	-1.4E-07	0
Married	0.0645	0	0.0674	0	0.0896	0
Cohabitating	0.0287	0	0.0372	0	0.0603	0
Homeowner	-0.0072	0.004	-0.0062	0.001	-0.0012	0.503
Public housing	0.0363	0	0.0374	0	0.0323	0
Any health coverage	0.0168	0	0.0142	0	0.0027	0.147
Living w/ parents	-0.0338	0	-0.0372	0	-0.0194	0
# of additional children	0.0001	0.931	0.0023	0	0.0016	0
Mean Prediction	0.0726	0	0.0646	0	0.0506	0

Table 2: Percent Change Model Results (ASEC CPS 2011 - 2013)

	Model 1	Model 2	Model 3
Variables	Percent Δ from mean prediction		
Women			
Personal income last year	-	-	
Student (full)	-75.9%	-76.5%	
Student (part)	-39.2%	-35.1%	
Some college	-	8.2%	
College graduate	-	9.1%	
Masters/professional	14.2%	22.8%	
Doctorate	35.3%	50.2%	
Employed last year (full)	-30.8%	-20.6%	
Employed last year (part)	-	-	
One parent foreign born	-	-	
Both parents foreign born	-	-	
Health (excellent)	29.6%	36.3%	
Health (very good)	27.7%	34.0%	
Health (good)	-	27.4%	
Health (fair)	-	-	
Age	-5.6%	-5.7%	
Men			
Personal income last year	-		11.6%
Student (full)	-45.8%		-59.6%
Student (part)	-24.1%		-
Some college	-		10.8%
College graduate	-		14.4%
Masters/professional	12.7%		32.0%
Doctorate	-		-
Employed last year (full)	-		-
Employed last year (part)	-		-
One parent foreign born	-		-
Both parents foreign born	-		-
Health (excellent)	-		-
Health (very good)	-		-
Health (good)	-		-
Health (fair)	-		-
Age	-0.8%		-4.7%
General			
Household income last year	-8.9%	-9.3%	-13.8%
Married	88.8%	104.3%	177.2%
Cohabitating	39.5%	57.6%	119.3%
Homeowner	-9.9%	-9.5%	-
Public housing	50.0%	57.9%	63.9%
Any health coverage	23.2%	21.9%	-
Living w/ parents	-46.5%	-57.5%	-38.3%
# of additional children	-	3.6%	3.1%
Mean Prediction	100.0%	100.0%	100.0%

Notes: Statistically insignificant variables at the .05 level are null in this table. Also, income values assume an income of $50,000.

time student, holding all else equal, is about -5.5%. This means that a woman who is currently going to school full-time had only a 1.8% chance of having a child in the last year. Now, this assumes that the single difference between the average woman and the full-time student is the student status. However, according to model 1, that one change decreases the probability of having a child in the last year by 75.9% compared to the average woman. Table 2 displays the percent change compared to the average person for every statistically significant variable.

Income and Employment

The resource paradox is the title given to the concept that families with more resources end up having fewer children. However my findings do not necessarily support this theory. Including public housing as a variable in the model changes the relationship between income and childbearing. It seems that whether someone is on government assistance matters much more than either personal or household income. Living in public housing increases the chance of having a child last year by over 50% (all three models). Accounting for women's employment status, the results show that total personal income for women was not statistically significant for either the first or second model. Income did not impact recent fertility. Women's full-time employment did have statistically significant effect on recent fertility. This effect was nearly 31% for the first model and 21% for the second. On the other hand, working part-time was not statistically significant. This suggests that, in terms of time and money, the opportunity cost of working only part-time was not high

enough to discourage childbearing in the same way that full-time employment discourages childbearing.

In the first model, men's total personal income and employment status did not impact recent fertility. However, as mentioned before, this model does not represent every male between the ages of 15 and 44 years—the third model does. And in the third model, men's total personal income was statistically significant. Assuming an income of $50,000, personal income actually increased the probability of his partner having a child in the last year by nearly 12%. Oddly enough, employment status was not statistically significant for men in the third model. This might suggest that, in terms of influencing recent fertility, employment status is less important than how much money they make; yet usually a person has to be employed to make money. This is in complete contrast to the resource paradox stating that families with more resources have fewer children. All things considered, there is likely a positive overall effect on recent fertility from male employment and personal income. Either way, public housing has a much larger impact on recent fertility than total personal income.

The results are also not clear when considering household income. Again, assuming an income of $50,000, household income decreased the probability of having a child in the last year by only about 9% (model 1 & 2), and 14% (model 3). These were all statistically significant at the .05 level, however their impact on recent fertility was much smaller compared to public housing. Additionally, as stated in the data section, to prevent multicollinearity, total personal income for women and/or men (depending on the model) was subtracted from household

income. Therefore, household income represents other's total income living in the same household. It is possible that household income might not capture a monetary relationship with fertility. Rather, this variable may point to a relationship between childbearing and living with roommates or adult offspring.

Therefore, at least in the United States, there might not be a negative relationship between income and childbearing as previously theorized. This is contrary to the results of Klawon and Tiefenthaler (2001) that found in Brazil, both men and women chose to invest more in fewer children as income increases. It appears that people in the United States on welfare make up a disproportionately high percentage of childbearing, which probably accounts for the apparent relationship between income and decreased fertility. This outcome is not completely unique; Westoff and Marshall (2010) also found a strong association between poverty and fertility. Additionally, data from Martinez et al. (2012) suggest that women near poverty are more likely to have premarital first births and more children. The report states that, women with household incomes less than 150% of the poverty level are more likely to have four or more children than those with higher incomes. Also, 64% of these women had a premarital first birth, compared with 21% of those currently living at 300% of the poverty level or higher. This information would suggest that at a certain income level there is either a cultural break or a distinct incentive structure that causes differing preferences for children.

Educational Attainment and Enrollment

As documented by other research, my results support the theory that more education decreases fertility, however only insofar that educational enrollment delays fertility. Aside from age and being married, being enrolled as a full-time student exerted the most significant impact on recent birth for women. As stated before, all else equal, a woman enrolled as a full-time student is about 76% (model 1 & 2) less likely than the average woman to have had a child and last year. This effect is still quite strong for female part-time students. Women were nearly 40% less likely to have a child in the last year for the first model and 35% less likely in the second model. These results are in line with the findings from Ní Bhrolcháin and Beaujouan (2012), Dey and Wasoff (2010), and Romeu Gordo (2009), that women's fertility timing is determined more by their extended participation in schooling and less by their level of education. Interestingly, not a single educational attainment variable in my models had a negative correlation with the dependent variable: recent birth. Rather, they had positive correlations. This does not reflect that they had more children, but rather once they finish their educational enrollment they are more likely to start having children. The effects of educational attainment were not as strong as educational enrollment but most were statistically significant. There is likely a compensation for greater fertility once more resources become available after finishing school as suggested by Martin (2000).

The results of this study show that men's enrollment does affect fertility. Holding all else equal, being a male full-time student decreased the probability of female fertility in the last year by 46% (model 1). In the third model this effect was more significant and decreased the probability of having a recent birth by nearly

60%. In both models the results were statistically significant for full-time students. For part-time students however the statistical significance was less clear. In the first model, male part time students were nearly statistically significant at the .05 level, however in the third model the statistical significance was not nearly as close. As for men's educational attainment, in the first model only one level of educational attainment was statistically significant: masters or professional degree. This would suggest that couples wait until certain educational levels are achieved for either male or female. At some level this makes sense; it is usually after a masters or professional degree that individuals can get significantly better paying job. They should also theoretically have more time to care for children. In the third model, more levels of educational attainment were statistically significant and support this idea.

Foreign-Born Parents and Living with Parents

There used to be an idea that foreigners come to the United States and have large families; however that is no longer the case. Westoff, & Marshall (2010) find that being foreign-born is now irrelevant, and my results concur. I looked for any cultural influence on fertility preference by examining individuals with one or both parents being foreign-born. None of these variables were statistically significant in any model at the .05 level. However at the .10 level, men in the third model with foreign-born parents were actually less likely to have a child last year and not more. This could reflect a second-order effect of remittance, the common practice among foreign workers to send money to their family still living in their homeland. These

individuals would be less likely to engage in childbearing activities since they have possibly already committed to a wife and children back home. The results would suggest that in the aggregate, any culturally based fertility preferences disappear once individuals either move to or grow up in America.

As for women and men living with their parents into adulthood, this factor significantly decreases the probability of having a child in the last year. One thing to note however is that this variable could be correlated with student and age as the likelihood of individuals living with their parents is higher for young adult students. That being said all of these variables have a negative coefficient, therefore excluding this variable would only make those correlated variables more negative. In the first model, living with either the male or female's parents decreased the chance of having a child in last year by about 47% holding all else equal. Likewise, the probability of recent fertility decreased by 58% in the second model and 38% in the third model. Clearly, living with parents into adulthood hampers the ability of both men and women to start a family of their own.

Health and Health Coverage

Interestingly, this is certainly one area in which men do not matter. The health status for women was often statistically significant for greater childbearing at the .05 level. The probability of having a child also increased as their quality of health increased. This was not the case with men. Not a single stratified health variable was statistically significant for men. This may indicate that men are less in tune with their health, or that men's health is really not a concern for fertility.

Assuming that is, the man does not have a disease or condition preventing them from having children. When we look at health coverage, men are also not statically significant. It appears that health coverage only impacts the chance of a recent birth when women have it. Holding all else equal, women who have health coverage were about 22% more likely to have a child in the last year.

Family Formation and Additional Children

Family formation and additional children were important variables in the models. There is no surprise that being married is the single most important contributing factor to having a child last year. Marriage was associated with an increased probability of childbearing by 89% for the first model, 104% for the second model, and 177% for the third model; all were statistically significant. While the coefficient was not much different for the third model, the percentage was much higher because the mean prediction was much lower. Additionally, the high percentage is likely due to the unobservable births these men have with women they do not live with. Cohabitation likewise had significant effects on childbearing in the last year. Cohabitation increased the probability of childbearing by 40% for the first model, 58% for the second model, and 119% for the third model. While cohabitation is currently lower than marital childbearing, over the years I might expect these numbers to converge more as society becomes more accepting of alternative family formations. Additional children also affected childbearing in the second and third model. In the first model there was almost no statistical significance. However in the second and third model there was, surprisingly, a

positive correlation between the number of additional children currently present in the family and having a child and last year. The effect was small, only affecting recent childbearing by about 3.5% for each additional child, however this results alludes to the idea that for some families there is not a diminishing marginal return for children. If so, this result supports the idea there could be a cultural break or a distinct incentive structure between two different groups of Americans.

CHAPTER IV

DISCUSSION

To answer the question posed in the title, "Do men matter?" the answer is most certainly yes. There is definitely a relationship between circumstances that affect the male and delays to female fertility. Individuals go through various life stages, and men just like women, seem to prefer completing school before having children. Men may either convince their partner to wait until after they have completed school or wait until they complete school before they look for their partner. Regardless, being a male full-time student will delay fertility. And since qualification inflation pressures both men and women to stay in school longer to become competitive in the workplace, we should expect the trend of delayed fertility to continue into the near future. Settling into a good career is important for men to accomplish before childbearing. While male employment status did not impact recent fertility, it appears that men who make more money are also more successful in the fertility market. These results are not terribly surprising however they do shed new light on male fertility theory. It is no longer appropriate to use the variable "married" as a catchall for the assumed constant fertility behavior of men. Men's fertility behavior is not constant. And while women's circumstances remain a

much stronger force on fertility, men's circumstances also significantly affect fertility.

The Affordable Care Act

The Affordable Care Act will likely change some of the fertility patterns in United States. My findings suggest that as more women acquire healthcare and are able to afford pregnancy costs, more women may elect to have children. Therefore we could actually see an increase in fertility. This result would be especially important for insurance companies as their pregnancy related payouts are sure to increase unless hospitals utilize cost saving measures. On the other hand, contraceptive use will likely increase and thereby depress the current fertility rate. Currently, approximately 62% of women of reproductive age use some form of contraception in the United States (Jones, Mosher, & Daniels, 2012). This percentage will likely increase by some measure as more women have affordable access to contraception. I would expect these two forces to jointly decrease the percentage of unintended births. Since these unintended births are disproportionately from unmarried women, black women, and women with less education or income (Mosher et al., 2012), these two forces will likely act against different demographic groups in the population. Overall, it is possible that the fertility rate will increase as a result of the Affordable Care Act.

A Possible Cultural Break

In terms of fertility there seem to be two major cultures in the United States. One culture is dominated by more highly educated dual-earner/dual-caregiver family formations who commonly opt for the two-child norm, and the other is dominated by less educated single mothers raising four or more children. In fact, nearly one in four women with less than a high school diploma had four or more children, more than twice the percentage for any other education group (Martinez et al., 2012). It is possible that many of these women did not complete high school in part due to early sexual activity. Even delaying intercourse by one year can have a statistically significant effect on the likelihood of women graduating from high school (Sabia & Rees, 2009). Additionally, parental living arrangements at age 14 are associated with an increased likelihood of having a premarital first birth for both men and women. Among men and women living with both parents at age 14, 35% and 20% had a premarital first birth respectively, compared to 55% and 34% of men and women who experienced other types of living arrangements (Martinez et al., 2012).

These statistics may suggest a perpetual cycle in which disadvantaged youths have extreme difficulty in breaking out of poverty. Moreover, there is a growing educational and resource gap between these two cultures. Parents outside of welfare/poverty are more likely to have fewer children, and parents with fewer children are able to concentrate their resources (e.g. time, advice, money, etc.) into each child. Consequently, the destinies of higher and lower socio- economic status children are diverging (Bailey, Guldi, & Hershbein, 2013). This divergence will

decrease the relative opportunities available to disadvantaged children and widen the inequality in the labor markets.

Consequences of Low Fertility

While there has been an increase in the Total Fertilty Rate[7] (TFR) across the whole of the developed world in recent years, it does not suggest an end to the sub-replacement fertility experienced in most of the developed world (Goldstein, Sobotka, & Jasilioniene, 2009). The decision to have children is a personal family matter, however there are far reaching national implications as many families adopt similar plans. Household decisions about fertility influence demand for goods, production of household goods, and the supply of labor to the market; future generations of workers and consumers are also affected by current fertility preferences (Klawon & Tiefenthaler, 2001). Therefore, the economic development of the country is greatly influenced by the growth and decline of the population. A low birth rate and an aging population will decrease the size of the working population and increase the dependency ratio[8] (Keng & Sheu, 2011). Advancements in medical technology extend the life of the elderly and accentuate this issue.

In many countries, apprehensions grow as declining populations and aging population profiles pose serious implications for labor market supply, pensions, and expenditure on health and welfare services (Dey & Wasoff, 2010). The result could

[7] The Total Fertility Rate or TFR is commonly described as the average total fertility per woman over the course of their lifetime. A TFR of 2.1 is considered at replacement while anything above or below that number is considered above replacement or below replacement respectively.
[8] The dependency ratio is the ratio of individuals of non-working ages by working ages. Generally, the working age is considered between 15 and 64. This ratio increases as the population becomes more elderly or has an unusually large young generation.

undermine the living standards of future generations. As such, low fertility has increasingly become a matter of policy concern for the governments of many developed countries (Lutz & Skirbekk, 2005; Goldstein, Sobotka, & Jasilioniene, 2009). However, policies aimed at increasing fertility and/or increasing immigration should help moderate and soften the expected negative consequences of population aging (Lutz & Skirbekk, 2005).

Influencing National Fertility

There are certain policy measures that if implemented in the United States could either increase or decrease fertility. Demographers consider postponement as a major reason for current low fertility (Morgan, 2003). Therefore, decreasing delayed fertility is key to increasing fertility. My analysis identifies the most potent contributors to delayed fertility in the United States. These include student enrollment, female employment, male unemployment, lack of health coverage, living with parents, and declining marital rates. Many of these contributors should be approached indirectly—taking special consideration of their underlying causes. For instance, we should not create policies to decrease female employment. As mentioned in chapter 2, depending on women's commitment to the labor force, policies aimed at stimulating fertility by reducing employment are ineffective (Maxwell, 1998). Rather, we should create policies to further aid women's ability to combine work with family formation. While rising birth rates for college educated women after age 30 could reflect an increased ability to use their incomes and human capital to facilitate childbearing and child rearing, almost half remain

childless by choice or necessity (Martin, 2000). Policies that encourage a more family-friendly employment environment could encourage greater fertility (Hakim, 2003). If done correctly, these policies would allow more women have children while still participating as valuable members of the labor force.

Many of the contributors for delayed fertility are either directly or indirectly associated with the inability to get early access to resources. As women age, they face a set of competing demands that are most easily accommodated by a delay in fertility (Morgan, 2003). As supported by my research, these competing demands, while occasionally different in nature, also delay male fertility. Early on, many of these demands are for the ultimate goal of acquiring a decent job. Qualification inflation extends educational enrollment, and men and women tend to consolidate their careers before childbearing. Before this consolidation, many individuals lack stability for or cannot afford childbearing. After all, declining fertility has often been attributed to the rising direct and indirect costs of child-rearing (Dey & Wasoff, 2010). Therefore, many researchers favor policy measures focused on reformation of the educational system (Dey & Wasoff, 2010; Lutz & Skirbekk, 2005; Ní Bhrolcháin & Beaujouan, 2012). The goal of educational reforms would be to create a more efficient school system with a younger average age of completion. This would not necessarily mean decreasing educational standards. By increasing educational specialization targeted towards increased market need, educational reform could create a younger, more highly skilled labor force. This should in theory, reduce early barriers to entry for childbearing and increase fertility rates.

Such reforms would also serve to reduce the social cost of education (Lutz & Skirbekk, 2005).

Conclusion

Fertility research has traditionally overlooked much of the male counterpart due to data restrictions and the assumption that male fertility behavior is constant. However using improved CPS data, this paper shows that this assumption is invalid. Just as for women, men prefer to have children at certain life stages and will delay childbearing to maximize their own utility function. This paper also examines existing theories on delayed fertility by comparing the results from three different models. Common characteristics of individuals who delay childbearing include student enrollment, being neither married nor cohabitating, the lack of health coverage, and living with parents. Women were also less likely to have a child in the last year if they were employed or had relatively poor health. Comparatively, men's recent fertility increased when they were employed; health had no impact on fertility in the last year. Qualification inflation and difficult economic conditions exasperate delays to fertility. Additionally, the rise of dual-earner/dual-caregiver and non-marital family formations diversify the modern face of fertility. As such, policy measures that help society adapt to these trends are important for continued near-replacement level fertility in United States.

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