Marriage Formation in Comparative Perspective:

Marriage Rates, Marriage Age, and the Role of Context *

Claudia Geist
Carolina Population Center
University of North Carolina at Chapel Hill

Draft version. Please do not cite without permission

* This research was supported by the grant 5 T32 HD007168, Population Research Training, awarded to the Carolina Population Center at The University of North Carolina at Chapel Hill by the Eunice Kennedy Shriver National Institute of Child Health and Human Development. Additional support was received by the National Science Foundation Dissertation Improvement Grant. An early version of this paper was presented at the annual meeting of the American Sociological Association in Montreal, Canada. I would like to thank Arthur S. Alderson, Philip N. Cohen, Patricia A. McManus, Eliza K. Pavalko, Lisa D. Pearce, and Brian Powell for their thoughtful feedback on earlier versions. Please direct all correspondence to cgeist@unc.edu

Marriage Formation in Comparative Perspective:

Marriage Rates, Marriage Age, and the Role of Context

Marriage formation is at the core of much family research, but not enough is known about cross-national trends in recent decades and the impact of contextual factors on marriage formation in comparative perspective. Using data from four decades and 23 countries, I document global trends towards lower rates of marriage and higher age at first marriage. I examine the extent to which marriage formation varies along the lines of economic context, gender and family context, and public policy clusters. I find that male unemployment depresses rates of marriage, but that higher GDP is linked to later marriage. More gender inequality in a society seems to make marriage less attractive, as indicated by lower rates of marriage. I do not find statistical evidence that, net of other contextual factors, women's age at first marriage is shaped by gender and family context. I find significant differences in marriage formation across the five policy clusters and my results suggest that both the categorical policy context measures and taxonomic approaches are independently important. This study shows that especially male economic well-being continues to be an important foundation of marriage, net of policy or gender context. This suggests that policy approaches to dealing with family formation will not be effective if the economic foundations of marriage are not addressed at the same time.

Marriage Formation in Comparative Perspective: Marriage Rates, Marriage Age, and the Role of Context

Introduction

Marriage remains a central family institution, despite dramatic changes in recent decades. Alternatives to marriage have become both less stigmatized and more common, and there is an ongoing public and scholarly debate on the future of marriage in the United States and many other western countries (see Smock 2004a for a detailed discussion). Some have argued that there is a "demise" of the heterosexual breadwinner homemaker marriage, weakened by the decision of opening marriage to same-sex couples in some states and a rise in out-of-wedlock childbirth, and other societal trends, citing these trends as evidence that the "traditional" family is threatened (i.e., Popenoe 1988; Popenoe 1993). Others have argued that the changes represent a mere adaptation of family institutions to a changing environment and are not necessarily associated with negative consequences (Amato and Fowler 2002; Bernardes 1999; Furstenberg 1999; Stacey 1993; Stacey 1996). An assessment of the extent of family change and more so of its consequences is still ongoing.

All sides of this debate may agree on the observation that contextual factors influence the formation and stability of marriages. In this paper, my goal is to better understand how contextual factors explain marriage rates and marriage timing using data from the last four decades, within and beyond the United States. I use a comparative framework to examine both marriage rates and women's average age at first marriage in a broad range of countries. In examining possible links between marriage and economic and cultural context, I can shed further light on the context sensitivity of marriage. Using

macro level data from 22 European countries and the United States allows me to document descriptive trends over the last four decades and to explore specifically how contextual characteristics shape both the timing and rates of marriage formation.

Earlier studies have either studied marriage over time, or included a range of countries. Mine is the first to incorporate both time-series data and employ a broad comparative perspective. I use data from 23 countries over four decades compiled from a number of official sources to disentangle the impact of economic and various aspects of socio-political context on marriage rates and marriage age.[1] I answer three research questions.

1. What are the cross-national trends in marriage rates and average at first marriage?
2. How sensitive are marriage rates and marriage age to economic context?
3. To what extent is there systematic variation in marriage rates and marriage age across different policy context and different types of family and gender dynamics?

This paper makes three distinct contributions to the sociological literature. First, I provide a comprehensive review of trends in marriage formation in a broad range of advanced industrialized countries. This is an essential first step for a broader assessment of the current state and the future of marriage. Second, I systematically examine the relationship between macroeconomic indicators and marriage formation, providing important insights in the contextual embeddedness of marriage. These results offer a

[1] Information on marriage age is available for 20 out of the 23 countries.

basis for projections about possible future trends in marriage. Third, I systematically examine the impact of policy context, measured by policy cluster, as well as gender and family context, measured by divorce rates and indicators of gender inequality and gender empowerment. The results of this study will provide further insights into which contextual circumstances are associated with lowered marriage rates and marriage delays. In the next section, I provide a brief overview of the relevant theoretical background, followed by a brief description of my measures and analytic strategy. I then turn to a presentation of results and finish with a conclusion.

Theoretical background

Marriage in Context: Economic Opportunities and Uncertainties

The sociological treatment of marriage formation and timing has been motivated by general concern about current or future trends in marriage. Researchers have sought to identify what societal or individual characteristics are responsible for the observed "problem." However, the direction of the concern has shifted over time. In the 1970s and early 1980s, social scientists in the United States were concerned about the *high* marriage rates among young women in the post-war period. High marriage rates among young women were seen as alarming, leading to population growth and greater economic insecurity for couples as well as unstable marriages (Morgan, McDaniel, Miller, and Preston 1993). The goal was to examine the extent to which women's economic opportunities shaped marriage rates, seeing women's paid labor as a possible solution to the perceived problem of women marrying at a very young age.

Soon thereafter, however, declining marriage rates were considered problematic, and women's improved economic prospects were perceived as a potential threat to the future of marriage. Studies found evidence that women's improved economic opportunities would allow them to postpone or even forgo marriage, since they were economically self-sufficient outside of marriage. Economic activity and increased earnings capacity have been linked to reduced transition into marriage, because they are associated with women's access to alternative life course options (Cherlin 1990; Ermisch 1981; Lichter, Leclere, and McLaughlin 1991; Moffitt 1998; Morgan, McDaniel, Miller, and Preston 1993; White 1981).[2]

Men's employment and favorable economic circumstances have been uniformly identified as increasing the chance of marriage for men (Lichter, Kephart, McLaughlin, and Landry 1992; Lichter and Landry 1991; Oppenheimer 1994; Smock and Manning 1997; Speare and Goldscheider 1987). These results are used as basis for the economic view on marriage markets, the specialization and exchange perspective.[3] This approach posits that people marry if and when they benefit from it (Becker 1981). Since marriage is assumed to be an arrangement that is most beneficial and most stable if the male partner specializes in market work and the female partner specializes in domestic production (and reproduction), women's opportunity costs for marriage increase as their

[2] But see Smock (2004b; Smock, Manning, and Porter 2005) for a discussion of how lack of economic resources reduces entry into marriage.

[3] This approach has also been called the specialization and trading model (Oppenheimer 1997).

economic potential in the labor forces increases.[4] Men's economic potential is seen as prerequisite for marriage, and unemployment is a barrier to the transition to marriage (South and Lloyd 1992).

However, this perspective has been heavily criticized, and the specialization and trading model of marriage has been deemed a "high risk strategy" that no longer reflects contemporary family patterns (Oppenheimer 1994; Oppenheimer 1997). Oppenheimer (1994; 1997) proposes that delays in marriage timing can be attributed to the increased difficulty of assortive mating in today's economy and men's eroding economic position. Both men's and women's marriage related attributes (e.g. family orientation, economic potential) remain unclear until later in adulthood, due to longer education and change in career patterns (Clarkberg 1999; Oppenheimer 1988; Sweeney 2002).

Oppenheimer critiques the dichotomous argument that suggests women's work decreases the gains to marriage and reduces the appeal of marriage. She suggests that women's economic independence may instead raise their level of expectations; While this may reduce marriage rates, it mainly results in a longer search for a suitable partner and a higher age at marriage (Oppenheimer 1988). Even though much research has focused on women's changed labor market behavior, men's economic position has deteriorated since the 1970s and may be in part responsible for changes in marriage transition (Oppenheimer 1994; Smock, Manning, and Porter 2005; Xie, aRaymo, Goyette, and Thornton 2003).

[4] Theoretically, the specialization and trading model is not gendered. However, given the market advantages of men, it is almost always financially preferable for the male partner to specialize in market work and for the female partner to focus on domestic work.

There is some indication that support for hypotheses linking women's rising employment with lower marriage rates are only found in aggregate level cross-sectional studies (Oppenheimer 1997). Evidence from individual level studies suggests that economic independence increases women's odds of marriage, but this effect is limited to slightly older women (Sassler and Schoen 1999). This suggests that aggregate level studies should not only examine marriage rates, but also the average age at marriage, since a variety of factors may delay marriage but not prevent it altogether.

The reason for inconsistent results of women's economic activity and marriage rates across different types of studies is that the financial autonomy that may reduce women's pressure to get married is offset by the positive effect by which women's increased financial resources may make them more attractive partners for potential spouses (Clarkberg 1999; Goldstein and Kenney 2001; Lichter, Kephart, McLaughlin, and Landry 1992; Oppenheimer 1997). Newer studies suggest that the association between economic well-being and marriage is rather similar for men and women (Sweeney 2002; White and Rogers 2000), but it seems that men's economic circumstances still dominate marriage decisions.

Macro Level Economic Circumstances and Marriage

A variety of measures of economic potential seem to increase the chances of marriage for men, but no effect was found for women (White 1981; Xie, Raymo, Goyette, and Thornton 2003). Similarly, in examining both partner's economic circumstances, only men's economic circumstances seem to affect the probability of transitioning into marriage, while women's economic circumstances had no effect (Smock and Manning 1997).

However, other studies suggest that the economic well-being of *couples* is important to understand transitions into marriage; among unmarried parents, for example, both parents' earnings capacities encourage marriage (Carlson, McLanahan, and England 2004). Numerous studies have found that couples perceive a financial threshold to marriage, where financial and residential independence is seen as a prerequisite for marriage, which many people associate with a specific life style (Dixon 1971; Gibson-Davis, Edin, and McLanahan 2005; Smock, Manning, and Porter 2005). Even if a couple does not subscribe to these ideas themselves, they are likely to face these expectations from others in their social networks (Seltzer 2000). One illustration for the barriers to marriage access is the fact that poor men and women are half as likely to be married as those with incomes three times the poverty level (Gibson-Davis, Edin, and McLanahan 2005). Cohabitation may serve as an alternative for those who cannot "afford" marriage or those who merely believe that they do not pass the litmus test for marriage (Clarkberg 1999; Smock, Manning, and Porter 2005; White and Rogers 2000). Lack of official data on cohabitation in most countries currently precludes comprehensive comparative analysis of the formation of cohabitation.

Marriage in Context: The Role of Economics at the Macro Level

There have been a number of efforts to explore the role of macroeconomic context in marriage decisions. Specifically, some have attempted to move beyond women's individual economic circumstances and found that aggregate economic independence among women diminishes marriage propensities among men (Lloyd and South 1996). There is also indication that industrial structures that have high levels of female employment were significantly associated with lower marriage rates among young

women (Preston and Richards 1975). Economic up- and downturns are seen as clearly associated with individuals' marriage prospects (Basavarajappa 1971; South and Trent 1988).

One example is that marriage rates have been found to decline, to a small extent, when marriage is associated with an income tax increase (Alm and Whittington 1995). Another example to underline the link between macro level economic circumstances is the case of Germany. Around German unification, a time of sweeping societal change, East German marriage and fertility rates went down, while both remained stable in West Germany. Changes in the economic context, especially the rapid rise in economic uncertainty that went beyond individuals' economic positions, reduced East German's willingness to engage in the long-term commitment associated with marriage and parenthood (Adler 2002).

The economy shapes couples' economic prospects and their sense of economic insecurity, such as fear of job loss or unemployment experiences. Economic circumstances can work in two directions. On the one hand, positive economic circumstances may encourage couples to marry and ensure that more men are deemed "marriageable;'' one the other hand, a prosperous economy may also allow women to refrain from or delay marriage. Taken together, these studies imply that it is important to account for the overall state of the economy when examining transitions into marriage. However, the role of macro-level economic context in a comparative perspective remains understudied.

The Socio-Political Underpinning of Marriage: Family and Gender Dynamics

Values and attitudes towards family and gender issues, both of individuals and of entire population groups have been used as explanatory factors in the analysis of marriage transitions, mostly at the individual level. The observed increase in the proportion of women who work outside the home, for example, has been portrayed not only as a reflection of the improved opportunities for women in the workplace, but also as evidence for a shift in attitudes among women, where marriage and family take a less central position (Preston 1997). Since those who have favorable attitudes towards marriage are more likely to marry (Sassler and Schoen 1999), a shift in these attitudes may delay marriage and reduce marriage rates. Speare and Goldscheider's (1987) findings further suggest that the observed decreases in marriage are not caused by increased societal barriers but by reduced preferences for marriage among individuals. Along the same lines, Sassler and Goldscheider (2004) suggest a decreased role of economic considerations, like men's employment, in the marriage decision, and an increase in the importance of values. South (2001) finds evidence of a socialization effect in patterns of marriage formation, as childhood family structures can be linked to marriage timing. Barber and Axinn (1998) suggest, however, that favorable attitudes towards traditional family roles may result in delayed marriage primarily among more educated women, which suggests that changes in educational attainment, rather than changes in attitudes may explain some of the changes in marriage.

Axinn and Yabiku (2001) document a crucial association between attitudes and transitions into marriage at the neighborhood level, suggesting that not only individuals' attitudes play a role in their marriage decisions, but also the views of those surrounding the couple. Evidence for the role of religion in the marriage decision may represent the

cumulative effect of both individual and group attitudes (Mosher, Williams, and Johnson 1992). At the aggregate level, Preston and Richards (1975) find that in more Catholic areas, marriage rates are lower because, as they posit, the high stakes associated with catholic marriage encourage a delay in marriage; however, Wilcox and Wolfinger (1998) point out that individuals' religion may even supersede the environmental influences that reduce the likelihood of marriage. As a result, it is necessary for a comprehensive analysis of marriage to consider its embededdness in a specific family and gender context.

The Socio-Political Underpinning of Marriage: Policy Packages

Additionally, it is important to note that national policy context is more than the sum of economic circumstances and specific examples of family and gender context. Policy constellations can shape the meaning of these very circumstances. For example, countries have different sets of social institutions, such as labor market policies, gender relations and existing (or lack of) state support for certain family forms.[5] State policy shapes the relationship between states, markets, families, and individuals (Esping-Andersen 1990; Esping-Anderson 1999; O'Connor, Orloff, and Shaver 1999). In the presence of a strong government safety net, economic uncertainties such as unemployment may not have a dramatic impact on people's lives, including their union formation behavior; this may not be the case, however, in a policy context where unemployment that is more than short term is often associated with poverty (Gangl 2004). The meaning of economic prosperity, poverty, or employment is affected by the institutional setting.

[5] Of course, there is a reciprocal relationship between public attitudes and state policies.

There are two main approaches to examining the effect of policy context. The taxonomic approach investigates effects of specific socio-political characteristics (e.g., Fuwa and Cohen 2007). The institutional features and relative importance and of marriage in society, for example, may play an important role in shaping marriage formation behavior. If marriage is easily reversible, i.e. divorce is easy to achieve, then the entry barrier may not be very high, which should result in higher marriage rates and younger age at marriage. However, easy divorce or high divorce rates may also reflect a loss of status of the institution of marriage, and can thus be also associated with lower marriage rates. The status of women in society can also been seen as having an important impact on the meaning of family institutions. Higher levels of gender inequality may be associated with the need of women to rely on male partners for economic well-being. Greater gender equality with respect to political power can also further increase women's independence and result in a lower propensity for women to enter marriage or delay marriage until later adulthood; alternatively more power for women in society may also be associated with more women friendly institutions, including family institutions like marriage, and thus make them more attractive. An empirical assessment is necessary to examine with is the more likely scenario.

The second comparative analytic strategy is the categorical approach that groups countries into clusters that share similar characteristics (e.g., Esping-Andersen 1990). As an alternative to examining those specific characteristics of societies, such as expenditures, specific policies or other concrete indicators, categorical frameworks focus on entire policy packages. One of the most popular categorical frameworks for comparative work has been the comparative welfare state approach relying on Esping-

Anderson's (1990) classification of welfare regimes into social-democratic, liberal, and conservative regimes. The conservative policy framework seeks to maintain existing structures by supporting a gendered division of labor with an expansive set of social and economic policies, particularly seeking to strengthen the "traditional" family.

The liberal regime has been characterized as taking a "laissez-faire" approach with only limited state interventions in both the economic and private spheres. The importance of market relations and individualistic decision making is emphasized over the promotion of certain family forms by the state.[6] The social democratic welfare state is dedicated to equality, through redistribution of wealth in the population but also through active efforts of reducing gender inequality and support of families through state supported childcare. Based on this model, conservative states focus on the preservation of traditional gender roles and put a strong emphasis on family.

More recently, scholars have suggested that three policy typologies may not be enough, even to capture the policy circumstances in Europe. Rather than classifying the countries of Southern Europe as "weak" case of the Conservative regime, Ferrera (1996) suggests that this group of countries is treated as a cluster by itself. While traditional family values are at least as central in countries like Spain, Greece, and Italy as they are in their northern counterparts countries of Esping-Anderson's conservative policy group, the state support is a lot weaker and less generous. One of the reasons may be the

[6] There have been numerous efforts in the United States to strengthen marriage. However, marriage promotion is focused primarily on the poor population and has the goal of poverty prevention (Lichter, Graefe, and Brown 2003; Nock 2005).

ongoing reliance of still strong family ties, which are considered as central and not in need of state support.

One additional group that needs to be included here is the group of transitional economies of Eastern Europe. During the time of state socialism, the state was regulating all aspects of life in these countries. After the collapse of the Soviet Union and the introduction of a largely capitalist market economy, state provision declined drastically. While the degree of the influx of market capitalism in these countries varies, all of these countries share the legacy in which women used to be fully incorporated in the economy, thus at least ideologically, undermining the idea of a main male breadwinner. This may also mean that men's economic circumstances are less central to trends in marriage formation.

Data and Measures

I investigate marriage in 23 countries: Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, the Slovakia, Spain, Sweden, Switzerland, the United Kingdom, and the United States. Data were obtained from a number of different sources, including Eurostat, the statistics office of the European Communities, the Organization of Economic Cooperation and Development (OECD), the United Nations Development Programme, and the United States Center for Disease

Control and Prevention. I include observations from the years 1961 to 2005;[7] panels are unbalanced, and the number of observations varies across countries and measures.

Marriage Measures

In this paper, I examine two marriage measures: marriage rates and age at first marriage. *Marriage rates* are crude first marriage rates, which are the number of first marriages per 1000 population.[8] *Age at first marriage* is the average age at first marriage for women. Average age at first marriage is only available for 20 countries, as information on age at first marriage is not available for Iceland, Norway, and Switzerland.[9]

Economic Context Measures

One of the main interests of this paper is the economic context of marriage. I examine the effect of *male unemployment rates* to test whether a possible erosion of male economic security undermines nuptuality. Male unemployment is measured as percentage

[7] Marriage statistics are available as far back as the 1950s for many of the European countries. However, analyses will only be based on the years for which information on other measures is available as well.

[8] Marriage rates are based on all marriage, and are not only based on first marriages.

[9] I only look at the average age at first marriage for women, since it is very closely related to men's average age at first marriage, the correlation between men's and women's average age at first marriage is very high. Correlations are at .98 or higher for all countries except for the United Kingdom (0.79) and Ireland (0.43). For Ireland the data set includes 8 years of data for women's age at first marriage, but only 3 for men's age at first marriage, which makes the correlation less meaningful.

of those in the civilian labor force who are unemployed. The civilian labor force excludes institutionalized populations (i.e., in hospitals or prisons) and those who are in the military; this measure is based on OECD data. I further include a measure of the level of *women's labor force participation* to assess how women's overall economic independence affects marriage rates. Women's labor force participation is measured as the percentage of women between the ages of 15 to 64 who are employed. The level of female labor force participation can also be interpreted as a measure of women's economic opportunity since it provides insights into the relative difficulty or ease with which women may be able to enter paid work. I also include *GDP per capita*, with US dollar purchasing power parity, provided by the OECD, which captures economic ups and downs that may result in more optimistic or a more pessimistic economic outlook for individuals.[10]

Gender and Family Context

The family and gender related aspects of context are measured by three different measures. *Divorce rates* (the number of divorces per 1000 population) represent the relative ease (or difficulty) with which individual can exit marriage, and are consequently a reflection of how protected the institution of marriage is.[11] High divorce rates are also likely to coincide with a higher proportion of non-traditional families.[12] The *gender*

[10] I chose to include absolute levels of GDP rather than changes in GDP, so the regression models I estimate reflect changes in GDP rather than changes in GDP trends.

[11] Unfortunately, the number of divorces per married population is not available.

[12] Total fertility rates, on the other hand, could be interpreted as a possible measure of the centrality of children and, as an extension, traditional families. Supplemental analyses

inequality measure is the ratio of the human development index (HDI) and the gender related development index (GDI).[13] Both are composite indices that combine life expectancy, education (adult literacy and enrolment in different levels of education), and estimated earned income per capita, but the gender related development index adjusts the HDI to reflect inequalities between men and women in the three dimensions of life expectancy, education and income. The creators of the measures suggest that the ratio of both measures is an approximate, yet imperfect, measure of gender inequality in a society (United Nations Development Program 2006). In this paper, I average the HDI/GDI ratio from the 1995 (the first year the GDI was compiled) and the 2006 Human Development Reports.

In addition to the gender inequality measure, I also include the *Gender Empowerment Measure* (GEM), which reflects women's relative power in society. It is a composite reflecting gender inequality in parliamentary representation, economic participation,[14] and women's power over economic resources, measured by comparing female and male estimated earned income. (United Nations Development Program 2006).

---

show that there is a positive association between fertility rates and marriage rate and age at marriage; including it did not substantially affect the results presented here.

[13] Using the GDI by itself is not a measure of gender inequality, since the gender inequality becomes apparent only by comparing the unadjusted HDI with the gender adjusted measure GDI.

[14] The index includes gender inequality in the proportion legislators, senior officials, and managers, as well as women's representation in professional and technical positions.

Similar to the gender inequality measure, I use an average of the indexes for the years 1995 and 2006.[15][16]

Policy Context

I include a measure of *policy regime*, which categorizes the sample countries into five policy groups. I distinguish between liberal, conservative, social-democratic, southern and eastern countries (see Table 1). I also allow for a trend over time, by including an indicator for year.[17] For detailed distributions for the measures used in this paper see Appendix 1.

---

[15] For Germany, the earliest GEM measure available is from 1996, and the early GEM values for Iceland, the Czech Republic and Slovakia are from 1998. GEM 2006 is not available for Luxembourg and France. For France the GEM from 2007 is used, the most recent GEM data for Luxembourg is from 1999.

[16] Of course it would be preferable to have measures of gender empowerment and gender inequality prior to 1995; I find that between 1995 and 2006, the relative order of countries with respect for gender empowerment has changed little: Nine out of the ten countries with the highest level of gender empowerment in 1995 are still in the top 10 in 2006. There has been more change in gender inequality, especially since it is based on the using a static measure assumes that while women's position within countries has changed over time, the relative position in cross-national perspective has remained relatively stable.

[17] The countries considered in the analyses have different population structures, which could pose a problem given the fact that I am examining crude marriage rates. In supplemental analyses, I included female to male ratio in the age group 20 to 49 (not

TABLE 1 ABOUT HERE

Analytic Strategy

I proceed in three analytic steps. I first use graphical techniques to show average marriage rates and age at first marriage for all countries and to document how marriage rates and age at first marriage have changed over time. In a second step, I demonstrate how marriage rates vary with other socio-cultural indicators over the past four decades, and I document the differences in marriage rates across the policy clusters. In the third step, I use multivariate regression to examine the extent to which economic and sociopolitical context matter for trends in marriage formation.

The multivariate analyses rely on time-series-cross-section FGLS models recommended by Beck and Katz (1995). OLS regressions with panel corrected standard errors (see Beck and Katz 1995), which are adjusted for the contemporaneous correlation of the errors among countries (PCSEs) are often the models of choice. While the OLS point estimates are unbiased, they are inefficient. This panel correction accounts for the panel structure of the data, but not serial dependency. Because the observations are repeated over time, the errors will be serially autocorrelated. A common solution to the serial autocorrelation problem is to employ a first-order autocorrelation, or AR(1), correction to the observations, relying on a Prais-Winsten transformation[18] (Greene 2000) as to not lose the information fist observation (which does not have an antecedent). The

---

available for all countries and years), to reflect the composition of the marriage markets. The inclusion of this control had little effect on the overall findings.

[18] $y_{*1} = y_1\sqrt{1-\rho^2}$, $x_{*1} = x_1\sqrt{1-\rho^2}$ See (Greene 2000) and (Ruud 2000) for more detail.

time variant independent variables are lagged; economic context measures are lagged by one year, since it can be assumed that the link between economic circumstances and marriage behavior is rather direct. For the divorce rates, the one time-variant measure of socio-cultural context, is lagged by three years, reflecting a slow response to individual's marriage behavior to changing cultural context.

Results

Figure 1 shows the cross-year average marriage rates for each country. Across all 23 countries and all years (see Table 1 for an overview over the years available for each country),[19] the overall marriage rate is about 6 marriages per 1000 population, and most countries are clustered closely around this average. The United States average marriage rates of 8.8 marriages/1000 population is far ahead of the countries with the next highest levels of nuptuality, which are the United Kingdom and Portugal (with marriage rates of 6.9 and 6.6, respectively. Hungary has the lowest average crude marriage rates at 4.7.

FIGURE 1 ABOUT HERE

Examining marriage rates alone, however, provides an incomplete picture about marriage. Panel 2 of Figure 1 provides an overview over the cross-national variation in the average age at first marriage. While the average age at first marriage is in the early to late 20s in all countries (the overall average age at first marriage for women across all years and countries is 25.4), the differences between the average age (across all years) in Belgium on the low end, and Sweden at the high end, is a considerable 3.6 years.

[19] This average includes only the years for which observations on economic and cultural context are available.

Since averages across years mask possible changes over time, I present trends in marriage by country over the past 40 years in Figure 2. Panel 1 illustrates both the average marriage rate each year for all countries combined (in bold), as well as the development of marriage rates for each country. Panel 2 shows the trends in average marriage age.

FIGURE 2 ABOUT HERE

Figure 2 illustrates that in all countries marriage rates have dropped by a small to moderate amount over the recent decades, there is no drastic decline. In most countries, marriage rates peaked in the late 1960s to early 1970s and declined somewhat more steeply thereafter. In the 1990s, the marriage rate seems to mostly stabilize for the majority of countries, or even increase for some countries.

The two spikes in the late 1980s are Austria (1987) Sweden (1989), where policy changes resulted in a unique incentive to be married that year (see Appendix 2 for a figure that isolates the two countries. In Austria, newlyweds used to receive a government grant, but this policy was discontinued in 1988. The increase in marriage rates in 1987 in Austria can easily be interpreted as a direct reaction to the anticipated policy change (see Winkler-Dworak and Engelhardt 2003for a detailed discussion). In Sweden, the drastic changes in public widow pensions sparked a drastic rise in marriage in a country with otherwise very low marriage rates (Andersson 1998). Both of these examples show that marriage behavior responds to policies that shape the attractiveness of marriage.

The second panel in Figure 2 shows that while marriage rates have declined, marriage age has increased; in 1960, the average age at first marriage for women was

around 23 years, with relatively little variation across nations. Over time, it has increased to an average age of about 28, and greater variation across countries.[20] Again, the spike that can be seen in 1989 is the average age at first marriage in Sweden, at the same time where that country also saw a phenomenal increase in marriage rates due to a limited time marriage incentive. There is no comparable spike for Austria, which suggests that those who married in the peak year were not dramatically different from those who entered marriage in other years. In Sweden, however, it seems that the change in pension laws in Sweden motivated a very different group of Swedes to marry, presumably those who were older and were living with their partners without the intent of getting married, were it not for the strong financial incentive of the policy change.

In the remainder of the paper, I examine to what extent the variation in marriage rates across countries and over time may be due to variation in economic and sociopolitical context. Table 2 shows the Bivariate correlations between the marriage measures on the one hand and the indicators of economic and sociopolitical context on the other hand.

TABLE 2 ABOUT HERE

I find significant correlations between all of the economic and the marriage measures; higher male unemployment is associated with a lower marriage rate and a higher age at marriage, as are women's labor force participation and GDP/capita. Moreover, higher divorce rates are linked to both higher marriage rates and higher age at

[20] In the 1960s the standard deviation in women's average age at first marriage across all countries is about .5, compared to a standard deviation of more than 1.7 in the most recent years of data.

marriage entry; higher scores on the gender empowerment index are linked to higher average age at first marriage only, but there is no significant correlation between gender inequality and the marriage measures.

Mean comparisons suggest some differences in marriage rates and average age at first marriage across the different policy regimes. The highest marriage rates are found in liberal countries, and the lowest level of marriage rates occurs in the Eastern European countries. There, average age at first marriage is the lowest; age at first marriage is highest in social democratic countries.

In a next step, I show results from multivariate Prais-Winsten regressions that take into account different aspects of context simultaneously. It is important to keep in mind that these results present important multivariate descriptive evidence on the covariation of marriage rates and age at first marriage with contextual characteristics, but they do not seek to provide causal explanations.

TABLE 3 ABOUT HERE

Table 3, model 1 examines the link between economic context and marriage rates. I find a negative association between marriage rates and male unemployment, but no relationship between marriage rates and female labor force participation or GDP. In model 2, I examine differences across policy clusters, and as expected from the mean comparisons in Table 2, I find that countries that belong to the Conservative, Social-democratic, southern and eastern policy clusters have lower marriage rates than those that are part of the Liberal policy regime. Model 3 examines the role of the marriage context as well as gender inequality and empowerment: Higher divorce rates seem associated

with higher rates of marriage formation, but no significant association between the macro level gender indicators can be found.

Turning to the different aspects of context and age at first marriage, the results presented in Table 3 show that among the economic factors, only GDP is associated with age at marriage formation. Model 2 shows that compared to liberal countries, social-democratic countries have a significantly higher average marriage age, and the women in the countries of Eastern Europe have a significantly lower age at first marriage. I find that divorce rates are not significantly associated with age at first marriage, but that both higher gender inequality *and* higher levels of gender empowerment are associated with a delay in marriage.

In Table 4, I examine the impact of economic context on marriage first jointly with the policy clusters, then with the gender context measures, and finally I consider the impact of all three context dimensions together. The results for marriage rates show that the negative relationship between men's unemployment and marriage rates is robust across models. The country cluster differences in marriage rates remain largely unchanged when economic as well as gender context are taken into account at the same time. Interestingly, Model 3 indicates that when all aspects of context are considered at the same time, there is a negative association between gender inequality and marriage rates and there is tentative evidence that higher levels of gender empowerment may be linked to higher marriage rates, net of policy context.

TABLE 4 ABOUT HERE

Turning to women's age at first marriage, I find that the link between higher GDP and age at first marriage is also robust across different model specifications. I find even

when economic circumstances and gender inequality and empowerment are included, Social-democratic countries still have a higher, and Eastern European countries a lower, age at first marriage than women in Liberal countries. The link between higher levels of divorce and marriage age is only significant at the .05 level once all aspects of context are combined in Model 3. While gender empowerment and gender inequality are both linked to higher marriage age in model 2, once policy clusters are included n the model, this association disappears.

Summary and conclusions

In this paper, I document marriage rates and age at first marriage for 23 countries spanning four decades. I show that there is a trend towards lower marriage rates and delayed first marriage across Europe and the United States. Using both graphical and regression analyses, I find that marriage formation is sensitive to variation in economic circumstances and vary by family and gender context as well as across policy contexts. I find that male unemployment is associated with lower marriage rates, and this relationship appears to be largely independent of other contextual factors like policy regime or gender context. Age at first marriage, on the other hand, covaries with GDP; regardless of other contextual factors; higher levels of GDP are associated with delayed marriage for women.

Policy cluster comparisons show that net of economic and other contextual factors, there are still significant differences between liberal countries (which have very high marriage rates) and social democratic and eastern countries, where marriage rates are substantially lower. When it comes to age at first marriage, however, Eastern

European countries have the lowest age at marriage, and social-democratic countries the highest, net of all other factors. In addition to the policy packages in the five different country groups, I also assess the importance of the marriage and gender context for marriage formation. I find that higher divorce rates are associated with higher rates of marriage and lower marriage entry age. When I consider gender inequality and gender empowerment, I find that marriage rates are not associated with either when only the gender context is considered, but when all other contextual factors are taken into account, higher levels of gender inequality are associated with lower rates of marriage. When considered in isolation, it seems that marriage delays are linked to gender equality and gender empowerment, but when examined jointly with other contextual factors, this link disappears.

Several different conclusions can be drawn from these results. On the one hand, the results underline the centrality of men's economic stability for marriage. The perceived need for a male "good provider" may still keep men from considering marriage before securing stable employment However, the very fact that marriage formation still seems closely intertwined with men's economic security may be a sign of trouble for the future of marriage given increasing pressure on stable employment in globalized economies. My results suggest that the future of marriage depends on getting jobs for poor individuals to prevent marriage from becoming a luxury good.

This is even more the case since my examination of age at first marriage finds that even with increased economic prosperity, which may make it easier for couples to meet the "benchmarks" of entry into marriage, there is a continued tendency to delayed marriage. My analyses of the impact of socio-political context indicate that that the social

democratic policies that support women's (and men's) individual economic stability regardless of family status are associated with lower marriage rates and delayed marriage.

Overall, the results from this study suggest that it is men's' economic circumstances, not women's, that are at the source of declining rates of marriage. It remains to be seen whether in the future, women's increased economic independence will result in declining role of male employment in marriage decisions, or whether marriage will remain an institution that is based on men's economic situation for some time to come.

Since I find that the effect of economic context is largely independent of the joint consideration of other contextual factors, be it policy context or the gender/family context, the importance of economics for marriage cannot be understated. My results show that the relevance of economic circumstances is not easily tempered by generous state provisions, gender equality, or by extension, marriage promotion policies. The analyses in this paper further demonstrate that the both categorical and taxonomic approaches to measuring context effects are important. In this paper, I use a "classical" welfare state categorization along with specific measures of the gender and family context, and while there is correlation between these contextual factors, their impact on marriage formation is independent. This clearly shows that both approaches are valid and important, and should be used jointly whenever possible.

My findings on the relationship between marriage formation and gender inequality and gender empowerment have broad ranging implications. On the one hand, I find evidence that gender inequality can suppress marriage rates. Suggesting women may be more likely to avoid what are presumably more constraining marriages. On the other

hand, while there are no effects of gender inequality and gender empowerment on marriage timing *net* of policy regime clusters, the findings that both inequality and empowerment are linked to marriage delays should not be ignored. This finding suggests that marriage may experience a squeeze from two directions: women's independence may enable them to postpone marriage until later in their lives, but gender inequality also suppresses the rate at which couples make the transition into marriage.

Taken together, these findings from this paper suggest that marriage is neither an institution that is mainly a vehicle to escape poverty, nor is all of the evidence consistent with the idea that marriage is a luxury good that is only open to those who are economically stable. I find that policy context matters for marriage beyond economic circumstances. While categorical approaches to examining policy context have been criticized, it still seems to capture much of the cross-national variation in marriage trends. However, there is evidence that the position of women in society matters beyond the "traditional" policy clusters.

References

Adler, Marina A. 2002. "German Unification as a Turning Point in East German Women's Life Course: Biographical Changes in Work and Family Roles." *Sex Roles* 47:83-98.

Alm, J. and L. A. Whittington. 1995. "Income-Taxes and the Marriage Decision." *Applied Economics* 27:25-31.

Amato, P. R. and F. Fowler. 2002. "Parenting Practices, Child Adjustment, and Family Diversity." *Journal of Marriage and Family* 64:703-716.

Andersson, G. 1998. "Trends in Marriage Formation in Sweden 1971-1993." *European Journal of Population* 14:157-178.

Axinn, W. G. and S. T. Yabiku. 2001. "Social Change, the Social Organization of Families, and Fertility Limitation." *American Journal of Sociology* 106:1219-1261.

Barber, J. S. and W. G. Axinn. 1998. "Gender role attitudes and marriage among young women." *Sociological Quarterly* 39:11-31.

Basavarajappa, K. G. 1971. "The Influence of Fluctuations in Economic Conditions on Fertility and Marriage Rates, Australia, 1920-21 to 1937-38 and 1946-47 to 1966-67." *Population Studies* 25:39-53.

Becker, Gary. 1981. *A Treatise on the Family*. Cambridge, MA: Harvard University Press.

Bernardes, J. 1999. "We Must Not Define" The Family"!" *Marriage and Family Review* 28:21-42.

Carlson, M., S. McLanahan, and P. England. 2004. "Union Formation in Fragile Families." *Demography* 41:237-261.

Cherlin, A. 1990. "Recent Changes in American Fertility, Marriage, and Divorce." *Annals of the American Academy of Political and Social Science* 510:145-154.

Clarkberg, M. 1999. "The Price of Partnering: The Role of Economic Well-Being in Young Adults' First Union Experiences." *Social Forces* 77:945-968.

Dixon, R. B. 1971. "Explaining Cross-Cultural Variations in Age at Marriage and Proportions Never Marrying." *Population Studies-a Journal of Demography* 25:215-233.

Ermisch, J. F. 1981. "Economic Opportunities, Marriage Squeezes and the Propensity to Marry - an Economic-Analysis of Period Marriage Rates in England and Wales." *Population Studies-a Journal of Demography* 35:347-356.

Esping-Andersen, Gøsta. 1990. *Three Worlds of Welfare Capitalism*. London: Polity Press.

Esping-Anderson, G. 1999. "Social Foundation of Post-industrial Society." Oxford: University Press.

Ferrera, Maurizio. 1996. "The 'Southern Model' of Welfare in Social Europe." *Journal of European Social Policy* 6:17-37.

Furstenberg, F. 1999. "Family change and family diversity." Pp. 147–166 in *Diversity and its discontents: Cultural conflict and common ground in contemporary American society*, edited by N. J. Smelser and J. C. Alexander. Princeton: Princeton University Press.

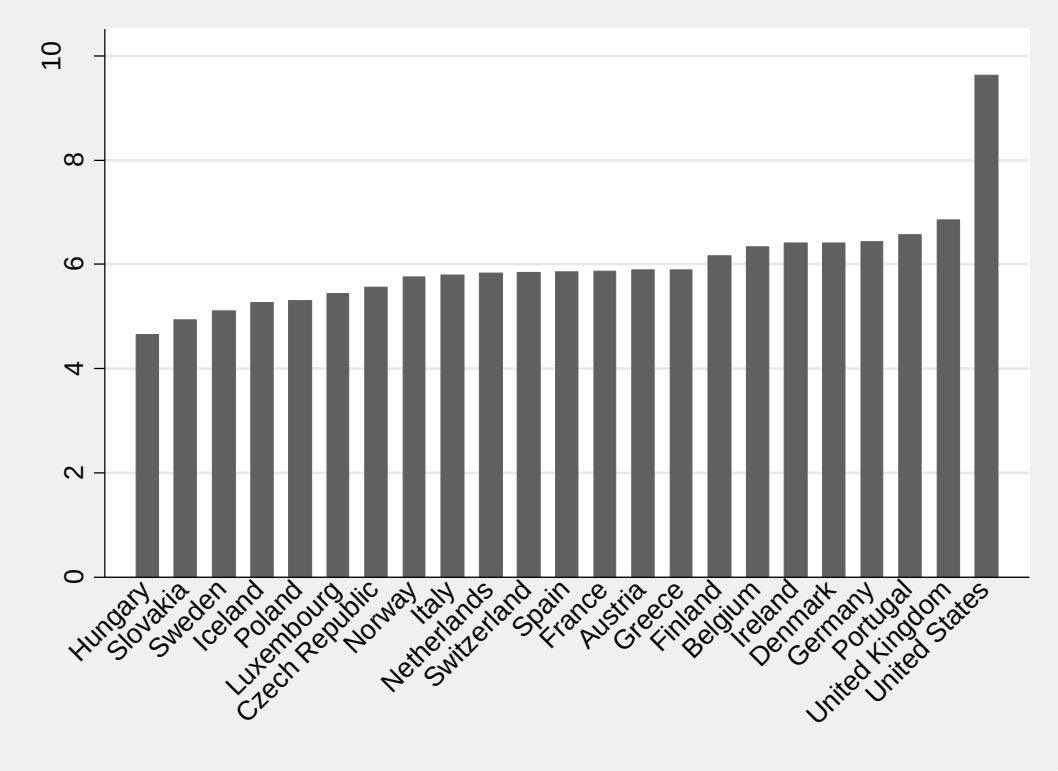
Fuwa, M. and P. N. Cohen. 2007. "Housework and social policy." *Social Science Research* 36:512-530.
Gangl, Markus. 2004. "Welfare States and the Scar Effects of Unemployment: A Comparative Analysis of the United States and West Germany." *American Journal of Sociology*
109:1319-1364.
Gibson-Davis, C. M., K. Edin, and S. McLanahan. 2005. "High Hopes but Even Higher Expectations: The Retreat from Marriage among Low-Income Couples." *Journal of Marriage and Family* 67:1301-131212.
Goldstein, J. R. and C. T. Kenney. 2001. "Marriage Delayed or Marriage Forgone? New Cohort Forecasts of First Marriage for US Women." *American Sociological Review* 66:506-519.
Greene, W. H. 2000. *Econometric Analysis*. Upper Saddle River: Prentice-Hall.
Lichter, D. T., D. R. Graefe, and J. B. Brown. 2003. "Is Marriage a Panacea? Union Formation Among Economically Disadvantaged Unwed Mothers." *Social Problems* 50:60-86.
Lichter, D. T., G. Kephart, D. K. McLaughlin, and D. J. Landry. 1992. "Race and the Retreat from Marriage - a Shortage of Marriageable Men." *American Sociological Review* 57:781-799.
Lichter, D. T., F. B. Leclere, and D. K. McLaughlin. 1991. "Local Marriage Markets and the Marital Behavior of Black-and- White Women." *American Journal of Sociology* 96:843-867.
Lichter, Daniel T. and David J. Landry. 1991. "Labor Force Transitions and Underemployment: The Stratification of Male and Female Workers." *Research in Social Stratification and Mobility* 10:63-87.
Lloyd, K. M. and S. J. South. 1996. "Contextual Influences on Young Men's Transition to First Marriage." *Social Forces* 74:1097-1119.
Moffitt, R. 1998. "The Effect of Welfare on Marriage and Fertility." Pp. 50-97 in *Welfare, the Family, and Reproductive Behavior: Research Perspectives*, edited by R. A. Moffitt. Washington, DC National Academy Press.
Morgan, S. P., A. McDaniel, A. T. Miller, and S. H. Preston. 1993. "Racial-Differences in Household and Family-Structure at the Turn-of-the-Century." *American Journal of Sociology* 98:799-828.
Mosher, W. D., L. B. Williams, and D. P. Johnson. 1992. "Religion and Fertility in the United-States - New Patterns." *Demography* 29:199-214.
Nock, S. L. 2005. "Marriage as a Public Issue." *FUTURE OF CHILDREN* 15:13.
O'Connor, Julia S., Ann Shola Orloff, and Sheila Shaver. 1999. *States, Markets, Families: Gender, Liberalism and Social Policy in Australia, Canada, Great Britain and the United States*. Cambridge: Cambridge University Press.
Oppenheimer, V. K. 1988. "A Theory of Marriage Timing." *American Journal of Sociology* 94:563-591.
—. 1994. "Womens Rising Employment and the Future of the Family in Industrial-Societies." *Population and Development Review* 20:293-342.
—. 1997. "Women's employment and the gain to marriage: The specialization and trading model." *Annual Review of Sociology* 23:431-453.

Popenoe, D. 1988. *Disturbing the Nest: Family Change and Decline in Modern Societies*. New York: Aldine De Gruyter.
—. 1993. "American Family Decline, 1960-1990 - a Review and Appraisal." *Journal of Marriage and the Family* 55:527-542.
Preston, S. H. 1997. "Comment on Steven Ruggles's "The rise of divorce and separation in the United States, 1880-1990"." *Demography* 34:473-474.
Ruud, P. A. 2000. *An Introduction to Classical Econometric Theory*: Oxford University Press.
Sassler, S. and F. Goldscheider. 2004. "Revisiting Jane Austen's Theory of Marriage Timing: Changes in Union Formation among American Men in the Late 20th Century." *Journal of Family Issues* 25:139.
Sassler, S. and R. Schoen. 1999. "The Effect of Attitudes and Economic Activity on Marriage." *Journal of Marriage and the Family* 61:147-159.
Seltzer, J. A. 2000. "Families Formed Outside of Marriage." *Journal of Marriage and the Family* 62:1247-1268.
Smock, P. J. 2004a. "The wax and wane of marriage: Prospects for marriage in the 21 st century." *Journal of Marriage and Family* 66:966-973.
—. 2004b. "The wax and wane of marriage: Prospects for marriage in the 21st century." *Journal of Marriage and Family* 66:966-973.
Smock, P. J., W. D. Manning, and M. Porter. 2005. "'Everything's There Except Money'': How Money Shapes Decisions to Marry Among Cohabitors." *Journal of Marriage and Family* 67:680-696.
Smock, Pamela J. and Wendy D. Manning. 1997. "Cohabiting Partners' Economic Circumstances and Marriage." *Demography* 34:331-341.
South, S. J. 2001. "The Variable Effects of Family Background on the Timing of First Marriage: United States, 1969-1993." *Social Science Research* 30:606-626.
South, S. J. and K. M. Lloyd. 1992. "Marriage Opportunities and Family Formation: Further Implications of Imbalanced Sex Ratios." *Journal of Marriage and the Family* 54:440-451.
South, S. J. and K. Trent. 1988. "Sex Ratios and Women's Roles: A Cross-National Analysis." *The American Journal of Sociology* 93:1096-1115.
Speare, Alden, Jr. and Frances Kobrin Goldscheider. 1987. "Effects of Marital Status Change on Residential Mobility." *Journal of Marriage and the Family* 49:455-464.
Stacey, J. 1993. "Good Riddance to" The Family": A Response to David Popenoe." *Journal of Marriage and the Family* 55:545-47.
—. 1996. *In the Name of the Family: Rethinking Family Values in the Postmodern Age*: Beacon Press.
Sweeney, M. M. 2002. "Two Decades of Family Change: The Shifting Economic Foundations of Marriage." *American Sociological Review* 67:132-147.
United Nations Development Program. 2006. *Human Development Report*. New York: Palgrave Macmillan.
White, L. K. 1981. "A Note on Racial-Differences in the Effect of Female Economic-Opportunity on Marriage Rates." *Demography* 18:349-354.
White, L. and S. J. Rogers. 2000. "Economic Circumstances and Family Outcomes: A Review of the 1990s." *Journal of Marriage and the Family* 62:1035-1051.

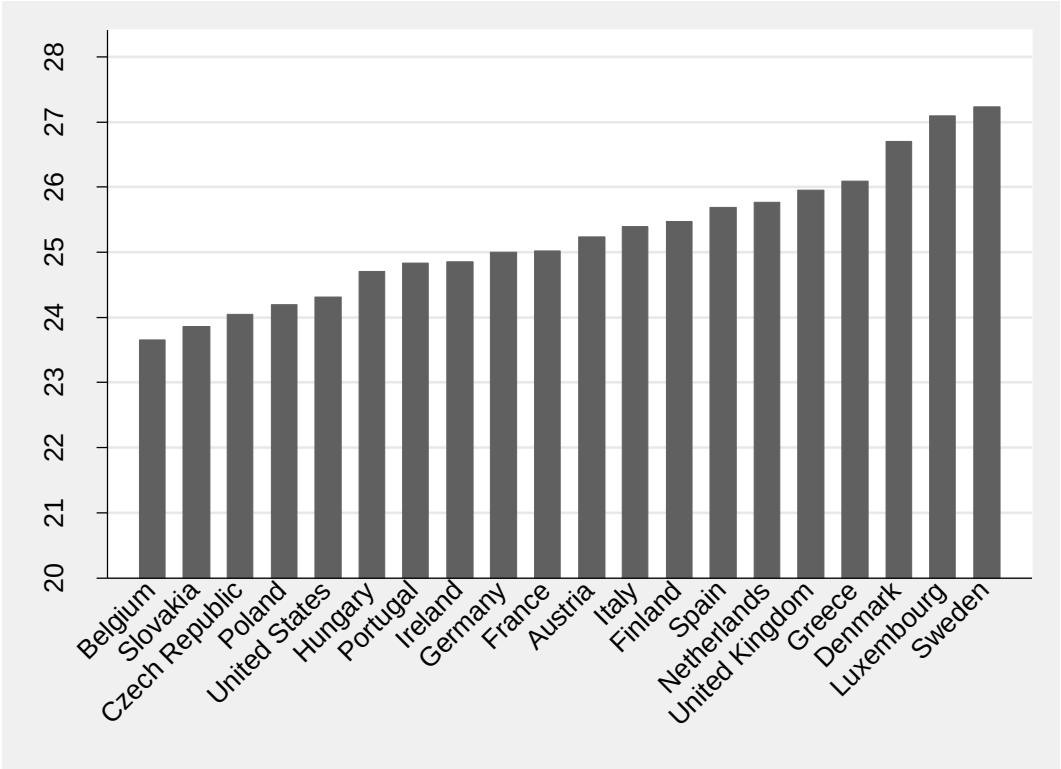
Wilcox, W. B. 1998. "Conservative Protestant childrearing: Authoritarian or authoritative?" *American Sociological Review* 63:796-809.
Winkler-Dworak, M. and H. Engelhardt. 2003. "On the Tempo and Quantum of First Marriages in Austria, Germany, and Switzerland: Changes in Mean Age and Variance." *DEMOGRAPHIC RESEARCH* 10:231-264.
Xie, Y., J. M. aRaymo, K. Goyette, and A. Thornton. 2003. "Economic Potential and Entry into Marriage and Cohabitation." *Demography* 40:351-367.
Xie, Y., J. M. Raymo, K. Goyette, and A. Thornton. 2003. "Economic Potential and Entry into Marriage and Cohabitation." *Demography* 40:351-367.

Figure 1. Marriage Rates and Age at First Marriage: Country Averages across 1961-2005

Panel 1



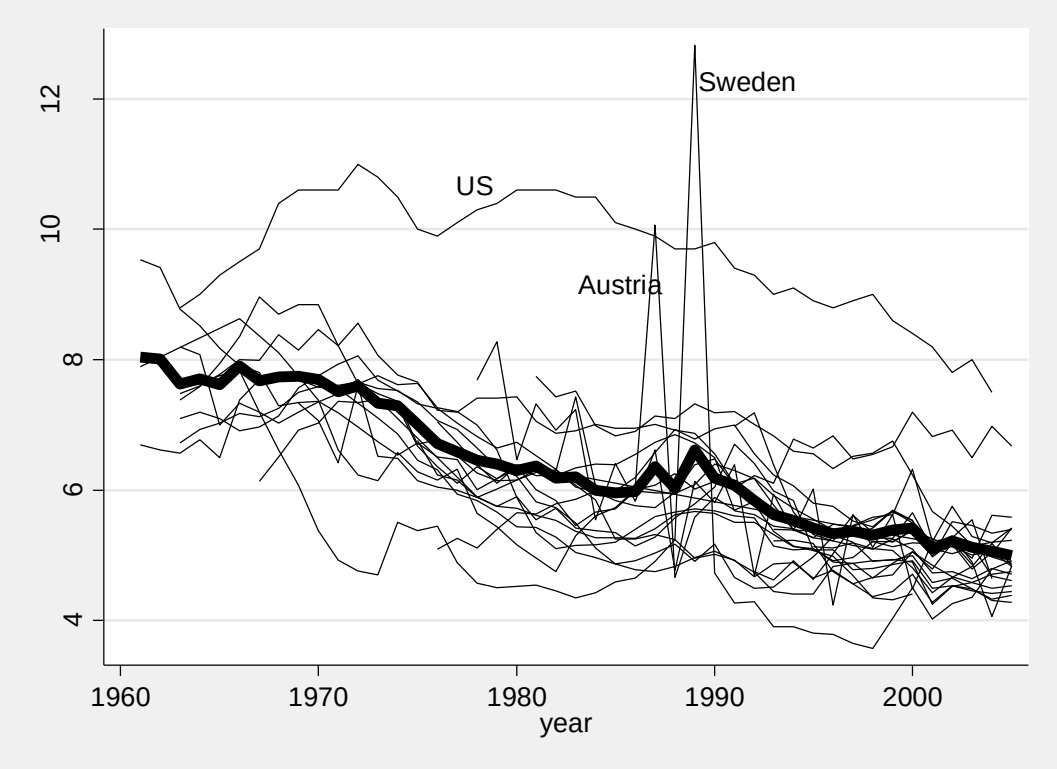
Panel 2



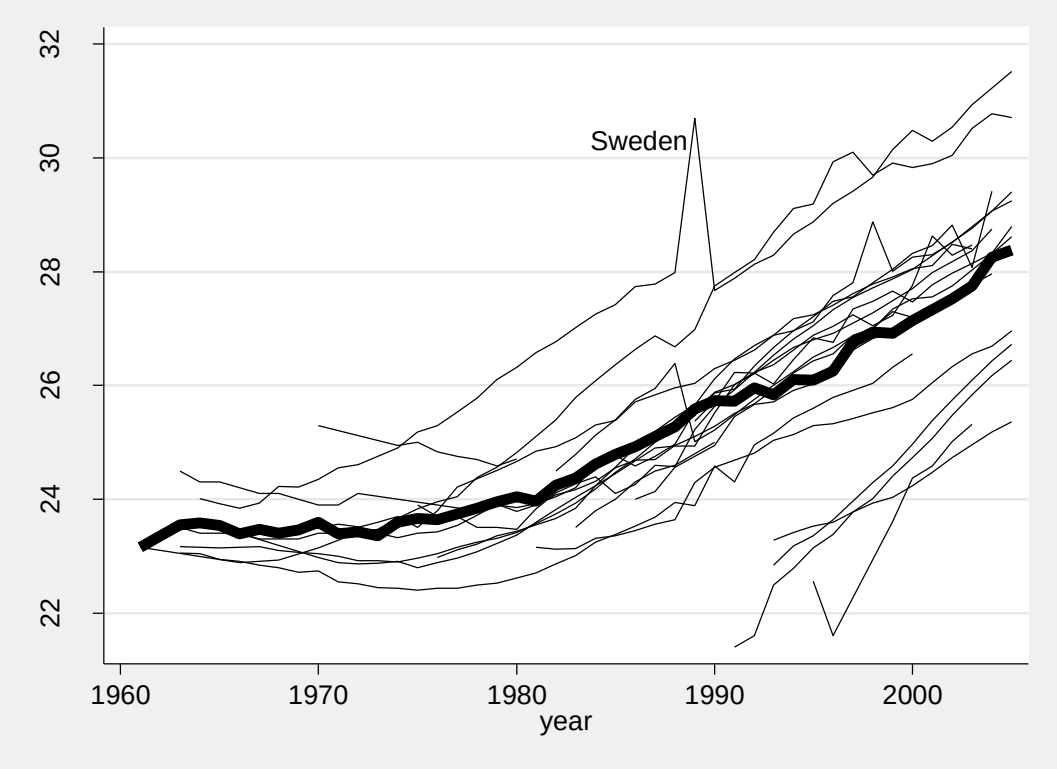
Note: Figures based on years for which context information is available.

Figure 2. Trends in Marriage rates and Average Age at First Marriage, 1961-2005

Panel 1



Panel 2



Note: Bold line indicates average across all countries.

Table 1. Countries and Policy Clusters

Policy Cluster	Country	Year Range	
Liberal	Ireland	1967	2005
N=100	United Kingdom	1963	2005
	United States	1963	2004
Conservative	Austria	1969	2005
N=251	Belgium	1963	2000
	France	1963	2005
	Germany	1961	2005
	Luxembourg	1975	2005
	Netherlands	1976	2003
	Switzerland*	1976	2005
Social Democratic	Denmark	1961	2005
N=181	Finland	1963	2005
	Iceland*	1992	2005
	Norway*	1961	2005
	Sweden	1964	2005
Southern	Greece	1978	2004
N=123	Italy	1963	2005
	Portugal	1981	2005
	Spain	1971	2005
Eastern	Czech Republic	1991	2005
N=52	Hungary	1993	2005
	Poland	1993	2005
	Slovakia	1995	2005

Note: * indicates countries for which information is available on marriage rates, but not average age at first marriage.

Table 2. Bivariate Correlations between Marriage Measures and Context

	Crude Marriage Rate	**Age at First Marriage**
Economic Context		
Men's unemployment Rate	-0.30**	0.22**
Women's Labor Force Participation	-0.27**	0.55**
GDP/capita	-0.43**	0.78**
Family/Gender Context		
Divorce Rate	0.12**	0.35**
Gender Inequality	-0.02	-0.03
Gender Empowerment	0.06	0.20**
Policy Regime	**Group Averages**	
Liberal	7.94	25.33
Conservative	5.99	25.08
Social-Democratic	5.81	26.46
Southern	5.99	25.46
Eastern	5.14	24.24

Note: With the exception of divorce rates, the socio-cultural context measures do not vary over time.

Table 3. Panel Corrected Prais-Winsten Models for Marriage Rates and Age at First Marriage

	Crude Marriage Rates			**Age at First Marriage**		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Economic Context						
Men's Unemployment Rate	-0.029*			0.014		
	(2.26)			(1.05)		
Female Labor Force Participation	-0.001			-0.005		
	(0.08)			(0.55)		
GDP	0.009			0.106**		
	(0.84)			(5.84)		
Policy Context						
Conservative		-1.330**			-0.187	
		(7.01)			(0.45)	
Social-democratic		-1.368**			0.954*	
		(5.35)			(2.08)	
Southern		-1.073**			-0.407	
		(3.69)			(0.85)	
Eastern		-1.197**			-3.663**	
		(4.82)			(6.27)	
Gender and Family Context						
Crude Divorce Rate			0.254**			-0.084
			(3.61)			(1.47)
Gender Inequality			0.000			0.260**
			(0.01)			(4.14)
Gender Empowerment			-0.126			1.237**
			(1.16)			(7.57)
Year	-0.069**	-0.067**	-0.078**	0.063**	0.158**	0.155**
	(6.65)	(11.22)	(10.83)	(4.19)	(21.64)	(18.09)
Constant	8.055**	9.030**	8.602**	22.413**	21.582**	-13.526+
	(21.93)	(39.78)	(3.21)	(50.75)	(49.68)	(1.87)
R-squared	0.807	0.816	0.809	0.977	0.981	0.976
	N=707, 23 countries			N=511, 20 countries		

Note: Crude divorce rate is lagged by three years, the economic indicators (male unemployment rate, female labor force participation, and GDP), are lagged by one year. These models include a dummy indicator for peak year in Sweden and Austria. Numbers in parentheses are z statistics, + p<.10,; * p<.05; ** p<.01

Table 4. Panel Corrected Prais-Winsten Models for Marriage Rates and Age at First Marriage

	Crude Marriage Rates			Age at First Marriage		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Economic Context						
Men's Unemployment Rate	-0.037**	-0.032*	-0.038**	0.009	0.011	0.010
	(3.04)	(2.57)	(3.21)	(0.76)	(0.93)	(0.82)
Female Labor Force Participation	0.010	-0.010	-0.005	-0.016+	-0.006	-0.010
	(1.23)	(1.19)	(0.53)	(1.84)	(0.63)	(1.13)
GDP	0.012	0.016	0.021	0.047**	0.065**	0.045**
	(0.91)	(1.36)	(1.58)	(3.37)	(4.21)	(3.25)
Policy Context						
Conservative	-1.392**		-1.439**	-0.328		-0.348
	(7.02)		(7.75)	(0.82)		(0.90)
Social-democratic	-1.528**		-2.148**	1.096*		1.009*
	(5.56)		(5.87)	(2.44)		(2.11)
Southern	-0.864**		-0.416	-0.392		-0.455
	(3.05)		(1.64)	(0.84)		(0.97)
Eastern	-0.857**		-0.810*	-3.116**		-2.859**
	(2.60)		(2.08)	(5.61)		(4.82)
Gender and Family Context						
Crude Divorce Rate		0.262**	0.154*		-0.100+	-0.121*
		(3.68)	(2.29)		(1.75)	(2.12)
Gender Inequality		-0.038	-0.129**		0.189**	0.053
		(1.09)	(3.61)		(3.08)	(0.96)
Gender Empowerment		-0.165	0.275+		1.017**	0.164
		(1.62)	(1.65)		(6.51)	(1.03)
Year	-0.079**	-0.079**	-0.080**	0.132**	0.111**	0.135**
	(6.40)	(7.66)	(6.63)	(9.21)	(7.25)	(9.48)
Constant	8.791**	13.363**	20.854**	22.391**	-4.246	15.710**
	(20.89)	(3.38)	(4.85)	(40.42)	(0.61)	(2.59)
R-squared	0.820	0.812	0.827	0.982	0.977	0.983
	N=707, 23 countries			N=511, 20 countries		

Note: Crude divorce rate is lagged by three years, the economic indicators (male unemployment rate, female labor force participation, and GDP), are lagged by one year. These models include a dummy indicator for peak year in Sweden and Austria.
Numbers in parentheses are z statistics, + p<.10,; * p<.05; ** p<.01

Appendix 1. Summary Statistics (N=707[1])

	Mean	Std. Dev.	Min.	Max.	Description
Crude Marriage Rate	6.16	1.42	3.57	12.82	# of marriages/1000 population
Average Age at First Marriage	25.43	2.02	21.40	31.52	Women's average age at first marriage
Male Unemployment Rate	5.51	3.97	0.10	20.10	Percentage of those in civil employment who are unemployed
Female Labor Force Participation	56.73	12.98	29.00	85.70	Percentage of women between the ages of 15 to 64 who are employed
GDP	14.60	9.75	1.58	63.45	Gross domestic product per capita, (based on US dollar purchasing power parity)
Divorce Rate	1.74	1.03	0.00	5.30	Number of divorces/1000 population
Gender Inequality	103.06	2.20	100.65	108.76	Human Development Index/Gender Related Development Index*100
Gender Empowerment	6.76	1.00	4.79	8.42	Gender Empowerment Measure*10

[1] For the analyses of age at first marriage the number of observations is 511.

Appendix 2. Country Specific Outliers: Austria and Sweden