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Marriage and Family in East Asia: Continuity and Change

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Abstract

Trends toward later and less marriage and childbearing in East Asia have been even more pronounced than in the West. At the same time, many other features of East Asian families have changed very little. We review recent research on trends in a wide range of family behaviors in China, Japan, Korea, and Taiwan. We also draw upon a range of theoretical frameworks to argue that trends in marriage and fertility reflect tension between rapid social and economic change and limited change in family expectations and obligations. We discuss how this tension may be contributing to growing socioeconomic differences in patterns of family formation. This focus on East Asia extends research on the second demographic transition in the West by describing how rapid decline in marriage and fertility rates can occur in the absence of major changes in family attitudes or rising individualism.

Keywords

Development; Fertility; Gender; Second Demographic Transition

INTRODUCTION

Scholars have long portrayed families in East Asia as different from those in Europe and North America, emphasizing features such as extended family coresidence and 'strong' family ties (Goode 1963; Reher 1998). One particularly distinctive feature of East Asian families is a clearly-defined and deeply-entrenched gender division of labor within the family. The patriarchal, patrimonial, patrilineal, and patrilocal organization of East Asian families has put women at a severe social and economic disadvantage relative to men (Park and Cho 1995; Sechiyama 2013; Thornton and Lin 1994; Whyte 2005). In a classic paper on the influence of Chinese family structure on gender inequality, Greenhalgh (1985, p.265)

stated that "Traditional Confucian China and its cultural offshoots, Japan and Korea, evolved some of the most patriarchal family systems that ever existed."

Another distinctive feature of the traditional East Asian family is the paramount importance of family lineage (Chen and Li 2014; Chu and Yu 2010; Kim and Park 2010). In this tradition, individuals are no more than temporary carriers who perpetuate familial male lines, with ancestors assuming spiritual roles. This emphasis on lineage and ancestor worship is particularly pronounced in Chinese culture, with each large family clan essentially having its own folk religion (Thompson 1989). The god-like status of ancestors also carries practical implications for everyday life in the form of filial piety. A core value in the Chinese family, filial piety requires that children or grandchildren respect and care for their parents or grandparents (Thornton and Lin 1994; Whyte 2004). The same is true of Korean families and, perhaps to a lesser degree, Japanese families (Hashimoto and Ikels 2005).

Of course, there is large within-country and between-country variation in family organization and behavior in the four East Asian societies that we examine in this article. Still, pronounced similarities across China, Japan, South Korea (Korea, hereafter), and Taiwan can be traced back to the common origin of the Confucian model of the family (e.g., Chen and Li 2014; Park and Cho 1995) and are currently manifested in multiple aspects of the societies including men's and women's work and family roles (Brinton 2001, Yeung 2013). Contemporary China is markedly different from the other three societies both in terms of political structure and demographic trends (Jones and Yeung 2014; Whyte 2004), but it also has a strong historical connection with, and has exerted substantial cultural influences on, the other three countries.

Objectives

Our two primary goals in this paper are to describe recent trends in marriage and fertility in China, Japan, Korea, and Taiwan and to summarize recent research on explanations for these trends. We pay particular attention to tension arising from rapid change in some aspects of family behavior and limited change in others. This overview of family change in East Asia complements the large body of research on the second demographic transition in the West. By paying attention to socioeconomic differentials in marriage and fertility within the four societies, we also situate East Asia in ongoing discussions about family bifurcation in the U.S. and other Western countries and the implications of differential family change for disparities in children's resources and the reproduction of dis/advantage across generations (McLanahan 2004).

This is not the first effort to synthesize research on family change in East Asia. Related studies include those by Atoh et al. (2004); Chen and Li (2014), McDonald (2009); Suzuki (2013), Tsuya and Bumpass (2004), Westley, Choe, and Retherford (2010) as well as several papers by Gavin Jones and colleagues that focus primarily on patterns of marriage (e.g., Frejka, Jones, and Sardon 2010; Jones and Yeung 2014). We encourage readers to consult these previous syntheses for alternative organizing frameworks and different substantive foci.

Theoretical framework

Our theoretical framework for understanding patterns of change and stability in East Asian families draws upon the work of McDonald (2000, 2009, 2013), whose gender equity theory of fertility change emphasizes tension between growing opportunities for women outside the family and limited change in expectations and obligations within the family. While most of this work has focused on explaining variation in fertility rates in Western European countries, McDonald has highlighted the potential relevance of this framework for understanding demographic change in East Asia (McDonald 2009). We also draw upon the closely related work of Bumpass, Rindfuss, and colleagues (Bumpass et al. 2009; Rindfuss et al. 2004) who stress the importance of viewing marriage in Japan and East Asia as a "package" of family expectations and obligations that may be increasingly unattractive to well-educated young women (and men) and increasingly difficult to realize for those at the lower end of the socioeconomic spectrum. This framework provides a compelling basis for understanding evidence of growing socioeconomic differences in marriage and fertility and evaluating ideas about "diverging destinies" (McLanahan 2004) in the East Asian context.

A third body of theoretical work informing our overview of recent research is that of "developmental idealism" (Thornton 2001, 2005). As the first East Asian country to modernize, Japan has been strongly influenced by Western policies and ideals since the late nineteenth century. The spread of Western influences, particularly the paradigm of modernization and economic development, accompanied the rapid economic growth in Taiwan and Korea after World War II and in the past three decades in China. In the family domain, the developmental idealism paradigm posits that the modern form of the family, exemplified by Europe and the U.S., and characterized by low fertility, late marriages, nuclear families, and egalitarian gender division of labor is desirable and even inevitable as societies develop. Some family outcomes commonly considered undesirable, such as divorce, pre-marital cohabitation, and out-of-wedlock childbirth, are also associated with the modern form of the family. Available evidence shows that the acceptance of this developmental paradigm is visible even in East Asian societies (Cai 2010; Thornton et al. 2012), although many features of the traditional East Asian family remain intact.

The basic premise underlying our description of family change in East Asia is that a combination of rapid social and economic changes similar to those associated with family change in the West and relatively little change in the nature of marriage and family relations has contributed to major reductions in marriage and fertility rates. Among the key forces of social and economic change emphasized in recent research are changing attitudes, increasing educational and economic opportunities for women, the high costs of raising children, and declining economic security for men (especially those at the lower end of the socioeconomic spectrum). Indicators of economic growth and increasing educational attainment and labor force participation for women are presented in Table 1. Among the most important features of the relatively stable institution of marriage in these societies are the powerful linkages between marriage and childbearing (including rapid transition to birth after marriage), highly asymmetric gender relations within marriage, strong norms of intensive maternal investment in children, a relatively strong (although weakening) tendency for marriages to be status homogamous or female hypergamous (i.e., marriages in which women marry men

of higher status than themselves), and strong traditions of intergenerational coresidence and associated exchanges of support. Central to our efforts to understand this stability in the nature of marriage is a recognition of the relevance of patriarchal, familistic social organization and persistent, although weakening, influences of cultural norms and gender ideology (Chen and Li 2014; Park and Sandefur 2005).

TRENDS

Later marriage

Steady increase in age at first marriage is one of the most striking family trends in East Asia. Not long ago, marriage was nearly universal and concentrated in a narrow band of "appropriate" ages, especially for women (Brinton 1992; Chen and Chen 2014; Park and Cho 1995; Yeung and Hu 2013a). However, age at first marriage began to climb in the 1970s and 1980s for both men and women in Japan, Korea, and Taiwan (see Table 1). By 2010, mean age at first marriage was over 30 for men and over 28 for women in Japan, Korea, and Taiwan, making these some of the latest marrying countries in the world. In China, the change has been more recent and somewhat less pronounced (Jones and Yeung 2014), with the mean age of first marriage rising from 22 in 1990 to 24 for women born in the 1940s to 23 for those born in the 1980s birth cohort and from 24 to 26 for the same cohorts of men.

Lower fertility

As shown in Table 1, the four countries experienced rapid decline in the Total Fertility Rate (TFR) at different times, but all are now characterized by extremely low period fertility rates. Japan stands out for its long duration of low fertility, with TFR at or below replacement level (roughly 2.1) since 1957. Fertility decline also began early in Taiwan but did not reach replacement level until the mid-1980s, about the same time as in Korea, where an extremely rapid decline in fertility began in the 1970s. The transition to low fertility in China began some 20 years later than in Taiwan and prior to the implementation of the one-child policy in 1979 (Cai 2008; Poston 2000). The TFR has been below replacement level since 1990 in China, 1983 in Korea, 1984 in Taiwan, and Japan, Korea, and Taiwan experienced several years of lowest-low fertility (TFR below 1.3) in the 1990s. Taiwan's TFR of 0.9 in 2010 is among the lowest ever recorded at a national level.

Age at first birth is relatively late in Japan, Korea, and Taiwan, primarily reflecting late age at first marriage and negligibly low levels of non-marital childbearing (Anderson and Kohler 2013; Choe and Retherford 2009). As shown in Table 1, the mean age at first birth in Japan was 26.4 in 1980, one of the latest ages in the world. It is now almost 30 years old (29.4 in 2011). Mothers' mean age at first birth increased from 26.5 in 1995 to 30.5 in 2012 in Korea and from 24.5 in 1985 to 29.6 in 2010 in Taiwan. In China too, the mean age of first birth has increased in recent years from 23 in 1900 to 26.2 in 2010.

While mean age at first birth has increased and TFR has declined over time, other indicators of fertility have remained relatively stable (at least until very recently). For example, conditional on marriage, completed fertility has remained stable near replacement level in Japan and Korea. The average number of children born to women nearing the end of their

reproductive ages declined slightly from 2.2 in 1977 to 2.0 in 2010 in Japan (National Institute of Population and Social Security Research, NIPSSR hereafter, 2012a) and has remained constant at slightly below 2.0 for Korean women born after 1960 (Woo 2014). Evidence of fertility recuperation via increased birth rates at older ages has been limited (Frejka, Jones, and Sardon 2010), but some recent increase in marital fertility is evident among women in their 30s in both Japan and Korea (Lee 2012; NIPSSR 2014).

Also unchanged is the high degree of concentration of childbearing within the first years of marriage. A paper published 30 years ago by Morgan, Rindfuss, Parnell (1984) described the rapid transition to first birth within marriage in Japan and this pattern appears to have changed relatively little over time – the mean duration from marriage to first birth increased only from 1.82 years in 1975 to 2.24 years in 2010 (NIPSSR 2014). To some degree, this stability in rapid transition to parenthood within marriage reflects the rise in pregnant brides who, by definition, give birth soon after marriage (Raymo and Iwasawa 2008). In China, the duration between marriage and first birth has remained stable over time (Fu, Zhang and Li 2013) and, as shown in Table 1, the difference between mean ages at first marriage and first birth in Korea and Taiwan has also changed little over time.

Non-marriage and childlessness

Even more dramatic than the trend toward later marriage and parenthood is the projected increase in proportions of men and women who will never marry and remain childless. Despite consistent evidence that a large majority of young men and women in these countries value marriage and want to marry (NIPSSR 2012b; authors' tabulations of data from the 2005–2006 World Value Surveys), it is clear that a substantial proportion will never marry absent major changes in behavior. In Japan, Korea, and Taiwan, this move away from universal marriage is already apparent for men, with the percent never married at age 50 increasing between 1980 and 2010 from 2.6% to 20.2% in Japan, from 0.4% to 5.8% in Korea, and 5.0% to 10.1% in Taiwan (KOSIS 2014; Ministry of Interior of Taiwan 2014; NIPSSR 2014). The corresponding figures for women are 4.5% to 10.7% in Japan, 0.2% to 2.8% in Korea, and 0.9% to 8.4% in Taiwan, and official population projections for Japan are based on an assumption that 20% of women born after 1995 will never marry (NIPSSR 2012c). There is emerging evidence that more highly-educated men in Japan, Korea, and Taiwan delay marriage but are more likely than their less-educated counterparts to ever marry, (Chen and Chen 2014; Park and Lee 2014; Piotrowski, Kalleberg, and Rindfuss 2014). The pattern is different in China where marriage is concentrated in a relatively narrow age range and has remained nearly universal (Frejka, Jones, and Sardon 2010), except among less-educated men in the most recent birth cohort (Yeung and Hu 2013a; Yu and Xie 2013).

Nonmarital childbearing

One of the most distinctive features of fertility in these four East Asian countries is the very low level of nonmarital childbearing. The percent of births registered to unmarried mothers is only 2% in Japan, 1.5% in Korea, and 4.0% in Taiwan (Department of Statistics, Ministry of the Interior 2014; OECD 2013), levels that are strikingly lower than the overall OECD average of 36.3%. Explanations for this distinctive pattern emphasize the strong social and

economic links between marriage and childbearing, lingering stigma, and legal discrimination against "illegitimate" children (e.g., Hertog 2009). In China, policy also plays an important role, with official permission required for both marriage and childbearing and contraception made widely available (Cai 2010).

Some research suggests that attitudes against nonmarital childbearing per se are not that strong in Japan (Bumpass et al. 2009; Rindfuss et al. 2004), but others conclude that, relative to their American counterparts, Japanese believe that marriage is the appropriate place for childrearing and feel more strongly about importance of marriage in response to pregnancy. Hertog and Iwasawa (2011) argue that marriage is seen as the "default life choice" in Japan and despite no longer being an essential part of the life course, it remains a precondition for childbearing (90% of premarital pregnancies carried to term result in births within marriage – in contrast with 10% in US). Hertog and Iwasawa (2011) also note that premarital pregnancies are more likely to be aborted in Japan and that to some extent this reflects wider normative acceptance of abortion as a legitimate solution to an unwanted/unplanned pregnancy.

Cohabitation

Compared to the large body of research on unmarried cohabitation in the U.S. and European countries, nonmarital unions have received little attention in East Asia. This is not surprising in light of the very low prevalence of cohabitation in the recent past and the scarcity of data on such unions. However, it is clear that cohabitation has increased markedly in recent years. For example, roughly 20% of Japanese women born after 1970 report having lived in a cohabitating union (Iwasawa 2005; Raymo, Iwasawa, and Bumpass 2009; Tsuya 2006) and in Taiwan, roughly a quarter of women age 25-29 in 2004 have lived in a cohabiting union (Lesthaeghe 2010). Data from the China Family Panel Study (CFPS) indicate that almost a third of the most recent marriage cohort (2010–2012) cohabited prior to marriage (Xu, Li, and Yu 2014; Yu and Xie 2014). However, the relatively short average duration of cohabiting unions in these countries means that the proportion of unmarried men and women in this type of household at any given point in time is relatively low. For example, among unmarried Japanese women age 25–29 in 2010, only 2% were currently in a cohabiting union (NIPSSR 2012b). In Korea, it is clear that attitudes toward cohabitation are changing (Ahn and Im 2004), but the prevalence remains low and the data required for systematic study have yet to be collected. In contrast to Korea, where attitudes toward cohabitation are quite conservative (Eun and Lee 2005), young Chinese and Japanese appear to have relatively positive (or at least neutral) attitudes toward cohabitation (Raymo, Iwasawa, and Bumpass 2009; Yeung and Hu 2013b).

In Japan, cohabitation is more common among women with lower levels of educational attainment and is associated with an increased risk of marriage preceded by pregnancy (Raymo, Iwasawa, and Bumpass 2009). In contrast, cohabitation in China is positively associated with education and is much more common in the more developed coastal regions, such as Shanghai and Guangdong (Xu, Li, and Yu 2014; Yeung and Hu 2013b). These

¹Similar data are not available for China, but the level of nonmarital childbearing is thought to be even lower than in the other countries (Chu and Yu 2010).

findings suggest that premarital cohabitation has become a more socially accepted form of living arrangement before formal marriage in both countries, but perhaps more so in China than in Japan. However, in both countries, the evidence suggests that cohabitation should be viewed as a precursor to marriage rather than as an alternative to marriage (or dating), consistent with the strong tension between change and tradition.

Divorce

Not only are marriages in East Asia taking place at older ages, they are also less likely to remain intact. The low divorce rates characterizing marriages in China, Japan, Korea, and Taiwan for much of the 20th century are now a thing of the past. In Korea, the crude divorce rate (the number of divorces per 1,000 population) increased rapidly from 1.1 in 1990 to a peak of 3.4 in 2003, a higher level than in most western countries other than the United States (Park and Raymo 2013; Statistics Korea 2013). Currently, crude divorce rates are 1.8 in China, 1.9 in Japan, 2.3 in Korea, and 2.4 in Taiwan (NIPSSR 2014; Yang and Yen 2011; see Chen and Li 2004:71 for trends in the crude divorce rate in the four countries). Analyses of vital statistics data show that roughly one-third of recent Japanese marriages are projected to end in divorce (Raymo, Iwasawa, and Bumpass 2004) and that about 20% of recent Korean marriages are expected to dissolve within 10 years (Park and Raymo 2013).

Recent studies also document a strong negative educational gradient in divorce in both Japan and Korea (Park and Raymo 2013; Raymo, Fukuda, and Iwasawa 2014). In Korea, it is clear that this pattern has become stronger in recent years and in Taiwan the educational gradient has recently shifted from positive to negative (Chen 2012). The increasing concentration of divorce at the lower end of socioeconomic spectrum may have particularly important implications for children's well-being in East Asia where public support (welfare) for single parents and their children is quite limited (Park and Raymo 2013). The negative educational gradient in divorce is also interesting in that it is not consistent with hypotheses derived from modernization theory suggesting that marital dissolution should be positively associated with educational attainment in societies where divorce remains socially and economically expensive.

Living arrangements prior to marriage

The family circumstances of young men and women who are delaying marriage and parenthood are also characterized by a combination of newly emerging behaviors and continuity in traditional family patterns. One example of continuity is the high prevalence of extended coresidence with parents prior to marriage. Despite major changes in education, employment opportunities, and sibship size, the proportion of never married men and women living with their parents has remained stable over time at roughly 60% for men and 70% for women in Japan (Fukuda 2009) and 70% for both men and women in Korea (Park and Choi 2013). As a result of delayed marriage, this means that the number of young men and women in this arrangement at any given time has gone up sharply and the duration of premarital coresidence with parents has presumably become longer.

The relatively late age of leaving home in East Asian countries has been well documented (e.g., Yi et al. 1994) and scholars argue that this pattern reflects the relatively limited

familial emphasis on independence (Yamada 1999). However, as Park and Sandefur (2005) argue, the late age of nestleaving in East Asia reflects not only cultural norms, but also the high costs of living, housing, and education, combined with relatively weak welfare systems. Moreover, recent economic recessions and growing economic inequality in the region may be contributing to further delay in young people's departure from parental home and an increase in the numbers returning home, as observed in the U.S. Also central to this argument is an emphasis on the role of very high consumption aspirations (or rapidly rising aspirations in the case of China) (Mu and Xie 2014; Yamada 1999).

Although not widely discussed in the research on this topic, the prolongation of premarital coresidence has potentially important and interesting feedback effects. Just as incentives to delay marriage may contribute to extended coresidence with parents, longer exposure to the parental home may reduce incentives (and perhaps opportunities) to marry. This is particularly true in the context of highly gender-asymmetric marriages – for men, extended coresidence may reduce the attractiveness of supporting a family as a primary breadwinner (although it may also facilitate family formation via increased savings) and for women it may reduce the attractiveness of taking on significant increases in domestic responsibilities (given that coresidence with parents involves little such responsibility – e.g., see Raymo and Ono 2007).

In the context of relatively low levels of cohabitation and stable proportions of unmarried men and women living with their parents, the trend toward later marriage and less marriage has also resulted in a growing number of one-person households. Although such households have always existed in East Asia (especially among unmarried men), recent growth in their number and duration represents a major shift in family organization. Among unmarried Japanese age 25–29, 25% of men and 15% of women lived in a one-person household in 2010, up from 18% and 5% in 1980 (Raymo 2013). Similar patterns have been observed in Korea and Taiwan, with Park and Choi (2013) showing that living alone among women and men aged 25 to 34 increased from less than 1% in 1960 to 10% for women and 15% for men in 2010. As in Japan, later and less marriage explains some, but not all of this change. In Taiwan, the share of the population living in one-person households increased from 12% to 22% between 1980 and 2010 (Chen 2013). Rapid increase in one-person households in China (from 4.9% in 1990 to 14.5% in 2010) (Cheung and Yeung 2013) is expected to continue, with the number living alone projected to grow to 11 million by 2050 (Feng et al. 2013). This rapid rise of solo living was not expected by scholars who argued that oneperson households were unlikely to increase much in societies characterized by "traditional ideology of the 'extended family' system' (e.g., Park 1994). The levels of solo-living remain lower in China, where recent data indicate that 10% of the adult population lives alone (Xu, Li, and Yu 2014).

EXPLANATIONS FOR TRENDS IN MARRIAGE AND FERTILITY

Ideational/attitudinal change

The second demographic transition framework places primary emphasis on ideational change as an explanation for lower fertility and associated family changes in Europe and other Western societies (e.g., Surkyn and Lesthaeghe 2004). In East Asia, however, change

in stated desires for marriage and children is limited. The large majority of unmarried men and women say they intend to marry at some point and very few express a desire to remain childless, and the large majority want to have two children (Atoh 2001; Retherford and Ogawa 2006; Yang and Rosenblatt 2008; Zheng 2004). In Japan, married women's ideal number of children has ranged from 2.6 in 1977 to 2.4 in 2010 and their expected number of children has changed very little over the past 30 years, remaining at roughly 2.1. The gap between ideal and expected fertility has been the focus of much attention and, when asked for reasons, women commonly mention the high cost of raising children (especially educational costs) and the fact that they are now too old to have their desired number of children. These responses point to the importance of both the financial burden of parenthood and the role of delayed marriage and childbearing in preventing married women from reaching their ideal family size.

Attitudes regarding the centrality of children to marriage and gender roles within marriage are also relatively conservative, but do show some signs of change (Choe et al. 2014; Retherford, Ogawa, and Matsukura 2001; Wu and Xie 2013). For example, in 2010 70% of unmarried Japanese women agreed that couples should have children if they get married, down from 85% in 1992. At the same time, there is little evidence of increasing individualism (or individuation) central to the second demographic transition in the West (Atoh 2001). Some have argued that changes in family formation reflect tension between rapid changes in women's attitudes and relatively stability in men's more conservative family attitudes (Yoshida 2010). Similarly, one might extend the gender equity hypothesis put forth by McDonald (2000) to emphasize changes in attitudes as well as with changes in opportunities. That is, late marriage and low fertility could also be generated by a conflict between changing attitudes about women's roles across the life course and limited change within the family sphere (strong expectations of childbearing, limited domestic participation by men, etc.). Relative to Japan and Korea, changes in gender role ideology appear to be more modest in China (Yeung and Hu 2013b).

Women's economic independence and the opportunity costs of marriage and parenthood

One basic assumption behind most efforts to understand the trend toward later and less marriage in East Asia is that lack of change in the nature and meaning of marriage has made it less attractive for women as their educational attainment and economic opportunities improve. For example, Tsuya and Mason (1995:156) emphasize the importance of "increases in the opportunities enjoyed by young women, and perhaps by young men as well, along with a relative lack of change in traditional family roles" and a desire to postpone "the onerous status of the Japanese wife and mother." Similarly, Bumpass et al. (2009:218) argued that the family obligations and expectations comprising the "marriage package" have become increasingly unattractive to women as the range of life options available to them broadens. "For many, the entire package of marital roles of the wife is what is being delayed, including children with their intensive care needs, a heavy household task load, and co-residence with parents-in-law, which is potentially included in the bargain."

In contrast to the U.S., where changes in the "economic foundations of marriage" include both increasing similarity in men's and women's economic contributions to the family (Sweeney 2002) and an increasingly egalitarian division of household labor (Sayer 2005), East Asian marriages continue to be characterized by expectations of rapid transition to parenthood, a highly asymmetric division of domestic labor (Tsuya et al. 2005; Yu and Xie 2012), and strong expectations of intensive mothering and maternal facilitation of children's success in school (Anderson and Kohler 2013; Hirao 2007, Tsuya and Choe 2004). These countries continue to have relatively high gender wage gaps and gender-inegalitarian labor markets (especially in Japan and Korea) (Brinton et al. 2001; Chang and England 2011; Hauser and Xie 2005; Li and Xie 2013; Wu and Wu 2008; Yu 2009) and rank low on summary measures of gender equality (Lee 2009). In this context, the opportunity costs of marriage are thought to be particularly high for well-educated women (Retherford and Ogawa 2006).

Emphases on women's economic independence predict that women with higher educational attainment (or socioeconomic resources, more generally) should marry later, be less likely to ever marry, and have fewer children. A number of empirical studies have found that, consistent with these hypotheses, women's education and earnings are both positively associated with age at marriage and the probability of never marrying in these countries (Ono 2003; Park, Lee and Jo 2013; Raymo 1998, 2003; Yang, Li, and Chen 2006; Yeung and Hu 2013a). Interestingly, however, some recently published research provides evidence of a shift in the economic foundations of marriage in East Asia, similar to that in the U.S. and other Western countries. For instance, Fukuda (2013) finds that higher educational attainment and earnings are now positively associated with marriage for women in Japan, and Park, Lee, and Jo (2013) present evidence of relatively rapid decline in marriage for the least-educated women in Korea, a group that is increasingly suffering from poverty and marginality. Again, the pattern is different in China where women's education remains negatively related to marriage hazard (Yeung and Hu 2013a) and economic determinants of entry to marriage have increased in importance in urban areas following economic reforms (Yu and Xie 2013).

In contrast to the large number of studies on socioeconomic differences in marriage, research examining socioeconomic differentials in fertility and their trends over time is limited. Woo (2014) investigated trends in educational differentials in completed fertility among Korean women, finding an inverse relationship between educational attainment and number of children in earlier cohorts followed by relatively rapid fertility decline among women with less than a junior high school education, resulting in a convergence of educational differentials in completed cohort fertility among recent birth cohorts. Woo's (2014) study focused only on women born before 1970, so more recent trends in Korea have yet to be examined. In Japan, the negative relationship between women's educational attainment and fertility increased during the 1980s and early 1990s, but has shrunk in recent years as a result of relatively larger increases in fertility among junior college and university graduates (Retherford et al. 2014). Earlier research on Taiwan also demonstrated that women with higher education and occupational prestige have lower fertility rates (Hsuing 1988) and Poston (2000) showed that indicators of socioeconomic development such as the female

literacy rate and percent of professionals in the labor market are negatively related to fertility rates in Taiwan and China.

Although there is some evidence of recent change, including an increase in dual-earner couples (e.g., Kohara 2007) and a relatively higher likelihood of continuous employment among highly-educated women in Japan and Korea (Ma 2014; Raymo and Lim 2011), there has been little overall change in married women's patterns of labor force exit and in the large proportion of unmarried women who both desire and expect a life course characterized by temporary labor force exit followed by return when children get older (NIPSSR 2012a). Once mothers exit the labor force, it is very difficult to return to a job with prospects for stability, wage growth, and promotion. Many return to non-standard, part-time employment in lower status occupations than they left prior to motherhood (Ma 2014; Shirahase 2013). The difficulties of work-family balance may be particularly relevant for highly-educated women (and their husbands), given that they have the most to lose (in economic terms) from marriage and temporary labor force exit at childbirth. Some studies suggest that this may be particularly true in Japan and Korea where the difficulty of balancing employment and motherhood is greater than in China or Taiwan (Brinton 2001; Yu 2005).

In addition to the opportunity costs incurred when mothers exit the labor force, the direct costs of raising children have been cited as a potential explanation for very low rates of marriage and fertility in East Asia. Particularly important are the very high costs of education in societies where educational competition is fierce, public expenditures on education are relatively low, and the use of time-intensive, expensive cram schools is pervasive. Retherford and Ogawa 2006 cite estimates of the direct costs of raising a child in Japan, which range from \$286,000 to over \$600,000 and note that neither of these estimates includes expenditures on supplementary schooling in cram schools, a major child expense. Jones, Straughan, and Chan 2009 present a very similar estimate in Korea (\$253,000). In Taiwan, the elimination of inflation adjustment for the education subsidy has been linked to a 17% reduction in the probability of childbirth among public-sector households (Keng and Sheu 2011). In addition to education costs, high housing costs also appear to be associated with lower fertility (Chen 2013). Anderson and Kohler (2013:210) note that increased living costs, particularly education expenses for children to secure educational success of their children may affect Korean parents' decision to "forego their ideal family size for fewer children so that they can maximize their children's success later in life."

Economic stagnation and growing economic inequality

In contrast to Europe and the U.S., where economic circumstances have long played an important role in family formation (Thornton, Axinn, and Xie 2007; Xie et al. 2003), the East Asian norm of universal marriage in a narrow band of "appropriate" ages (Brinton 1992; Yu and Xie 2013) has limited the role of economic factors. There is clear evidence, however, that economic factors are now of paramount importance for both marriage and for childbirth in East Asia. Japan's long recession and increasing economic turbulence and growing job insecurity in the region have been linked to delayed transition to marriage and parenthood (Kim 2013; Retherford and Ogawa 2006; Westley et al. 2010). Following the Asian economic crisis in the late 1990s, income equality has grown in Korea and

employment structure has shifted toward increased part-time and non-regular jobs (Hyun and Lim 2005), mirroring similar trends in Japan (Osawa, Kim, and Kingston 2013). In Taiwan, a 2002 survey showed that a majority of respondents cite worry about the increasing economic burden of raising a child as a reason to avoid childbearing (Lee 2009). In China, the link between economic resources and family formation is a relatively new phenomenon that began to emerge in the post-economic reform era, when consumption aspirations have risen rapidly along with housing prices (Mu and Xie 2014; Yu and Xie 2013).

Rapid educational expansion, combined with growing macroeconomic volatility, economic inequality, and poor job prospects may have particularly important implications for changing marriage and fertility behaviors for low SES groups. One potentially interesting way to think about marriage and childbearing in the East Asian context is akin to the framework for understanding the decline in marriage among lower SES groups in the U.S. (e.g., Edin and Kefalas 2011). Parenthood (and thus marriage in the East Asian context) may be increasingly viewed as a kind of "destination" or "final goal" for which one needs to be adequately prepared (especially economically). Just as lower SES Americans appear to be postponing marriage until they can afford to "do it right," men and women in these four East Asian societies may be postponing parenthood (and by extension marriage) until they feel adequately prepared in economic terms.

Just as increasing economic opportunities for women may raise the opportunity costs of breadwinner-homemaker marriages, forces that negatively impact men's ability to fulfill the provider role may also contribute to reductions in marriage and fertility. For example, Piotrowski, Kalleberg, and Rindfuss (2014) find that the probability of marriage is significantly lower for Japanese men in non-standard employment and Park and Lee (2014) document a rapid increase of share of unmarried men in Korea among those who did not complete high school. Park and Lee (2014: 23) state that "[i]n a society like Korea where the male breadwinner model, although weakening, still prevails, the declining economic prospect of men with a low level of education may put the low educated in particularly marginal positions in marriage market." This pattern represents a major shift in East Asian societies where marriage and parenthood have long been fundamental markers of the transition to adulthood (Rindfuss et al. 2010; Yeung, Alipio, and Furstenberg 2013).

While much of the research on trends in family attitudes emphasizes women's increasing distaste for the "marriage package," some recent studies suggest that men too are increasingly questioning the benefits of the typical East Asian breadwinner-homemaker marriage. Perhaps reflecting diminished employment security and wage growth that limit men's ability to fulfill the provider role (Nemoto, Fuwa, Ishiguro 2013), men's attitudes towards women's employment appear to have changed to a greater degree than women's (Fukuda 2013; Lee et al. 2010). Related evidence can be found in Bumpass et al. (2009) who show an increasing interest on the part of both husbands and wives for wives to work more and in media portrayals of unmarried Korean men who prefer a wife who will continue to work (Park and Lee 2014).

Marriage markets

Another widely-cited explanation for the decline in marriage focuses on shift in ways that couples meet in the absence of an efficient dating or matching market. In all four societies, parents have long played a role in either directly arranging or facilitating their children's marriage (Chien and Yi 2012; Park and Cho 1995; Retherford, Ogawa, and Matsukura 2001; Xu and Whyte 1990). Direct parental involvement in partner selection fell out of favor many years ago (Jones 2010; Retherford and Ogawa 2006; Thornton and Lin 1994), but similarly effective mechanisms for matching men and women in the marriage market have yet to emerge. Consistent with this argument, data from the most recent National Fertility Surveys in Japan indicate that roughly half of unmarried men and women report not marrying for lack of an appropriate partner and that a similar proportion are not currently dating (NIPSSR 2012b; Retherford and Ogawa 2006).

The difficulties that young men and women face in meeting potential partners reflect not only long work hours, segregated work places, and the lack of an effective dating market, but also the relatively strong preferences for status homogamy or female hypergamy that characterize gender-asymmetric breadwinner-homemaker/mother marriages in these societies (Park and Smits 2005; Smits and Park 2009; Thornton and Lin 1994; Xu, Ji, and Tung 2000). For example, in Smits, Ultee, and Lammers' (1998) study of 65 countries, the association between husbands' and wives' educational attainment was particularly strong in Japan, Korea, and Taiwan. This cultural norm has remained in place, despite the shift from parent-facilitated to love-based mate selection (Chien and Yi 2012; Retherford, Ogawa, and Matsukura 2001; Yeung and Hu 2013b). In terms of trends, recent declines in educational homogamy have been documented in both Korea (Park and Kim 2012) and Taiwan (Chu and Yu 2011). Smits and Park (2009) present similar evidence of declining educational homogamy in all four societies whereas Chu and Yu's (2011) results suggest that there has been no change in China. Explanations for these trends in assortative mating are not clear and this represents an important avenue for future research.

Rapid relative improvements in women's educational attainment can make it numerically difficult for some groups to find suitable mates if preferences for educational homogamy and female hypergamy are strong and do not respond to change in marriage market composition. Raymo and Iwasawa (2005) find strong support for this explanation among women, demonstrating that changing mate availability can explain up to one-third of the decline in age-specific proportions of highly-educated women who have married. In China, a similar marriage market mismatch has resulted in a growing age gap between husbands and wives as men seek to accumulate more economic resources than prospective wives of similar education (Mu and Xie 2014). Like the theoretical emphases on women's economic independence and men's increasing economic instability, this focus on marriage market mismatches reflects the importance of the economic resources men bring to marriage. Economic resources may be particularly important in China as rapid economic growth contributes to rising consumption aspirations and hence the threshold level of resources required for marriage. Thus, economic pressure, combined with the maintenance of norms of homogamy and female hypergamy, is making marriage difficult to attain for two groups: men with little education and highly-educated women.

Another potentially important marriage market mismatch is the result of strong son preference that has resulted in high sex ratios at birth in China, Korea, and Taiwan (Chen and Li 2014; Chu and Yu 2010; Chung and Das Gupta 2007; Huang 2014; Tsay and Chu 2005; Wei and Zhang 2011). Evidence that son preference is particularly strong among women with lower levels of education in Taiwan (Lin 2009) suggests that son preference may dissipate as a result of rapid educational improvements in recent years and this appears to be the case in Korea (Chung and Das Gupta 2007). In China, however, decline in son preference across birth cohorts is limited. Data from the 2006 Chinese General Social Survey data indicate that about a quarter of the respondents prefers a son if they can only have one child, a figure that has declined only slightly across cohorts (Yeung and Hu 2013b). Interestingly, there is no evidence of son preference in Japan and recent data suggest that, if anything, Japanese parents appear to have a preference for daughters. Among those who desire one child, the proportion desiring a girl has gone from 20% in 1980 to 70% in 2002 (Fuse 2013). Fuse (2013) speculates that this may not necessarily reflect a desire raise daughters, but rather a desire to avoid the costs and pressures of raising boys to succeed in Japan's highly competitive education system. The argument is that it is easier and safer to raise girls and that daughters are also desirable as a source of old-age support and companionship in a context where concerns about old age security focus less on financial concerns than on health care and companionship. The emergence of a daughter preference is seen as an important shift in nature of family relations – away from a situation in which couples desire a son to carry on the family name to one in which a daughter is preferred to provide company and support in old ages.

Continuity and change in family organization/living arrangements

Trends in living arrangements may be particularly important for understanding the observed decline in marriage and fertility. In Japan, the proportion of recently married couples living on their own has increased in recent years, but the proportion that will eventually coreside with parents (in stem family households) has remained stable over time (Kato 2013). In China, about a third of the Chinese population still lives in multi-generational families (Xu, Li and Yu 2014) and about 43% of elderly persons aged 60 and above live with a child (Lei et al. 2013). However, these figures may substantially underestimate the degree of intrafamilial exchange of resources and support given the high proportion of non-coresident families that live proximately. In China for example, 31% of non-coresiding elderly have a child living in the same neighborhood, and 13% more in the same county but not in the same neighborhood (Lei et al. 2013). When the elderly coreside with children, they are far more likely to coreside with sons than with daughters (Chu, Xie and Yu 2011). In Taiwan, Chu et al. (2014) found that living with parents-in-law is associated with more rapid transition to first birth within marriage.

Two, rather different, efforts to link these trends in intergenerational coresidence to later marriage and lower fertility have been offered. Some have argued that the decline of coresidence of newly married couples with parents (usually the husband's parents) at the time of marriage has contributed to later marriage and less marriage, because in the absence of coresidence the newly married couple must bear all or most of the substantial cost of setting up a new household (Retherford and Ogawa 2006). Living alone (in a nuclear family)

during the early years of marriage is expensive and presents major obstacles to women's continued full-time employment. Coresidence is a key correlate of continued employment (Sasaki 2002) and housing is a major expense (Chu, Xie and Yu 2011; Retherford and Ogawa 2006).

Others have suggested that continued expectations of family-provided support in old age may play a role in limiting marriage to the extent that women are seeking men (or vice versa) who do not have competing obligations to take care of parents (presumably involving intergenerational coresidence at some point). It is important to note that there have been substantial declines in the proportion of elderly who coreside with children and in attitudinal support for intergenerational coresidence in each of these societies (Kim and Lee 1997; Ogawa and Retherford 1997; Whyte 2003; Yasuda, Iwai, Yi and Xie, 2011). Nevertheless, the responsibility for providing care to aging parents in the context of intergenerational coresidence has long been associated with eldest son status, an issue of potential importance in the context of long-term fertility trends that have, by definition, increased the proportion of eldest sons in the marriage market. Related to this is the fact that low fertility also means that many women will not have brothers and will thus themselves presumably have some obligation to support their parents in old age. Extended periods of low fertility thus result in a marriage market increasingly comprised of men and women who have potentially conflicting obligations to support different sets of parents (this is true to even more extreme degree in China due to the one-child policy). Research on the extent to which this change in marriage market composition with respect to sibship structure has resulted in later or less marriage has yet to be conducted.

SUMMARY AND CONCLUSION

Explanations for declining rates of marriage and fertility in the West often reference the second demographic transition, but this framework may be less appropriate for understanding similar trends in East Asian societies. In an effort to better understand the changes taking place in East Asia, we have drawn upon several theoretical frameworks that emphasize the tensions generated by rapid social and economic changes similar to those observed in the West, combined with limited change in family expectations and obligations. This tension may contribute to later and less marriage and childbearing by increasing the opportunity costs of marriage for women (especially those with higher levels of education), decreasing men's ability to fulfill the provider role (especially those with lower levels of education), and exacerbating marriage market mismatches.

The distinctive patterns of family change in East Asia have received a great deal of attention but many important questions remain unanswered. For example, evidence regarding potential shifts in the economic foundations of marriage, including perhaps an increase in men's preferences for wives with strong earnings potential, remains underdeveloped. Similarly, efforts to understand the theoretically unexpected negative educational gradient in divorce have been largely unsuccessful (Park and Raymo 2013; Raymo, Fukuda, and Iwasawa 2014). Further, our understanding of the explanations for apparent decline in educational homogamy and female hypergamy and the potential implications of these changes is limited.

Later marriage, less marriage, and extended periods of below replacement fertility have important implications for population aging, labor force shortages, and the maintenance of public health care and pension programs. The promotion of family formation is thus an important policy objective, with a wide range of pro-natalist polices adopted in Japan, Korea, and Taiwan. Informed by some of the research we have cited, many of these efforts have focused on reducing barriers to women's ability to balance full-time employment with motherhood. To date, these efforts appear to be largely unsuccessful and some scholars are skeptical, arguing that "long-held attitudes and gender relationships cannot be changed rapidly in these patrilineal and patriarchal societies" and that policy efforts to promote family formation will have to move beyond efforts to promote work-family balance to change social institutions "in the interest of overcoming ingrained sentiments and attitudes within the family, the business sector, and institutions of governance" (Frejka, Jones, Sardon 2010:601). Documenting and interpreting trends in family formation and their responsiveness to policy initiatives will be an important task for social scientists in the years to come.

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Raymo et al. Page 23

Table 1

Trends in social, economic, and demographic indicators in East Asia

GDP F	er capita	GDP per capita (PPP adjusted) $^{\it I}$	sted) I		Total F	Total Fertility Rate	0		
	China	Japan	Korea	Taiwan		China4a	Japan ^{4b}	Korea4c	Taiwan ⁴ d
1970	361	13,773	2,808	3,539	1970	5.5	2.1	4.5	3.7
1975	429	15,933	3,788	4,932	1975	3.8	1.9	3.4	3.0
1980	563	18,749	5,179	7,424	1980	2.6	1.9	3.4	2.5
1985	096	21,919	7,191	9,263	1985	2.6	1.8	1.7	1.9
1990	1,154	27,718	11,643	13,638	1990	2.3	1.5	1.6	1.8
1995	1,931	28,970	15,889	18,542	1995	1.9	1.4	1.6	1.8
2000	2,822	29,790	18,729	23,065	2000	1.7	1.4	1.5	1.7
2005	4,335	31,380	22,577	26,693	2005	1.7	1.3	1.1	1.1
2010	7,130	31,447	26,609	32,105	2010	1.6	1.4	1.2	0.9
Gross	enrollme	nt ratio, ten	Gross enrollment ratio, tertiary education 2	ation ²	Mean	Mean age at first marriage (men)	narriage (m	(ue	
	China	Japan	Korea	Taiwan 2a		China 5a	Japan ^{4b}	Korea4c	Taiwan 5b
1970	0.1	17.6	7.2		1970		26.9	27.1	
1975	0.5	24.6	7.7	15.4	1975		27.0	27.4	26.6
1980	1.1	31.2	12.8	16.2	1980	25	27.8	27.3	27.4
1985	2.5	29.0	31.6	20.8	1985		28.2	27.0	28.4
1990	3.1	29.7	36.9	29.7	1990	24	28.4	27.8	29.0
1995	4.5	39.9	48.9	39.4	1995		28.5	28.4	30.1
2000	7.8	48.7	78.8	56.1	2000		28.8	29.3	30.3
2005	18.3	55.0	93.5	82.0	2005	27	29.8	30.9	30.6
2010	23.3	58.1	101.0	83.8	2010	26	30.5	31.8	31.8
⁷ emal	e labor fo	rce partici	Female labor force participation rate $^{\mathcal{J}}$	co.	Mean	Mean age at first marriage (women)	narriage (w	omen)	
	China	Japan	Korea	Taiwan $^{\mathcal{Z}a}$		China 5a	Japan ^{4b}	Korea4c	Taiwan 5b
1970		53.4	39.3	35.5	1970	20.2	24.2	23.3	
1975		49.7	40.4	38.6	1975	21.9	24.7	23.6	22.3
1980		52.5	42.8	42.1	1980	23.0	25.2	24.1	23.8
1985		54.5	41.9	43.5	1985	21.8	25.5	24.1	24.9

		R	aym	o et	al.																							Page 24
	25.8	28.2	26.1	27.4	29.2		$Taiwan^{5b}$		22.9	23.5	24.5	25.4	26.1	26.7	Z7.7	29.6												
Auth	24.8	25.3	26.5	27.7	28.9	િ	Korea 4c						26.5	27.7	29.1	30.1				Jpd			o-data.htm					
Author Manuscript	25.9	26.3	27.0	28.0	28.8	Mean age of first birth (women)	Japan ^{4b}	25.6	25.7	26.4	26.7	27.2	27.8	28.0	28.6	29.3						asp	ıl-births-per-woman-wb	0=dt				
nuscrip	22.1	22.9	23.1	24.6	23.9	ge of first b	China 5a	21.7	22.6	24.0	22.7	23.0	23.2	24.0	24.1	26.2				eng/y041.				014.asp?cha				
+	1990	1995	2000	2005	2010	Mean a		1970	1975	1980	1985	1990	1995	2000	2005	2010		ddo	6)	yearbook	T.FE.ZS		-rate-tota	opular20				
	45.0	45.3	46.0	48.1	49.6													s/series?t=p	queryid=142	2a http://eng.dgbas.gov.tw/public/data/dgbas03/bs2/yearbook_eng/y041.pdf	TLF.CACT	og/statfile1L	nina/fertility	cei/Popular/F		×		st03.html
Auth	47.0	48.4	48.6	50.0	49.2													Intp://research.stlouisfed.org/fred2/tags/series?t=ppp	ndex.aspx?o	ıblic/data/d	3 http://data.worldbank.org/indicator/SL.TLF.CACT.FE.ZS	3a http://ebas1.ebas.gov.tw/pxweb/Dialog/statfile1L.asp	$^{4a} \\ \text{http://www.tradingeconomics.com/china/fertility-rate-total-births-per-woman-wb-data.htm}$	$\it 4b \\ thtp://www.ipss.go.jp/syoushika/tohkei/Popular/Popular2014.asp?chap=0$		4d http://www.moi.gov.tw/stat/index.aspx		56 http://sowf.moi.gov.tw/stat/gender/list03.html
nor M	57.1	58.4	59.6	8.09	63.2														2 http://data.uis.unesco.org/Index.aspx?queryid=142	s.gov.tw/p							Ş.	
Author Manuscript	72.7	72.2	70.7	66.5	63.5															eng.dgbas	ata.worldb			www.ipss.	cosis.kr	www.moi.	\mathcal{S}_a Multiple sources	sowf.moi.
ript	1990	1995	2000	2005	2010												Sources:	/http://re	2 http://di	2a,http://e	3 http://di	3a, http://e	4a http:///	4b http:///	4c http://kosis.kr	4d http://	5a Multip	<i>5b</i> http:///

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