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Changes in Family Attitudes and Behaviors in East Asia

– A Comparative Perspective



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Abstract <<

Changes in Family Attitudes and Behaviors in East Asia : A Comparative Perspective

Project Head: Lee, Sang-Lim

Understanding the Korean Families in Change

Korean families have been experiencing dramatic changes over recent decades. Among others, more and more young adults in Korea are delaying marriage and childbearing as well as retreating from them. The transition in family formation in Korea is not limited to the behavioral aspects of the formation of new families but includes attitudinal changes about it. Normative views on marriage and childbearing have significantly weakened, and these changing attitudes are considered to reinforce the trend of late and less family formation. Further, the dual changes in behaviors and attitudes constitute the transformation of the Korean families not only in aspects related to family formation but in the intergenerational relationship, gender role division within a household, family dissolution, and satisfaction with family relationships. The above changes in the Korean families, consequently, are leading to

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the demographic trends of low fertility rate and population aging, which are the primary policy concerns in Korea.

As Raymo et al. (2015) shows, the East Asian countries have exhibited similarities as well as dissimilarities in their trends in family change. On the one hand, late and less marriage, and less childbearing are among the noticeable similarities. On the other hand, the trends of cohabitation, intergenerational relationship, and the attitudes toward these family changes diverge to some degree in these countries. Still, the rarity of out-of-wedlock birth, the less popularity and weak institutionalization of cohabitation, and the attitudes toward family values are among the factors that make family changes in the East Asian societies distinctive from those in so-called Western developed countries. This points to the fact that the proper understanding of family changes in society is only guaranteed when the specific contexts of social, economic, and political circumstances within each society are incorporated into the understanding. In this regard, investigating family changes in East Asia can generate a better knowledge about the Korean families in change, since analyzing the above similarities and dissimilarities among the East Asian societies would help comprehend how the transitions in the Korean families interact with changes in the Korean society.

The primary goal of this study is thus to analyze the recent trend in the family-related attitudes in East Asian countries and

provide a synthesized overview on between-country variations in family behavior in the four East Asian societies: Korea, China, Japan, and Taiwan. These societies share a traditional family value that is, to a certain extent, rooted in Confucian culture. Although there are large between-country variations, as is formed in accordance with the cultural and institutional environment of each society, many features of the family organization remain highly similar. By paying attention to the recent changes, this study seeks for a more detailed understanding of family changes in contemporary East Asian society, and a more comprehensive understanding of Korea in various aspects. In order to understand family change, a comprehensive understanding of changes in family values and attitudes of members of society at the root of the phenomenon should be premised.

Approaches to Analyzing the Korean Families in Change

Investigating how East Asian families, especially Korean families, have been shifting, this study puts its basis on the following three approaches. This study utilizes these approaches to fill the gap in the previous literature about Korean families.

First, both comparative and longitudinal perspective characterize this study. Korean families and their changes reveal both similarities and dissimilarities with other neighbor countries in

East Asia, especially Japan, China, and Taiwan. Comparing these four countries provides fruitful insight into the understanding of East Asian families, since these countries share the cultural, institutional, economic environment to some extent. In addition, this study intends to analyze the longitudinal trend of family attitudes and behaviors in these societies over the last ten years. This approach derives from the consideration that families in these societies are changing at a rapid rate. Taking a snapshot of the current families in these societies would not warrant the proper understanding of the pattern of changes that East Asian families face.

Second, this study emphasizes analyzing the family-related values and attitudes in East Asian countries and their changes over the last decade. By focusing on subjective dimensions of family changes, which have been relatively neglected in this line of research, this study aims at grasping how cultural underpinnings of family behaviors interact with objective conditions – institutional, economic, political – surrounding those behaviors. Brinton (2016) emphasizes that social norms serve as a link between macro-level social conditions and micro-behaviors and provides an example of fertility as an outcome being affected by social norms. Considering that social norm itself is hard to directly capture in social science research, individual attitudes and perceptions, which both constitute and reflect the social norms in a society, deserve special attention. By provid-

ing a detailed picture of how family-related values and attitudes have changed in the four East Asian societies, this study attempts a complete understanding of family changes in contemporary East Asian societies. Nonetheless, this study is not limited to analyzing subjective dimensions of the family change and investigates the behavioral and structural aspects of it as well. It is worth noting that the analyzing attitudinal, behavioral, and structural dimensions of the family change together is necessary for the complete understanding of it, but this study complements previous research by putting relatively more emphasis on attitudinal dimensions.

Third, this study capitalizes on the insight from previous studies that the gender inequality plays a vital role in patterning the family changes, especially attitudes and behaviors on marriage and childbearing (McDonald 2000; Brinton and Lee 2016). In this regard, the change in gender role perception is one of the fundamental drives for the other domains of family change, including family formation, intergenerational relationship, and satisfaction with family relationships. Many sections in this study thus focus on analyzing the changes in or the comparison of gender-related attitudes and behaviors. They also examine how changes in a family are fundamentally gendered phenomena: that is, how male and female experience different realities from different perspectives regarding family changes in four East Asian societies.

Data: East Asian Social Survey (EASS) 2006, 2016

The data this study uses are drawn from East Asian Social Survey (EASS), a biennial social survey serving as a cross-national comparison of four East Asian countries: Chinese General Social Survey (CGSS), Japanese General Social Surveys (JGSS), Korean General Social Survey (KGSS), and Taiwan Social Change Survey (TSCS). The EASS family module in 2006 and 2016 (2017 for China) measures family attitudes and behaviors regarding marriage, cohabitation, divorce, gender roles, traditionalism about family and gender, and intergenerational support. These data are particularly suitable for the purpose of this study, since these data enable researchers to analyze longitudinal trends in family changes from a comparative perspective. In addition, these surveys collect a broad range of information about respondents' attitudes toward various family-related issues, which allows the in-depth analysis of the subjective dimensions of family change.

Summaries of the Analyses

This volume is divided into two parts. First, analyses on the family-related values of East Asian countries and their changes are conducted using 2006 and 2016 EASS data. Family values and attitudes toward gender role, family formation, family rela-

tions, and satisfaction are explored in Korea, China, and Taiwan. Comparisons across the 2006-2016 data serve to provide an understanding of the specificities of each country in the East Asian contexts.

The second part broadens the scope of analysis into cross-national comparison. Each section in this part includes the analysis of more than one countries, which provides an opportunity to examine cross-national differences and similarities within the Asian countries. Some sections in this part seek for the understanding of both longitudinal trends and their cross-national differences, providing rich insights on the patterns of family changes in East Asia.

Except for the introduction and conclusion, the chapters consist of independent studies where research background, theoretical discussion, an overview of previous studies, an analysis and an interpretation of results, and conclusions are provided, respectively.

The first section of Chapter II discusses the family values and their change in Korea, which include six topics of marriage, cohabitation, divorce, gender roles, traditionalism about family and gender, and intergenerational support.

The second section of Chapter II looks at family attitudes in Taiwan. Specifically, it analyzes family formation, gender ideology and equity at home, familialism or public responsibility concerning family care, and the differences in perception

between men and women in Taiwan. It also contains some suggestions regarding the EASS family module.

The third section examines Chinese attitudes toward family and gender roles and their change over the decade. In this chapter, the authors deal with issues such as family structure and intergenerational support, gender preference at birth, responsibility for aging support, family ideology, and gender roles in the family.

The Fourth section examines the stability or changes of family values and behaviors comparing Japan to Korea, China and Taiwan using EASS 2006 and 2016 data. This section also provides a meaningful discussion by analyzing population and labor statistics and family statistics over the last four decades.

Chapter III shows cross-national differences and similarities between Korea, Japan, Taiwan, and China to identify their implications for family attitude. It contains the remaining sections of this study, Chapter III-1 through III-4.

Chapter III-1 explores the similarities and differences in gender-role attitudes and the gender division of household chores in Japan, Korea, Taiwan, China, Vietnam, Malaysia, Thailand and Turkey using EASS and CAFS (Comparative Asian Family Survey). It also details what changes in gender-role attitudes and the gendered divisions of domestic chores have occurred in Japan, Korea, and Taiwan.

In Chapter III-2, the authors examine cross-national differ-

ences in family attitudes in East Asian countries, mainly focusing on gender and age differences. Based on the findings, this chapter proposes a future research agenda and policy implications.

Chapter III-3 provides comparative studies on China and Japan, the most populous of East Asian countries. China and Japan share the same cultural background to some degree, Confucianism, but their social systems and the level of economic development are very different. Considering these cultural, social, and economic backgrounds, the authors analyze the similarities and differences of marriage and childbearing changes between China and Japan.

Chapter III-4 compares the extent of three-generation coresidence across East Asian societies and then explores how this living arrangement could be associated with one's well-being, using the extent of satisfaction with life as an overall outcome indicator.

The conclusion draws together the findings by reviewing what this study's analyses imply about the changes of families in East Asia: first, family change in each country of East Asia and, second, comparison of the change in the family in East Asia countries. Based on the review of the research, this study proposes some policy recommendations.

*key words: Family Attitudes, East Asia, Comparative Perspective

I

Introduction

I

Introduction <<

Since the mid-1990s, similar dramatic changes in family formation patterns were observed across East Asian countries. For instance, the mean age of first marriage for Japanese women and men have increased respectively from 25.9 to 28.8 and 28.4 to 30.5 from 1990 to 2010(IPSS, 2014) ¹⁾, and analogous pattern is recorded in Taiwan²⁾. On the other hand, although China is different to some extent from other East Asian countries in that most Chinese are still getting married in their early twenties, bigger cities like Shanghai and Beijing are recently showing a trend of delayed marriage. Fertility rate in China, which had been under control by the one-child policy, has continued to remain low even after the abolishment of the policy (Raymo et al, 2015).

Korea has also experienced a dramatic change in its family formation pattern. The mean age of first marriage for Korean women has increased from 24.8 in 1990 to 30.2 in 2017. Similarly, the mean age for Korean men is now recorded to be around 32.9, a drastic change from 27.8 in 1990 (KOSIS, 2018). Furthermore, young Koreans are not just delaying marriage,

1) <http://www.ipss.go.jp/syoushika/tohkei/Popular/Popular2014.asp?chap=0>.

2) <http://sowf.moi.gov.tw/stat/gender/list03.html>.

but choosing to remain single. The proportion of people who are expected to never get married in their lifetime is increasing, recorded at 11.1% of all Korean men in 2015.

With such a wide range of demographic and behavioral transformations over a couple of decades, great changes in attitudes toward family and gender are expected to happen at the same time. In intergenerational relationships of adult children and their parents, although shared dominant patriarchal culture expresses itself by the continuing influence of filial norms, there are significant variations observed among these countries. Concerning a living arrangement with parents, Taiwan showed the highest rate of co-residence, while the percentages of co-residence are relatively low in China and Korea (Lin & Yi, 2013). Moreover, in terms of mutual support between generations, earlier reports have indicated that sons provide instrumental and financial support and take up the main tasks of caregiving (Lin et al., 2003). But recent data point out that, especially in China, daughters shows different roles, such as exchange more emotional support with parents and sons give more financial and domestic assistance and receive more help with household chores from parents (Lin, 2012).

Regarding gender-related attitudes in the family domain, there are still significant differences among the four countries. Research showed that Chinese and Taiwanese spouses were more satisfied with their marriage and had more egalitarian di-

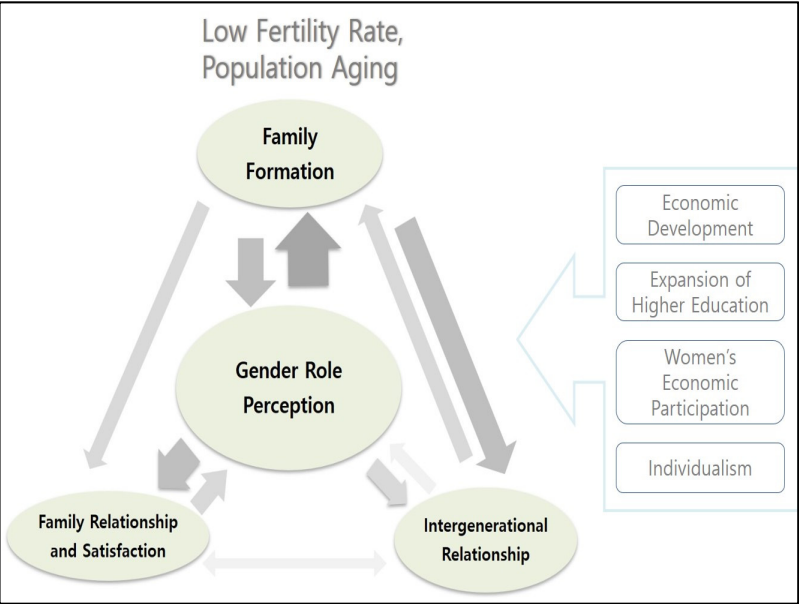
visions of housework, whereas Japanese and Korean married women and men held less egalitarian gender ideologies (Qian & Sayer, 2016). Among these societies, it is known that Chinese women have acquired their relatively higher status family sphere as one of the consequences of the socialist revolution and “state-led” feminism (Leung, 2003).

The ideas of the modern form of a family have diffused while each society shows diverge trends. In Korea, attitudes toward cohabitation are changing (Ahn & Im 2004), but the prevalence remains low and many questions remain unanswered. On the contrary, young Chinese and Japanese appear to have relatively positive attitudes toward cohabitation (Raymo et al. 2009, Yeung & Hu 2013). Also, in Taiwan and Japan, where total fertility rates ranked at the bottom globally, single adults tend to choose cohabitation before marriage as a form of partnership in both countries. Still, the rarity of out-of-wedlock birth, the less popularity and weak institutionalization of cohabitation, and the attitudes toward family values are among the factors that make family changes in the East Asian societies distinctive from those in so-called Western developed countries.

Despite a certain degree of variations within East Asia, as a region, the countries have experienced dramatic changes in the patterns of family formation and family-related attitudes. In understanding above mentioned demographic phenomenon, our study puts emphasis on the underlying family-related atti-

tude that is changing alongside family formation behaviors. The dual changes in behaviors and attitudes constitute the transformation of the Korean families not only in aspects related to family formation but in the intergenerational relationship, gender role division within a household, family dissolution, and the like. The changes in family structure and the following perceptions and attitudes toward family formation are expected to show a distinctive pattern in the macro-economic context, while at the same time interacting within the specific contexts of social, economic and political circumstances within each society.

[Figure 1-1-1] A Framework of Family Change in East Asia



Our primary goal is to analyze the recent trend in the family-related attitudes in East Asian countries and provide a synthesized overview on between-country variations in family behavior in the four East Asian societies that we study in this paper. These societies share a common traditional family value that is, to a certain extent, rooted in Confucian culture. Although, there are large between-country variations, as is formed in accordance with the cultural and institutional environment of each society. Still, many features of the family organization remain highly similar. By paying attention to the recent changes, we seek for more detailed understanding of family changes in contemporary East Asian society, and more comprehensive understanding of Korea in different aspects. More importantly, by focusing on both behavioral and attitude aspect which is essential for a comprehensive understanding of changes in the family we look for more reasons at the root of the phenomenon.

This study utilized the data from the 2006 and 2016 EASS (East Asian Social Survey), a biannual social survey serving as a cross-national comparison of four East Asian countries: Chinese General Social Survey(CGSS), Japanese General Social Surveys(JGSS), Korean General Social Survey(KGSS), and Taiwan Social Change Survey(TSCS). The EASS family module in 2006 and 2016, measures family values such as attitudes toward marriage, cohabitation, divorce, gender roles, traditionalism

about family and gender, and intergenerational support.

EASS 2006 and 2016 data measured family-related values in four topics, as shown in figure 1-1-1. Gender role attitudes, family formation behavior, family relationship and satisfaction, intergenerational relationships interplay and together generates family dynamics. It is noteworthy that gender role perception change is the fundamental drives for the other three domains. Especially, gender role attitudes in the family sphere are the main factor that causes late marriage and low fertility. Moreover, the other three domains also interact. For instance, intergenerational relationships are largely determined by changes in family formation behaviors. These family changes are also connected to other social factors such as industrialization and economic development, expansion of higher education, women's labor force participation, and expansion of individualism. The changes in the family including the four areas are observed as macro-level demographic phenomenon such as low fertility and population aging, and these are issues that require policy efforts.

This volume is divided into two parts. First, family-related values of East Asian countries based on 2006 and 2016 family module provide data for four East Asian countries Korea, Japan, China, and Taiwan on values regarding gender role, family formation, family relations and satisfaction. Comparisons across data serve to provide understanding for

specificities of East Asian contexts by countries. The other part analyzes changes in theoretical contexts for family and gender values in the past four decades for each of the four countries of East Asia.

Except for the introduction and conclusion, the chapters consist of independent studies providing comparisons of family change among East Asian countries and the changes in family history of each country. These chapters are composed of research background, theoretical discussion, an overview of previous studies, an analysis and interpretation of survey results, and conclusions.

We develop our research as follows. Part II presents family changes from a theoretical perspective in East Asian countries in multiple aspects.

The first section for Chapter II discusses the analyses on the family values in Korea comprised of six topics including marriage, cohabitation, divorce, gender roles, traditionalism about family and gender, and intergenerational support. The second section looks at family attitudes in Taiwan. Specifically, it analyzes family formations, gender ideology and equity at home, familialism or public responsibility, and the difference in perception between men and women in Taiwan. It also contains some suggestions regarding the EASS family module.

The third section examines Chinese attitudes toward family and gender roles after a decade. In this chapter, we deal with

issues such as family structure and intergenerational support, gender preference at birth, responsibility for aging support, family ideology, and gender roles in the family. Chapter II-4 describes the preliminary results examining stability or changes of family values and practices in East Asian Societies based on East Asian Social Survey (EASS) 2006 and 2016 data sets. This section also provides a meaningful discussion by analyzing population and labor statistics and family statistics in the last four decades.

Part III shows cross-national differences and similarities between Korea, Japan, Taiwan and China to identify its implications for family attitude. It contains the remaining chapters of the book, Chapter III-1 through III-4.

The first section of Chapter III explores the similarities and differences in gender-role attitudes and the gender divisions of household chores in Japan, Korea, Taiwan, China, Vietnam, Malaysia, Thailand and Turkey using EASS and CAFS (Comparative Asian Family Survey). It also details what changes in gender-role attitudes and the gendered divisions of domestic chores have occurred in Japan, Korea, and Taiwan.

In chapter III-2, we examine cross-national differences in family attitudes in East Asian countries, especially focusing on gender and age differences. Based on this finding, this chapter proposes future research agenda and policy implications.

Chapter III-3 provides comparative studies on China and

Japan, the most populous of East Asian countries. China and Japan are influenced by Confucianism and share the same cultural background, but their social systems and economic development levels are very different. Considering these cultural, social and economic backgrounds, we analyze the similarities and differences of marriage and birth rate changes between China and Japan.

Chapter III-4 compares the extent of 3-generation co-residence practices across East Asian societies, and then explores how this living arrangement could be associated with one's well-being, using the extent of satisfaction with life as an overall outcome indicator.

The conclusion draws together our findings by reviewing what our analyses have indicated about changes of families in East Asia: first, family change in each country of East Asia and, second, comparison of the change in the family in East Asia countries. Based on the review of the research, we propose some policy recommendations.

II

Changes in Family Formation in East Asian Families: 2006–2016

II

Changes in Family Formation in East Asian Families: 2006–2016 <<

Using the data from EASS 2006 and 2016, Chapter II looks at how family-related values and attitudes in East Asian countries have changed over the ten years. Attitudes regarding gender role, family formation, family relations, and satisfaction with the relationship are analyzed in detail, and the gender role perception is covered with importance. Further, changes in family behaviors are explored in relation to attitudinal trends in the analysis, especially in the second section about Taiwan. Comparisons across the 2006–2016 data serve to provide an understanding of the specificities of each country sharing the East Asian contexts. This approach incorporates the insight that families in these societies are changing at a rapid rate, because taking a snapshot of current families in these societies would not guarantee the proper understanding of the pattern of those changes. Taking longitudinal views on each country can help comprehend the changing nature of families in East Asian societies.

1. Changes in Attitudes toward Family and Gender in Korea: 2006–2016

Korea has experienced great familial and demographic changes around the start of the 21st century. First, the number of household members per household has been in the decrease continuously. The averages of household members have been dropping from 3.7 in 1990 and 3.3 in 1995 to 2.7 in 2010 and 2.5 in 2015. Consistently, the proportions of one-person household have been skyrocketing, from 9.0% in 1990 and 12.7% in 1995 to 23.9% in 2010 and 27.2% in 2015, mainly due to increases in those who remain single, and are divorced and widowed. Second, some unconventional forms of families such as single-parent and grandparent-headed families have been on the gradual increase. The proportions of single-parent households have been larger from 5.8% in 1990 to 9.5% in 2015. The numbers of grandparent-headed families have increased from 45,224 in 2000 to 58,101 in 2005. Third, as globalization has gained grounds rapidly in Korea, marital couples where one spouse is a foreigner has been on the rise. Roughly speaking, one out of ten couples is this so-called multicultural marital couples in Korea – 10.8% in 2010 and 7.4% in 2015. Fourth, like many developed countries, Korea has suffered from unprecedentedly low levels of fertility rates. Since the beginning of the 21st century, the total fertility rates have been well below

1.5, for example, 1.08 in 2005, 1.22 in 2010 and 1.24 in 2015. Fifth, the Korean population has been aging so fast. The proportions of the aged have been 7.3% in 2000, 9.3 in 2005, 11.0 in 2010 and 13.2 in 2015.

In tandem with such a wide range of demographic and behavioral transformations over the couple of decades, great changes in attitudes toward family and gender can be expected to happen in Korea (Shim and Han 2010). Indeed, previous studies and reports appear to be consistent with this expectation (Chang and Song 2010). However, while existing research help understand recent attitudinal variations, they have some limitations (Kim 2010). First, the data sets that are employed for studies have just a couple of items about specific issues – e.g., marriage, divorce, gender roles and so on – and so researchers fail to tap various dimensions in changes in attitudes. For example, while the Social Survey, a yearly-repeated cross-sectional study carried out by the Statistics Korea, is often used to study about changes in perception about marriage, it has only one item – how much respondent agree or disagree with the statement of “people should get married.” While this item is relevant to investigate whether Korean believe in the absoluteness of marriage, but at the same time some people can believe that individuals can delay, while they should get married. In other word, if we want to study about attitudes toward marriage, timing as well as absoluteness of marriage

should be approached, which is not possible with the Social Survey. Second, studies indicate that people show different in attitudes depending on some features such as gender, age, education, and so on (Yoo and Kim 2010). But some studies look at the whole population and so while they are very good in providing the snapshot of changes over a certain period, they are not suitable to examine changes specific to certain segments of the population. In particular, the literature suggests that gender does matter in attitudes toward family (Lee, Kim and Lim 2009). Therefore, studies are necessary to gender-specific changes in attitudes.

ANALYSES

Marriage

Table II-1-1 shows changes in perceptions of Koreans about marriage have over the ten-year period through how much respondents agree or disagree with the statement of “husband should be older than wife”.

〈Table II-1-1〉 Husband should be older than wife

	Total		Male		Female		t-test results
	06	16	06	16	06	16	
strongly conservative	12.1	8.3	10.7	6.3	13.3	9.9	
fairly conservative	11.5	9.5	10.8	10.1	12.1	9.1	
somewhat conservative	19.8	17.2	20.2	17.1	19.5	17.3	
neither conservative nor liberal	39.0	44.5	40.1	47.4	38.2	42.2	
somewhat liberal	9.6	8.4	9.7	7.4	9.6	9.2	
fairly liberal	3.1	5.1	2.7	4.0	3.5	5.9	
strongly liberal	4.8	7.1	5.9	7.8	3.9	6.5	
Means	3.5	3.8	3.6	3.8	3.4	3.7	A, B, C
Total	100.0						

A: statistically different between means in 2006 and 2016 for the total

B: statistically different between means in 2006 and 2016 for the males

C: statistically different between means in 2006 and 2016 for the females

The averages become greater from 3.5 in 2006 to 3.8 in 2016, indicating that Koreans tend to break away gradually from the once established image about age differences between husbands and wives. However, considering that 3 is “somewhat conservative” and 4 is “neither conservative nor liberal”, in general, most Koreans still appear to agree to the traditional view that married males should be older than their female spouses. It is found that 39.0% in 2006 and 44.5% in 2016 belong to the middle in the response scale. Korean women and men are similar in their changes in this attitude over the

decade. The means of females and males are 3.6 and 3.4 in 2006 and 3.8 and 3.7 in 2016 respectively. We can observe 0.2 and 0.3 points increase from 2006 to 2016 for women and men each. Table II-1-2 shows perceptual changes of Korean people over the last decade how much they would agree or disagree to the question of “it is not necessary to have children in marriage”

〈Table II-1-2〉 It is not necessary to have children in marriage

	Total		Male		Female		t-test results
	06	16	06	16	06	16	
strongly conservative	32.6	21.1	37.6	22.7	28.6	19.7	
fairly conservative	23.9	19.9	26.0	21.3	22.2	18.8	
somewhat conservative	21.2	21.1	18.7	23.0	23.3	19.7	
neither conservative nor liberal	11.8	16.8	9.7	15.8	13.5	17.6	
somewhat liberal	5.9	10.7	4.2	10.5	7.2	10.8	
fairly liberal	2.6	5.1	2.1	4.0	3.0	5.9	
strongly liberal	2.1	5.4	1.8	2.7	2.3	7.7	
Means	2.5	3.1	2.3	2.9	2.7	3.3	A, B, C
Total	100.0						

A: statistically different between means in 2006 and 2016 for the total
B: statistically different between means in 2006 and 2016 for the males
C: statistically different between means in 2006 and 2016 for the females

The averages have changed from 2.5 in 2006 to 3.1 in 2016, showing that Koreans have become a little more flexible on the relation between marriage and having children. In 2006, 77.7% of people are considered conservative whereas 62.1% are categorized as conservative in 2016. Despite of the change, most people still have conservative views on having children in marriage. Men seem to be more conservative than women as the means of men is 2.3 and 2.7 for women in 2006. The gap between men and women has not been changed over the decade looking at the means of men in 2016 is 2.9 and 3.3 for women. However, the changes from strongly conservative to somewhat liberal happen in both genders. The means of males become greater from 2.3 in 2006 to 2.9 in 2016 whereas the means of females increase from 2.7 in 2006 and 3.3 in 2016 respectively. We can observe 0.6 points increase from 2006 to 2016 for both of women and men.

Table II-1-3 deals with the idea on marriage of Korean people over the last decade how much they would agree or disagree to “married men are generally happier than unmarried men”

〈Table II-1-3〉 Married men happier than unmarried men

	Total		Male		Female		t-test results
	06	16	06	16	06	16	
strongly conservative	15.7	13.0	18.0	12.0	13.9	13.7	
fairly conservative	24.1	16.8	25.3	18.1	23.2	15.7	
somewhat conservative	23.5	21.5	21.4	19.8	25.2	23.0	
neither conservative nor liberal	23.7	31.1	22.5	30.7	24.7	31.5	
somewhat liberal	7.4	10.0	6.3	10.5	8.3	9.6	
fairly liberal	3.7	4.8	4.1	5.3	3.4	4.4	
strongly liberal	1.9	2.9	2.5	3.6	1.4	2.3	
Means	3.0	3.3	3.0	3.4	3.1	3.3	A, B, C
Total	100.0						

A: statistically different between means in 2006 and 2016 for the total
B: statistically different between means in 2006 and 2016 for the males
C: statistically different between means in 2006 and 2016 for the females

The averages have changed from 3.0 in 2006 to 3.3 in 2016. It means that Koreans have become more neutral toward the idea of married males’ marriage leading to happiness in their lives. However, 63.3% in 2006 and 51.3% in 2016 still believe that married men are happier than unmarried men. Noting the response for “neither conservative nor liberal” takes 23.7% in 2006 and 31.1% in 2016, Koreans seems to think differently over the decade. The relation between marriage and happiness for males are similarly thought by men and women. In 2006, the means of males and females are 3.0 and 3.1 each whereas

3.4 for males and 3.3 for females in 2016. Over the decade 0.4 points increase for men and 0.2 points increase for women respectively.

Meanwhile, table II-1-4 shows the answers for corresponding question of table 3 indicating the changes over the decade how much Korean people would agree or disagree to “married women are generally happier than unmarried women”

〈Table II-1-4〉 Married women happier than unmarried women

	Total		Male		Female		t-test results
	06	16	06	16	06	16	
strongly conservative	11.8	11.2	13.9	11.2	10.2	11.3	
fairly conservative	20.9	13.9	24.2	15.6	18.3	12.5	
somewhat conservative	24.4	21.3	21.4	19.8	26.8	22.6	
neither conservative nor liberal	26.0	33.1	24.7	33.3	27.1	32.9	
somewhat liberal	10.1	12.1	8.2	11.6	11.7	12.5	
fairly liberal	4.4	5.4	4.5	5.5	4.4	5.4	
strongly liberal	2.3	3.0	3.2	3.2	1.6	2.8	
Means	3.2	3.5	3.2	3.5	3.3	3.5	A, B, C
Total	100.0						

A: statistically different between means in 2006 and 2016 for the total

B: statistically different between means in 2006 and 2016 for the males

C: statistically different between means in 2006 and 2016 for the females

The averages have changed from 3.2 in 2006 to 3.5 in 2016, indicating that Koreans have become a little more neutral about married females' marriage and the happiness in their lives. In 2006, 57.1% people and 46.4% in 2016 believe that married women are happier than unmarried women. The neutral responses for "neither conservative nor liberal" have increased from 26.0% in 2006 and 33.1% in 2016. It shows that Koreans become more neutral on marriage and happiness for females. The relation between marriage and happiness for females are similarly changed between men and women. In 2006, the means of males and females are 3.2 and 3.3 each whereas 3.5 for males and 3.5 for females in 2016. Over the decade 0.1 points increase for men and no increase for women respectively.

Combining table 3 and table 4, Koreans acknowledge that females' marriage and their happiness are less likely related to males. In addition, regardless of gender, the belief that marriage could bring happier lives is not supported by as many people as it was ten years ago.

Cohabitation

Table II-1-5 illustrates the idea on cohabitation of Korean people over the last decade how much they would agree or disagree to "it is all right for a couple to live together without intending to get married"

(Table II-1-5) It is all right for a couple to live together without intending to get married

	Total		Male		Female		t-test results
	06	16	06	16	06	16	
strongly conservative	25.6	15.8	26.5	15.0	24.8	16.5	
fairly conservative	21.6	19.5	19.2	18.7	23.5	20.2	
somewhat conservative	18.0	19.2	17.3	18.1	18.5	20.2	
neither conservative nor liberal	13.2	15.1	14.5	16.8	12.2	13.7	
somewhat liberal	15.3	19.1	16.6	21.5	14.4	17.0	
fairly liberal	4.3	7.5	3.7	7.0	4.8	8.0	
strongly liberal	2.1	3.7	2.3	3.0	1.9	4.4	
Means	2.9	3.4	3.0	3.4	2.9	3.4	A, B, C
Total	100.0						

A: statistically different between means in 2006 and 2016 for the total
 B: statistically different between means in 2006 and 2016 for the males
 C: statistically different between means in 2006 and 2016 for the females

The means of the attitudes toward cohabitation have changed from 2.9 in 2006 to 3.4 in 2016 meaning that Koreans have become more liberal toward cohabitation. Even though 65.2% in 2006 and 54.5% in 2016 are still conservative, Koreans have become more liberal noting that the responses for “somewhat liberal” have increased from 15.3% to 19.1% including the increase in the means. The increases are equally shown in both genders. In 2006, the means of males and females are 3.0 and 2.9 each whereas 3.4 for males and females in 2016. Over the decade 0.4 points increase for men and 0.5 points in-

crease for women respectively.

Divorce

Table II-1-6 is about the attitude of Koreans toward divorce over the last decade how much they would agree or disagree to “people who want to divorce must wait until children are grown up”

〈Table II-1-6〉 People who want to divorce must wait until children are grown up

	Total		Male		Female		t-test results
	06	16	06	16	06	16	
strongly conservative	17.6	17.5	19.6	17.5	16.0	17.4	
fairly conservative	19.0	16.6	20.1	18.1	18.1	15.3	
somewhat conservative	19.2	20.8	18.9	21.9	19.5	19.9	
neither conservative nor liberal	14.0	17.2	13.1	18.1	14.6	16.4	
somewhat liberal	14.0	13.4	12.4	12.2	15.2	14.3	
fairly liberal	8.4	7.6	7.3	6.7	9.2	8.4	
strongly liberal	7.9	7.1	8.5	5.5	7.4	8.4	
Means	3.4	3.4	3.3	3.3	3.5	3.5	
Total	100.0						

A: statistically different between means in 2006 and 2016 for the total
B: statistically different between means in 2006 and 2016 for the males
C: statistically different between means in 2006 and 2016 for the females

There was no change on the means of the attitudes toward divorce 3.4 in both years of 2006 and 2016. Even though 55.8% in 2006 and 54.9% in 2016 have conservative tendency over divorce and growing children, people who answered as “fairly conservative” has been decreased from 19.0% to 16.6% and “neither conservative nor liberal” have increased from 14.0% to 17.2% in 2006 and 2016 respectively. This could read Koreans become a little more liberal or neutral despite of no changes in the means between 2006 and 2016. It is similarly shown in both genders. In 2006, the means of males and females are 3.3 and 3.5 each whereas 3.3 for males and 3.5 for females in 2016. Over the decade no changes for men nor for women.

Table II-1-7 illustrates other aspect about Koreans’ attitudinal change in the past ten years toward divorce by responses to the question how much they would agree or disagree with “divorce is usually the best solution when a couple can’t seem to work out their marriage”.

〈Table II-1-7〉 Divorce is usually the best solution when a couple can't seem to work out their marriage

	Total		Male		Female		t-test results
	06	16	06	16	06	16	
strongly conservative	13.4	8.1	16.2	9.5	11.3	7.0	
fairly conservative	12.6	8.9	11.3	8.2	13.7	9.4	
somewhat conservative	21.5	17.8	22.1	17.9	21.0	17.7	
neither conservative nor liberal	15.0	19.1	14.4	18.3	15.5	19.7	
somewhat liberal	18.8	23.5	18.1	23.8	19.4	23.3	
fairly liberal	10.8	12.0	11.3	11.2	10.4	12.7	
strongly liberal	7.9	10.7	6.8	11.2	8.8	10.3	
Means	3.8	4.2	3.7	4.2	3.8	4.2	A, B, C
Total	100.0						

A: statistically different between means in 2006 and 2016 for the total
B: statistically different between means in 2006 and 2016 for the males
C: statistically different between means in 2006 and 2016 for the females

The mean in 2006 is 3.8, have yet changed to 4.2 in 2016 meaning that Koreans have become more liberal toward divorce to work out their marriage. The increase of the mean has brought by decrease in all the conservative answers in addition to the evenly distributed increase for other responses from “neither conservative nor liberal” to “strongly liberal”. 47.5% in 2006 are conservative and yet only 34.8% stay conservative in 2016. Instead, 4.1% increase in checking as “neither conservative nor liberal” and 4.7% of more people for answering “somewhat liberal” lead the differences in ten years. The ten-

dency is also applicable to both genders. The mean of males is increased from 3.7 to 4.2 and the females' mean is from 3.8 to 4.2. Both genders show decreases in conservative answers and increases in neutral and liberal responses.

Responses for two different questions for attitudinal changes toward divorce show that Koreans stay conservative in terms of raising children as divorce might affect their children over the past years. However, they tend to more liberal to consider divorce as a solution to their marriage.

Gender Roles

Table II-1-8 through 11 show the attitudinal changes of Koreans toward gender roles over the last decade. Table 9 shows the responses how much they would agree or disagree to “It is more important for a wife to help her husband’s career than to pursue her own career”

〈Table II-1-8〉 It is more important for a wife to help her husband's career than to pursue her own career

	Total		Male		Female		t-test results
	06	16	06	16	06	16	
strongly conservative	13.7	9.1	11.9	9.3	15.1	9.0	
fairly conservative	15.8	9.2	15.2	8.6	16.2	9.7	
somewhat conservative	21.6	19.1	23.2	17.7	20.3	20.4	
neither conservative nor liberal	13.9	18.5	16.0	20.2	12.2	17.0	
somewhat liberal	19.5	19.4	18.4	19.2	20.3	19.7	
fairly liberal	10.3	14.5	10.1	14.1	10.5	14.8	
strongly liberal	5.3	10.1	5.2	11.0	5.4	9.4	
Means	3.6	4.1	3.6	4.2	3.6	4.1	A, B, C
Total	100.0						

A: statistically different between means in 2006 and 2016 for the total
B: statistically different between means in 2006 and 2016 for the males
C: statistically different between means in 2006 and 2016 for the females

The means are 3.6 and 4.1 in 2006 and 2016 respectively, showing that Koreans have become more liberal in the gender roles. 51.1% of people who answer conservative in 2006 have decreased to 37.4% in 2016. Both of males and females become less conservative on the issue as 50.3% of males being considered as conservative in 2006 changes to 35.6% and for females 51.6%, 39.1% in 2006 and 2016 respectively. Means for males are also increased where 3.6 and 4.2 each year while females' means are 3.6 and 4.1 over the decade.

Table II-1-9 indicates how respondents answer for the ques-

tion, “A husband’s job is to earn money: a wife’s job is to look after the home and family”

(Table II–1–9) A husband’s job is to earn money; a wife’s job is to look after the home and family

	Total		Male		Female		t-test results
	06	16	06	16	06	16	
strongly conservative	11.3	8.1	11.7	7.8	10.9	8.4	
fairly conservative	12.4	9.3	14.5	8.2	10.8	10.3	
somewhat conservative	18.5	16.2	19.3	17.7	17.9	15.0	
neither conservative nor liberal	15.4	17.2	15.9	19.2	15.0	15.7	
somewhat liberal	20.9	20.3	20.8	20.2	21.0	20.4	
fairly liberal	13.6	15.5	11.3	14.7	15.4	16.2	
strongly liberal	7.9	13.3	6.6	12.2	9.0	14.3	
Means	3.9	4.3	3.8	4.3	4.1	4.3	A, B, C
Total	100.0						

A: statistically different between means in 2006 and 2016 for the total

B: statistically different between means in 2006 and 2016 for the males

C: statistically different between means in 2006 and 2016 for the females

Conservative people of 42.2% in 2006 have been much smaller in 2016 reaching at 33.6%. It is interesting to note that people checking “strongly liberal” increased from 7.9% in 2006 to 13.3% in 2016 and “fairly liberal” has been checked from 13.6% to 15.5% in the last ten years. Means for the question increases from 3.9 in 2006 to 4.3 in 2016 indicating people become more liberal in general. Males and females also have shown more lib-

eral tendencies over the decade as the mean for males increase from 3.8 in 2006 to 4.3 in 2016 and for females increase from 4.1 to 4.3 each. Particularly males who answer as conservative in 2006 have decreased from 45.5% to 33.7% in 2016 and males for “strongly liberal” have increased from 6.6% to 12.2 % in ten years. Meanwhile, 39.6% of females categorize themselves as conservative have been smaller in 2006 which is decreased to 33.7% in 2016 and females who are “strongly liberal” have much increased from 9.0% in 2006 to 14.3% in 2016.

The last question for the gender roles is “during the economic recession, it is all right for women to be laid-off than prior to men”. Table II-1-10 shows the responses of Koreans how much they agree or disagree to the question and comparisons between 2006 and 2016.

(Table II-1-10) During economic recession, it is all right for women to be laid-off than prior to men

	Total		Male		Female		t-test results
	06	16	06	16	06	16	
strongly conservative	1.9	3.1	1.5	2.1	2.3	4.0	
fairly conservative	4.7	4.0	3.9	2.7	5.3	5.0	
somewhat conservative	10.7	7.8	11.2	7.6	10.3	8.0	
neither conservative nor liberal	13.5	16.2	17.0	17.7	10.6	15.0	
somewhat liberal	21.4	15.0	23.2	17.3	20.0	13.0	
fairly liberal	22.1	24.5	21.9	24.2	22.2	24.7	
strongly liberal	25.7	29.4	21.2	28.4	29.4	30.3	
Means	5.2	5.3	5.1	5.3	5.2	5.2	B
Total	100.0						

A: statistically different between means in 2006 and 2016 for the total

B: statistically different between means in 2006 and 2016 for the males

C: statistically different between means in 2006 and 2016 for the females

It hardly has been changed for the means in the past decade. The means are 5.2 and 5.3 in 2006 and 2016 each. The means for both genders also appears similar such as 5.1 and 5.3 for males in both years and 5.2 for females in both years. There is not much of differences in distribution of answers as conservative answers were 17.3% in 2006 and 14.9% in 2016, where liberal answers are 69.2% and 68.8% in 2006 and 2016 respectively. However, males and females have shown a few differences in the past decade in which conservative males have become less from 16.6% in 2006 to 12.4% in 2016. The de-

crease of conservative males applies to the increase of “strongly liberal” males from 21.2% to 28.4% in 2006 and 2016 respectively. Yet, conservative females are not changed as 17.9% in 2006 and 17.0% in 2016.

Traditionalism about Family and Gender

Traditionalism about Family and Gender has been analyzed through four questions, which will be shown in the Table 12 through 15.

Table II-1-11 demonstrates the responses of Koreans over the past decade about how much they would agree or disagree to “The authority of father in a family should be respected under any circumstances”

(Table II-1-11) The authority of father in a family should be respected under any circumstances

	Total		Male		Female		t-test results
	06	16	06	16	06	16	
strongly conservative	31.4	21.3	29.6	18.3	32.9	23.8	
fairly conservative	29.1	25.7	27.5	24.6	30.3	26.6	
somewhat conservative	23.8	31.1	25.3	32.2	22.5	30.1	
neither conservative nor liberal	6.9	12.5	7.7	15.4	6.2	10.1	
somewhat liberal	6.3	6.2	6.7	6.7	6.0	5.7	
fairly liberal	1.7	1.7	2.3	1.5	1.2	1.9	
strongly liberal	0.9	1.5	0.8	1.3	0.9	1.7	
Means	2.4	2.7	2.4	2.8	2.3	2.6	A, B, C
Total	100.0						

A: statistically different between means in 2006 and 2016 for the total

B: statistically different between means in 2006 and 2016 for the males

C: statistically different between means in 2006 and 2016 for the females

Noting that the means are 2.4 and 2.7 in 2006 and 2016 respectively, Koreans become more liberal in traditionalism about family and gender. However, similarly to other attitudinal changes mentioned above, majority of Koreans falls to the conservative category as 84.3% in 2006 and 78.1% in 2016 show conservative views. 82.4% of males and 85.7% of females are conservative in 2006 while 75.1% of males and 80.5% of females in 2016.

The second indicator for the traditionalism about family and gender is based on the question of “children must make efforts

to do something that would bring honor to their parents”. Table II-1-12 shows the differences between 2006 and 2016 how much Koreans agree or disagree to the question abovementioned.

〈Table II-1-12〉 Children must make efforts to do something that would bring honor to their parents

	Total		Male		Female		t-test results
	06	16	06	16	06	16	
strongly conservative	19.5	15.1	21.9	15.4	17.5	15.0	
fairly conservative	25.2	20.1	25.6	17.9	24.9	21.9	
somewhat conservative	30.0	28.5	28.6	30.1	31.2	27.1	
neither conservative nor liberal	13.6	18.0	13.4	19.8	13.8	16.5	
somewhat liberal	8.0	10.5	6.9	9.1	8.9	11.7	
fairly liberal	2.3	5.1	2.4	4.6	2.2	5.6	
strongly liberal	1.4	2.7	1.3	3.2	1.6	2.3	
Means	2.8	3.1	2.7	3.2	2.8	3.1	A, B, C
Total	100.0						

A: statistically different between means in 2006 and 2016 for the total
B: statistically different between means in 2006 and 2016 for the males
C: statistically different between means in 2006 and 2016 for the females

The means of the responses are 2.8 and 3.1 in 2006 and 2016. The means of males and females are somewhat similar where the means of males are 2.7 and 3.2 in each year and females are 2.8 and 3.1 in the years. 74.7% in 2006 and 63.7% in 2016 are checked as conservative. 76.1% of males in 2006 are conservative whereas 63.4% of males in 2016 showing the

decrease. For female, conservative is 73.6% in 2006 decreasing to 64.0% in 2016. Overall males and females have become more liberal on the issue regarding children’s efforts to honor their parents, similarly, adapting to all of Koreans in general.

Thirdly, table II-1-13 shows the changes of attitude toward the traditionalism about family and gender through the responses how much Koreans agree or disagree to the question of “to continue the family line, one must have at least one son”.

〈Table II-1-13〉 To continue the family line, one must have at least one son

	Total		Male		Female		t-test results
	06	16	06	16	06	16	
strongly conservative	19.3	13.0	21.2	12.4	17.7	13.4	
fairly conservative	15.7	11.1	18.9	11.8	13.2	10.4	
somewhat conservative	21.7	16.9	23.6	18.3	20.2	15.7	
neither conservative nor liberal	20.0	23.5	19.3	26.7	20.6	20.9	
somewhat liberal	11.3	16.3	6.9	16.0	14.9	16.5	
fairly liberal	5.6	10.9	5.3	9.5	5.9	12.0	
strongly liberal	6.4	8.5	4.8	5.3	7.7	11.1	
Means	3.3	3.9	3.1	3.7	3.5	4.0	A, B, C
Total	100.0						

A: statistically different between means in 2006 and 2016 for the total

B: statistically different between means in 2006 and 2016 for the males

C: statistically different between means in 2006 and 2016 for the females

The averages become increased from 3.3 in 2006 to 3.9 in 2016. Both genders show same increases in which averages of males become greater from 3.1 to 3.7 and females from 3.5 to

4.0 in 2006 and 2016 respectively. The decrease where 56.7% of people in 2006 become conservative to 41% in 2016 indicates that Koreans become more liberal on regarded issue for the traditionalism. 63.7% of males used to be conservative in 2006 become a lot less reaching to 42.5% in 2016. Females of 51.1% in 2006 who are conservative also become a lot less to 39.5% in 2016.

Table II-1-14 shows the last question regarding the traditionalism about family and gender through the responses how much Koreans agree or disagree to the question of “one must put familial well-being and interest before one’s own”.

〈Table II-1-14〉 One must put familial well-being and interest before one’s own

	Total		Male		Female		t-test results
	06	16	06	16	06	16	
strongly conservative	22.4	20.2	26.8	22.1	18.9	18.6	
fairly conservative	28.3	21.1	28.8	22.5	27.9	19.8	
somewhat conservative	29.3	28.5	28.9	28.6	29.6	28.4	
neither conservative nor liberal	11.3	18.0	9.8	17.5	12.5	18.4	
somewhat liberal	6.1	8.6	4.4	6.1	7.5	10.6	
fairly liberal	1.6	3.0	1.1	2.3	1.9	3.5	
strongly liberal	1.1	0.8	0.3	0.8	1.8	0.7	
Means	2.6	2.9	2.4	2.7	2.7	3.0	A, B, C
Total	100.0						

A: statistically different between means in 2006 and 2016 for the total
B: statistically different between means in 2006 and 2016 for the males
C: statistically different between means in 2006 and 2016 for the females

The averages are not changed a lot in the last ten years as 2.6 in 2006 to 2.9 in 2016. The means of the males and females are 2.4 and 2.7 in 2006 each while they are changed to 2.7 and 3.0 in 2016. The differences between genders are same as 0.3 points each year and females are a little more liberal than males. However, 80% of people in 2006 and 69.8% in 2016 still have conservative approach to the traditionalism despite the decrease. 84.5% of males in 2006 73.2% in 2016 are conservative whereas 76.4% of females in 2006 and 66.8% in 2016 are also conservative. The fact that both of genders show less conservative attitude in 2016 than in 2006 also demonstrates the attitudinal changes toward more liberal approach over the past decade.

Intergenerational support

Analyses on intergenerational support comprises of four questions, which will be shown in the Table 16 through 19. The answers are given as seven scales from “strongly agree” to “strongly disagree”. The greater number means they do not support the intergenerational support.

First, Table II-1-15 shows the changes in responses of Koreans over the past ten years how much they would agree or disagree to statement “financial support from married man to own parents”.

〈Table II-1-15〉 Attitude to financial support: married man to own parents

	Total		Male		Female		t-test results
	06	16	06	16	06	16	
strongly conservative	20.9	16.5	25.0	22.3	17.7	11.6	
fairly conservative	30.0	23.2	32.7	25.5	27.9	21.4	
somewhat conservative	33.4	35.9	27.0	33.7	38.6	37.7	
neither conservative nor liberal	10.0	15.0	9.7	11.2	10.2	18.2	
somewhat liberal	3.6	5.5	3.4	3.4	3.7	7.3	
fairly liberal	0.9	2.1	1.0	1.9	0.9	2.3	
strongly liberal	1.1	1.8	1.3	2.1	1.0	1.6	
Means	2.6	2.9	2.4	2.7	2.7	3.0	A, B, C
Total	100.0						

A: statistically different between means in 2006 and 2016 for the total
B: statistically different between means in 2006 and 2016 for the males
C: statistically different between means in 2006 and 2016 for the females

The averages are 2.5 and 2.8 in 2006 and 2016 showing Koreans have become more negative in intergenerational support from married man to own parents. Nothing 84.3% in 2006 and 75.6% in 2016 agree to the support by married man for own parents, majority of Koreans would continue to financially support own parents. However, it has also been true that the tendency become smaller. 84.7% of males in 2006 and 81.5% in 2016 support the intergenerational support from married man to own parents. 84.2% of females in 2006 and 70.7% in 2016 agree to the intergenerational support. These differences between genders are also reflected in the means, which 2.4 for

males in 2006 become 2.6 in 2016 and 2.6 for females in 2006 and 3.0 in 2016.

The second question regarding for the intergenerational support is corresponding to the table 16, in which how much they would agree or disagree to statement “financial support from married woman to own parents”. Table II-1-16 shows the changes of the responses of Koreans in 2006 and 2016.

〈Table II-1-16〉 Attitude to financial support: married woman to own parents

	Total		Male		Female		t-test results
	06	16	06	16	06	16	
strongly conservative	13.6	13.5	14.0	16.8	13.3	10.8	
fairly conservative	24.8	20.9	27.4	21.1	22.7	20.8	
somewhat conservative	37.4	37.2	33.3	37.3	40.8	37.2	
neither conservative nor liberal	15.8	17.6	17.3	15.4	14.6	19.4	
somewhat liberal	5.8	6.7	5.2	4.8	6.2	8.2	
fairly liberal	1.3	1.8	1.0	1.7	1.5	1.9	
strongly liberal	1.4	2.3	1.8	3.0	1.0	1.7	
Means	2.8	3.0	2.8	2.9	2.9	3.1	A, C
Total	100.0						

A: statistically different between means in 2006 and 2016 for the total

C: statistically different between means in 2006 and 2016 for the females

The averages are 2.8 and 3.0 in 2006 and 2016. For males the means are 2.8 and 2.9 in 2006 and 2016 each and for females they are 2.9 and 3.1 in 2006 and 2016. Females change the attitude yet males not, which lead the changes the total means

over the decade. 74.7% of males in 2006 and 75.2% in 2016 agree to the intergenerational support of married woman to own parents. 76.8% of females in 2006 and 68.8% in 2016 agree. Comparing the responses of table 16 and 17, intergenerational support from married man to own parents are more acceptable than from married woman to own parents. These results could be interpreted as the patriarchal culture of Korea strongly influences the attitude toward intergenerational support.

The third question is regarding “the attitude to financial support: married man to spouse’s parents”. Table II-1-17 shows the changes of the responses of Koreans in 2006 and 2016.

〈Table II-1-17〉 Attitude to financial support: married man to spouse’ parents

	Total		Male		Female		t-test results
	06	16	06	16	06	16	
strongly conservative	14.0	12.3	14.6	16.6	13.5	8.7	
fairly conservative	24.9	18.9	28.0	17.9	22.4	19.8	
somewhat conservative	42.5	38.3	38.5	40.0	45.8	37.0	
neither conservative nor liberal	13.2	19.9	13.1	16.8	13.4	22.4	
somewhat liberal	3.5	6.2	3.7	4.6	3.4	7.5	
fairly liberal	0.9	2.2	1.1	1.7	0.7	2.6	
strongly liberal	1.0	2.2	1.1	2.3	0.9	2.1	
Means	2.7	3.0	2.7	2.9	2.8	3.2	A, B, C
Total	100.0						

A: statistically different between means in 2006 and 2016 for the total
B: statistically different between means in 2006 and 2016 for the males
C: statistically different between means in 2006 and 2016 for the females

The averages are 2.7 and 3.0 in 2006 and 2016. Males' averages are 2.7 and 2.9 and females' averages are 2.8 and 3.2 in each year. The responses could read there has not been much attitudinal changes. 81.4% and 69.5% of people in 2006 and 2016 agree to the support for spouses' parents showing the drastic decrease. 81.1% and 74.5% of males in 2006 and 2016 have agreed to their spouses' parents. Considering that 84.2% of males in 2006 and 81.5% in 2016 supports their own parents, it is much less in each year. In addition, 81.7% and 65.5% of females in each year agree to support married man to spouses' parents. It is interesting to note that 84.2% of females in 2006 and 70.7% in 2016 agrees to the intergenerational support from married man to own parents. This means that Koreans, regardless of the gender, more likely to support married man giving financial aid to own parents than to spouses' parents.

The following is the last question about intergenerational support from married woman to spouse' parents showing the corresponding topic to the previous table. Table II-1-18 demonstrates the responses of the changes in 2006 and 2016 how much Koreans agree or disagree to the statement of "financial support from married woman to spouse' parents"

〈Table II-1-18〉 Attitude to financial support: married man to spouse' parents

	Total		Male		Female		t-test results
	06	16	06	16	06	16	
strongly conservative	14.0	12.3	14.6	16.6	13.5	8.7	
fairly conservative	24.9	18.9	28.0	17.9	22.4	19.8	
somewhat conservative	42.5	38.3	38.5	40.0	45.8	37.0	
neither conservative nor liberal	13.2	19.9	13.1	16.8	13.4	22.4	
somewhat liberal	3.5	6.2	3.7	4.6	3.4	7.5	
fairly liberal	0.9	2.2	1.1	1.7	0.7	2.6	
strongly liberal	1.0	2.2	1.1	2.3	0.9	2.1	
Means	2.7	3.0	2.7	2.9	2.8	3.2	A, B, C
Total	100.0						

A: statistically different between means in 2006 and 2016 for the total

B: statistically different between means in 2006 and 2016 for the males

C: statistically different between means in 2006 and 2016 for the females

The averages are 2.7 in 2006 and 3.0 in 2016. 81.3% of people agree to the married woman's financial support to spouse' parents in 2006 which have decreased to 69.4% in 2016. In terms of gender, men tend to agree 79.4% in 2006, but 74.3% in 2016. Women agree 82.9% in 2006 and 65.5% in 2016, which is less than by male. The mean of males and females are same as 2.7 in 2006, which is changed to 2.9 for males and 3.2 for females in 2016. Women's attitudes become more negative for 0.5 points as men for 0.2 points showing that men keep positive views for financial support from married woman to

spouse's parents. In terms of spouse's parents whether it is from married man or from married woman, males show more positive attitudes toward intergenerational support for parents.

CONCLUSION

The analyses on the family values in Korea comprises of six topics including marriage, cohabitation, divorce, gender roles, traditionalism about family and gender, and intergenerational support. On average, Koreans seem to become liberal for all the issues and negative for intergenerational support.

Firstly, all the answers for “husband should be older than wife”, “it is not necessary to have children in marriage”, “married men are generally happier than unmarried men”, and “married women are generally happier than unmarried women” show that Koreans are more liberal in 2016 than in 2006. Even though majority of Koreans have conservatives vies on the issues, the proportion of those clearly appears to become smaller in the past decade. This tendency also seems similar in issues of cohabitation and divorce. The responses for “it is all right for a couple to live together without intending to get married”, “people who want to divorce must wait until children are grown up”, or “divorce is usually the best solution when a couple can't seem to work out their marriage” show mostly conservative views of Koreans regardless of genders. Responses for two different questions for attitudinal changes toward divorce show

that Koreans stay conservative in terms of raising children as divorce might affect their children over the past years. However, they tend to more liberal to consider divorce as a solution to their marriage. However, it is also true that people become more flexible on cohabitation and divorce, shown the increase of the averages of the attitudes.

Secondly, gender roles have been analyzed through questions of “a husband’s job is to earn money: a wife’s job is to look after the home and family”, “during the economic recession, it is all right for women to be laid-off than prior to men”, and traditionalism and gender for “The authority of father in a family should be respected under any circumstances”, “children must make efforts to do something that would bring honor to their parents”, and “to continue the family line, one must have at least one son.” Some views on gender roles for jobs of husbands versus wives, children’s efforts to honor for parents, or efforts to have a son to continue the family line become more liberal in 2016 than in 2006. Meanwhile, the views on gender roles in a family such as women to be laid than prior to men during the economic recession, most people do not show much differences in ten years, similarly to the authority of father in a family.

Lastly, intergenerational supports are analyzed by responses how much they agree or disagree in four or categories: from married men to own parents, married women to own parents,

married men to spouse' parents or married women to spouse' parents. Koreans become negative for all the financial support for their upper generations. In terms of spouse's parents whether it is from married man or from married woman, males show more positive attitudes toward intergenerational support for parents. In addition, regardless of the gender, Koreans show more positive views on supporting married man giving financial aid to own parents than to spouses' parents. These results could be interpreted as the patriarchal culture of Korea strongly influences the attitude toward intergenerational support.

This study on changes in attitudes indicates that while Koreans generally become liberal about family and gender over the ten-year period, we cannot conclude firmly that they are completely away from the traditional viewpoints. Koreans are still conservative in some points – for example, father's role in family or marriage's significance in life. Then why are Korean stick to the conventional attitudes but are more open toward, for instances, gender roles or international supports? Maybe this diversification in attitudes about family and gender could be associated with some recent social changes such as women's increases in educational attainments and economic participations and growing generational polarization of financial resources. Therefore, future studies should incorporate social and economic dimensions to reach a more complete under-

standing of changes in attitudes.

Also this study has some implications to policy makers. Often they assume that most Koreans support the liberal agenda – such as equal treatment of cohabiting couples with marital couples or more economic support to older generations from the government. But this study suggests that many Koreans are conservative. For example, they believe that adult children should take the main responsibility for their older parents and the government should be limited in giving aids to the old. And they think that marriage is a sacred thing and so getting divorced should be very difficult. Hence, the government have to communicate with the public and attain the common ground with the general population before it takes some legal and policy actions.

2. Changes of Family in Taiwan: Comparing EASS Data of 2006 and 2016

While both family and kinship institutions have been weakened with industrialization and urbanization, families are still the primary units for children's educational and economic resources (Blossfeld and Buchholz 2009). Many people still believe in the gender ideology of the male as the breadwinner and the female as the homemaker in East Asian countries (Ochiai and Molony 2008; Yu 2009). Low fertility and aging are two

demographic changes that Taiwan has been experiencing recently. The relevant issues are how to provide more care services for the elderly, and for children, to increase the number of births. Thus, to study changes in families, this paper adopts three perspectives: stratification, gender, and utility/welfare.

The issues discussed include family formations, gender ideology, gendered practices in the family, and attitudes towards responsibility for care of the children and the aged. To describe the changes of attitudes and practices concerning family issues, this paper compares Taiwanese data from the East Asian Social Survey conducted in 2006 and 2016.

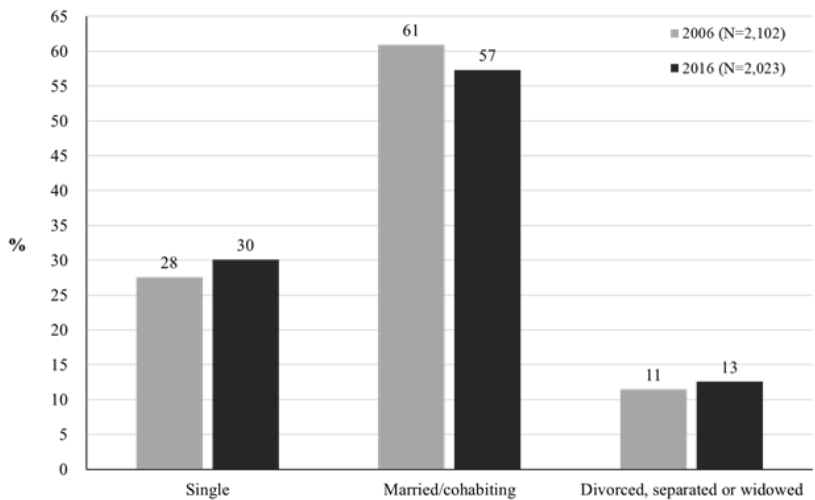
1) Family Formations

To describe family formations, the paper first presents frequency distributions of marital status, education and employment status of couples in conjugal families, and family size in original families and current households. These results shall inform us about changes in marital relationships, marriage homogamy in terms of socio-economic background, and evidence of declining fertility.

Even though marriages and family-with-children are still the two primary household statuses in Taiwan, as observed by researchers (e.g., Ochiai 2013), small changes have happened in

various aspects. Figure II-2-1 shows the marital status of respondents surveyed in the years 2006 and 2016, respectively. The percentage of the never-married and those previously married (divorced or widowed) but without partners both increased in the last decade, while the married with living spouses decreased from 61% in 2006 to 57% in 2016.

[Figure II-2-1] The Distribution of Marital Status

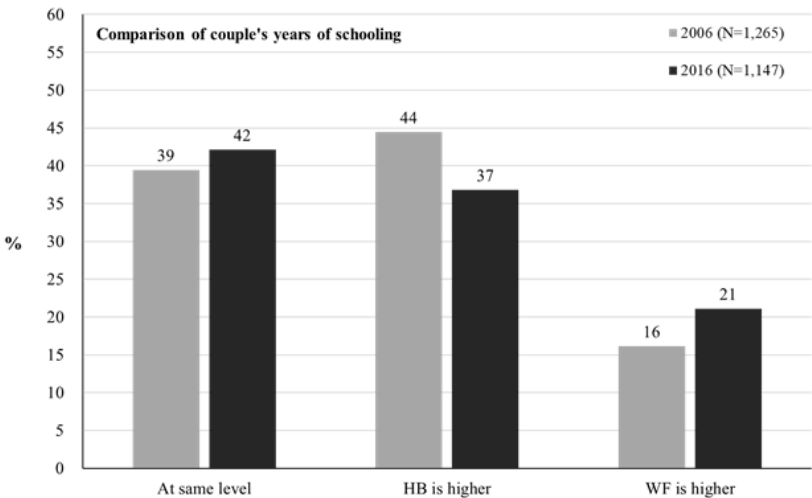


Note: The Pearson χ^2 is used to test the significance of differences between the two years.

The expansion of advanced education since the mid-1990s benefited female students more than males in Taiwan. Women constituted almost half of those enrolled in higher education in the academic year 2017 (Ministry of Education 2018). It seems that the expansion of higher education resulted in consolidat-

ing homogamy in Taiwan as in other places, for instance, Shanghai (Cheng 2014; Hu and Qian 2016). According to Cheng (2014), college-educated women are more likely to get married than the lower educated, and if married, their spouses are likely to have a college degree. The frequency distribution shown in Figure II-2-2 seems to support the trend. Measured by years of formal school education obtained by wives and husbands, the percentage of homogamy increased from 39% in 2006 to 42% in 2016. A sign of a decline in the traditional matching practice is the increase of the share of wives having higher education than husbands among couples, from 16% to 21% within ten years.

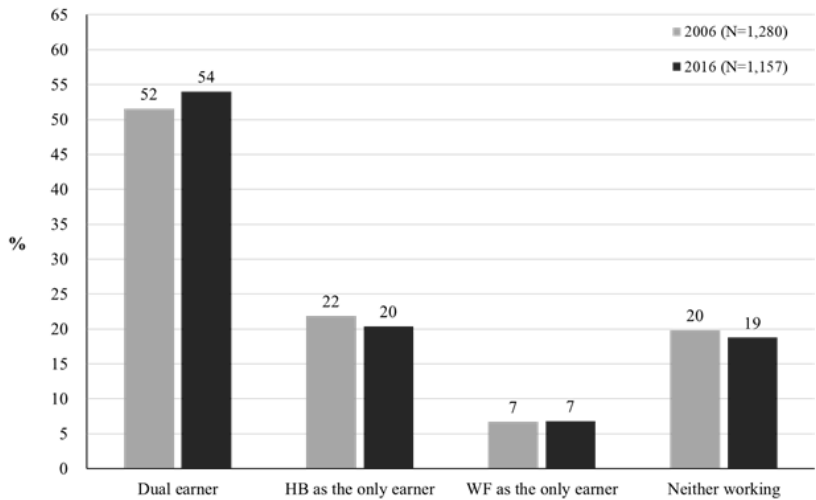
[Figure II-2-2] Marital Homogamy



*HB: husband, WF: wife

Higher educational achievements help to increase women’s chances of obtaining jobs with better economic and social status. Female labor force participation has rapidly increased in Taiwan for the past few decades. It was 50.9% in 2017, a little bit lower than other East Asian countries such as Japan (51.1%) or Korea (52.7%) (DGBAS 2018). The major source of the increase in the total participation rate came from the steady increase by married women. Household types may also have changed because of more women participating in labor markets. Figure II-2-3 shows the increase in dual-earner families from 52% to 54% in ten years.

[Figure II-2-3] Family Formation(I): By Couple’s Work Status



The Taiwanese fertility rate dropped below the replacement rate in 1985 and even reached as low as .895 in 2010 (the year of Tiger in Chinese zodiac) (DGBAS 2014a). It was 1.175 in 2015 and 1.170 in 2016. Family size underwent noticeable changes too. The paper uses two measures to demonstrate changes in the number of conjugal family members. Table 1 (A) shows the number of siblings (including the deceased) that respondents have. Close to two-thirds of respondents (64.8%) had three or more siblings when surveyed in 2006. The proportion declined significantly to 55% in 2016. The cohort effects can be shown by including only young people aged 20 or below in the sample. The results in the second part of Table 1 (A) indicate an increase in the percentage of single children and a decrease of having two or more siblings for the young population from 2006 to 2016. The majority of them had only one sibling.

〈Table II-2-1〉 Family Formation(II): By Marital and Parental Status

(Unit: person(%))

	2006	2016	χ^2 -test
(A) Number of siblings			
All respondents	2,101 (100)	2,019 (100)	50.0 ***
None	36 (1.7)	58 (2.9)	
1 sibling	255 (12.1)	365 (18.1)	
2 siblings	448 (21.3)	485 (24.0)	
3 or more siblings	1,362 (64.8)	1,111 (55.0)	
Young respondents (≤20 years old)	103 (100)	100 (100)	11.3 *
None	2 (1.9)	8 (8.0)	

	2006	2016	χ^2 -test
(A) Number of siblings			
1 sibling	43 (41.7)	57 (57.0)	
2 siblings	45 (43.7)	28 (28.0)	
3 or more siblings	13 (12.6)	7 (7.0)	
(B) Number of children			
All respondents	2,101 (100)	2,023 (100)	23.3 *
None	647 (30.8)	707 (34.9)	
1 child	185 (8.8)	217 (10.7)	
2 children	544 (25.9)	532 (26.3)	
3 or more children	725 (34.5)	567 (28.0)	

* $p < .05$, ** $p < .01$, *** $p < .001$

The size of family in respondents' own marriage also shows the dismal trend of low fertility in Taiwan over time. According to the results in Table II-2-1 (B), about 35% of married respondents remained childless when interviewed in 2016, which was 4% higher than in 2006. Those giving birth to only one child also increased 2% over the ten-year period.

Increasing employment by married women and homogamy may also be changing household types in terms of marital status, couple's work status, and parenthood. One of the noticeable results shown in Table II-2-2 is a decrease in the percentage of households with dual parenthood, from 58% in 2006 to 53% in 2016. All other types have increased percentages, including single parenthood, married but childless, and the single. Among households with single parenthood, the majority are those with a single mother (71% in 2006 and 69% in 2016). More than half of households with both parents present have

dual earners, as both wives and husbands are in paid jobs. The emergence of dual-earner families indicates that more men tended to marry women with take-home pay out of economic concerns. Another noticeable result is the distribution of economic status of households without child. The majority of childless households are so-called DINK, or “double income, no kids”. It was 61% in 2006 and further increased to 69% in 2016.

〈Table II-2-2〉 Family Formation(II): By Marital and Parental Status

(Unit: person(%))

Parental status	2006			2016			χ^2 -test
Total	2,100	(100)	-	2,020	(100)	-	
Single parenthood	234	(11.1)	(100)	246	(12.2)	(100)	2.1
Out-of-wedlock	10		(4.3)	6		(2.4)	
Ever married men (father) ¹⁾	57		(24.4)	70		(28.5)	
Ever married women (mother) ¹⁾	167		(71.4)	170		(69.1)	
Dual parenthood (by economic status)	1,219	(58.0)	(100)	1,067	(52.8)	(100)	0.9
Dual earner	613		(50.3)	553		(51.8)	
Husband as the only earner	271		(22.2)	224		(21.0)	
Wife as the only earner	84		(6.9)	77		(7.2)	
Neither working (e.g., the retired)	251		(20.6)	213		(20.0)	
Childless (by economic status)	77	(3.7)	(100)	104	(5.1)	(100)	2.0
Dual earner couple	47		(61.0)	72		(69.2)	
Husband as the only earner	9		(11.7)	12		(11.5)	
Wife as the only earner	2		(2.6)	2		(1.9)	
Neither working couple	3		(3.9)	4		(3.8)	
Ever married ¹⁾	16		(20.8)	14		(13.5)	
Never married and childless	570	(27.1)	(100)	603	(29.9)	(100)	-

* $p < .05$, ** $p < .01$, *** $p < .001$

1) Including the divorced, separated or widowed.

In addition to actualities of family formations, EASS asked respondents their attitudes towards marriage and inquired about couples' acceptance of their current spouse. For the question "It is better to have a bad marriage than no marriage at all", Table II-2-3 shows that married women stated a preference for no marriage over a bad marriage in 2006 (about 66%). The percentage in 2016 was even higher (75%). The trend for married men was similar, with those favoring no marriage over a bad marriage increasing from 59% in 2006 to 69% in 2016. Nevertheless, comparing differences between gender, it is evident that wives were more likely than husbands to prefer giving up the marriage if it is not a happy one in both 2006 and 2016.

〈Table II-2-3〉 Attitudes toward Marriage: It is better to have a bad marriage than no marriage at all

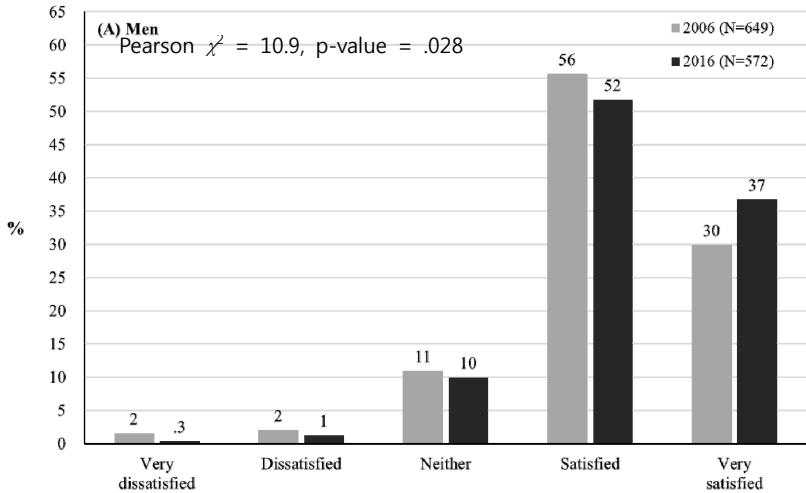
(Unit: person(%))

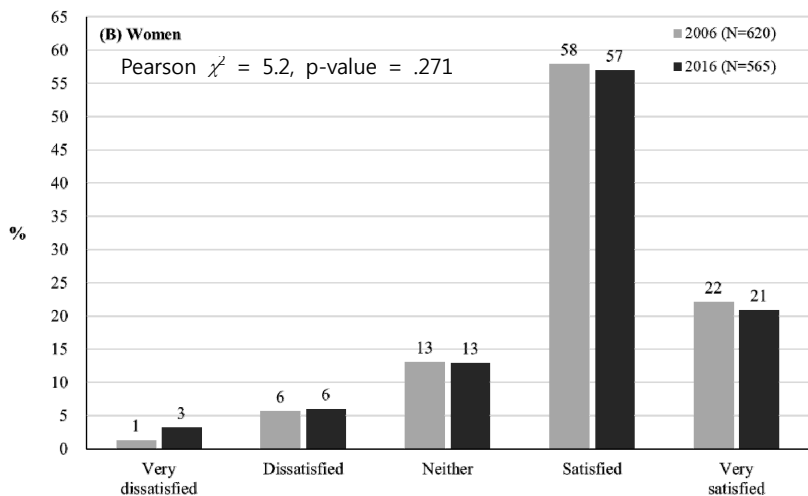
Attitude	2006			2016		
	2006	2016	χ^2 -test	2006	2016	χ^2 -test
Strongly agree	39 (6.3)	13 (2.3)	52.4 ***	31 (4.7)	16 (2.8)	48.7 ***
Fairly agree	61 (9.8)	29 (5.1)		67 (10.2)	36 (6.3)	
Somewhat agree	72 (11.6)	89 (15.7)		104 (15.9)	105 (18.2)	
Neither agree nor disagree	40 (6.4)	11 (1.9)		70 (10.7)	20 (3.5)	
Somewhat disagree	102 (16.4)	151 (26.6)		118 (18.0)	167 (29.0)	
Fairly disagree	163 (26.2)	135 (23.8)		152 (23.2)	122 (21.2)	
Strongly disagree	146 (23.4)	139 (24.5)		114 (17.4)	110 (19.1)	
Total	623 (100)	567 (100)		656 (100)	576 (100)	

* p<.05, ** p<.01, *** p<.001

Even with a more open attitude toward marriage as described above, in general, the married respondents were satisfied with their marriage. As shown in Figure II-2-4, about 83% were satisfied or very satisfied with their current marriage. However, there was a significant difference between wives and husbands in the degree of marital satisfaction. While both were satisfied with the current marriage, married men were more likely to express very satisfied with the current marriage (30% in 2006 and 37% in 2016) than married women (22% in 2006 and 21% in 2016). As the percentage was higher in 2016 than in 2006 for husbands, it would be interesting to know the reasons for their increasing satisfaction in the future studies.

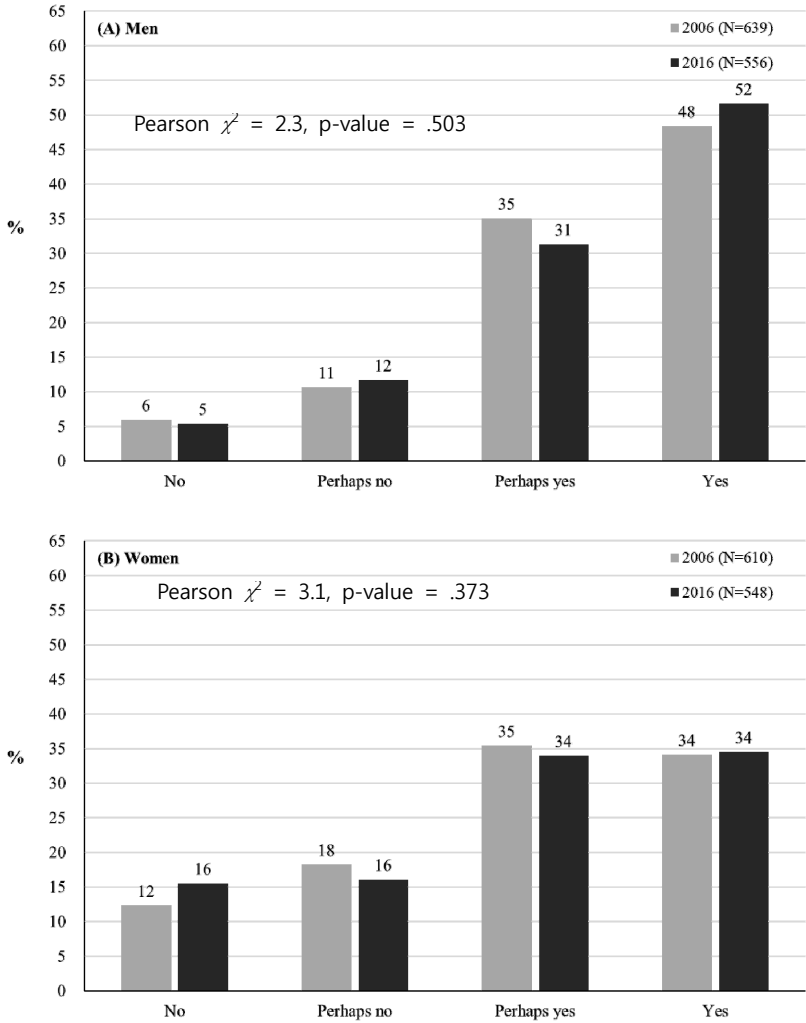
[Figure II-2-4] Marital Satisfaction(I): Considering all things together, How would you describe your marriage?





The sensitive question about attitudes toward accepting the current intimate partner is “Given another chance, would you choose the same person as your spouse?” The bar chart in Figure II-2-5 shows that about 48% of men replied yes to the question in 2006 and 52% in 2016. The comparable statistics for women are 34% in both 2006 and 2016. And, 12% of women said no to their current spouse in 2006 and the percentage even increased to 16% in 2016. In contrast, men seemed to be satisfied with their spouse that only 6% of them responded negatively about marrying the current spouse if having another chance in 2016. The results are consistent with those found in Figure II-2-4 and over time that wives are less satisfied with their marriage and their partners than husbands.

[Figure II-2-5] Marital Satisfaction(II): Given another chance, Would you choose the same person as your spouse?



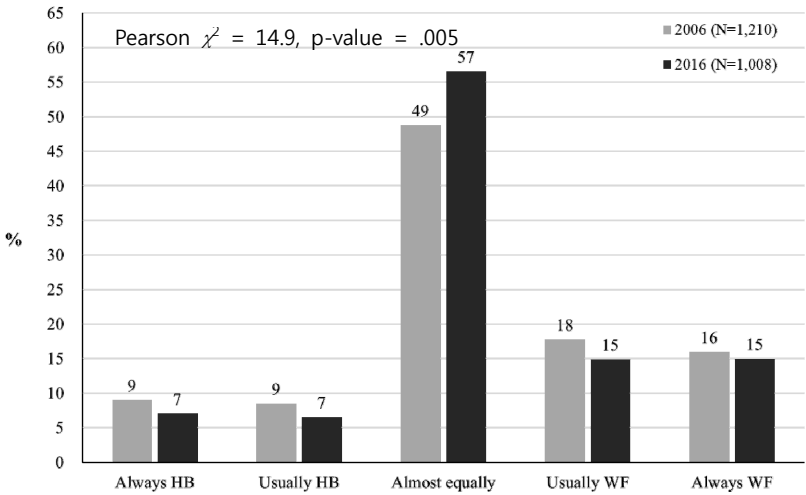
2) Gender Ideology and Equity at Home

McDonald (2000) noted about the unequal progress of gender equality between work (public domain) and home (private domain) that working women still take more responsibilities of care and domestic work than men in many societies. The result is that women are forced to choose between career and family, including fertility. Since most husbands rarely help with daily chores and childcare, reducing the number of children becomes a way to alleviate work-and-family conflicts. Goldscheider et al. (2015: 211) also used the term “the second half of the gender revolution” to explain the relationships between gender equity and demographic changes in the family”. The demanding work of child care is the major hurdle for women’s career. According to a governmental survey (DGBAS 2014b), 22.4% of married women have at some time quit their job mainly to prepare for giving birth, and 15.8% of working mothers quit to care for kids in Taiwan. In the following I present the division of the care and other domestic work between couples and attitudes toward gender equality.

There are four questions concerning the division of domestic labor between couples. The first one asks “Who primarily decides (or decided) children’s discipline and education?” The scale includes five items: always husband, usually husband, almost equally, usually wife, and always wife. Results in Figure II

-2-6 show that 49% of married respondents in 2006 indicated that the parenting work is (was) equally divided between the couple, and 34% said it is or was usually or always done by the wife. In 2016, the parenting burden was more equally distributed between the couple, as the percentage indicating equal division increased to 57% and the percentage of wives taking more responsibility dropped to 30% in 2016. Thus husbands participated more in childcare than ten years ago.

[Figure II-2-6] Couple's Division of Domestic Labor: Who primary decides(or decided) children's discipline and education?



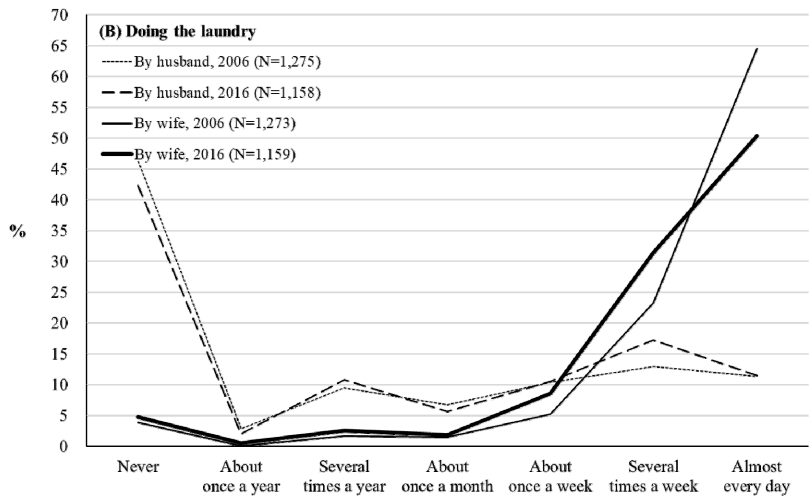
* HB: husband, WF: wife

EASS also contains questions of division of labor between couples in other chores, including meal preparations, laundry, and cleaning in the house. The scale is the same for all three questions: never, about once a year, several times a year, about once a month, about once a week, several times a week, and almost every day. According to Figure II-2-7 (A), wives are much more frequently the persons preparing dinner than husbands, both in 2016 and ten years ago. However, wives are less likely to cook or buy dinner almost every day in 2016 than 2006. About 60% of married women prepared dinner every day in 2006, while the percentage dropped to 48% in 2016.

[Figure II-2-7] Couple's Division of Domestic Labor: Doing the Housework

By husband: Pearson $\chi^2 = 10.8$, p-value = .094

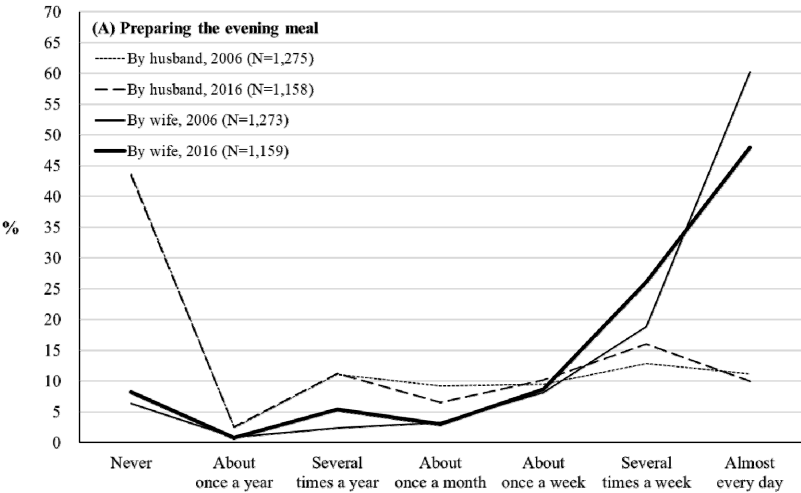
By wife: Pearson $\chi^2 = 48.2$, p-value = .000



II. Changes in Family Formation in East Asian Families: 2006–2016 73

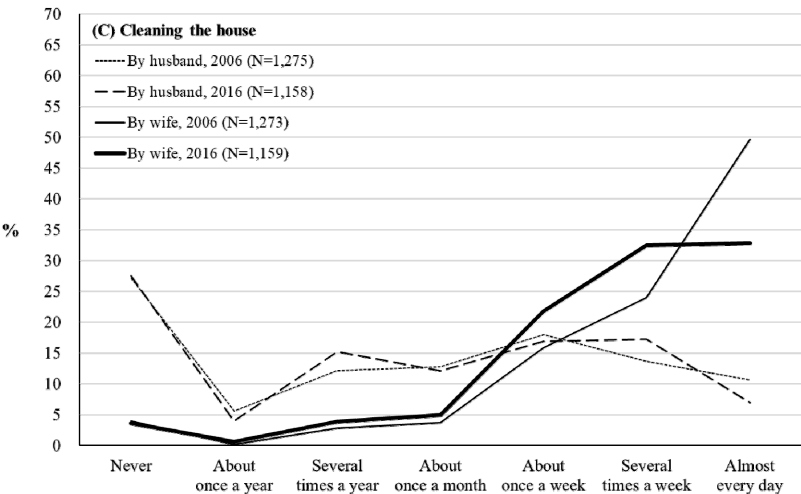
By husband: Pearson $\chi^2 = 14.0$, p-value = .030

By wife: Pearson $\chi^2 = 54.0$, p-value = .000



By husband: Pearson $\chi^2 = 22.4$, p-value = .001

By wife: Pearson $\chi^2 = 76.2$, p-value = .000



Similar patterns of sharing between the couple and the trend of change over time can be found in other domestic work. Figure II-2-7 (B) shows that wives are more likely to take the burden of doing laundry than their marital partners, both now and ten years earlier, but wives' burden has decreased over time. Close to 65% of wives did laundry almost every day in 2006. The percentage of doing that on a daily base decreased to 50% in 2016.

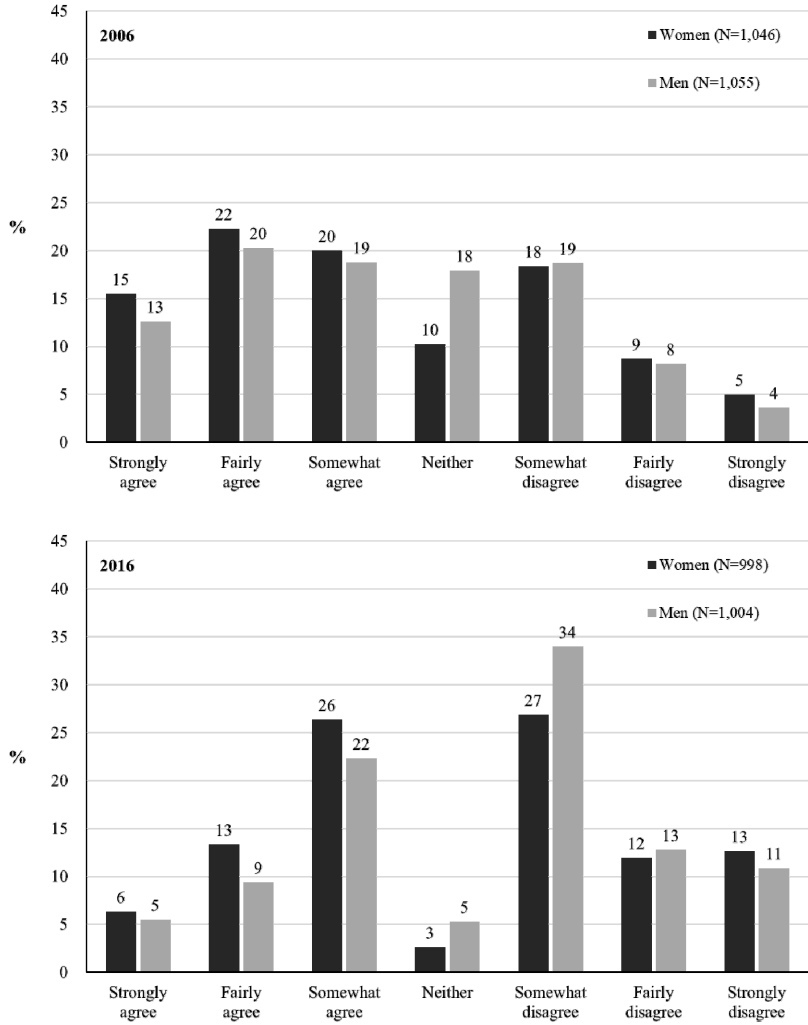
Figure II-2-7 (C) shows that wives do not clean house that often now, as 50% of them did that almost every day in 2006 and only 33% did so often in 2016. But married women are still more diligent in housecleaning than their husbands in 2016. Only about 7% of husbands cleaned the house almost every day in 2016.

Overall, the results of analyzing practices of sharing domestic work between the couple indicate that contemporary men are more willing to fulfill the paternal than the husband's role.

The second part of the analysis of gender ideology concerns attitudes toward gender role and patriarchal practices in the family. For gender role attitudes there are two measures. The first one asked respondents whether "(I)t is more important for a wife to help her husband's career than to pursue her own career". The answering scale consists of seven items: strongly agree, fairly agree, somewhat agree, neither agree nor disagree, somewhat disagree, fairly disagree, and strongly

disagree. If respondents disagree with the statement regardless of the extent, the attitude will be viewed as objecting to treating women's career as marginal and in a minor role compared to that of men. More than 30% of men as well as women (somewhat, fairly, or strongly) disagree with this statement in 2006 as shown in Figure II-2-8. However, the percentage of objection significantly increased for both genders in 2016. More than half of male and female respondents reject the idea of putting the husband's career in front of the wife's, and the percentage for men (58%) is higher than that of women (51%). Respondents are more willing to show their attitudes in the recent survey, as the percentage remaining neutral declined to less than 5% in 2016, but was higher, at 18% for men and 10% for women in 2006.

[Figure II-2-8] Gender Role Attitudes: It is more important for a wife to help her husband's career than to pursue her own career

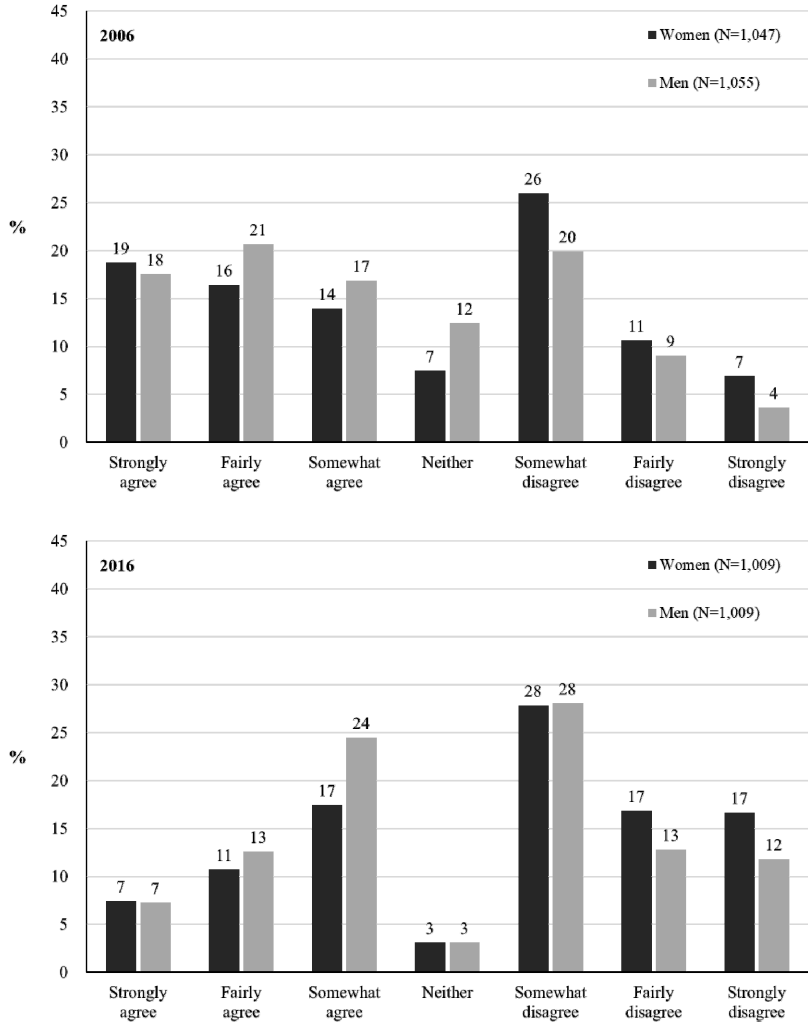


Women: Pearson $\chi^2 = 172.4$, p-value = .000

Men: Pearson $\chi^2 = 237.1$, p-value = .000

The second question on gender ideology is about gendered division of labor between public and private spheres. The results of asking respondents' reactions about "A husband's job is to earn money, a wife's job is to look after the home and family" (Figure II-2-9) show that women are more likely to disagree with this statement than men in 2006 and 2016. (The scale used is the same as the last question discussed above.) More than half of male and more than 60% of female respondents disagree with the traditional concept of gendered division of labor in 2016. The percentage increased by about 18 to 20 percentage points in ten years. It is noticeable that the increase in respondents showing disagreement with the statement mainly comes from the increase of those expressing "strongly disagree".

[Figure II-2-9] Gender role attitudes: A husband's job is to earn money;
A wife's job is to look after the home and family

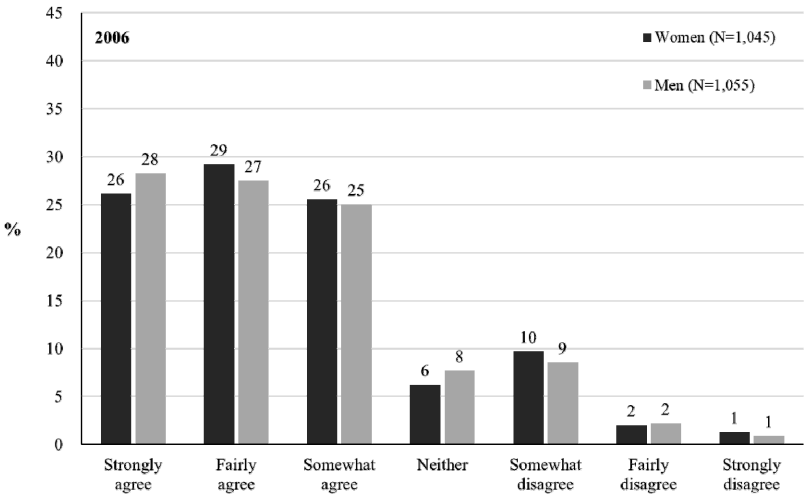


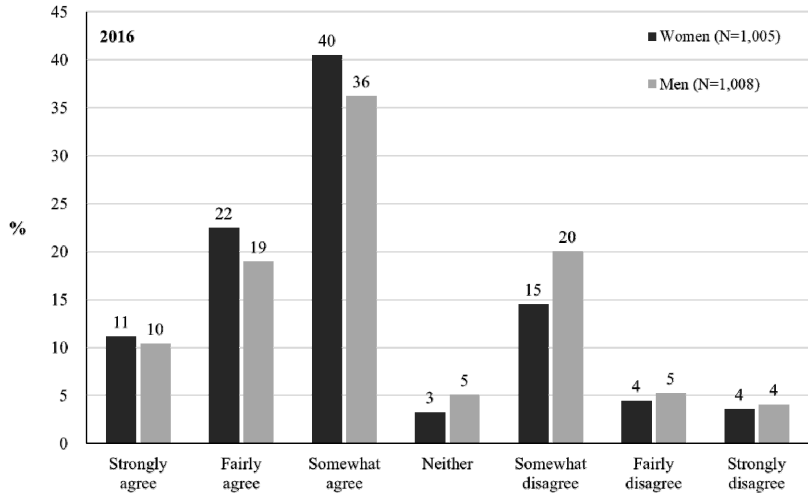
Women: Pearson $\chi^2 = 142.0$, p-value = .000

Men: Pearson $\chi^2 = 202.4$, p-value = .000

Taiwanese respondents strongly support the father’s authority in the family. The bar chart in Figure II-2-10 shows that over 80% agreed that the father’s authority should be respected under any circumstances in 2006. The acceptance of the father’s authority declined in 2016 as the percentage of answering disagreeing (especially the item of “somewhat disagree”) clearly increased, especially for men.

[Figure II-2-10] Patriarchy: The Authority of father in a family should be respected under any circumstances

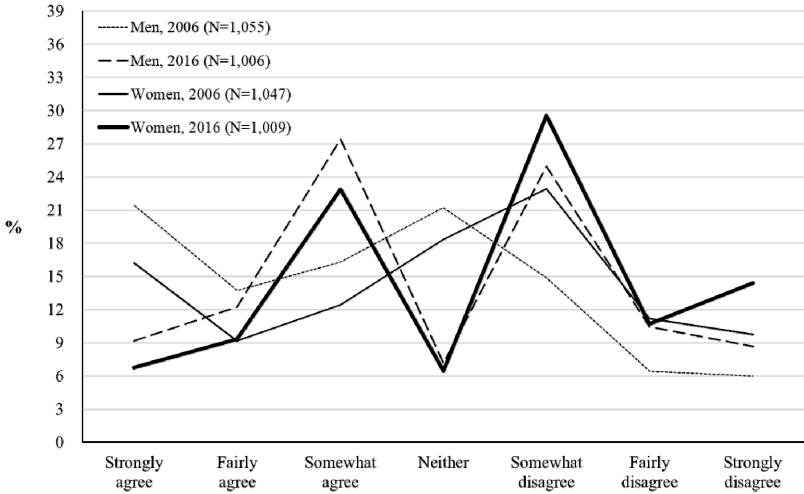




Women: Pearson $\chi^2 = 145.6$, p-value = .000
Men: Pearson $\chi^2 = 210.2$, p-value = .000

Regarding the question “(T)o continue the family line, one must have at least one son”, the results in Figure II-2-11 show that the percentage of women who disagreed with the statement was higher than men in both 2006 and 2016. The gender difference was higher in 2016 than in 2006. As to time difference, both the percentages expressing “somewhat agree” and “somewhat disagree” increased in 2016, while those having no pro- or con- opinions significantly decreased.

[Figure II-2-11] Family Lineage: To continue the family line, one must have at least one son



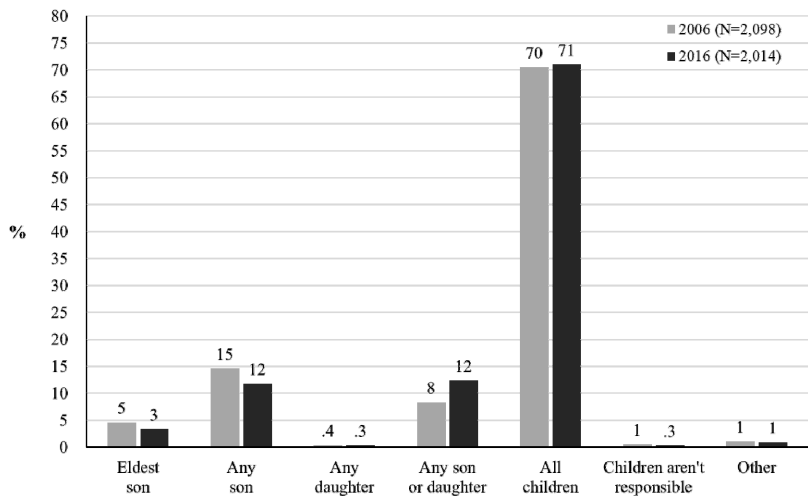
Men: Pearson $\chi^2 = 192.8$, p -value = .000

Women: Pearson $\chi^2 = 148.2$, p -value = .000

3) Traditional familism or Public Responsibility

Among the domestic work, the care of babies, the elderly or disabled families is the main cause for women's interruptions of or changes in their career. The third part of the analyses focuses on the sharing of responsibilities between the family and the public. Regarding who should take responsibility of caring for parents when they get old, there were almost no changes over time in respondents' answers. About 70% think that all the children should take the responsibility of caring for their parents in both 2006 and 2016, as shown in Figure II-2-12.

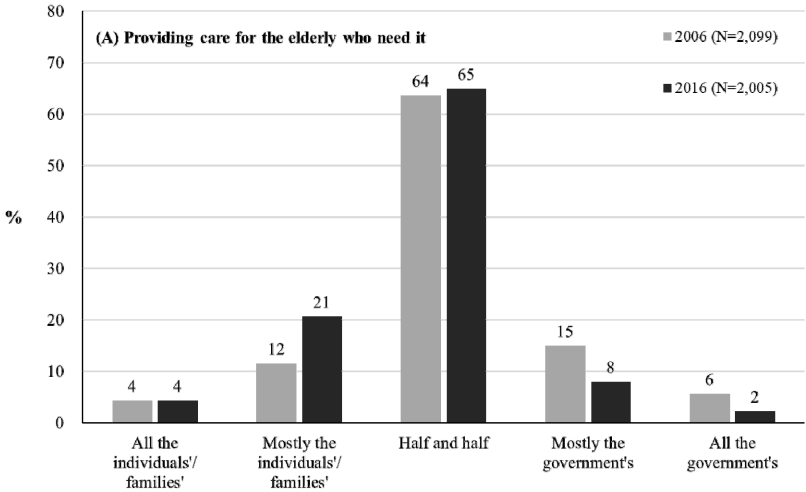
[Figure II-2-12] Raising son for old-age care: Who do you think is most responsible for taking care of old parents?



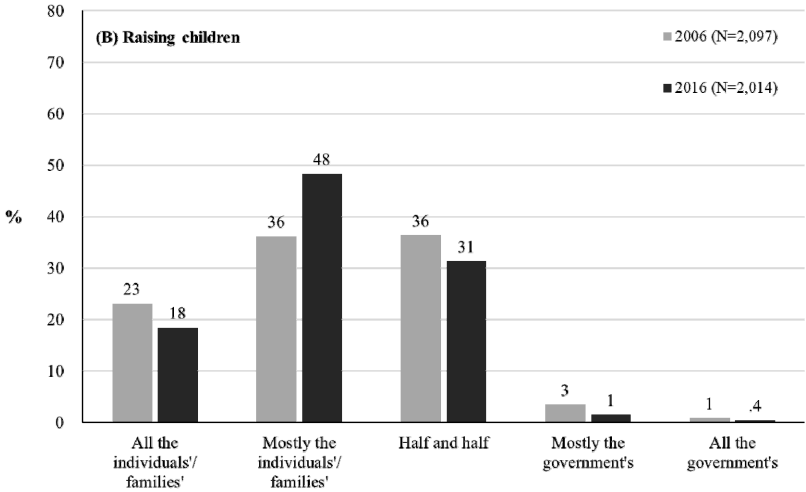
Pearson $\chi^2 = 28.2$, p-value = .000

As to the question of providing care for the elderly, about 65% of respondents tend to split the responsibility equally between family and state according to Figure II-2-13 (A) and (B). However, some answers have shifted over time. About 21% said it is mostly a family matter in 2016, while the percentage was much lower in 2006 (12%). People now are becoming less likely to see it as responsibility of government than before.

[Figure II-2-13] Whose responsibility to take care of the elderly and children(1): care provision



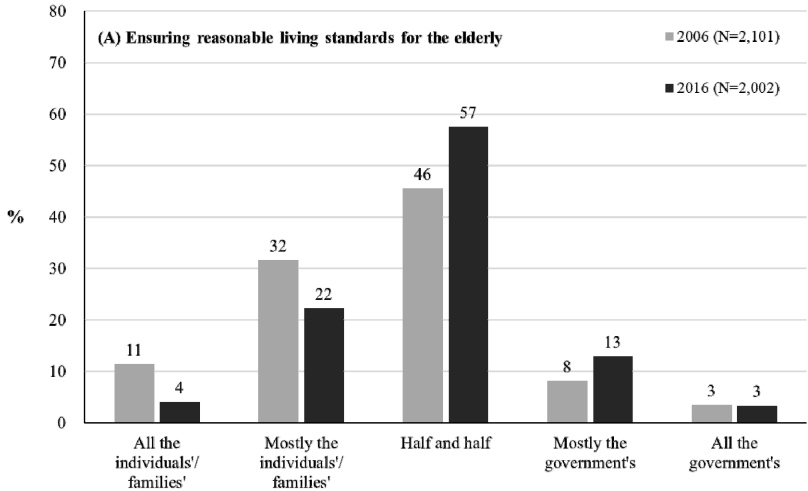
Pearson $\chi^2 = 125.8$, p-value = .000



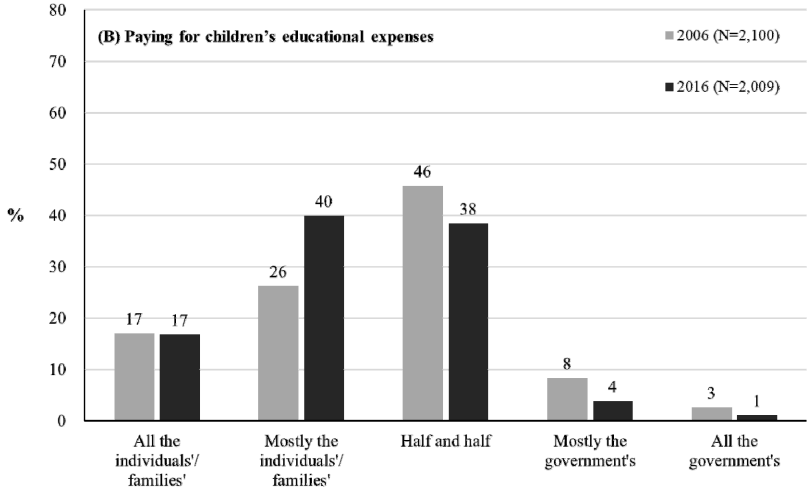
Pearson $\chi^2 = 73.2$, p-value = .000

Taiwanese people have different opinions of economic support between the elderly and the children. Based on the results shown in Figure II-2-14 (A), about 43% believed that ensuring a reasonable living standard for the elderly should be the responsibility of the private household, and only 11% assigned it to the state in 2006. The majority (46%) agreed that the economic support should be equally distributed between private and public. Also, about 43% of respondents believed that educational expenses should be provided by the family in 2006. However, the composition of the support of private solutions is different between the two questions. About 11% of respondents replied that the economic support of the elderly should be totally a matter of their own or the families, while 17% endorsed the same idea for child support [Figure II-2-14 (B)].

[Figure II-2-14] Whose Responsibility to Take Care of the Elderly and Children (II): Financial provision



Pearson $\chi^2 = 155.3$, p-value = .000



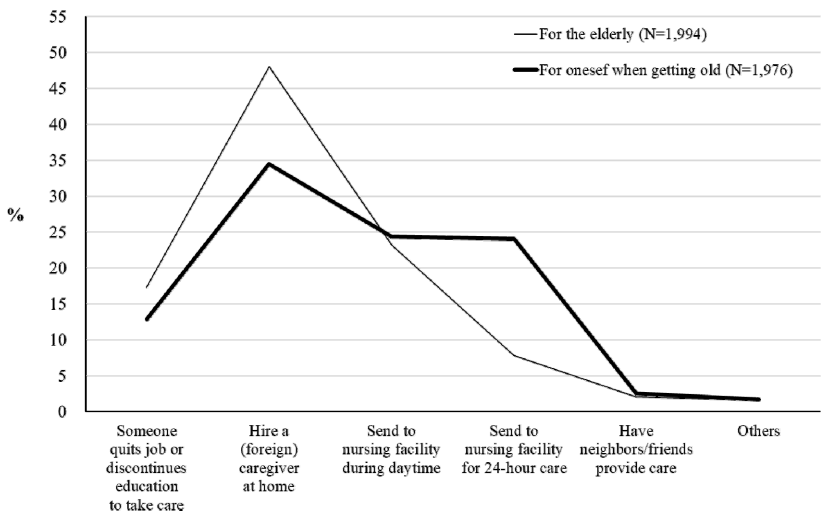
Pearson $\chi^2 = 119.2$, p-value = .000

The attitudes changed between the two surveys. While those supporting equal responsibility of caring for the elderly between the state and the family increased to 57% in 2016 (from 46% in 2006), the percentage supporting the half-and-half strategy for child care decreased to 38% in 2016 from 46% in 2006. The percentage supporting the household playing the major role in paying for children's educational expenses also increased, from 26% in 2006 to 40% in 2016. Overall, people tend to assign more responsibility for taking care of the elderly to the state, saying that the latter should at least play the role of an equal partner. However, more than half of respondents believed that parents or families should be the primary provider of children's educational expenses.

Respondents apparently have different views about taking care of the elderly in the family (mostly their parents) and about how they themselves should be cared for when old. (This pair of questions were asked in 2016 only.) As shown in Figure II-2-15, 17% agreed that a family member should assume responsibility for elderly care (even if needing to discontinue a career or school education) and 48% said a live-in caregiver should be hired to take care of any elderly in need. In contrast, if respondents need assistance when getting old, about 35% would hire a care giver and about 48% would wish to stay in a nursing home during the daytime, or live there. That is, respondents do not expect to stay at home and be taken care of

by family members or paid carers, but would do so for their parents. Having parents being taken care of at home is still seen as the fulfillment of filial piety by Taiwanese.

[Figure II-2-15] Preferred care arrangement or needed families(2016)



4) Conclusions

Taiwan corresponds with what McDonald (2008) described as a society having a high level of egalitarianism in the public domain but a traditional, patriarchal ideology remaining strong in the family. The structural improvements include increasing education, better work opportunities, and longer work experience (Chang, 2017). The results of comparing EASS 2006 and 2016 show several interesting results. For instance, women wish

to support men's career more than their own, but men do not think this way. However, married women are less satisfied with marriage than married men. Men tend to be more willing to do childcare than daily chores, but they are more likely to object to the traditional gendered division of labor than women. The author suggests that follow-ups to these attitudinal questions be considered in the future EASS 'family modules', such as which aspects produce unhappy marriage and why women still believe men should be the breadwinner and give priority to supporting the husband's career over their own. Similarly, we also need more information to know why respondents changed their attitudes toward the sharing of responsibilities of care work between the family and the public ten years later.

The results also indicate an increasing percentage of homogenous marriage and dual-earner households in Taiwan. Blossfeld and Buchholz (2009) argued that homogeneity between highly educated couples has resulted in more income inequality in the Western world. A similar prediction might be true for Taiwan as well as other East Asian societies. Thus, the study of stratification needs to consider using the household as the unit of analysis to examine the extent of inequality in Taiwan or other East Asian countries. Future EASS 'family modules' need to include questions about earnings of employed spouses (or income if retired) to test the hypothesis.

Concerning attitudes toward the care of the elderly and chil-

dren, the results show support for both familialism and social welfare depending on the subjects. Respondents are more inclined to ask the state to provide financial support for the elderly in 2016 than 2006. In contrast, they tend to take the caring and cost of raising children as their own responsibility more than ten years earlier. As the population is ageing in Taiwan, so does the increase of life expectancy. Caring the elderly, especially those with illness or disabilities, can be a long-term responsibility for the families. Thus the state's financial support would help alleviate economic burden, especially for low-income households. Since many conjugal families have only one or two children as shown in the paper, parents are able to afford childcare and paying the costs by themselves. However, the state may still need to provide more childcare facilities and stipulate the flexibility of taking parental leave for working parents to balance the needs between the family and the employment.

Also, most of the questions asked in both 2006 and 2016 EASS surveys seem to hypothesize harmonious, functional family relations and one-man-one-wife marriage. In reality, disputes between the couple or those among different generations cannot be avoided in most households. Some of those may result in alienations among family members, domestic violence, separation or divorce. It is important, in terms of both theoretical and practical merits, to determine which matters are more

likely to result in conflicts or abuse in the family and differences among East Asian societies. Similarly, the issues of same sex relationships and marriage have been raised in many societies, either in social movements or public policies. Relevant issues include whether respondents can accept their children being LGBT, what they would do if the children are LGBT, and their attitudes toward birth and adoption rights of gay or lesbian couples. None of these subjects have been covered in previous EASS surveys and should be seriously considered for inclusion in the next Family module, to be conducted in 2026.

3. Chinese Attitudes toward Family and Gender Roles: A Comparative Analysis Based on EASS Family Modules

China has witnessed great social economic changes during the past decade, followed by variations in Chinese family structure and social attitudes toward family and gender roles. According to the National Bureau of Statistics of China, the GDP per capita in 2006 was 16738 yuan and rose to 59660 yuan in 2017, getting a 256.4% increase. The percentage of urban population was 43.9% in 2006 and grew to 57.4% in 2017. The percentage of population above 65 years old was 7.9% in 2006 and reached 10.9% in 2007. The population policy is also changing during the past decade. China executed the one-child policy from the 20th Century and adopted conditional

two-child policy and unconditional two-child policy in 2013 and 2015 in face of aging issues. Economic growth, urbanization, aging and population policy change have given rise to changes in Chinese family structure and intergenerational relationship.

Beyond objective changes, we should also capture the subjective changes in Chinese attitudes. Attitudes toward family and gender roles are important indicators of social progress. Family is the most basic form of social life organization and carries a variety of social functions (Simmel, 1998). Gender roles are created by society and culture and exert influences on our life and behavior (Risman & Davis, 2013). Thus, it is necessary to record and understand Chinese attitudes toward family and gender roles. Chen believed that due to individual variances in demographics (such as age, gender, education attainment) and experiences, Chinese attitudes to family differ on the individualistic-collectivistic spectrum (Chen, 2015). Chang compared gender role egalitarian attitudes in Beijing, Hong Kong, Florida, and Michigan along two domains of work and domestic roles, finding Chinese were less egalitarian than Americans in work but not in domestic gender attitudes (Chang, 1999).

Traditional family ideology and gender roles are being challenged (Berridge et al., 2009; Farrell et al., 2012), which is being discussed worldwide. To examine the Chinese attitudes toward

family and gender roles, Chinese General Social Survey (CGSS) administered by Renmin University of China conducted the East Asian Social Survey (EASS) family modules in 2006 and 2017 respectively. It should be pointed out that the second wave of EASS family module was initiated in 2016, but was conducted by CGSS in 2017. This report compares the data from 2006 and 2017 CGSS to delineate the changes in Chinese attitudes after a decade. The sample size of 2006 EASS family module is 3208, that of 2017 EASS family module is 4131, and the total is 7339. The following sections are dedicated to reveal the findings.

1) Basic Descriptive Results of 2006 and 2017

Among the total sample, 45.95% of the respondents are male and 54.05% of them are female. In 2006, 45.32% of the 3208 respondents are male and 54.68% of them are female. In 2017, 46.43% of the 4131 respondents are male and 53.57% of them are female.

In terms of age distribution, the mean age of the sample is 46.55 years old. In 2006, the mean age is 42.16 years old, and the birth year ranges from 1938 to 1990. The mean birth year is 1964. In 2017, the mean age is 49.96 years old, and the birth year ranges from 1923 to 2001. The mean birth year is 1968.

In 2006, 12.94% of the respondents are under 25 years old, 21.10% are between 25 to 35 years old, 25.25% are between 35

to 45 years old, 21.35% are between 45 to 55 years old, and 19.36% are above 55 years old.

In 2017, 9.17% of the respondents are under 25 years old, 14.52% are between 25 to 35 years old, 15.52% are between 35 to 45 years old, 21.54% are between 45 to 55 years old, and 39.24% are above 55 years old.

Among the total sample, 16.80% have achieved college degree. 14.53% of the 2006 respondents have achieved college degree. 18.57% of the 2017 respondents have achieved college degree.

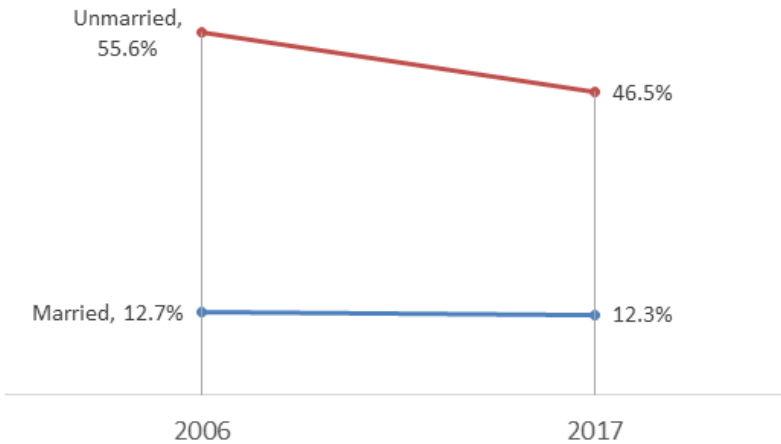
〈Table II-3-1〉 Summary statistics of respondents in 2006 and 2017

	2006 (N=3208)			2017 (N=4131)		
	Mean/ Percentage	SD	Range	Mean/ Percentage	SD	Range
Gender	0.55	0.50	0-1	0.54	0.50	0-1
Male	45.32%		0	46.43%		0
Female	54.68%		1	53.57%		1
Age	42.16	13.41	17-69	49.96	16.93	17-95
≤25	12.94%	2.36		9.17%	2.56	
25 to 35	21.10%	2.93		14.52%	2.91	
35 to 45	25.25%	2.74		15.52%	3.00	
45 to 55	21.35%	2.77		21.54%	2.83	
>55	19.36%	4.00		39.24%	7.76	
Education	0.15	0.35	0-1	0.19	0.39	0-1
college	14.53%		1	18.57%		1
non-college	85.47%		0	81.43%		0

2) Changes in Family Structure and Intergenerational Support

Compared with that of 2006, the proportion of co-residence with parents among unmarried respondents decreases, while that of co-residence with parents (in law) among married respondents remains unchanged. Specifically, the proportion of unmarried respondents living with parents in 2006 is 55.6% and decreases to 46.5% in 2017. The proportion of married respondents living with parents (in law) is 12.7% in 2006 and 12.3% in 2017.

[Figure II-3-1] Percentage of co-residence with parents(in law)



From 2006 to 2017, the intergenerational support between respondents and parents has increased in general. Parents provide support to respondents more frequently than respondents

to parents. EASS modules use 5-point scale to measure the frequency of providing intergenerational support, ranging from 1 “Not at all” to 5 “Very frequently”. Two aspects of support are measured—financial support, housework (e.g., cleaning, meal preparation, shopping, running errands, etc.) and care work (e.g., child care, health care for parents, etc.).

After calculation, the mean frequency of respondents providing financial support to parents is 2.06 in 2006 and increases to 2.19 in 2017. The mean frequency of parents providing financial support to respondents is 2.7 in 2006 and increases to 2.92 in 2017. Meanwhile, the mean frequency of respondents doing housework and care work for parents is 2.37 in 2006 and increases to 2.5 in 2017. The mean frequency of parents doing housework and care work for respondents is 2.7 in 2006 and increases to 3.01 in 2017. Overall, with regard to intergenerational support, more housework support is provided than financial support between generations in China.

[Figure II-3-2] How often respondents and parents provide financial support or do housework and care work to each other



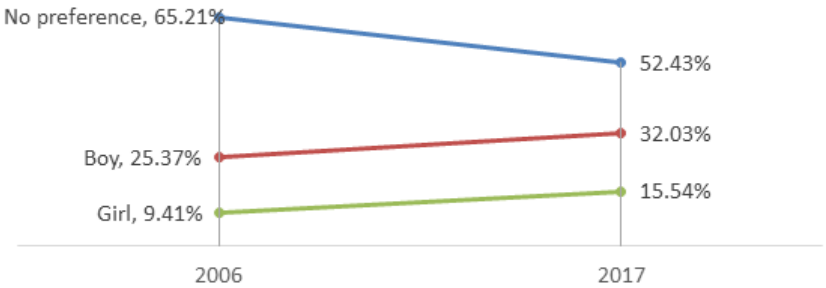
3) Changes of Gender Preference for Child

Comparing 2006 and 2017, more respondents explicitly express their preference and still the respondents who would prefer a boy account for a greater proportion than those who would prefer a girl. 65.21% of the respondents in 2006 indicate that they have no preference. This percentage decreases to 52.43% in 2017. 25.37% of the respondents in 2006 would prefer to have a boy and this percentage increases to 32.03% in 2017 with an increase of 6.66 percentage points. 9.41% of the respondents in 2006 would prefer to have a girl and this percentage increases to 15.54% in 2017 with an increase of 6.13 percentage points. The increase in preference for a boy is slightly larger than that in preference for a girl.

The difference in gender preference for child between 2006 and 2017 is statistically significant (Pearson $\chi^2(2)=130.4077$, $P=0.000$). The proportion of the respondents reporting “no preference” decreases, while larger proportion of the respondents report preference for either a boy or a girl.

[Figure II-3-3] If you were to have only one child, would you prefer a boy or a girl?

(unit: %)

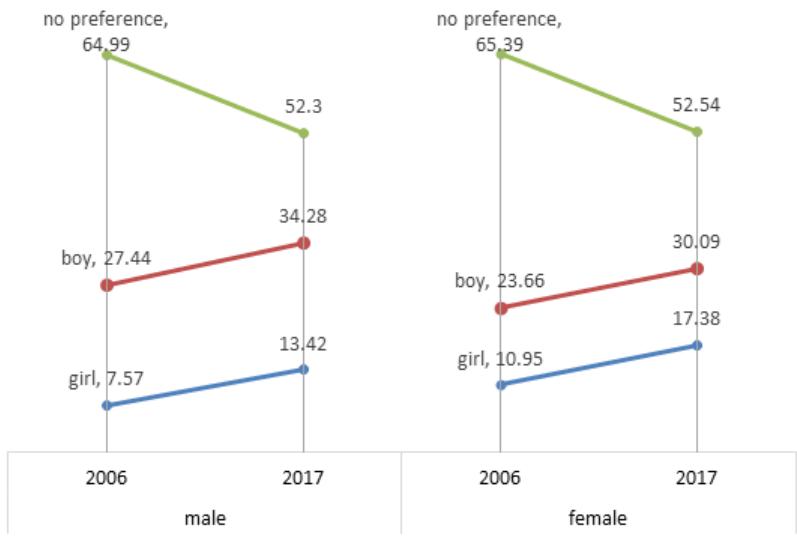


In terms of gender difference, the differences between male and female in both 2006 and 2017 are statistically significant (for 2006, Pearson $\chi^2(2)=14.1531$, $P=0.001$; for 2017, Pearson $\chi^2(2)=15.8189$, $P=0.000$). A greater proportion of male respondents than female respondents would prefer a boy in both 2006 and 2017. In 2006, 27.44% of the male respondents would prefer a boy, while the percentage of female respondents is 23.66%. The gap in the proportion is 3.78 percentage points. Only 7.57% of the male respondents would prefer a girl, while the percentage of female respondents is 10.95%. In 2017, 34.28% of the male respondents would prefer a boy, while the percentage of female respondents is 30.09%. The gap in the proportion is 4.19 percentage points, larger than that in 2006. 13.42% of the male respondents would prefer a girl, while the percentage of female respondents is 17.38%. Also, the differ-

ences in 2006 and 2017 for male and female are statistically significant (for male, Pearson $\chi^2(2)=61.1222$, $P=0.000$; for female, Pearson $\chi^2(2)=70.0958$, $P=0.000$).

[Figure II-3-4] Gender difference in gender preference for child

(unit: %)



In terms of age difference, the differences among all age groups in 2006 and 2017 are both statistically significant. The birth cohort of 1960s and 1970s most prefer a boy than a girl. In 2006, 27.41% of the 35- to 45-year-old (1961-1971) respondents would prefer a boy, accounting for the highest proportion among all the age groups. The following is the 25- to 35-year-old (1971-1981) group, 26.88% of whom would prefer a boy. 26.25% of the 55-year-old and above respondents would

prefer a boy, and only 5.64% of them would prefer a girl. Notably, most 25-year-old and below respondents (70.36%) have no preference.

In 2017, the proportion of preference for a boy generally increases as the respondents' age grows older. The proportions of preference for a boy among respondents over 35 years old are above 30%. 35.78% of the 55-year-old and above respondents would prefer a boy. In contrast, only 12.72% of them would prefer a girl. Most 25-year-old and below respondents (56.83%) have no preference.

In terms of education difference, the differences between college-graduates and non-graduates in 2006 and 2017 are both statistically significant. A larger proportion of non-graduates would prefer a boy as opposed to college-graduates. In 2006, 27.1% of the non-graduates would prefer a boy, while 8.86% of them would prefer a girl. 15.24% of the college-graduates would prefer a boy, while 12.66% of them would prefer a girl. In 2017, 34.25% of the non-graduates would prefer a boy, while 14.01% of them would prefer a girl. 22.28% of the college-graduates would prefer a boy, and the proportion of preference for a girl is also 22.28%. Notably, in 2017, the proportion of college-graduates who would prefer a boy is the same with that of those who would prefer a girl.

4) Changes in Responsibility for Elderly Support

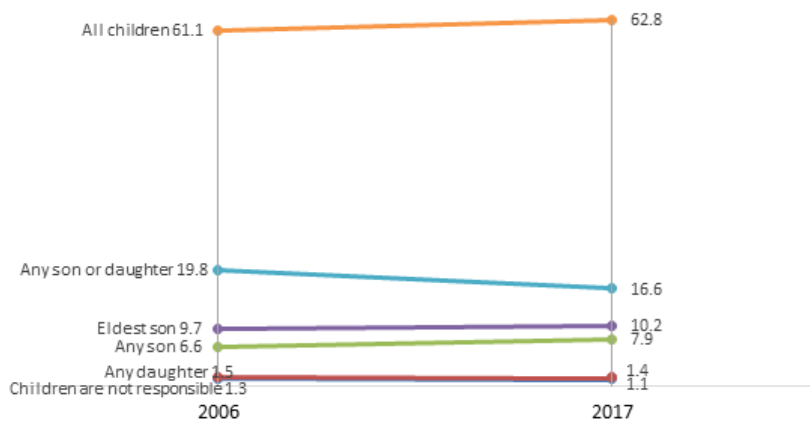
In general, over 60% of the respondents indicate that all children are responsible for taking care of old parents.

Comparing 2006 and 2017, larger proportion of the respondents indicate that children are responsible for taking care of old parents, especially sons. The proportion of the respondents choosing “all children” is 61.1% in 2006 and increases to 62.8% in 2017. Accordingly, the proportion of the respondents choosing “children are not responsible” decreases from 1.3% in 2006 to 1.1% in 2017. The difference between 2006 and 2017 is statistically significant at the 0.01 level (Pearson $\chi^2(5)=17.1980$, $P<0.01$).

Sons are supposed to take more responsibility for taking care of old parents. The proportion of the respondents choosing “eldest son” rises from 9.7% in 2006 to 10.2% in 2017. The proportion of the respondents choosing “any son” increases from 6.6% in 2006 to 7.9% in 2017. Accordingly, the proportion of the respondents choosing “any daughter” decreases from 1.5% in 2006 to 1.4% in 2017. The proportion of the respondents choosing “any son or daughter” decreases from 19.8% in 2006 to 16.6% in 2017.

[Figure II-3-5] Who do you think is most responsible for taking care of old parents?

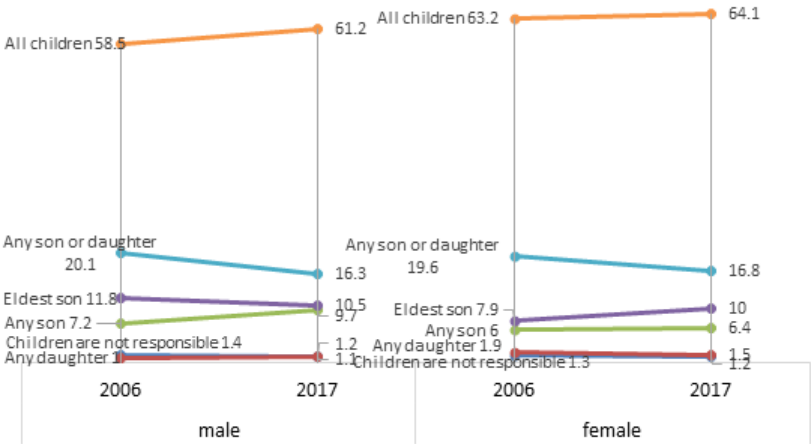
(unit: %)



In terms of gender difference, the differences between 2006 and 2017 for male and female are statistically significant (for male, Pearson $\chi^2(5)=15.0709$, $P=0.01$; for female, Pearson $\chi^2(5)=10.2188$, $P<0.1$). The proportion of male respondents choosing “any daughter” increases from 1% in 2006 to 1.2% in 2017, while the proportion of male respondents choosing “eldest son” decreases from 11.8% in 2006 to 10.5% in 2017. Meanwhile, the proportion of female respondents choosing “any daughter” decreases, while the proportion of them choosing “any son” and “eldest son” increases. This indicates more egalitarian attitudes toward aging support.

[Figure II-3-6] Gender difference in responsibility for aging support

(unit: %)



In terms of age difference, the differences among all the age groups are both statistically significant in 2006 and 2017 (for 2006, Pearson $\chi^2(20)=65.7450$, $P=0.000$; for 2017, Pearson $\chi^2(20)=78.4386$, $P=0.000$). The proportion of the respondents choosing “all children” generally decreases as their age grows older. In addition, the proportion of the respondents choosing “eldest son” increases as their age grows older.

In terms of education difference, the differences between 2006 and 2017 for non-graduates and college-graduates are both statistically significant (for non-graduates, Pearson $\chi^2(5)=15.0918$, $P=0.010$; for college-graduates, Pearson $\chi^2(5)=11.2269$, $P<0.050$). The proportion of non-graduates

and college-graduates choosing “eldest son” and “any son” increases. Meanwhile, the proportion of non-graduates choosing “any daughter” increases. In contrast, the proportion of college-graduates choosing “any daughter” decreases.

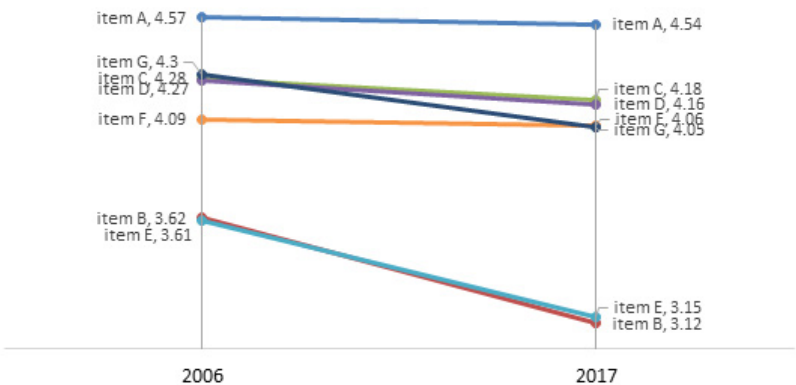
5) Changes in Family Ideology

Seven items are designed to measure changes in family ideology. Under these items, EASS modules use 7-point scale, with 1 standing for “Strongly disagree” and 7 standing for “Strongly agree”. The seven items are:

- A. Husband should be older than wife;
- B. It is not necessary to have children in marriage;
- C. Married men are generally happier than unmarried men;
- D. Married women are generally happier than unmarried women;
- E. It is all right for a couple to live together without intending to get married;
- F. People who want to divorce must wait until children are grown up;
- G. Divorce is usually the best solution when a couple can't seem to work out their marriage.

Comparing 2006 and 2017, all the mean scores of the seven items decrease to some extent. The decrease in item B is the largest, with the score decreasing from 3.62 in 2006 to 3.12 in 2017, which is statistically significant. The score of item E decreases from 3.61 in 2006 to 3.15 in 2017, which is statistically significant. Item B and item E get the lowest scores among the seven items. This means the respondents the least agree with the statements of “It is not necessary to have children in marriage” and “It is all right for a couple to live together without intending to get married”. The score of item G decrease from 4.3 in 2006 to 4.05 in 2017, which is statistically significant. The score of item D decrease from 4.27 in 2006 to 4.16 in 2017, which is statistically significant. The score of item C decrease from 4.28 in 2006 to 4.18 in 2017, which is statistically significant. The score of item F decrease from 4.09 in 2006 to 4.06 in 2017, which is not statistically significant. The score of item A decrease from 4.57 in 2006 to 4.54 in 2017, which is not statistically significant.

[Figure II-3-7] Changes in family ideology



In terms of gender difference, the decrease in scores from 2006 to 2017 is consistent with previous findings, except that the female score of item A increases 0.03 points. On “Husband should be older than wife”, female more agree with the statement than male, which is statistically significant in 2006 and 2017. On “It is not necessary to have children in marriage”, female more agree with the statement than male, which is statistically significant in 2017. On “Married women are generally happier than unmarried women”, male more agree with the statement than female, which is statistically significant in 2017. On “It is all right for a couple to live together without intending to get married”, the female score is higher than male score in 2006, but lower than male score in 2017, which are statistically significant. On “People who want to divorce must wait until children are grown up”, female more agree with the statement

than male, which is statistically significant in 2006.

In terms of age difference, the differences among age groups in 2006 and 2017 are statistically significant, except that the difference in item A in 2006 and the difference in item D in 2006 are not significant.

In terms of education difference, the differences between college-graduates and non-graduates in 2006 and 2017 are all statistically significant, except the difference in item A in 2006.

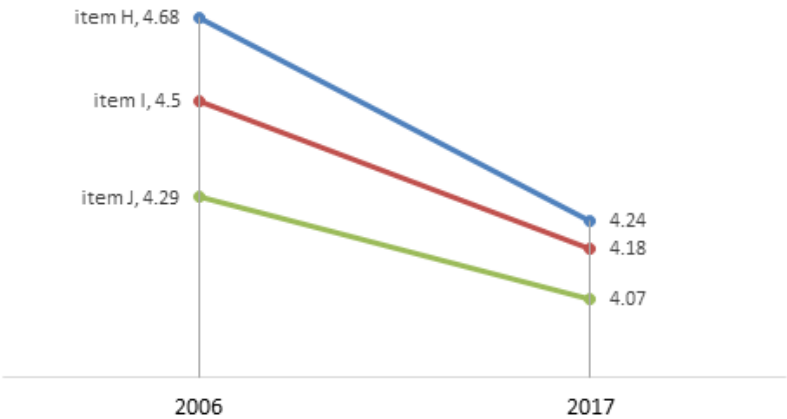
6) Changes in Gender Roles in the Family

Three items are designed to measure changes in family ideology. Under these items, EASS modules use 7-point scale, with 1 standing for “Strongly disagree” and 7 standing for “Strongly agree”. The three items are:

- A. It is more important for a wife to help her husband’s career than to pursue her own career;
- B. A husband’s job is to earn money; a wife’s job is to look after the home and family;
- C. If husband’s family and wife’s family need help at the same time, a married woman should help husband’s family first.

Comparing 2006 and 2017, the respondents’ attitudes toward gender roles in the family tend to be more equal. The differences in 2006 and 2017 for all the three items are statistically significant. On “It is more important for a wife to help her husband’s career than to pursue her own career”, the score decreases from 4.68 in 2006 to 4.24 in 2017. On “A husband’s job is to earn money; a wife’s job is to look after the home and family”, the score decreases from 4.5 in 2006 to 4.18 in 2017. On “If husband’s family and wife’s family need help at the same time, a married woman should help husband’s family first”, the score decreases from 4.29 in 2006 to 4.07 in 2017. The decrease in item H is the largest (0.44).

[Figure II-3-8] Changes in gender roles in the family



In terms of gender difference, although the scores of both male and female respondents decrease in 2017, female respondents tend to be more equal than male respondents. The scores of male respondents are higher than the scores of female respondents in both 2006 and 2017. The differences between male and female are all statistically significant, except the difference in item I in 2006.

In terms of age difference, all the differences among age groups in 2006 and 2017 are statistically significant.

In terms of education difference, all the differences between college-graduates and non-graduates are statistically significant. College-graduates hold more egalitarian attitudes than non-graduates.

(Table II-3-2) Changes in attitudes toward family ideology and gender roles across gender, age and education

	Family Ideology						Gender Roles			
	A	B	C	D	E	F	G	H	I	J
Gender										
Male	4.53 4.44 (0.0407)	3.60 3.05 (0.0000)	4.27 4.20 (0.0954)	4.29 4.25 (0.2936)	3.73 3.20 (0.0000)	4.05 4.06 (0.7783)	4.29 4.09 (0.0001)	4.74 4.28 (0.0000)	4.51 4.23 (0.0000)	4.39 4.13 (0.0000)
Female	4.60 4.63 (0.5765)	3.63 3.17 (0.0000)	4.29 4.16 (0.0005)	4.25 4.08 (0.0000)	3.51 3.12 (0.0000)	4.13 4.07 (0.2193)	4.31 4.01 (0.0000)	4.63 4.20 (0.0000)	4.49 4.12 (0.0000)	4.21 4.02 (0.0000)
Age										
≤25	4.56 4.36 (0.0250)	4.12 3.69 (0.0001)	4.17 3.75 (0.0000)	4.18 3.78 (0.0000)	4.00 3.86 (0.1718)	3.84 3.88 (0.7072)	4.39 3.87 (0.0000)	4.43 3.43 (0.0000)	4.15 3.35 (0.0000)	4.04 3.65 (0.0001)
25 to 35	4.58 4.39 (0.0091)	3.66 3.29 (0.0000)	4.25 3.99 (0.0001)	4.26 3.97 (0.0000)	3.72 3.63 (0.2657)	3.94 3.77 (0.0523)	4.38 4.17 (0.0084)	4.71 3.73 (0.0000)	4.51 3.55 (0.0000)	4.27 3.62 (0.0000)
35 to 45	4.51 4.50 (0.8724)	3.59 3.13 (0.0000)	4.29 4.09 (0.0015)	4.26 4.07 (0.0022)	3.65 3.23 (0.0000)	4.12 4.05 (0.4064)	4.31 4.15 (0.0431)	4.75 4.11 (0.0000)	4.58 3.96 (0.0000)	4.30 3.92 (0.0000)
45 to 55	4.59 4.59 (0.9981)	3.52 3.01 (0.0000)	4.29 4.30 (0.8093)	4.29 4.24 (0.3862)	3.45 3.03 (0.0000)	4.14 4.08 (0.4227)	4.25 4.13 (0.0928)	4.68 4.45 (0.0016)	4.53 4.44 (0.2440)	4.34 4.24 (0.1723)
>55	4.62 4.63 (0.8936)	3.38 2.97 (0.0000)	4.38 4.32 (0.2350)	4.33 4.30 (0.5515)	3.36 2.84 (0.0000)	4.33 4.21 (0.0975)	4.20 3.97 (0.0014)	4.73 4.55 (0.0044)	4.60 4.53 (0.3268)	4.43 4.30 (0.0491)

	Family Ideology							Gender Roles			
	A	B	C	D	E	F	G	H	I	J	
Education											
college	4.57 4.43 (0.0627)	3.95 3.51 (0.0000)	4.21 3.95 (0.0001)	4.17 3.94 (0.0003)	3.76 3.59 (0.0374)	3.83 3.81 (0.8812)	4.44 4.21 (0.0076)	4.31 3.41 (0.0000)	3.96 3.18 (0.0000)	3.99 3.43 (0.0000)	
non-college	4.57 4.57 (0.8836)	3.56 3.03 (0.0000)	4.30 4.23 (0.0370)	4.29 4.21 (0.0083)	3.58 3.05 (0.0000)	4.14 4.12 (0.7325)	4.28 4.01 (0.0000)	4.75 4.43 (0.0000)	4.59 4.40 (0.0000)	4.34 4.22 (0.0003)	

Note: The scores of 2017 are below the scores of 2006. P-value are in the parenthesis.

Conclusion

Comparing 2006 and 2017, the proportion of coresidence with parents among unmarried respondents decreases, while that of married respondents who live with parents (in law) remains unchanged. The intergenerational support between respondents and their parents increases in general. These are interesting findings, indicating less coresidence but more mutual support between generations in China.

In addition to objective changes in family structure and intergenerational support, subjective attitudes toward family and gender roles have also changed.

In terms of gender preference for child, more respondents explicitly express their preference for a boy or a girl. Although most respondents indicate they have no preference, more respondents would prefer a boy than a girl. Further study is needed to find out why the proportion of “no preference” decreases given the economic and cultural changes in China during the past decade. What are they expressing when they are showing their gender preference for child? The policy implication of this is regarding balancing sex ratio in the society.

In terms of responsibility for aging support, larger proportion of the respondents indicate that children are responsible for taking care of old parents, especially sons. More respondents indicate that sons and daughters should share the responsibility equally. In China, there is an old saying, “Raise

children to provide against old age (Yang Er Fang Lao)". As the elderly population increases in China, the government should provide more support for the elderly, so that the burden on children could be eased.

In terms of family ideology, some items show statistically significant differences in 2006 and 2017. Marriage and having children in marriage become more important in 2017. Marriage may not bring happiness (given the decreases in item C and item D), but they less agree that divorce is the best solution. This contradicts with the increasing divorce rate in China. The rise or fall of marriage rate and divorce rate in a society is not determined by any single factor. Thus, the government should protect and give equal rights to whoever choose marriage-delay, non-marriage, or divorce.

In terms of gender roles in the family, the respondents' attitudes toward gender roles in the family tend to be more equal. The decreases in the three items are all statistically significant. Female respondents tend to be more equal than male respondents. This echoes with women's increasing participation in work life.

Above all, the changes in Chinese attitudes toward family and gender roles are not unidirectional. Traditional filial norms are still functioning in Chinese society and could be further strengthened in the long run. However, modern ideas are also challenging old and fusty patriarchal ideas, such as inequality between men and women.

4. Changes in Family Values and Behavior comparing Japan to Korea, China, Taiwan between 2006 and 2016 focusing on Japan

1) Introduction

This paper shows the preliminary results about examining stability or changes of family values and practices in four East Asian Societies based on East Asian Social Survey (EASS) 2006 and EASS 2016 data sets. EASS is a biennial social survey project to produce and disseminate academic survey data sets in East Asia. Four teams, each of which has been conducting General Social Survey (GSS) type surveys regularly in each society, have collaborated closely with each other since 2003. Japanese General Social Survey (JGSS), Korean General Social Survey (KGSS), Chinese General Social Survey (CGSS), and Taiwan Social Change Survey (TSCS) research teams jointly decide a theme, make a common module (about 60 questions), incorporate the module into the national survey respectively and make an integrated data. The theme for the first survey (EASS 2006) is family. After conducting EASS 2008 Culture and Globalization, EASS 2010 Health and Society, EASS 2012 Social Network and Social Capital and EASS 2014/2015 Work Life, four teams decided to conduct the Family module again as EASS 2016 Family.

Japan, South Korea, China, and Taiwan share Confucian val-

ues and have a long history of personnel exchanges including conflicts. After World War II four societies have gone through different political situations and economic developments. Japan had been occupied by the United States between 1945 and 1952, exposed to the American way of democracy and has been influenced by it thereafter. In China, the People's Republic of China founded in 1949 and there had been a period of the Cultural Revolution between 1966 and 1976. The Republic of Korea had experienced Korean War (1950-1953) and authoritarian regime (1960-1993). Taiwan has been shaken by Independence Movements from the Republic of China, and People's Republic of China. The differences in historical backgrounds and political systems generated differences in industrial development and corporate management and in the relationship between work and private life including family life.

Before proceeding to the results of EASS 2006 and EASS 2016, population and labor statistics will be overviewed to check the present situations of the four societies where people have their everyday family lives. Macro level trends in family related statistics in the last four decades (from 1975 to around 2014) will be also reviewed. Although EASS data have been collected only in the last decade of this period (1975-2014), reviewing the macro level demographic statistics in the preceding three decades will give suggestions for examining changes between EASS 2006 and 2016. Macro level demographic changes could be

causes for changes in individual's family values and also could be effects of changes in individual's family values. For example, increasing of divorces has relaxed people's negative attitudes on divorce, which in turn has brought more divorces.

2) Population and Labor Statistics : Japan, South Korea, Taiwan and China

Japan, Taiwan and South Korea had experienced massive economic growth at an earlier stage of the post-World War II era. Employment in these societies has shifted into the service sector (Table II-4-1). The primary (farming etc.) sector remains about 30% in China, and the secondary (manufacturing) sector remains prominent in Taiwan. The share of self-employed workers is relatively high in South Korea.

〈Table II-4-1〉 Population and Labor Statistics

	Korea	China	Taiwan	Japan	USA	EU
Population(million): 2014/2015	50	1,371	24	127	319	5.09
GDP(billion USD): 2014/2015	1,411	10,900	1,120	4,125	17,947	16,224
GDP per capita (PPP) USD: 2014/2015	33,400	14,200	47,300	38,400	54,400	37,600
GDP growth rate: 2014/2015	3.0%	7.8%	2.6%	1.0%	2.0%	1.0%
Labor population : 2014-2016						
Primary industry	4.9%	28.3%	4.9%	2.9%	1.6%	5.0%
Secondary manufacturing	24.1%	29.3%	35.9%	26.2%	18.4%	21.9%
Tertiary industry	71.0%	42.4%	59.2%	70.9%	80.0%	73.1%
Labor population: self-employment 2015	25.9%	15.1%	15.8%	11.1%	6.5%	16.1%

Source: OECD Economic Surveys, National Statistics Republic of China

〈Table II-4-2〉 Labor Statistics

	Korea (2009)	China	Taiwan (2013)	Japan (2012)	USA (2012)	EU (2012)
Manufacturing: No. of enterprises by size						
less than 20	52.4	-	86.8	86.0		90.6
20-249 employees	46.2	-	12.2	13.2		8.6
250 or more(over 200 for Taiwan)	1.4	-	1.0	0.8		0.8
Manufacturing: No. of persons engaged by size						
less than 20	16.3	-	32.5	13.6		33.7
20-249 employees	54.9	-	29.0	34.4		25.3
250 or more(over 200 for Taiwan)	28.8	-	38.5	52.0		41.0

Source: OECD Economic Surveys, National Statistics Republic of China

The proportion of small-size (less than 20 employees) manufacturing firms is lower in South Korea, while the proportion of people who work at small factories is higher in Taiwan compared to Korea, and Japan (Table II-4-2). Japanese companies had been known for lifetime employment, seniority wage system and in-company union which had been supporting male regular employees; on the other hand these worker-husbands had to put a priority on work rather than family life. In Taiwan where there are many family-run companies, family network remains a vital role in economic activity. In South Korea large-scale companies and self-employment coexist. In China the private sector accounts for 70 percent of its GDP recently.

Having experienced a period of rapid industrialization and transformation of industrial structure (Chang, 2010), low fertility, population aging, and environmental pollution are now significant social issues to be addressed in the four East Asian societies. In particular, Taiwan and South Korea are suffering from drastically declining birth rates, and Japanese society is aging rapidly (Table II-4-3).

〈Table II-4-3〉 Population Statistics

	Korea	China	Taiwan	Japan	USA	EU
Total fertility rate: 2013	1.19	1.67	1.07	1.43	1.86	1.52
% children under 15 years old: 2014/2015	14.3%	17.2%	13.6%	12.5%	19.2%	15.6%
% of older people 65+ years old: 2014/2015	12.7%	9.6%	12.5%	26.8%	19.2%	15.6%
Life expectance: 2014/2015	81.8	75.8	80.2	83.7	78.8	80.9
Average household size: 2011-2015	3.3	2.9/3.9	2.8	2.6	2.5	2.3
% single person household: 2011-2015	23.9%	13.7%	22.0%	16.9%	26.7%	33.4%
Crude marriage rate(per 1,000): 2010-2015	6.0	1.9	6.4	5.1	6.9	4.2
Crude divorce rate(per 1,000): 2011-2014	2.3	2.7	2.3	1.8	3.2	2.0
Mean age at first marriage(men): 2006-2015	32.4	25.7	32.2	31.1	27.1	31.8
Mean age at first marriage(women): 2006-2015	29.8	23.9	30.0	29.4	29.2	29.2

Source: OECD Factlook, Statistical Yearbook of the Republic of China, National Statistics Republic of China

(Table II-4-4) Population Statistics

	Korea	China	Taiwan	Japan	USA	EU
Unemployment rate for 15-64 years old	3.5%	4.1%	3.8%	3.4%	5.3%	9.4%
Unemployment rate for 25-29 years old	6.2%	-	6.6%	4.8%	5.5%	11.1%
Unemployment rate for 30-34 years old	4.5%	-	4.0%	4.3%	5.5%	11.1%
Tertiary education attainment(25-43 years)	70.0%	18%	70.4%	60%	48%	40%
Women enrolment in tertiary education	81.3%	43%	87.7%	60%	101%	-
Employment rate for women(15-64 years)	55.6%	70.4%	58.4%	65.4%	66.2%	66.0%
Part-time employment rate for women	16.5%	9.1*	16.0%*	37.1%	25.8%	27.2%
Gender wage gap	37.2%	-	14.5%	25.7%	#45	-
Global Gender Gap Index	#116	#99	(#38)	#111	#26	-
Economic participation and opportunity	#123	#81	-	#118	#21	-
Education attainment	#102	#99	-	#76	#1	
Health and survival	#76	#144	-	#40	#62	
Political empowerment	#92	#74	-	#103	#73	

Source: OECD Economic Surveys, Global Gender Gap Report 2016, National Statistics Republic of China *based on EASS 2010/2012

The share of students going on to tertiary education is higher in South Korea and Taiwan than in US (Table II-4-4). Unemployment among the highly educated and over-education are a common issue in Japan, South Korea, and Taiwan. Families in the four societies have dealt with each society's

economic swings and changes in labor market by changing their family roles and family structures. The labor market participation of women is particularly high in China and the gender wage gap is small in Taiwan.

3) Macro Trends in Family Related Statistics in Japan, South Korea, China and Taiwan

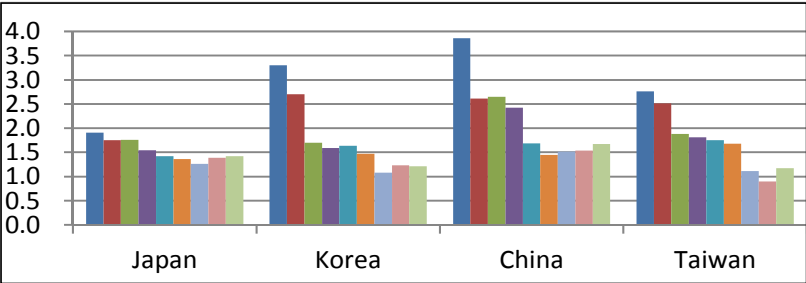
In this section, macro level demographic trends which are closely related to changes in individual's family values in Japan, South Korea, China and Taiwan from 1975 to around 2014 will be reviewed.

Decline of total fertility rates is not limited to the East Asia, but they have dropped particularly low in this area (Fig. II-4-1). China might change in the next decades due to the termination of the one child policy in the end of 2015.

Aging of the society has been much faster in Japan (Fig. II-4-2), but other East Asian societies start to show the similar trend.

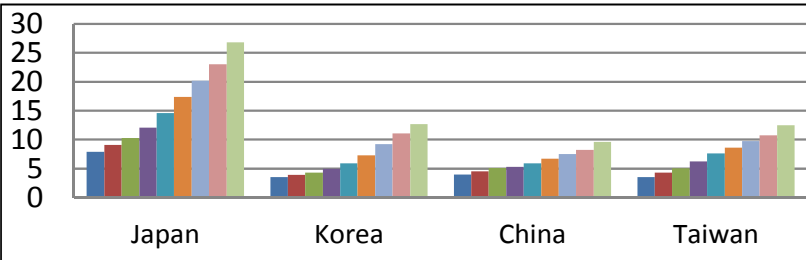
Crude marriage rate is influenced by the size of the younger generation (shrinking of younger generation) as well as younger generation's tendency to marry less (Fig. II-4-3). In China, sex ratio has been skewed due to the one child policy, which further had driven down crude marriage rates.

[Figure II-4-1] Total fertility rate: 1975–2010, 2014



Source: OECD Factbook, Statistical Yearbook of the Republic of China

[Figure II-4-2] Older people(65+) %: 1975–2015



Source: OECD Factbook, Statistical Yearbook of the Republic of China

[Figure II-4-3] Crude marriage rates(per 1000): 1975–2010, 2014

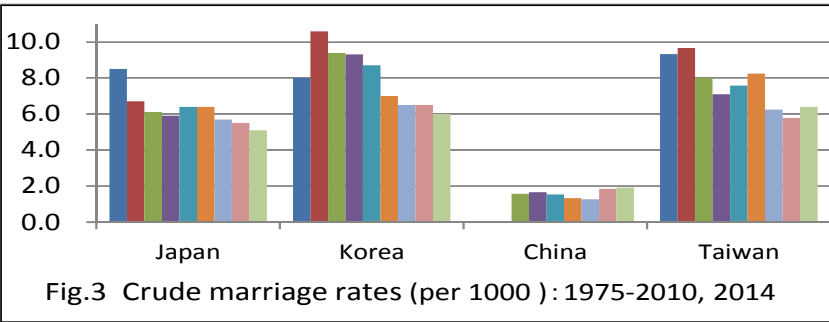


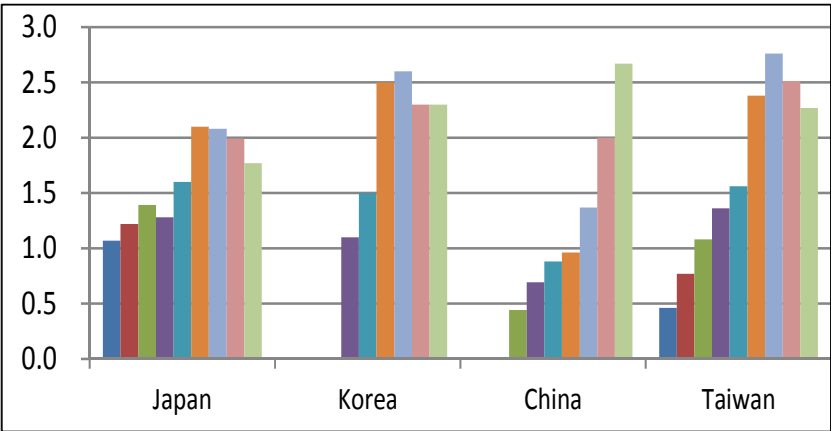
Fig.3 Crude marriage rates (per 1000) : 1975–2010, 2014

Source: OECD Factbook, Jinkotokei Shiryousyu (Population Statistics Information Packet; Japan)

Crude divorce rate had increased in all four East Asian societies (Fig. II-4-4). While it seems to reach a plateau in Japan, Korea and Taiwan, it seems still increasing in China.

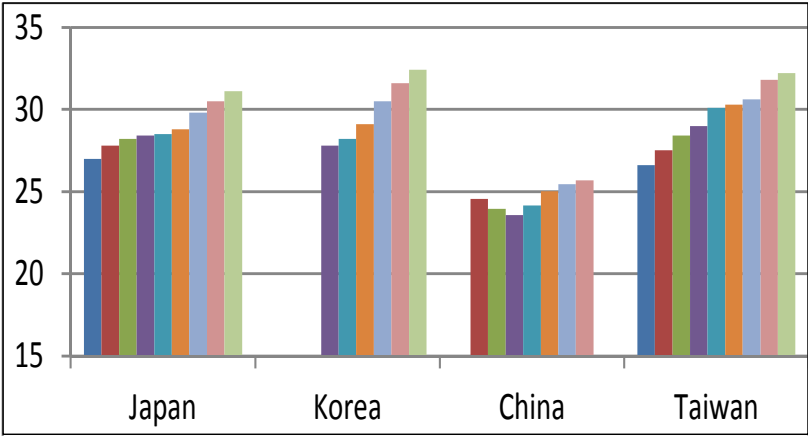
Both men and women came to marry late (Fig. II-4-5a & II-4-5b). Household size has been gradually shrinking in East Asian societies (Fig. II-4-6). Proportion of the single person household (both young and old) has been gradually increasing in Japan and rapidly increasing in Korea (Fig. II-4-7).

[Figure II-4-4] Crude divorce rates(per 1000): 1975-2010, 2014

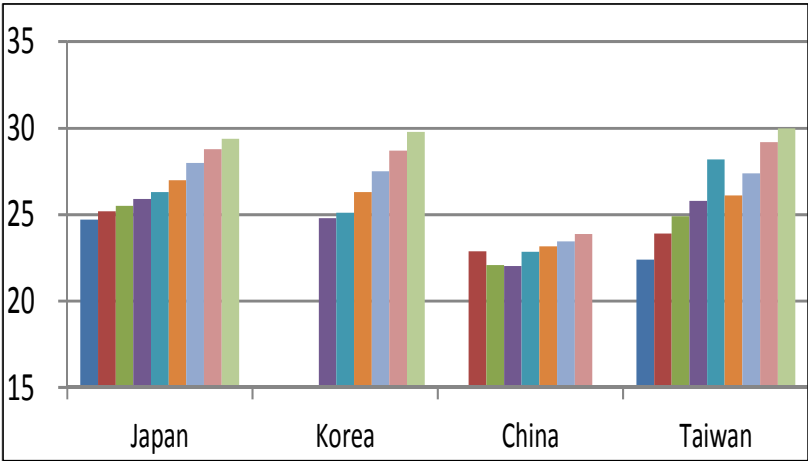


Source: OECD Factbook, Jinkotokei Shiryousyu (Population Statistics Information Packet; Japan)

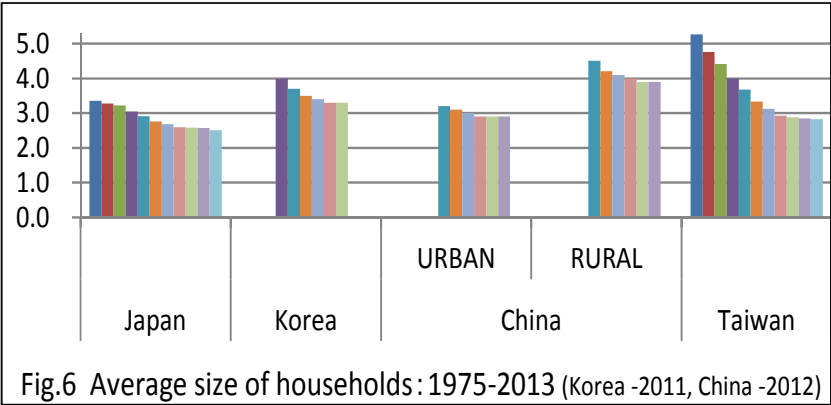
[Figure II-4-5a] Mean age at first marriage:Men 1975–2015(China-2010)



[Figure II-4-5b] Mean age at first marriage: Women 1975–2015(China-2010)

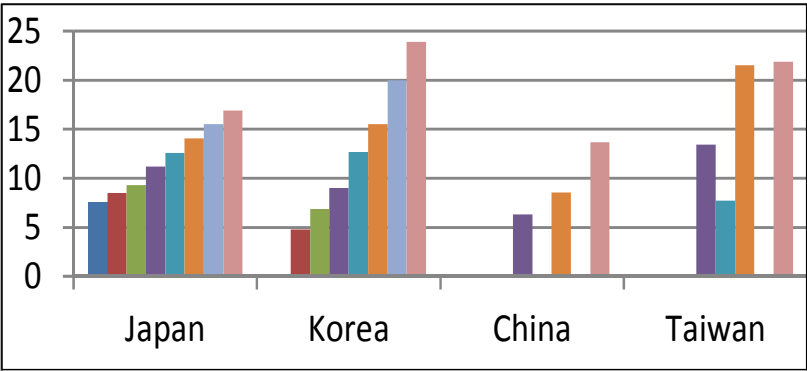


[Figure II-4-6] Average size of households: 1975-2013(Korea-2011, China-2012)



Source: OECD Factbook, Statistical Yearbook of the Republic of China, National Statistics Republic of China. Household sizes for China were calculated separately for urban and rural area.

[Figure II-4-7] Average size of households: 1975-2013 (Korea-2011, China-2012)



Source: OECD Factbook, Statistical Yearbook of the Republic of China, National Statistics Republic of China

4) Sampling Design and Basic Demographics

Table II-4-5 shows sampling designs of EASS 2006 and 2016, and their number of responses. CGSS 2017 has yet to be integrated and data from JGSS-2018 are still undergoing cleaning.

〈Table II-4-5〉 Sampling Designs of EASS 2006/2016 and Number of Responses

	Japan	Korea	Taiwan	China
Name	JGSS-2006 JGSS-2017/JGSS-2018	KGSS 2006 KGSS 2016	TSCS 2006 TSCS 2016	CGSS 2006 CGSS 2017
Survey Method	Interview and Placement (Self-Administered)	Interview		
Area	Nationwide			
Sampling Method	Two-Stage	Three-Stage		Four-stage
Targets	20-89 Years of Age	18 or over		18 or over (18-69 in 2006)
No. of Responses EASS 2016	2660 (744+1916)	1051	2024	
No. of Responses EASS 2006(Response Rate)	2,130 (59.8%)	1,605 (65.7%)	2,102 (42.0%)	3,208 (38.5%)

Table II-4-6 shows the age distribution of respondents for EASS 2006 and for 2016. In response to the aging of population, there are changes in the age distributions of respondents in Japan, Korea and Taiwan for EASS 2016; the proportions of older respondents increased.

〈Table II-4-6〉 Age Distribution of Respondents for EASS 2006 and for EASS 2016

EASS 2006								
	17-19	20-29	30-39	40-49	50-59	60-69	70+	Total
Japan	0 (0%)	226 (11%)	329 (15%)	327 (15%)	433 (20%)	441 (21%)	374 (18%)	2,130
Korea	47 (3%)	281 (18%)	389 (24%)	419 (26%)	196 (12%)	145 (9%)	128 (8%)	1,605
Taiwan	58 (3%)	418 (20%)	399 (19%)	444 (21%)	351 (17%)	212 (10%)	220 (11%)	2,102
China	98 (3%)	575 (18%)	759 (24%)	734 (23%)	649 (20%)	393 (12%)	0 (0%)	3,208
EASS 2016								
	17-19	20-29	30-39	40-49	50-59	60-69	70+	Total
Japan	0 (0%)	227 (9%)	352 (13%)	494 (19%)	430 (16%)	509 (19%)	648 (24%)	2,660
Korea	15 (1%)	179 (17%)	174 (17%)	170 (16%)	176 (17%)	148 (14%)	189 (18%)	1,051
Taiwan	67 (3%)	357 (18%)	392 (19%)	368 (18%)	348 (17%)	284 (10%)	208 (10%)	2,024

Average years of schooling became longer especially for women in Korea and men and women in Taiwan (Table II-4-7). While the proportion of married decreased, that of divorced and never married increased in all three societies (Table II-4-8).

〈Table II-4-7〉 Basic Statistics for EASS 2006 and EASS 2016 (age 20–69)

		EASS 2006				EASS 2016		
		Japan	Korea	Taiwan	China	Japan	Korea	Taiwan
Sample size		1756	1430	1824	3110	2012	847	1749
Age(mean)		47.8	41.2	42.0	42.9	47.9	43.9	43.4
sex(Female)		55%	55%	50%	55%	53%	53%	49%
Years of schooling	Male	13.1	13.2	11.8	9.1	13.6	13.6	13.4
	Female	12.5	12.1	10.9	7.9	13.0	13.3	12.6

〈Table II-4-8〉 Marital Status(% all repondents, age 20–69)

		EASS 2006				EASS 2016		
		Japan	Korea	Taiwan	China	Japan	Korea	Taiwan
Married		73.3	69.0	62.9	83.0	71.1	62.1	57.5
Widowed		3.6	4.3	4.4	4.1	2.6	3.7	4.3
Divorced		4.8	2.7	3.9	1.7	5.8	4.3	5.2
Separated		0.1	0.6	0.3	0.2	0.0	0.8	0.5
Never married		18.2	23.1	28.5	10.6	20.4	28.9	31.1
Cohabiting		0.0	0.5	0.0	0.4	0.0	0.2	1.4

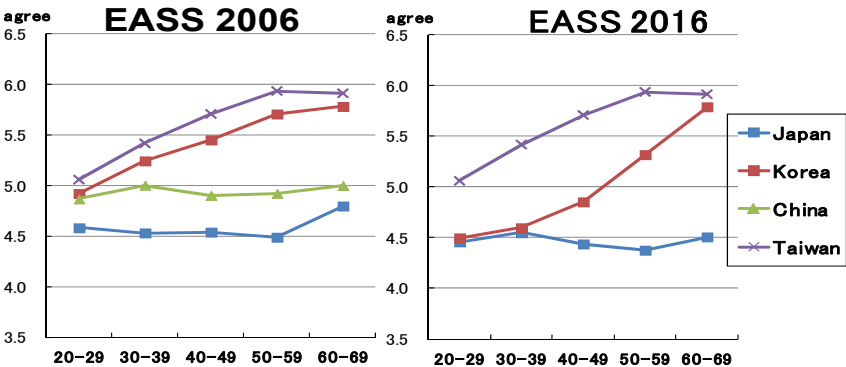
5) Comparisons of EASS 2006 and EASS 2016 Family Modules

Figure II-4-8 to 20 show comparisons across four societies by age groups with regards to norms about family values, children, marriage and divorce.

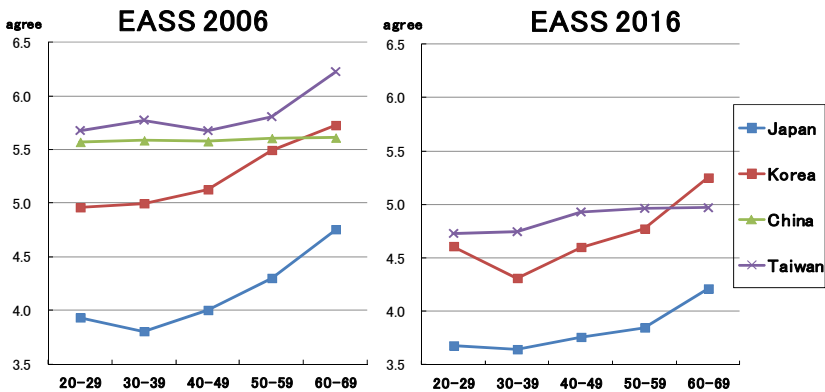
5-1) Family Values

Figure II-4-8 compares the degree to which individuals believe they must put familial well-being and interest before their own interest. The average score for each age group is calculated based on a scale ranging from 1=strongly disagree, 2=fairly disagree, 3=somewhat disagree, 4=neither agree nor disagree, 5=somewhat agree, 6=fairly agree, to 7=strongly agree. Trends across age groups remain fairly stable in Taiwan between 2006 and 2016; older groups tend to support family well-being more compared to younger groups. In Korea people under the age of 60 have reduced their support to the family well-being. The size of the changes seem to be brought not only by cohort replacement (e.g. people aged 20-29 in 2006 became aged 30-39 in 2016), but also by real changes in people's value. There are no major changes across age groups in Japan between 2006 and 2016, and there are only slight reductions in the average score among the oldest group. These changes seem to be explained by cohort replacement (people aged 50-59 in 2006 became aged 60-69 in 2016).

[Figure II-4-8] Norms of Placing Priority on Family; Precedence of Family



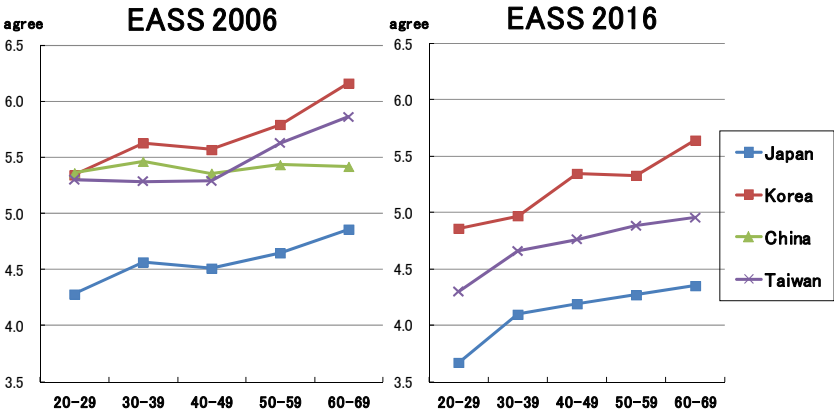
[Figure II-4-9] Family Obligation: Children must make efforts to do something that would bring honor to their parents



Support for the notion of children’s family obligation, that is, children must make efforts to do something that would bring honor to their parents (Fig. II-4-9) has reduced much in Taiwan and in Korea. In 2006, the average scores in Taiwan are over 5.5 across age groups, but the number drops to less than 5

(getting closer to “neither agree nor disagree”) in 2016. In Korea and in Japan, the average scores also drops for all age groups. Differences across age groups still remain; older groups tend to place family priority over their own interests compared to younger generations. Reductions in Korea are salient; those in Japan fall within the range of cohort replacement. Changes in values about family obligation in Korea and in Taiwan seem to be brought not only by cohort replacement (age effect) but also by actual changes in people’s values.

[Figure II-4-10] Respect for Fathers’ Authority; The authority for father in a family should be respected under any circumstances

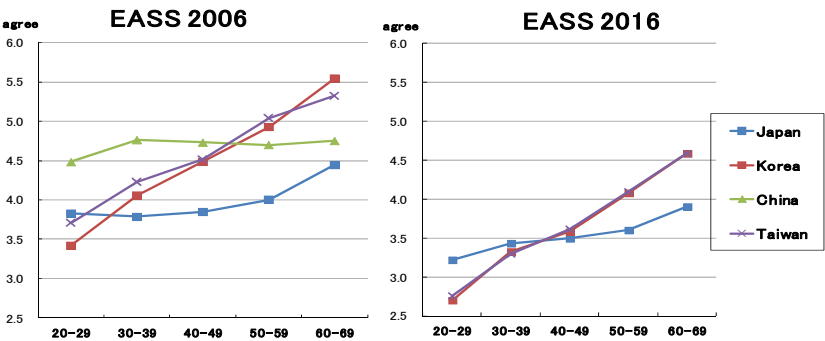


Support for having a respect for fathers’ authority (Fig. II-4-10) has reduced much in Korea and Taiwan; reduced some in Japan especially among aged 60s. However, trends across age groups stays similar in 2006 and 2016 in the three coun-

tries; older groups tend to support more for the idea that authority of fathers should be respected as compared to younger groups.

Support for the notion of gender roles (Fig. II-4-11) is almost identical for Taiwan and Korea both in 2006 and 2016. The average scores are reduced in 2016, but differences across age groups remained similar in 2006 and 2016. Older groups tend to have stronger support for the traditional gender roles compared to younger groups, and agree with the idea that a wife should help her husband’s career over her own. The trends across age groups stays similar in Japan, but the scores are slightly reduced, which seem to be brought by cohort replacement.

[Figure II-4-11] Gender Roles; It is more important for a wife to help her husband’s career than to pursue her own career



[Figure II-4-12] Gender Roles: A husband's job is to earn money; a wife's job is to look after the home and family

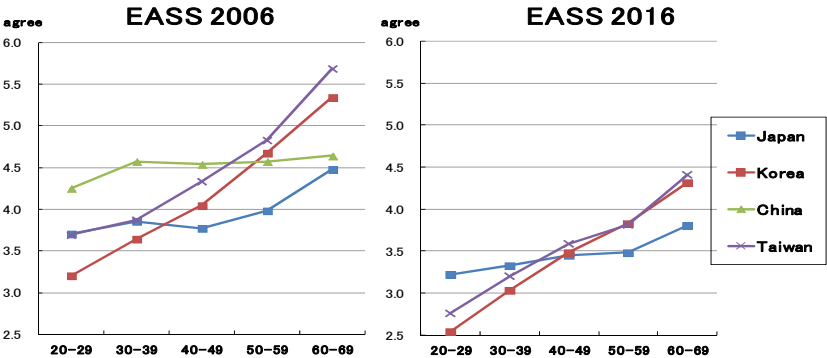


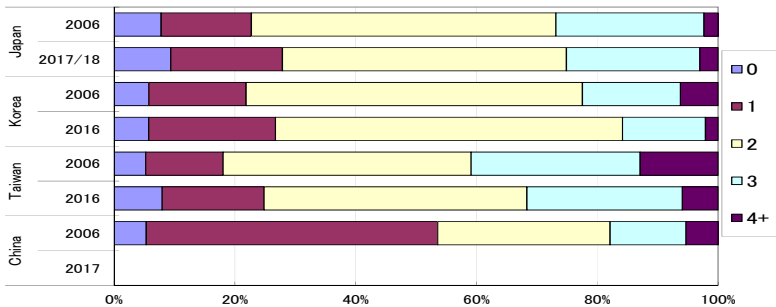
Figure II-4-12 also shows the similar trends on the view about gender division of labor across age groups. In Taiwan and Korean, patterns in cohort differences are comparable both in 2006 and in 2016. Older groups tend to support the traditional division of gender roles; husbands are the breadwinner and wives are the home makers. Both the average scores and differences across age groups were smaller in Japan; all of the average scores are below 4.0, which means that on average Japanese people aged 20-69 do not support the traditional gender division of labor any more in 2016. While changes in Korea and Japan seem to be brought by cohort replacement, those in Taiwan seem to be beyond the effect of cohort replacement.

As a whole, regarding family values, such as priority on family over self-interest, children's obligation towards parents, re-

spect for fathers’ authority, and gender division of labor, there have been large reductions in supporting traditional family values between 2006 and 2016 in Taiwan and in Korea. In Japan where support for the traditional family values were weaker compared with Taiwan, Korea and China in 2006, reductions are much smaller, which seem to be counted by cohort replacement. In China, it was observed that there are few age-cohort differences and gender differences (figure not shown) in family values in 2006. CGSS 2016 data would show us whether there appears differences in family values across age and gender or not, and whether any reduction or any increase in support of traditional family values would be observed.

5-2) Fertility/Children

[Figure II-4-13] Current Number of Children among Married Respondents

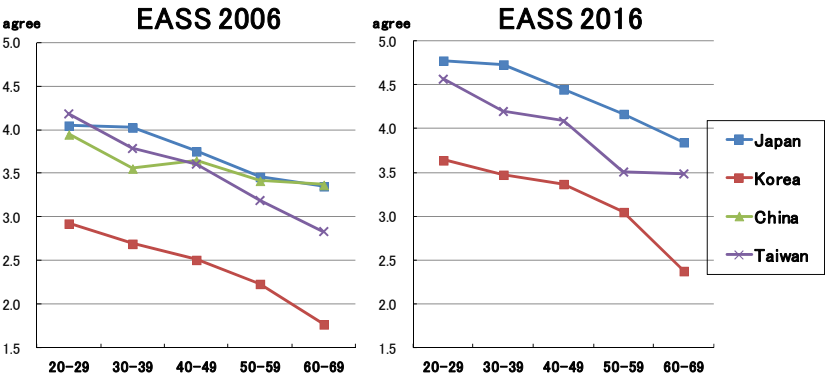


The majority of married respondents have two children in Japan, Korean, and Taiwan in both 2006 and 2016 (Fig. II-4-13). The proportion of those with one child increased in Japan, Korea and Taiwan.

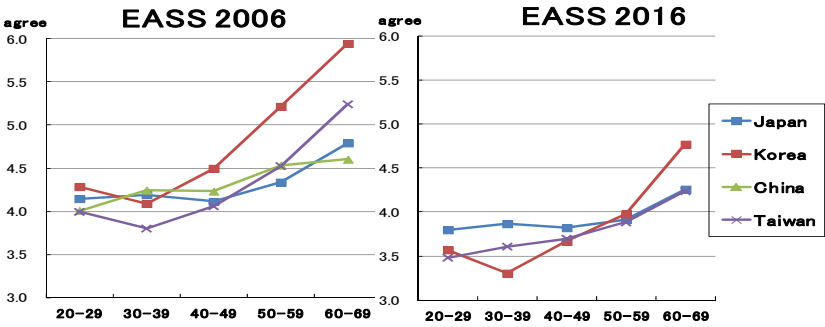
In 2006, individuals, except in Korea, do not necessarily think that people have to have children once they get married (Fig. II-4-14). Support for this statement increased much in Korea; more than cohort replacement; also increased some in Taiwan and in Japan which seem to be brought by cohort replacement.

There is drastic drop in boy preference for keeping the family line in Korea across age groups over the ten years, and in 2016 majority of individuals in Korea do not have preference on sons over daughters except for the oldest groups (Fig. II-4-15). The average scores for this slightly drop in 2016 both in Taiwan and Japan. The age group differences in are similar for Taiwan and Japan, and only individuals in the oldest age group tend to have preference on sons over daughters in order to continue family lines.

[Figure II-4-14] Marriage and Having Children: It is not necessary to have children in marriage



[Figure II-4-15] Boy Preference: To continue the family line, one must have at least one son

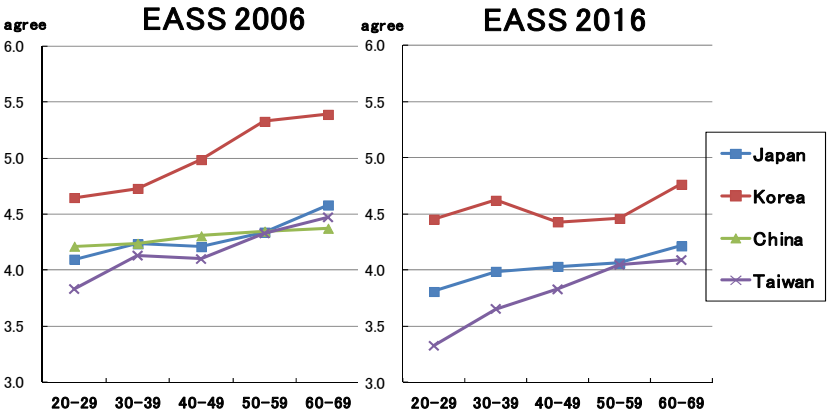


5-3) Marriage and Divorce

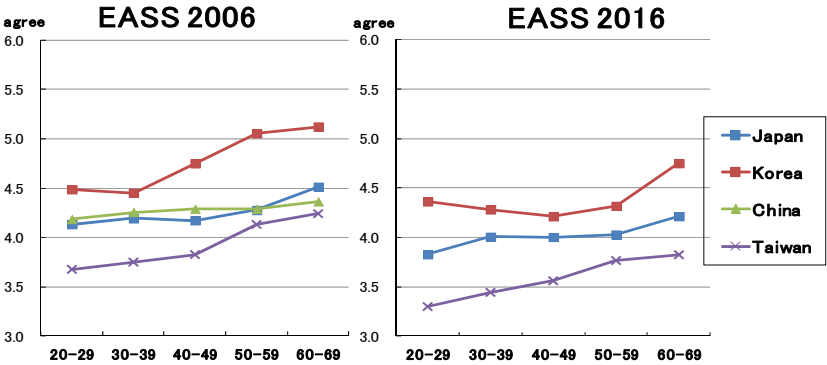
People in South Korea tend to support the notion that married men and women are generally happier than unmarried men and women stronger, compared to people in Japan, China and Taiwan both in 2006 and in 2016 (Fig. II-4-16 and Fig. II

-4-17). However, as in Japan and Taiwan, a support for the notion also dropped in South Korea, especially among people over 40 years of age. In Taiwan, people tend not to believe that marriage is a gate for happiness anymore in 2016.

[Figure II-4-16] Married men are generally happier than unmarried men

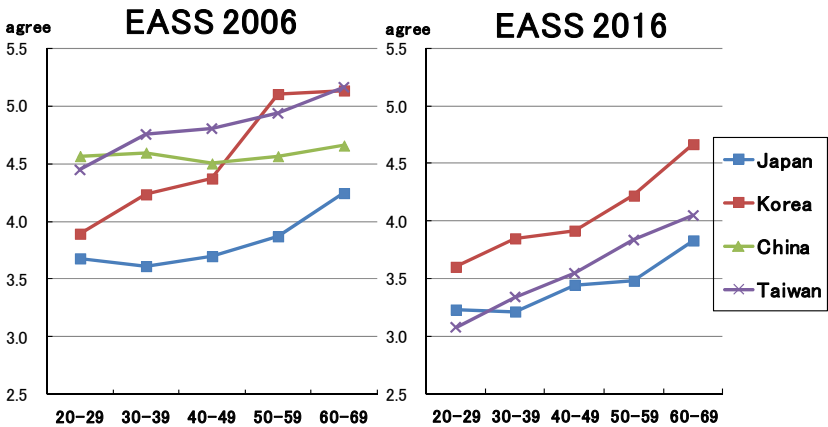


[Figure II-4-17] Married women are generally happier than unmarried women

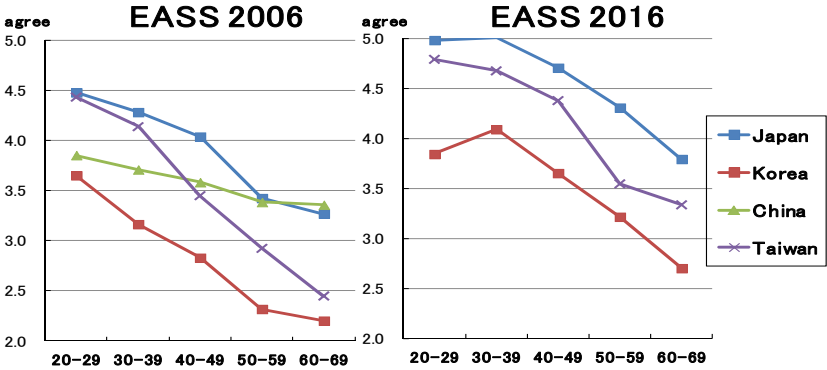


In 2016, people in Japan and Taiwan do not care about whether husband is older than wife or not (Fig. II-4-18). The belief about age differences is similar in 2006 and 2016 in Japan, and only slight decreases in the scores were observed across age groups. However, in Taiwan, the view on married couple's age significantly changed over the 10 years. In 2006, the majority agreed that husband should be older than wife across age groups, but in 2016 the majority disagreed with this idea. The notion drops in South Korea in 2016 compared to 2006, but is still weakly supported.

[Figure II-4-18] Husband should be older than wife

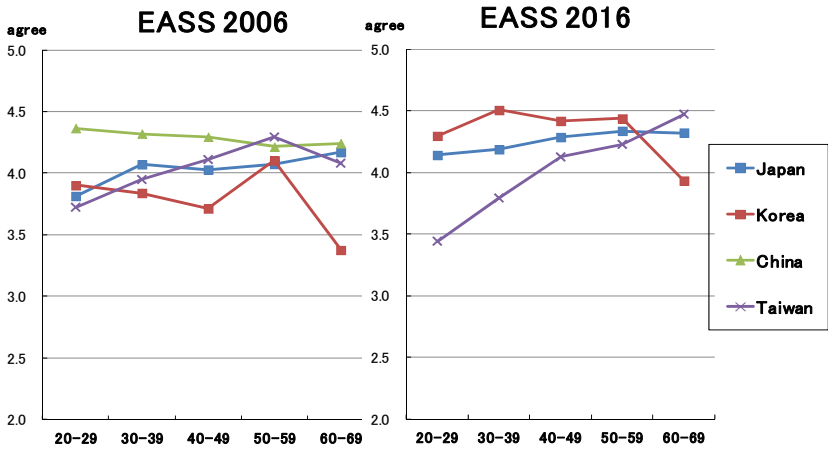
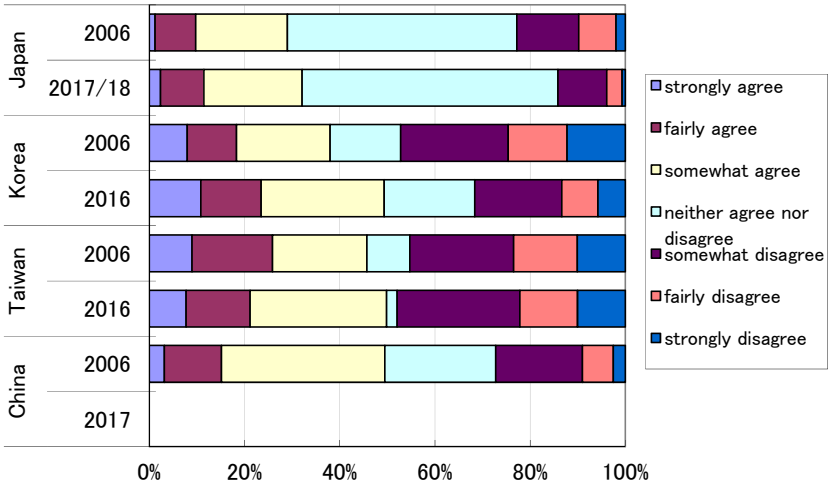


[Figure II-4-19] It is all right for a couple to live together without intending to get married



In addition, people became more tolerant with cohabitation in Japan, Korea, and Taiwan; especially in Japan, its increase is above the effect of cohort replacement (Fig. II-4-19). However, trends across age groups remained similar over the ten years; older people tend to disagree with cohabitation as compared with younger generations, in Japan, Korea, and Taiwan. In Korea, individuals in all age groups disagree with the cohabitation in 2006, and the majority of only those who are their 30's support the idea in 2016.

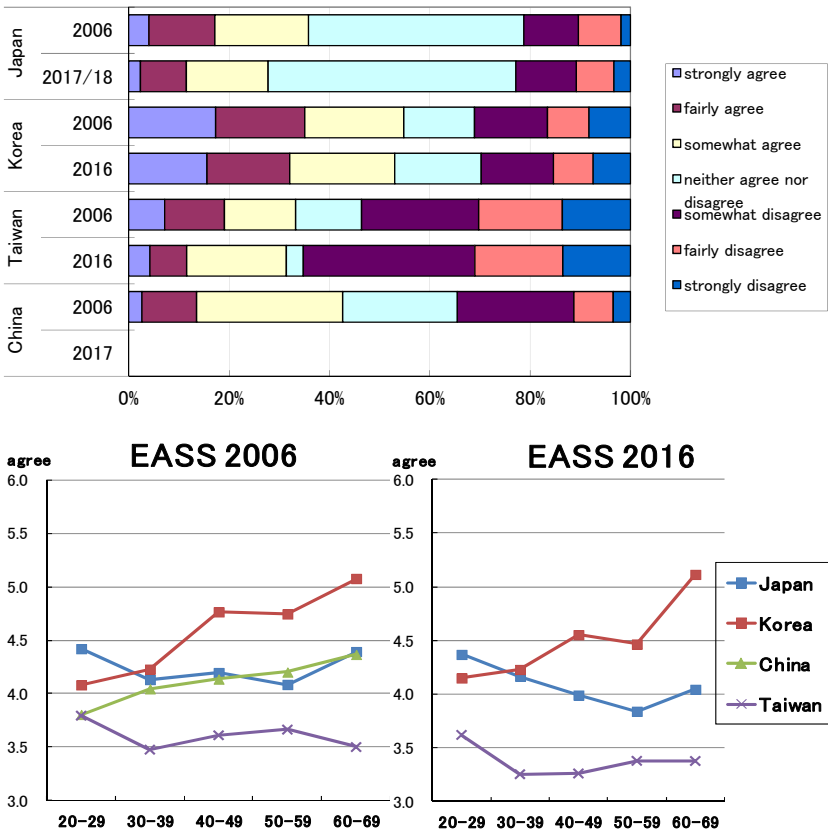
[Figure II-4-20] Divorce is usually the best solution when a couple can't seem to work out their marriage



In 2006 (Fig. II-4-20), Japanese people were in an indecisive attitude about divorce (48% of them chose “neither agree nor disagree”) across age groups. In 2016, the proportion of indecisive attitude further expands to 54%, but on average the notion is supported more than in 2006. In Taiwan the proportion of people who agree with the notion and those who disagree with the notion was almost the same in 2006 and 2016. The trend that the notion is supported more among older generation in Taiwan appears clearer in 2016. In South Korea, the notion is supported stronger among all age groups in 2016 than 2006.

On the other hand, the presence of children is still a key factor for a majority of people in South Korea and in Japan when it comes to divorce even in 2016, and trends across age groups remained similar in both countries (Fig. II-4-21). While in Korea older people tend to support the idea that divorce should be after children grow up, the younger groups tend to support the idea more compared to those in their 50's in Japan. A majority of people in Taiwan think that people do not have to wait to divorce until children are grown up both in 2006 and 2016

[Figure II-4-21] People who want to divorce must wait until children are grown up



6) Conclusion

Data for 2016 is still in the process of making and cleaning. CGSS 2017 has yet to be integrated and data from JGSS-2018 are still undergoing cleaning. Therefore the results shown in

this paper is preliminary, but it seems that there have been very visible changes in all three societies in the last decade. Especially in Korea, changes seem to be brought not only by cohort replacement but also by actual changes in people's values and behaviors. On the other hand changes in Japan seem to reflect cohort replacements.

In societies which are swung by rapidly changing global economy and political climate, families have changed their family roles and family structures. Japanese people seems to have transformed their family values relatively earlier compared with South Korea and Taiwan. But their family roles (behaviors) seem not to have changed to the same extent. Further examination should be necessary when the integrated data is ready to be analyzed.

Acknowledgements

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III

Comparison of Families and Family Relationships in East Asia : Korea, Japan, Taiwan, and China



III

Comparison of Families << and Family Relationships in East Asia: Korea, Japan, Taiwan and China

Korean families and their changes reveal both similarities and dissimilarities with other neighbor countries in East Asia, especially Japan, China, and Taiwan. Comparing these countries provides is conducive to a better understanding of East Asian families, since these countries share the cultural, institutional, economic background to some extent.

In this regard, Chapter III broadens the scope of analysis into cross-national comparison. Each section in this part includes the analysis of more than one countries, which provides an opportunity to examine cross-national differences and similarities within the Asian countries. Some sections in this part seek for an exploration of both longitudinal trends and their cross-national differences, providing rich insights on the patterns of family changes in East Asia.

The scope of the comparison extends from two-country (the fourth section about Japan-China comparison) to multi-country including Southern Asian societies (the second section), depending on the purpose of the section. The sections cover a wide range of topics as well, from marriage and fertility (the fourth section) and multi-generation co-residence (the

fifth section) to more comprehensive coverage of various family values. Despite these variations in its scope and topics, the following sections commonly seek for a better understanding of East Asian families from a cross-national comparative perspective, which highlights the cultural, social, institutional, economic foundations of family changes.

1. Family Changes and Family Values in Asian Societies: Exploring Similarities and Differences Based on EASS 2006/16 and CAFS

1) Introduction

The last 40 years witnessed dramatic family changes in Asian societies. Demographic transitions are quite evident. Asian societies have faced a rapid fertility decline and are moving toward a small family form. Are Asian family values and practices converging? Asian societies also have experienced a rapid growth in women's educational opportunities. What effects does the expansion have on family values and practices in Asian societies? Based on EASS 2006 and CAFS (Comparative Asian Family Survey), this paper firstly attempts to clarify the similarities and differences in gender-role attitudes and the gender divisions of household chores in Japan, South Korea, Taiwan, China, Vietnam, Malaysia, Thailand and Turkey.

Secondly, using EASS 2006 and 2016, this paper explores what changes in gender-role attitudes and the gendered divisions of domestic chores occur in Japan, South Korea, and Taiwan.

The first results of analysis show that the rapid expansion of women's higher education leads to changes in the attitudes toward gender roles in those Asian societies. However, it is evident that changes in attitudes do not correspond to everyday domestic practices in these societies. The Thai case is quite intriguing: while Thai people support gendered family values, Thai domestic practices are more egalitarian than those in the other societies.

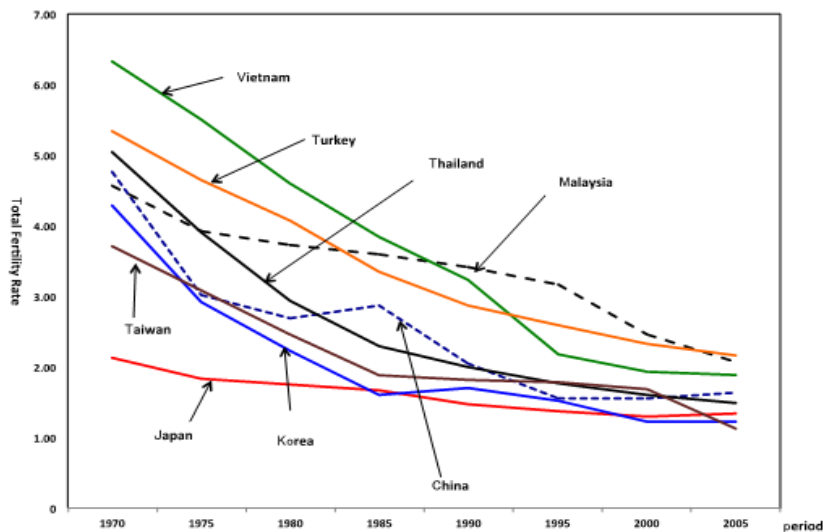
The second results of analysis show that men and women in Japan, Korea, and Taiwan are more likely to accept egalitarian gender role in 2016. Changes that occur among well-educated women in Korea and Taiwan are more evident. Participation in domestic chores among men is slightly improving in Japan, Korea, and Taiwan; even among Japanese well-educated men. Participation rate among well-educated women in Taiwan declines sharply.

Before presenting the results of analyses, this paper briefly explain the comparative perspective on family change and family values in Asian societies.

2) Seeing Family Changes in Asian Societies

Fig III-1-1 shows the trends of Total Fertility Rates in Asian Societies after 1970s. Each Asian except Japan society has experienced a dramatic fertility decline. Vietnamese change is more rapid than other Asian societies: the rate sharply declines from 6.33 to 1.89. Japanese change is gradual: the rate declines from 2.13 to 1.34. It is evident that Asian societies tend to converge on low fertility. However, the routes to low fertility are different. In order to see family changes, it is important to compare changing patterns of age-specific fertility rates among societies.

[Figure III-1-1] Trends of Total Fertility Rates in Asian Societies after 1970

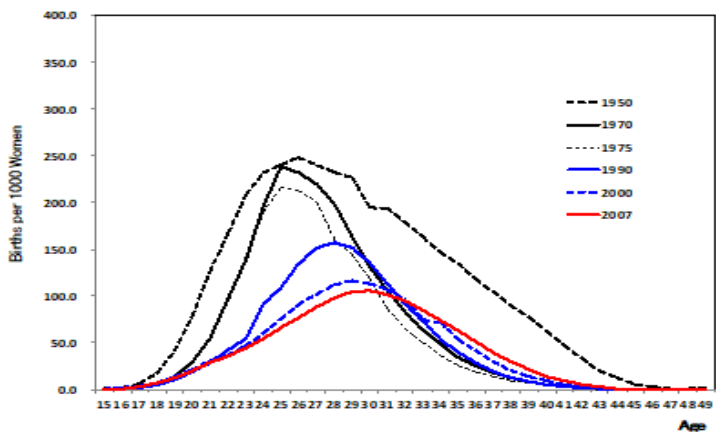


Age-specific fertility rate is the annual number of births to women in a particular age group per 1000 women in that age group. Sum of age-specific fertility rates means Total Fertility Rate. Using the data obtained from World Fertility Report 2009 United Nations, graphs of Fig. III-2-2 indicate how age-related patterns of childbirths have changed over 40 years in Japan, South Korea, China, Taiwan, Vietnam, Thailand, Malaysia and Turkey. In addition, Denmark, Italy and US are also shown. Comparing the shapes of graphs over years and among societies tells us about what changes happened in family formation in the societies.

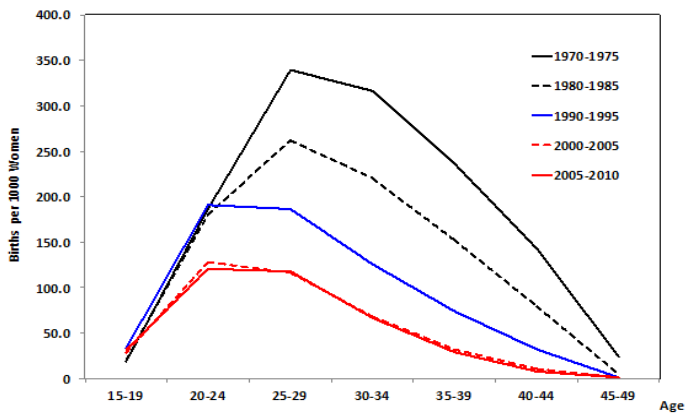
The Japanese case is a good example that shows how to interpret changing patterns of age-specific fertility rates. The graph of the 1950 looks like a big mountain, meaning that women gave birth at each age at higher rates than in other times, though the top of the mountain is around the late 20s. Next, the graphs of the 1970 and 1975 look like sharp mountains, showing that the ages of women's childbirth concentrate on the late 20s. It means that large number of women gave birth at the late 20s and that the numbers of childbirths after that age decline sharply. The graphs of the 1970 and 75 indicate the standardized patterns of Japanese women's life course; after graduating school, large number of Japanese women work until they got married around the 25 years of age, gave birth until the 30 years of age and do not have more.

Since then, the mountains are getting smaller and smaller, meaning that birth rates continue to decline in Japan.

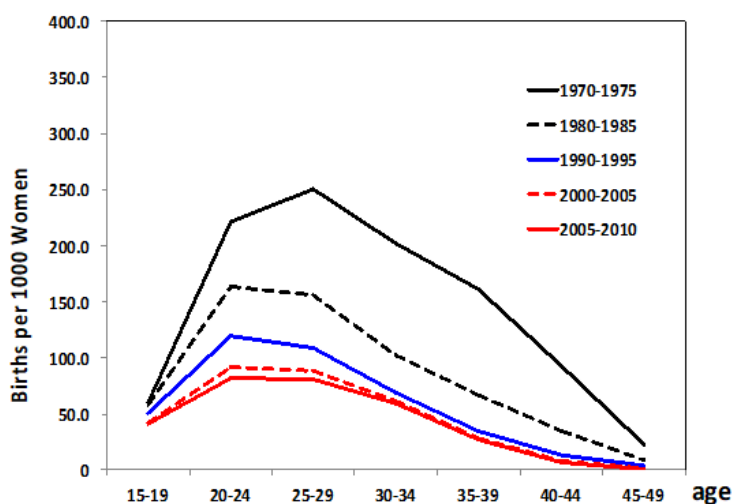
[Figure III-1-2] Comparing Changes in Age-Specific Fertility Rates



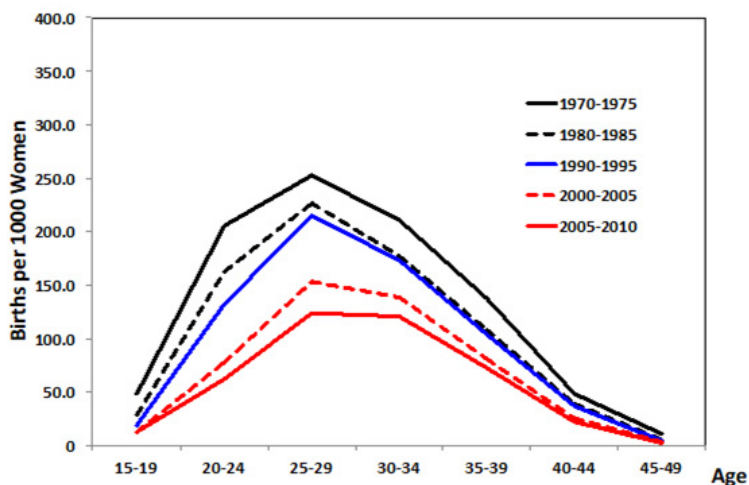
Japan



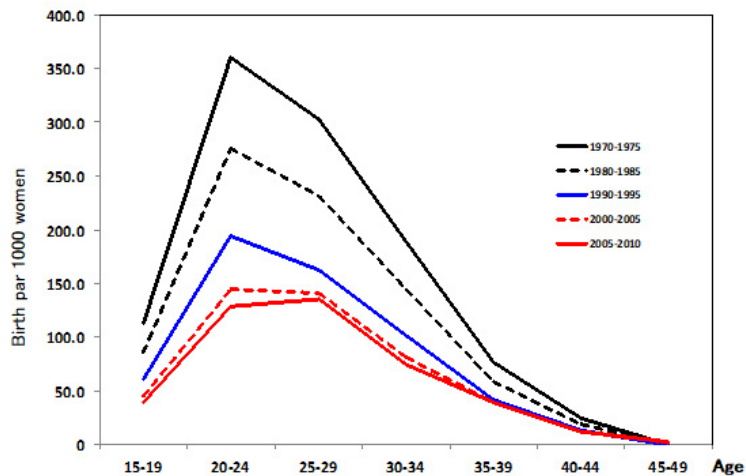
Vietnam



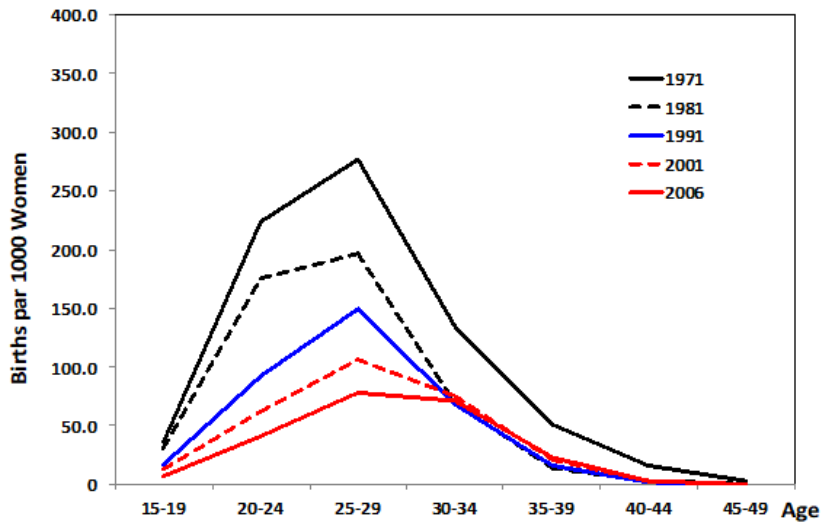
Thailand



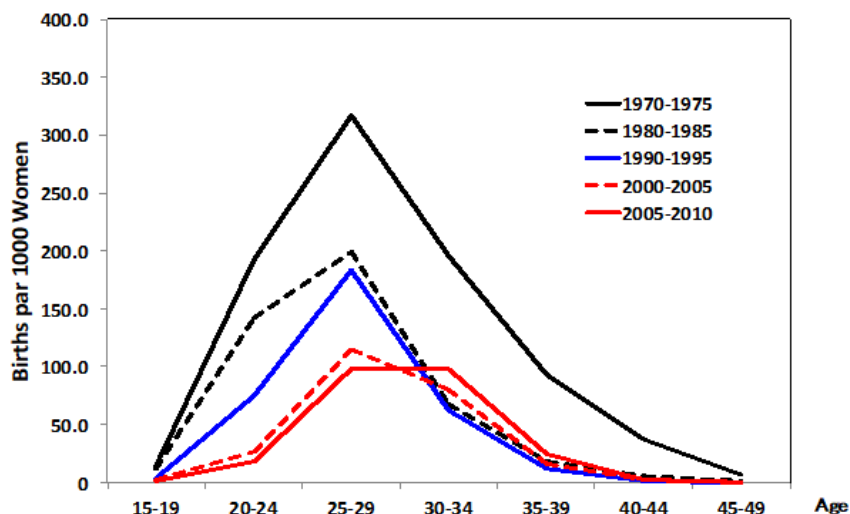
Malaysia



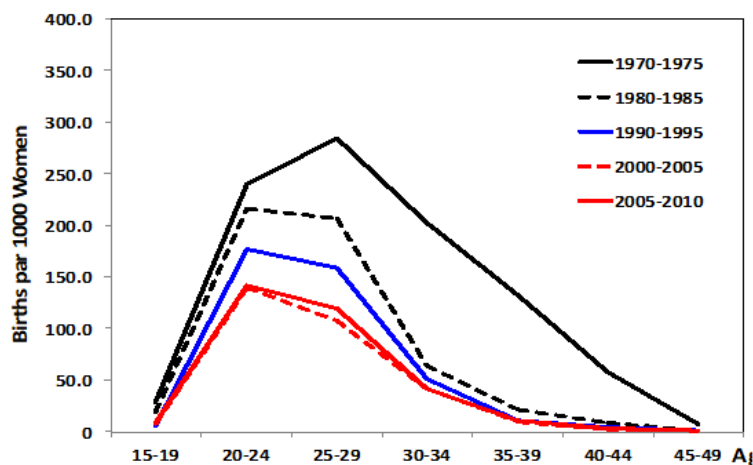
Turkey



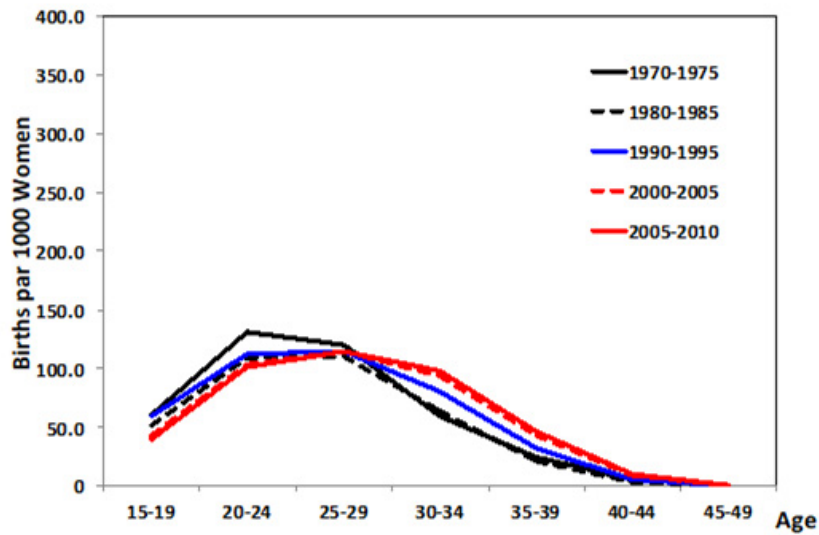
South Korea



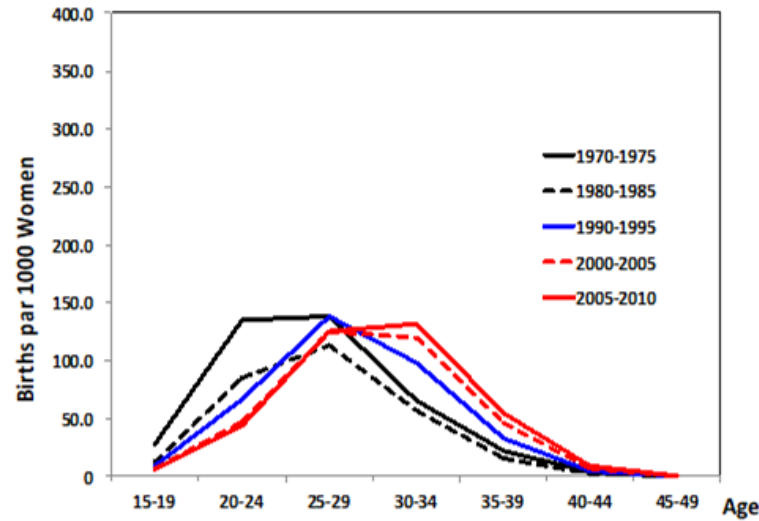
Taiwan



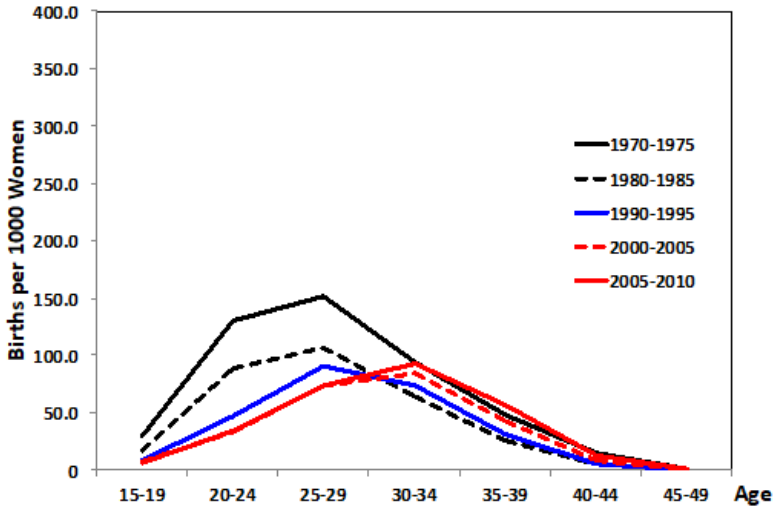
China



USA



Denmark



Italy ↵

Vietnam case of Fig III-1-2 is quite different from the Japanese one. Greater changes from the big mountain of the early 1970s toward smaller ones can be seen (Hirschman & Minh 2002). There is no the sharp mountain we saw in the Japanese case. The numbers of children born at each age became fewer and fewer. The similar pattern is found in Thailand case, although the change is not as large as in Vietnam. The graph of Malaysia show slower changes toward a small mountain of the 2000s.

The graphs of South Korea and Taiwan are somewhat similar to the Japanese case. The age of childbirth reaches the peak at the late-20s of age in 1980s and 90s. As the mountains become

smaller, the peak moves to the later age in 2000s. China and Turkey show a little different pattern of moving toward small mountains.

On the other hand, as shown in the graphs of US, Denmark and Italy, Western societies have not experienced a big demographic change from 1970s to 2000s. The mountains of child-birth by age are small and very stable. Comparing the mountains of the 2000s in both Asian and Western societies shows that each society now has a similar age-related pattern. However, routes to small mountains are diverse.

Based on the Japanese case, this paper could develop the comparative perspective on explaining the similarities and differences in family changes and family values in Asian societies. The pattern found in the 1970s has been quite influential on family formation and gender relation in Japanese society. It is well known that Japanese women's labor force participation by age shows the M-shaped pattern, indicating that large number of women start to work after graduating school, then stop working upon marriage or childbirth at the late-20s of age and start to work again after children grow up. The ages of exiting the labor market correspond to the peak of a sharp mountain. This means that a large number of women followed the life pattern since the 1970s (Iwai 2010). The employment and welfare systems have supported the gendered patterns of work and family relations (Esping-Andersen 1999). Although women's

higher education has expanded since the 1980s and gender equality of employment has been promoted, the gendered patterns have been embedded in everyday practices of families and workplaces. From the 1970s to the 1990s, egalitarian values of gender relation generally have permeated in Japanese society. However, changed values tend to make little effects on everyday practices, so that value changes are loosely coupled with changes in practices(Iwai, 2014).

Using the Japanese patterns of changes in family values and practices as a reference, this paper aims to explore the similarities and differences among Asian societies. The data of China, Japan, South Korea and Taiwan come from EASS 2006 and EASS 2016. In addition, this paper analyzes the data of Thailand, Vietnam, Malaysia and Turkey from CAFS (Comparative Asian Family Surveys). EASS 2006 and 2016, conducted by a research team in each society, have a nationally representative sample, although the sample size is different in each country. The project has run the nation-wide survey in each society using the same questionnaire every other year since 2006. The EASS 2006 project attempted to conduct a comparative research on family values and family activities among four East Asian societies. The data include rich information on gender-role attitudes, marital relations, inter-generational supports, child rearing, domestic activities and so on. The EASS 2016 uses the same questionnaire developed for

the EASS 2006. This is the first time that the changes of family values and practices between 2006 and 2016 can be explored. However, the China data is not available this time.

In 2010, the GCOE (Global Center of Excellence) team of Kyoto University started the CAFS project to conduct the replicated surveys of EASS 2006 in Bangkok and Hanoi. Since then, the replicated surveys have been conducted in Malaysia, Qatar, India and Turkey. CAFS use the area sampling & quota sampling in the targeted cities, not have a nationally representative sample. CAFS used the same module of questions about family to obtain the data for comparative research in Asian societies. Table III-1-1 shows the general characteristics of CAFS. The Qatar and India data are not available now because the coding and data cleaning were not yet finished. The following analyses use the information on gender-role attitudes and the division of domestic chores by gender.

〈Table III-1-1〉 Comparative Asian Family Surveys (CAFS)

CAFS	Thailand	Vietnam	Malaysia	Qatar	India	Turkey
Survey	Thai family Survey 2010	Vietnamese Family Survey 2010	Malaysian Family Survey 2012	Qatari Family Survey 2011	Indian Family Survey 2011	Family & Intergenerational Survey 2016
Method	Personal Interview	Personal Interview	Personal Interview	Personal Interview	Personal Interview	Personal Interview
Sampling design	Bangkok, Area Sampling	Hanoi, Area Sampling	Kuala Lumpur & Selangor,	Doha, Area Sampling	Delhi, Chennai Area	Ankara, Three-stratified

CAFS	Thailand	Vietnam	Malaysia	Qatar	India	Turkey
	& Quota Sampling	Quota Sampling	Area Sampling & Quota Sampling	& Quota Sampling	Sampling & Quota Sampling	sampling
Target Population	Age 17-75	Age 17-75	Age 17-75	Age 17-75	Age 17-75	Age 17-75
Number of Respondents	1092	1219	1729	1008	2366	1229

3) Results of Analysis (1): Gender Role Attitude

EASS 2006 and CAFS include various questions about gender role attitudes. Among them, the most relevant question is one on the gendered division of labor. Respondents are asked, "Do you agree or disagree with the following statement: 'A husband's job is to earn money; a wife's job is to look after the home and family'?" Respondents are required to choose the answer among seven items: "strongly agree" to "strongly disagree." We assigned the score 7 to "strongly agree" and the score 1 to "strongly disagree" and calculated an average of respondents' scores for each societies. Table III-1-2 is the result of our analysis concerning this gender role attitude.

The results in Table III-1-2 are very clear: Malaysia and Thai respondents are more likely to agree with the statement than those in the five other Asian societies. Chinese and Taiwanese respondents also demonstrate a positive attitude toward such a gendered division of labor. The tendency of Vietnamese re-

spondents to support the gendered division of labor is similar to the Chinese one. On the other hand, Korean and Japanese respondents are not as likely to be positive; the average score is about 4. Note that Japanese respondents tend to choose the middle response (“neither agree nor disagree”). Under the current ideological environment that promotes gender equality, it could be said that Thai people are more conservative and that Koreans are more liberal¹⁾.

〈Table III-1-2〉 Comparison of the Gender Role Attitude:EASS 2006 & CAFS

Husband earn money; wife look after home and family(age20-69)							
	Japan	Korea	Taiwan	China	Thailand	Vietnam	Malaysis
Mean	4.01	3.99	4.34	4.51	4.70	4.55	5.45
SD	1.29	1.73	1.82	1.35	1.60	2.12	1.14
	Japan						
agree	58.9%						
disagree	34.2%						

To clarify how the better-educated women respond to this question, this study divided the scores by educational level and by gender. The EASS 2006 includes a variable of “highest edu-

1) Since sampling methods of surveys are different among those societies, statistical significant tests of means might not be reliable. However, reporting results of the t-test of two means for independent samples would be informative. The difference between Malaysia and Thailand is significant at 1% level; the difference between Thailand and Vietnam is significant at 10% level; the difference between Vietnam and China is not significant; the difference between China and Taiwan is significant at 1% level; the difference between Taiwan and Japan is significant at 1% level; and the difference between Japan and Korea is not significant.

cation level” that classifies respondent’s education levels into six categories: “no formal qualification”, “lowest formal education,” “above lowest formal education,” “higher secondary completed,” “above higher secondary level,” and “university degree completed.” Because of the limitations in sample size, we divided the respondents into two groups: “high education level” (combining “above higher secondary level” and “university degree completed”) and “low education level” (combining “no formal qualification,” “lowest formal education,” “above lowest formal education,” and “higher secondary completed”). The level of education in CAFS is measured differently. This study divided respondents of Thai and Malaysia surveys into “high education level” (bachelor’s degree or higher) and “low education level” (below bachelor’s degree). For Vietnamese data, respondents who completed college or university education are included in “high education level,” and the respondents with secondary education level or below are classified as “low education level.” The results of the analysis are shown in Table III-1-3.

〈Table III-1-3〉 A Comparison of the Gender Role Attitude by Gender and by Education: EASS 2006 & CAFS

Husband earn money; wife look after home and family											
Japan 2006				Korea 2006				Taiwan 2006			
male		female		male		female		male		female	
4.15		3.89		4.16		3.85		4.50		4.17	
H	L	H	L	H	L	H	L	H	L	H	L
3.97	4.27	3.57	4.05	3.77	4.70	3.18	4.35	3.66	5.06	3.08	4.83
Japan 2016				Korea 2016				Taiwan 2016			
male		female		male		female		male		female	
3.64		3.38		3.54		3.29		3.72		3.30	
H	L	H	L	H	L	H	L	H	L	H	L
3.44	3.77	3.01	3.46	3.18	3.94	2.68	3.73	3.16	4.12	2.47	3.78
China						Thailand					
male			female			male			female		
4.52			4.51			4.77			4.66		
H	L		H	L		H	L		H	L	
4.11	4.61		3.78	4.60		4.30	4.86		3.68	4.81	
Vietnam						Malaysia					
male			female			male			female		
4.43			4.66			5.43			5.47		
H	L		H	L		H	L		H	L	
3.85	4.58		3.22	4.97		5.34	5.45		5.36	5.49	

1) H: edu high

L: edu low

Table III-1-3 indicates the following²⁾. First, in each of the six societies except Malaysia, better-educated women tend to have a negative attitude toward the gendered division of labor in each society. Better-educated men also show the same tendency, although the difference between men with a high education level and those with a low education level is smaller than that for women. Malaysia is a very unique case, indicating that a very positive attitude toward the gendered division of labor prevailed into the society.

Second, Taiwanese and Korean women with a high education level have a very negative attitude toward the gendered division of labor in societies, and the difference between Taiwanese women with a high education level and those with a low education level is greater than that of women in any of the other societies. The average score of this attitude for better-educated Taiwanese women is 3.08, while the score for women with low education level is 4.83. A similar tendency is also found in Thailand and Vietnam. In Japan, the difference in the women's score between high and low education is not as large as in other societies, while highly educated Japanese women are also likely to be negative.

2) T-tests of the male and female means are significant in Japan, Korea and Taiwan and are not significant in China, Thailand, Vietnam and Malaysia. In Malaysia, the difference between Education High and Education Low is not statistically significant for male and female respectively. In other societies, the difference between Education High and Education Low is statistically significant for male and female respectively.

Third, comparing men with a high level of education among the six societies except Malaysia shows that Thai men are more likely to show a positive attitude toward the gendered division of labor; their score is 4.30, which is highest among the better-educated male groups. In addition, Taiwanese men with a high education level tend to have a negative view on the gendered division of labor. Indeed, the greatest difference in the attitude held by men with high and low education levels in all seven societies appears in Taiwan.

Taiwan and South Korea have experienced the rapid growth of women’s educational attainment in recent years. Better-educated young women in Taiwan and Korea might be eager to accept the egalitarian model of life. As a result, the difference within women increases. It suggests that expanding women’s higher education in Taiwan and Korea has strongly influenced the changes in family values in those societies. The same influence might also exist in Thailand and Vietnam.

〈Table III-1-4〉 A Comparison of the Gender Role Attitude by Gender and by Education

Husband earn money; wife look after home and family											
Japan 2016				Korea 2016				Taiwan 2016			
male		female		male		female		male		female	
3.64		3.38		3.54		3.29		3.72		3.30	
H	L	H	L	H	L	H	L	H	L	H	L
3.44	3.77	3.01	3.46	3.18	3.94	2.68	3.73	3.16	4.12	2.47	3.78

1) H: edu high

L: edu low

Table III-1-4 shows the gender role attitude by education level and by gender in Japan, South Korea and Taiwan in 2016³⁾. Comparing each score between 2006 and 2016, it is clear that men and women in Japan, Korea, and Taiwan are more likely to accept egalitarian gender role in 2016. Changes that occur among well-educated women in Korea and Taiwan are more evident. The difference between Edu. H and Edu. L are larger in Korea and Taiwan than in Japan: largest among Taiwanese women. Changes in Japan are gradual or slower.

Table III-1-5a & III-1-5b, using EASS 2006 and CAFS, show the results of multiple regression analyses in which the dependent variable is the above gender attitude and the independent variables are respondents' education level (5 levels) and age (5 levels) for women and men in each society. Table 5a indicates that his simple model using two independent variables fits well for Taiwanese and South Korean women (the adjusted R^2 are .316 and .229). As expected, both education and age affect the gender role attitude in each society: highly educated women tend to support the egalitarian role; and younger ones tend to support it. In particular, the effect of education is strongest for Taiwanese women, while both age and education strongly influence the attitude of South Korean women. This suggests that

3) Japan's mean of 2016 is 3.50. Korea's one is 3.41 and Taiwan's one is 3.51. T-test of means for independent samples are not significant between Japan, Korea and Taiwan. The male and female differences are significant in each of three societies. In each society, better-educated respondents are more likely to support the egalitarian value significantly.

rapid expansion of women's higher education is causing a marked difference in gender role attitudes in Taiwan, and that the generational difference in South Korea reflects an impact of rapid social change on one's attitudes.

〈Table III-1-5a〉 The Results of Multiple Regression: Effects of Education and Age on the Gender Role Attitude, Women, EASS 2006 & CAFS

Husband earn money; wife look after home and family								
〈Women〉	Japan 2006		Korea 2006		China 2006		Taiwan 2006	
Indep. Variables	B	β	B	β	B	β	B	β
intercept	4.216	***	3.951	***	4.791	***	5.204	***
age group (5 level)	0.106	0.109**	0.389	0.272** *	0.050	0.046+	0.198	0.137* **
education (5 level)	-0.210	-0.171 ***	-0.345	-0.265 ***	-0.211	-0.195 ***	-0.555	-0.467 ***
adj R ²	0.054		0.229		0.046		0.316	
N	961		786		1709		913	
〈Women〉	Thailand		Vietnam		Malaysia		Turkey	
Indep. Variables	B	β	B	β	B	β	B	β
intercept	5.008	***	5.468	***	5.800	***	3.979	***
age group (5 level)	0.122	0.095*	0.021	0.013	-0.085	-0.108 *	-0.039	-0.039
education (5 level)	-0.392	-0.272 ***	-0.486	-0.388 ***	-0.037	-0.043	-0.291	-0.271 ***
adj R ²	0.102		0.151		0.005		0.064	
N	639		639		723		594	

note: B: unstandardized regression coefficient

β: standardized regression coefficient

***p<.001 **p<.01 *p<.05 +p<.10

Turkey: Education(4level)

(Table III-1-5b) The Results of Multiple Regression: Effects of Education and Age on the Gender Role Attitude, Men, EASS 2006 & CAFS

Husband earn money; wife look after home and family								
⟨Men⟩	Japan 2006		Korea 2006		China 2006		Taiwan 2006	
Indep. Variables	B	β	B	β	B	β	B	β
intercept	3.854	***	4.259	***	5.232	***	5.706	***
age group (5 level)	0.168	0.185** *	0.309	0.222** *	-0.069	-0.068 *	0.106	0.082*
education (5 level)	-0.074	-0.078 *	-0.248	-0.172 ***	-0.215	-0.196 ***	-0.479	-0.380 ***
adj R ²	0.046		0.106		0.032		0.178	
N	778		640		1401		909	
⟨Men⟩	Thailand		Vietnam		Malaysia		Turkey	
Indep. Variables	B	β	B	β	B	β	B	β
intercept	5.564	***	5.435	***	5.408	***	3.979	***
age group (5 level)	-0.049	-0.040	-0.092	-0.059	0.030	0.039	-0.052	-0.056
education (5 level)	-0.312	-0.230 ***	-0.320	-0.258 ***	-0.019	-0.020	-0.183	-0.160 **
adj R ²	0.044		0.060		0.000		0.017	
N	367		559		709		442	

note: B: unstandardized regression coefficient

β: standardized regression coefficient

***p<.001 **P<.01 *P<.05 +P<.10

Turkey: Education(4level)

The same tendency is found among Japanese women, although the effects are small and the fit of the model for Japanese women is not as good, partly because Japanese respondents tend to choose the middle response (“neither agree nor disagree”). However, it seems that woman’s situations of Taiwanese and South Korean societies are changing more

rapidly. The effects of age are not strong in China, Thailand and Vietnam, implying that the generational changes in those societies are slow. This model does not fit the Malaysia data well, suggesting that there are little variations in gender values among women in the society.

The results of analyses for men in Table III-1-5b also show the same tendencies as for women: highly educated men tend to support the egalitarian role; and younger ones tend to support it. However, the fit of the model for men in each society is not as good as for women since men tend to support the gendered role and the variation of response is smaller than women's one. Expanding men's higher education leads to egalitarian attitude in each society, although the effect is small for Japanese men. In Japanese case, higher education for men expanded in 1960s and 70s before the egalitarian ideology diffused. However, younger generation of Japanese men is likely to be influenced by the current ideological environment. The effect of education is strongest for Taiwanese men and both education and age affects Korean men strongly. Those evidences suggest that men may well correspond to women's change in attitudes in both societies. This model does not fit the Malaysia data at all, suggesting that there are no variations in gender values among men in the society.

Table III-1-6 shows the results of analyzing EASS 2016 with the same multiple regression models for women and men. The

tendencies are found: education level has a negative effect and age group has a positive effect in Japan, South Korea and Taiwan. The fits of the models are declining in three societies, indicating that the variations in gender role attitudes become smaller in each society.

(Table III-1-6) A Comparison of the Gender Role Attitude by Gender and by Education

Husband earn money; wife look after home and family						
〈Women〉	Japan 2016		Korea 2016		Taiwan 2016	
Indep. Variables	B	β	B	β	B	β
intercept	3.707	***	3.314	***	4.582	***
age group (5 level)	0.089	0.095**	0.306	0.249***	0.131	0.099*
education (5 level)	-0.179	-0.125***	-0.205	-0.192***	-0.481	-0.385***
adj R ²	0.029		0.153		0.204	
N	1056		445		853	
〈Men〉	Japan 2016		Korea 2016		Taiwan 2016	
Indep. Variables	B	β	B	β	B	β
intercept	3.722	***	3.098	***	4.437	***
age group (5 level)	0.147	0.168***	0.363	0.222***	0.184	0.143***
education (5 level)	-0.150	-0.134***	-0.149	-0.172*	-0.336	-0.260***
adj R ²	0.050		0.138		0.117	
N	947		402		891	

note: B: unstandardized regression coefficient

β: standardized regression coefficient

***p<.001 **p<.01 *p<.05 +p<.10

4) Results of Analysis (II): Domestic Chores

If this study compares everyday housework activities in the eight Asian societies, is it possible to find the same differences between education groups? The EASS-2006 and CAFS include various questions about domestic activities. Among them, the most relevant questions are about frequencies of doing housework. For example, respondents are asked, "How often do you prepare the evening meal?" to which they were required to choose an answer from seven options: "almost every day," "several times a week," "about once a week," "about once a month," "several time a year," "about once a year and "never." We assigned a score to each answer where "almost every day" was given a value of 7 and "about once a week" was given a value of 1.

(Table III-1-7) Comparison of Doing Household Chores: Man & Women,
Aged 20-49, EASS 2006 & CAFS

	Japan		Korea		China		Taiwan	
	male	female	male	female	male	female	male	female
prepare evening meal	0.84	5.20	1.72	5.34	2.68	5.92	1.25	3.26
do the laundry	0.96	5.15	1.47	4.73	1.94	5.14	1.65	4.50
clean the house	0.73	3.70	1.89	5.08	2.41	5.51	1.32	3.32
	Thailand		Vietnam		Malaysia		Turkey	
	male	female	male	female	male	female	male	female
prepare evening meal	3.07	5.09	2.95	5.72	1.69	5.45	2.36	6.58
do the laundry	2.33	4.66	1.70	6.03	2.10	5.71	1.34	4.36
clean the house	3.01	5.57	1.78	5.51	1.94	5.48	1.63	4.65

Table III-1-7 shows the average scores of doing three housework activities by society and gender. The samples are restricted to the men and women aged 20 to 49 years. A score of 1 indicates that the respondent performs the work once a week and a score of 7 indicates that they perform the work every day. The results in Table 7 are very interesting. They indicate that Thai men perform the housework more often than do men in the other Asian societies examined here. On average, Thai men prepare the evening meal three times a week, do the laundry twice or three times a week, and clean the house three

times a week. Japanese men perform such jobs less than once a week. Korean and Taiwanese men do less than twice a week, and Chinese men perform the job more frequently than do Korean and Taiwanese men. The frequencies of Vietnamese men are similar to the Chinese ones. On the other hand, women do the housework almost every day, except the Taiwanese case. Taiwanese women do the housework three or four times a week, a figure that is lower than those in the other five societies. Malaysia and Turkey are also similar to China and Vietnam. It is interesting to note that the performance of domestic activities as reported by the Thai respondents indicates that in terms of sharing housework, Thai men and women are more egalitarian than are men and women in the other East Asian societies, while at the same time it seems that the former group are the most supportive of a gendered division of labor.

When the respondents are restricted to married men and women aged 20-49 years, the results, not shown in the table, are similar to those of Table III-1-7, which includes all men and women aged 20-49 years. Married Thai men with high education prepare evening meals and clean the house three times a week. They also do the laundry more than twice a week. On the other hand, Married Japanese men do this less than once a week. The frequencies are lower than those in Table III-1-7, suggesting that Japanese men are not likely to do housework once they are married. Korean men show the similar tendency.

After Japanese, Korean and Taiwanese women married, they do the housework more often than they did before. As a result, the gender difference in the frequencies of doing the housework is greater in the married samples.

Furthermore, this study attempts to clarify the differences in doing housework by education level. Table III-1-8 shows the frequencies of doing the housework divided by society, gender, and education level. Thai men with a high level of education do the housework lightly more than do those with a low level of education, although the sample size of well-educated Thai men aged 20-49 is small. Since better-educated Thai women do the housework less often than the others, the gender gap in doing domestic chores is the smallest among college-educated Thai people. It could be said that better-educated Thai men and women are more egalitarian when it comes to performing domestic chores.

〈Table III-1-8〉 Comparison of Doing Household Chores: Married men & women, Aged 20-49, by Education, EASS 2006 & CAFS

	Japan 2006				Korea 2006			
	Men		Women		Men		Women	
	Edu H	Edu L	Edu H	Edu L	Edu H	Edu L	Edu H	Edu L
prepare evening meal	0.52	0.41	6.60	6.68	1.30	1.22	6.01	6.44
do the laundry	0.68	0.72	6.19	6.73	1.13	1.04	5.12	5.80
clean the house	0.54	0.82	4.43	4.66	2.05	1.34	5.39	5.99
	Taiwan 2006				China 2006			
	Men		Women		Men		Women	
	Edu H	Edu L	Edu H	Edu L	Edu H	Edu L	Edu H	Edu L
prepare evening meal	1.47	1.43	3.51	5.01	2.85	2.67	5.42	6.37
do the laundry	1.61	1.47	4.65	6.02	1.84	1.68	4.66	5.35
clean the house	1.42	1.46	3.20	4.77	2.12	2.34	5.10	5.86
	Thailand				Vietnam			
	Men		Women		Men		Women	
	Edu H	Edu L	Edu H	Edu L	Edu H	Edu L	Edu H	Edu L
prepare evening meal	3.47	2.96	3.93	5.62	1.92	1.81	5.60	5.79
do the laundry	3.17	2.06	5.02	4.91	1.83	1.25	5.70	6.19
clean the house	3.77	2.82	4.98	5.91	1.94	1.60	5.39	5.66
	Malaysia				Turkey			
	Men		Women		Men		Women	
	Edu H	Edu L	Edu H	Edu L	Edu H	Edu L	Edu H	Edu L
prepare evening meal	0.97	1.86	4.20	5.75	2.86	2.14	6.17	6.66
do the laundry	1.65	2.21	4.77	5.93	1.51	1.27	3.84	4.50
clean the house	1.38	2.07	4.35	5.75	1.98	1.48	3.84	4.80

The Taiwanese case is unique in that better-educated married women tend to do the housework 1.5 times a week less than do other women. As a result, the gendered gap between better-educated men and women is narrow, while the gap between those with a high level and those with a low level is larger. Better-educated married women in Japan, South Korea, China and Vietnam do the housework slightly less than the others. However, the gender gaps are large. Table III-1-8 indicates no significant effect of women's higher education on domestic practices in Japan and Korea.

Table III-1-9 shows the scores of doing three housework activities by education level and by gender in Japan, South Korea and Taiwan in 2016. Compared the scores between 2006 and 2016, it is evident that participation levels in domestic chores among men are slightly improving in Japan, Korea, and Taiwan; even among Japanese well-educated men. It is also interesting that participation levels among well-educated women in Taiwan decline sharply. Education level has a strong negative effect on the women's participation. It is also clear that gendered division of work is still significant among Japanese men & women.

〈Table III-1-9〉 Comparison of Doing Household Chores: Married men & women, Aged 20-49, by Education, EASS 2006 & CAFS

	Japan 2006				Korea 2006				Korea 2006			
	Men		Women		Men		Women		Men		Women	
	H	L	H	L	H	L	H	L	H	L	H	L
prepare evening meal	0.99	0.99	6.07	6.38	1.74	1.93	5.62	6.12	2.14	1.37	2.57	4.32
do the laundry	1.77	1.55	6.22	6.39	2.02	1.69	5.03	5.47	2.08	1.71	3.46	5.35
clean the house	1.00	1.03	3.93	4.42	2.44	1.92	4.94	5.67	1.52	1.41	2.49	3.88

Next, this study examines the effects of higher education and gender role attitude on doing domestic chores among married women and men. In this analysis, this study combines three measures of domestic chores into a single dependent variable: the frequencies of three domestic chores are added and divided by three. Educational level is a dummy variable that has score 1 if respondents finished higher education level. In order to control respondents' age, this analyses also use a dummy variable that has score 1 if respondents are older than 50 years old. The gender value is measured by the question of "Do you agree or disagree with the following statement: 'A husband's job is to earn money; a wife's job is to look after the home and family'?" The results of multiple regression analyses are shown in Table III-1-10a & III-1-10b. In general, three independent variables are not enough to explain the variation of doing housework for women and men in eight Asian societies. In order to analyze

the influences of living conditions, more complex models would be necessary, including working conditions, income level and family structures.

According to the results of Table III-1-10a, women with higher education level do housework less than those with lower education level in Taiwan, South Korea, Thailand, China, Malaysia and Turkey. Living conditions related to better education level tend to reduce the burdens of housework in these societies. It is also evident that the more supportive women are of gendered role, the more they do housework in societies, except Malaysia & Turkey. The model using these three independent variables fits relatively well for Taiwanese women. The same tendency is found for Thai women.

〈Table III-1-10a〉 Results of Multiple Regressions: Effects of Age, Education and Gender Value On Doing Housework, Married Women, EASS 2006 & CAFS

〈Women〉	Japan		Korea		China		Taiwan	
Indep. Variables	B	β	B	β	B	β	B	β
intercept	5.472	***	5.762	***	5.493	***	4.544	***
Age(1=20=49)	0.054	0.022	0.274	0.072	0.016	0.005	-0.092	-0.022
Education(1=higher ed)	-0.111	-0.041	-0.609	-0.180***	-0.760	-0.127***	-1.211	-0.273***
Gender Value(7 point)	0.135	0.142** *	0.091	0.093*	0.080	0.067*	0.160	0.149* *
adj R ²	0.019		0.036		0.021		0.128	
N	705		563		1447		583	
〈Women〉	Thailand		Vietnam		Malaysia		Turkey	
Indep. Variables	B	β	B	β	B	β	B	β
intercept	4.600	***	5.039	***	5.434	***	4.683	***
Age(1=20=49)	0.373	0.092+	0.423	0.115*	0.156	0.042	0.264	0.067
Education(1=higher ed)	-0.883	-0.131**	-0.007	-0.001	-1.078	-0.181***	-0.726	-0.165***
Gender Value(7 point)	0.194	0.157**	0.080	0.096*	0.111	0.073	0.116	0.083+
adj R ²	0.046		0.015		0.035		0.037	
N	427		505		465		478	

note: Dependent variable: combined index: <(meal+laundry+clean)/3>

B: unstandardized regression coefficient

β: standardized regression coefficient

***p<.001 **p<.01 *p<.05 +p<.10

〈Table III-1-10b〉 Results of Multiple Regressions: Effects of Age, Education and Gender Value

〈Men〉	Japan		Korea		China		Taiwan	
Indep. Variables	B	β	B	β	B	β	B	β
intercept	1.113	***	2.119	***	2.391	***	2.037	***
Age(1=20=49)	-0.059	-0.026	-0.152	-0.039	-0.362	-0.080 **	-0.129	-0.036
Education(1=higher ed)	-0.222	-0.096 *	0.090	0.025	0.090	0.014	-0.064	-0.017
Gender Value(7 point)	-0.095	-0.108 *	-0.189	-0.180 ***	-0.035	-0.021	-0.091	-0.085 +
adj R ²	0.014		0.027		0.004		0.002	
N	552		419		1134		563	
〈Men〉	Thailand		Vietnam		Malaysia		Turkey	
Indep. Variables	B	β	B	β	B	β	B	β
intercept	2.311	***	2.354	***	1.500	**	1.335	***
Age(1=20=49)	-0.135	-0.027	-0.610	-0.158 **	0.058	0.014	0.334	0.073
Education(1=higher ed)	-0.010	-0.001	0.014	0.003	-0.244	-0.036	0.290	0.058
Gender Value(7 point)	0.082	0.101	-0.027	-0.029	0.081	0.041	0.002	0.001
adj R ²	-0.009		0.020		-0.003		0.000	
N	251		452		521		323	

note: Dependent variable: combined index: <(meal+laundry+clean)/3>

B: unstandardized regression coefficient

β: standardized regression coefficient

***p<.001 **p<.01 *p<.05 +p<.10

Table III-1-10b indicates that this model does not fit well for men in each society. Korean men who are supportive of egalitarian value tend to do housework more. Japanese men show

the same tendency. This implies that ideological environment promoting gender equality influences part of Korean and Japanese men. It should be interesting to see that Japanese men with higher education level are not likely to do housework. In Thai case, this model does not fit at all. This evidence suggests that high participation of Thai men in domestic chores are traditionally embedded in their socio-cultural conditions. It is also clear that this model does not fit at all in Malaysia and Turkey.

Lastly, Table III-1-11 shows the results of analyzing EASS 2016 with the same multiple regression models for women and men concerning the participation rates in domestic chores. The gender value has a significant effect on participation level for Japanese married man and women: The more supportive men are of gendered division, the less they are likely to participate, while the more supportive women are of gendered division, the more they are likely to participate. It is also interesting that in Taiwan education level has a negative effect on women's participation, while it has a positive effect on men participation, indicating that Taiwanese men with higher level of education are more likely to participate than men with lower level of education, while Taiwanese women with higher level of education are less likely to participate than women with lower level of education.

〈Table III-1-11〉 Results of Multiple Regressions: Effects of Age, Education and Gender Value: On Doing Housework, Married Women & Men, EASS 2016

〈Women〉	Japan 2016		Korea 2016		Taiwan 2016	
Indep. Variables	B	β	B	β	B	β
intercept	5.192	***	5.305	***	4.754	***
Age(1=20=49)	0.010	0.004	0.275	0.081	-0.577	-0.142**
Education (1=higher ed)	-0.148	-0.040	-0.507	-0.144*	-1.319	-0.295***
Gender Value (7 point)	0.151	0.135***	0.048	0.047	0.060	0.052
adj R ²	0.018		0.016		0.148	
N	760		297		507	
〈Men〉	Japan 2016		Korea 2016		Taiwan 2016	
Indep. Variables	B	β	B	β	B	β
intercept	1.724	***	2.559	***	1.967	***
Age(1=20=49)	-0.087	-0.027	0.098	0.025	-0.072	-0.020
Education (1=higher ed)	-0.016	-0.005	-0.300	-0.074	0.372	0.097*
Gender Value (7 point)	-0.117	-0.083*	-0.147	-0.125+	-0.104	-0.104*
adj R ²	0.003		0.007		0.017	
N	659		227		494	

note: Dependent variable: combined index: <(meal+laundry+clean)/3>

B: unstandardized regression coefficient

β: standardized regression coefficient

***p<.001 **P<.01 *P<.05 +P<.10

5) Conclusion

This study intends to clarify the similarity and differences in gender-role attitudes and the gendered division of domestic chores among men and women in Japan, South Korea, China, Taiwan, Thailand, Vietnam, Malaysia and Turkey, using the EASS 2006/2016 and CAFS. In particular, the effects of expanding women's education on gender role attitudes and domestic activities are explored. The rapid expansion of women's higher education has resulted in changes in the attitude toward traditional gender role in Taiwan and South Korea (Haruki 2006, Chang 2010, Yu 2009). Higher-educated women in Taiwan and Korea strongly support the egalitarian family values. This tendency is strengthened in 2016. It seems that Taiwan and Korean societies experienced rapid change in gender values. It is also evident that Higher-educated women in Japan, China, Thailand and Vietnam also support such values. However, The change is gradual in Japan.

It seems from the survey data that changes in attitudes do not correspond well to everyday domestic practices in these societies under study. Although the results of analyses show that better-educated women have living conditions that could reduce the burdens of domestic chores and that women who support gendered value tend to do housework more in Japan, the simple model used in this study do not explain the variance of

doing housework well. More complicated conditions of everyday life are necessary to examine. Men's participation in domestic chores is not explained well in this model (See Teerawichitchaian et al. 2010 for Vietnamese case).

The Thai case is quite intriguing. In general, Thai people support gendered family values more strongly than men and women in the other Asian societies. At the same time, however, Thai domestic practices are more egalitarian than those in the other societies. In terms of gender equality, it seems that their attitudes are still traditional, while their practices are modern. This evidence of these two trends is not in itself contradictory. Changes in attitudes might not permeate into everyday practices immediately. In the case of Thailand, it seems that an opposite path is being followed; traditional domestic activities are relatively egalitarian in the advance of attitudinal changes. It is possible that Thai traditions (such as the custom of a young couple living with the wife's family after marriage and the existence of equal rights of inheritance for women) could contribute to this situation (Akagi 1989). From these findings, this paper would like to conclude that if Higher-educated young people in Thailand come to support the modern ideology of gender equality, a more egalitarian society would be realized in Thailand.

In the other societies, it appears that gendered practices on the home front are slow to change, even if the notion of gender

equality, as is seen in Japan and South Korea, has become increasingly supported. Japanese men who accept the egalitarian value tend to participate in domestic chores more in 2016, although the effect is not large. This could be a current phenomenon.

Equalizing the chances of men and women in society is presently one of the major policy goals over the world. Better-educated young women in each society are expected to function as carriers of the ideas on gender equality. The model of life, stressing that women with higher levels of education should actively participate in labor force activities, now diffuses worldwide. However, this study indicates the effects of educational expansion in any particular society can vary.

The family-oriented welfare regime has been added as a fourth type to Esping-Andersen's well-known typology of welfare regimes. Japan has been classified as following this regime in that Japanese life patterns are strongly characterized by the gender division of labor (Esping-Andersen 1999). This type of regime embodies the conventional idea that one's welfare is generated within family relations. Such a family-oriented regime works to reproduce interdependency among family members rather than to promote family formation or childbirth. As a result, in this tradition, married women are expected to stay at home and care for children and the elderly.

Under the family-oriented regime, it is pointed out that the

improvement of women's educational and occupational opportunities is incompatible with family formation. Women are generally forced to choose between staying home to take care of their children or their parents, and postponing family formation to continue to work. The opportunity cost to them not staying in the workforce is high when the service economy is well developed and when women's work careers are extended as women's educational standard rises. As a result, women tend to marry later and have fewer children. Similar to Japan, southern European countries with birthrates that are the lowest among advanced countries (such as Italy and Spain) are also categorized as having the family-oriented regime. This argument is somehow applicable to South Korean and Taiwanese cases; both societies share the same Confucian tradition. Japan, Korea and Taiwan are now facing a sharp decline in their birth rates. Under the conditions of those societies, could better-educated young men and women initiate societal changes from the family-oriented regime to a new Asian type of an egalitarian regime?

For students of quantitative comparative sociology, large-scale data sets of representative samples such as World Value Surveys are now available. It is also not difficult to use the advanced statistical methods of testing general hypotheses such as multilevel analysis. Analyzing the data set by the statistical method might enable one to test the general hypothesis

that expansion of higher education leads to gender value change over this world. This study used the data sets from only eight societies so that it is not possible to apply the rigorous quantitative methods to the data. However, it is important to analyze the data of each society descriptively. The descriptive analyses of comparing among a few societies might lead to both interesting and useful results that could contribute to the future design of public policy. Using EASS and CAFS, more detailed comparative analyses of better-educated young men and women about work and family conditions are very much expected.

[Acknowledgement]

The East Asian Social Survey (EASS) is based on the Chinese General Survey (CGSS), the Japanese General Social Survey (KGSS), and Taiwan Social Change Survey (TSCS), and is distributed by the East Asian Social Survey Data Archive.

Comparative Asian Family Survey (CAFS) was launched as a joint endeavor of Kyoto University Global COE "Reconstruction of the Intimate and Public Spheres in 21st Century Asia (PI: OCHIAI Emiko) and Seoul National University (PI: EUN Ki-Soo), succeeded by Kyoto University Asian Studies Unit (KUASU) and Asian Research Center for the Intimate and Public Spheres (ARCIP) at Kyoto University, with funding from Japan Society for the Promotion of Science (JSPS), Ministry of Education, Culture, Sports, Science and Technology, Japan, and Qatar Foundation. The CAFS have incorporated the questionnaire of the EASS 2006 family module created by the East Asian Social Survey (EASS) Consortium, a collaborative work of Chinese General Social Survey (CGSS), Japanese General Social Survey (JGSS), Korean General Social Survey (KGSS) and Taiwan Social Change Survey (TSCS), with modifications to suit local contexts. CAFS sincerely appreciates EASS for its significant contribution. To avoid any confusion, it is made clear that CAFS and EASS are completely independent from each other.

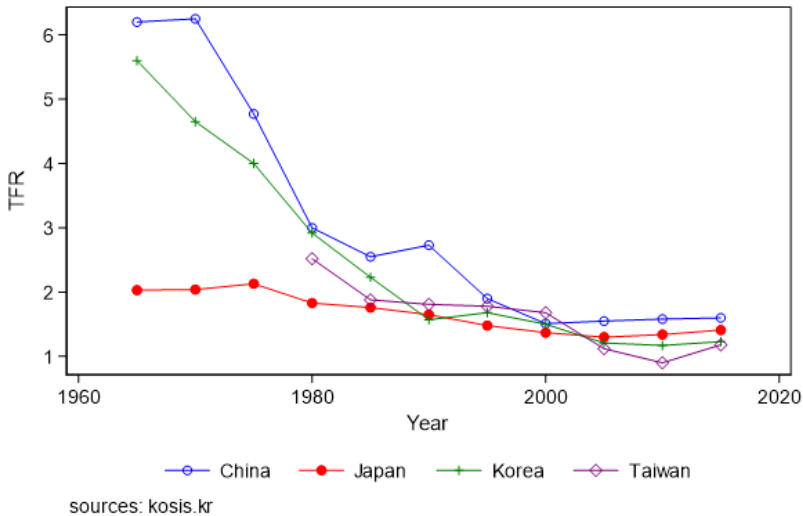
2. Comparison of Gender Role and Family in Korea, Japan, Taiwan and China

1) Introduction

East Asian countries have commonly experienced rapid population aging due to dramatic fertility decline and rising life expectancy, which is posing serious societal challenges. Figure III-2-1 shows the trend of total fertility rates in four East Asian countries. The level of fertility is well below replacement level (2.1) in all East Asian countries, and TFRs in Korea and Taiwan sustained so called “lowest low fertility”, 1.3 (Kohler et al. 2002). In addition, except for Japan, the pace of fertility decline over the past half century is really fast in these countries. Low fertility itself is increasing serious societal burdens such as pension sustainability, reduction in economic productivity. Furthermore, the pace of fertility decline is amplifying this threat because age structure is changing too rapidly to prepare for challenges from aging population. For example, northern and western European countries have far older population structure than East Asian countries (except for Japan) now. However, population aging there was a more gradual process over the several centuries and societal adjustment to population change was also more manageable than in East Asia. In addition, they have also developed welfare system well before

population aging became serious challenges. Hence, these countries could be better-equipped to cope with the problems associated with population aging by modifying already existing well-designed welfare system. However, situations in East Asian countries were radically different from European countries: lower TFR, faster fertility decline, and immature welfare state. The pace of fertility decline should be more problematic than the low level itself because the age structure of population is more influenced by fertility and mortality change than the level of fertility and mortality. If low fertility sustained, the age structure will be stabilized (Keyfitz and Caswell 2005) and we may not need to be concerned about population aging. Currently, we are in the stage of burdens of population aging on the rise, particularly in East Asia. Ironically, rapid fertility decline was a key contributing factor for rapid economic development in this region. The concept of population bonus or demographic dividend (Bloom et al. 2003) frequently refers to population changes in East Asia in which reduction in fertility leads to more favorable age structure for economic development (Lee & Francisco, 2012). In some sense, it is time to “pay back” demographic dividend. Roughly speaking, the generations who are retiring now or soon have collected the “dividend”, which is becoming debt to the upcoming generations.

[Figure III-2-1] Trend of TFR in East Asia



Numerous studies attempted to understand causes of this fundamental change in demographic system. Roughly speaking, underlying causes of this rapid change include changes in value and economic conditions. This change also proceeds heterogeneously depending on social class. In this study, I examine one of these complicated processes focusing on cross-national differences in family values in East Asia. Family values have multiple dimensions such as attitude to parents, marriage and child. By using the EASS data collected 2006 and 2016, I examine multiple aspects of family values.

2) Theoretical perspective: Values change and economic conditions

One explanation of sustained low fertility focuses on value changes. The most representative framework from this perspective is the Second Demographic Transition theory (SDT) (Lesthaghe, 1995). Changes in attitudes and values, of course, have been key explanatory variables in fertility research before the proposition of the SDT. Ideational changes and diffusion were key predictors to explain the (first) fertility transition (Cleland and Wilson 1987), and the SDT theory, which emphasized the importance of rising individualism, has been a main explanation for transition to the low fertility. According to this perspective, value and attitudinal changes since the 1960s favored individuals over family, leading to below replacement fertility and sustained low fertility. Shortly speaking, “less family” is a key cause for the lowest low fertility. Recent development in this line of research emphasizes the role of gender revolution in reversal in fertility (Esping-Andersen and Billari 2015; Goldscheider et al. 2015; McDonald 2000). According to this perspective, the advancement in gender egalitarianism leads to uprising of fertility. The sustained lowest-low fertility in East Asia should be related with the delay in gender revolution, and we have some evidence consistent with this argument (Kim and Kye 2015). In this framework, empirical analysis fo-

cuses on the relationship between gender-related attitudes, values and institutions, and marriage/fertility measures.

Another line of research focuses on economic factors for family formation and childbearing. Feedbacks between economic conditions and demographic behaviors have been recognized as early as Thomas Malthus in the late 18th century. An influential work by Richard Easterline argued that cyclical changes in the birth cohort size can be explained by changing economic conditions of young men due to relative cohort size (Easterline 1976). Another influential work by Valerie Oppenheimer argued that deterioration of young men's economic prospect was primarily responsible for delay in marriage in the U.S. (Oppenheimer 1988), and this tendency became stronger recently (Sweeney 2002). We have seen "Great U-Turn" in economic inequality recently (Forster and E'Ercole 2005), and consequently young people's career became more unstable due to globalization or neo-liberalism, strengthening this trend (Mills & Blossfeld 2013). The rising economic inequality increased uncertainty in life course, leading to weakening the mutually engaged relationship. According to this framework, the cause for "less family" is not attitudinal or value changes but young people's rising concerns about their economic insecurity. This perspective is related to Oppenheimier's emphasis on the importance of economic prospective of young people for family formation (Oppenheimer 1988). In this

framework, empirical analysis focuses on the relationship between labor markets conditions and marriage and fertility measures.

One of important challenges to evaluate these competing arguments is the fact that these two changes have proceeded in tandem (Mills & Blossfeld 2013). Certainly, family values changed fundamentally over the past decades as well as work environment became more hostile to young people. Hence, it is not easy to disentangle one from another. Although there are country-specific variations to some extent, gender relations, family value, labor market conditions, and fertility in most industrialized countries have changed in the same direction: more egalitarian gender relations, more individual-oriented values, harsher labor market conditions, and reduction in fertility. Hence, analytic challenges lie in disentangle these relationships and evaluate the relative importance of attitudinal and economic changes.

In addition, we have also seen diverging trends in family-related behaviors by social class (McLanahan 2004; McLanahan & Jacobsen 2014). In some sense, middle and upper class are more robust to adverse labor market conditions and promote more egalitarian gender attitudes and maintain family better than do the working class and the poor (Esping-Andersen and Billari 2015; McLanahan 2004). In this sense, values and economic changes interacted with each other to affect fertility.

Hence, class differentials in family behaviors will be an area to examine the intersection of these two competing forces for the low fertility.

The discussion above suggests that we need a comprehensive framework to understand population changes in East Asia. This framework should account for value changes, impact of economic conditions in a coherent way. We also need to account for class and gender differences in values and economic conditions. Of course, the current study cannot fully develop such a comprehensive framework. Instead, I will examine on value changes with focus on age and gender differences.

3) Multiple aspects of family values, cohort changes, and gender differences

I have used the term, family values, without presenting a clear definition. Family values are related with multiple aspects of family life. Within nuclear family, we are related to parents, spouses, and children. We may have quite distinct values and attitudes toward different family members. For example, we may hold extremely individualist attitudes toward parents, spouses, and children, leading to “less familistic” attitudes. This “coherently individualistic” attitude may represent the “individualism” posited by the SDT theory (Lesthaghe 1995). However, this may not represent common values because most

people may have mixed attitudes: individualistic attitudes toward parents combined with strong attachment to spouse and children. In some sense, the ideal of conjugal family (Goode 1953) is based on detachment from parents and strong emotional bondage to spouse and children. This suggests that family values are intrinsically multi-faceted and are difficult to apply simply classification. By using these three dimensions and simple dichotomy of individual and familistic attitude, we can classify family values in the following way(Table III-2-1).

〈Table III-2-1〉 Schematic approach to family values

Relation to			
Parents	Spouse	Children	Type
familistic	familistic	familistic	Patriachical
familistic	familistic	Individualistic	?
familistic	Individualistic	familistic	?
familistic	Individualistic	Individualistic	?
Individualistic	familistic	familistic	Conjugal family?
Individualistic	familistic	Individualistic	?
Individualistic	Individualistic	familistic	Conjugal family?
Individualistic	Individualistic	Individualistic	SDT

East Asian countries are often regarded as having strong familism and weak individualism. It could be true that East Asian culture may weigh groups more than individuals, compared with Western countries. However, this general statement may not explain family values satisfactorily because family values involve multiple family members. Hence, different combina-

tions of individualism and familism in different dimensions are possible as shown in Table 1. The critical issue is how to understand the multi-dimensional aspects of family value.

Intensive parenting among the middle-class families in the United States suggests that they hold very strong familism regarding children (Lareau 2011). Several studies show that “having family dinner” has positive effects on child development in the U.S. (Miller et al. 2012), suggesting that American family highly values close relationship between parents and young children. Then, it is unclear whether or not Asian families are more familistic than American families. This illustrates multi-dimensionality of family values and risk of simple dichotomy.

To understand multiple aspects of family values and their implications, I will focus on gender and age differences. The degree of gender stratification could be related to gender gaps in family attitude. Gender gap in family attitude may not be substantial in traditional societies in which gender stratification is very strong. However, as gender stratification becomes weaker, the gender gap in family values may increase initially because this may create disequilibrium in values and attitude (Esping-Andersen & Billari 2015). As gender revolution becomes mature, then men and women may converge in their family attitudes. This trajectory could be in line with fertility trend. In addition, gender gap may depend on the dimensions

of family values. While women could be less familistic regarding to parents, they could be more familistic toward children. Hence, gender differences in each dimension of family values should be indicative of the degree of gender stratification. Age difference should reflect cohort changes and is indicative of how family values are changing. Age differences reflect also differences in life course, warranting a careful interpretation. Given the secular trend of individualization, we may expect that young people may hold more individualistic values than the old. However, the differences in the life circumstances may offset this cohort changes. For example, attitudes toward parents should be related to parents' current state. Parents of young people are likely to be independent of their children or even to provide them with various forms of support. However, parents of old people are likely to be dependent on their children. This difference in life circumstances should be reflected in the values toward families. Hence, I will consider both cohort and life course perspective in interpreting age differences.

4) Data and Methods

Using the East Asian Social Surveys (EASS) 2006 and 2016 data, I will examine both cross-national differences in family values and temporal changes. For this purpose I examine 9 out-

comes clustered in three different dimensions. First, I examine attitude toward financial support to elderly parents. The measures include “men to own parents”, “women to own parents”, “men to spouse’s parents”, and “women to spouse’s parents”. Second, I examine marriage attitude. The measures include “married men happier than unmarried men”, “married women happier than unmarried women”, and “gender division of labor (men’s jobs is earn money while women’s job is take care of household)”. Third, I examine attitude toward children. The measures include “child’s necessity in marriage” and “son’s necessity”. All these are measured by 7-point scale in which high value means liberal attitude and low value means traditional attitude.

To examine cross-national and cross-temporal difference, I analyze the EASS data in the following ways. First, I use descriptive analysis to see cross-national and cross-temporal differences in family values. Second, I use the OLS regression to see gender and age differences in these attitudes in the four countries. In regression analysis, I control years of schooling and marital status.

5) Results

Descriptive analysis

Table III-2-2 shows descriptive statistics by countries in 2006.

We can see that some interesting cross-national differences. I marked interesting figures in bold. Let me first discuss cross-national differences in basic demographic variables. First, Japan's mean age is the highest among the four countries, reflecting earlier demographic transition in Japan than other countries. Second, proportion of never married is the lowest in China. Whereas proportion never married in other countries is higher than 20 percent, this number is only 8% in China. This suggests that marriage is still universal in China but not in other countries. Third, mean years of schooling is the lowest in China among the four countries, reflecting later socioeconomic development in China than other countries. Finally, China is also unique in the chance of having mother alive. There is no sizeable difference in chance of having father alive. This should be related with later mortality decline in China than other countries. In addition, this also suggests that gender difference in mortality is smaller in China than other countries although this does not directly measure mortality. In sum, China is somewhat unique in terms of demographic composition; universal marriage, lower level of education, and low chance of having mother alive. These demographic differences may explain cross-national differences in family values.

〈Table III-2-2〉 Descriptive statistics by countries, 2006

Variable	China		Japan		Korea		Taiwan	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Demographic								
age	42.93	12.92	45.13	14.26	41.15	12.27	41.41	13.07
female	0.52	-	0.52	-	0.55	-	0.50	-
never married	0.08	-	0.23	-	0.23	-	0.28	-
years of schooling	7.42	4.06	12.88	2.21	12.56	3.80	11.16	3.84
father alive	0.47	-	0.52	-	0.51	-	0.56	-
mother alive	0.59	-	0.71	-	0.73	-	0.72	-
Support to elderly parent(0: Strongly agree ~ 7: Strongly disagree)								
married man to own parents	2.32	0.96	3.24	1.29	2.55	1.19	2.24	1.20
married woman to own parents	2.46	1.03	3.62	1.26	2.85	1.21	3.23	1.47
married man to SP's parents	2.63	1.06	3.73	1.27	2.75	1.12	3.46	1.37
married woman to SP's parents	2.64	1.06	3.78	1.27	2.73	1.13	3.35	1.39
Marriage(0: Strongly agree ~ 7: Strongly disagree)								
married men happier	3.72	1.06	3.70	1.00	3.06	1.43	3.89	1.44
married woman happier	3.74	1.05	3.74	1.01	3.30	1.43	4.13	1.40
gender division of labor	3.43	1.37	4.03	1.29	4.01	1.73	3.60	1.81
Children((0: Strongly agree ~ 7: Strongly disagree)								
child necessary in marriage	3.44	1.45	3.71	1.37	2.53	1.46	3.60	1.77
at least one son necessary	3.46	1.48	3.67	1.33	3.41	1.72	3.76	1.84
N	3,110		1,756		1,430		1,824	

Table III-2-2 also shows the mean and standard deviation of family values. First, we can see that Japan and Taiwan are more liberal or individualistic than China and Korea in terms of attitude of financial support to elderly parents. The Japanese are the most liberal, and the Taiwanese are next. One interesting pattern is observed in Taiwan. The difference between the first two items is the largest among the Taiwanese. The Taiwanese are quite traditional in terms of married men's financial support to own elderly parents. By contrast, they are far less supportive of the idea that married women need to provide financial support to their own elderly parents. In some sense, this suggests that the Taiwanese hold more gendered view of support to elderly parents; support to elderly parents is up to sons, not to daughters. In fact, we can see general patterns of such gendered view of elderly support. The mean values of the first item (married men's support to parents) are lowest among the four items in all four countries, meaning that East Asians hold gendered view of financial support to elderly parents. However, the differences between the items are not substantial except for Taiwan. This suggests that there should be some culturally or socioeconomically unique factors in Taiwan affecting the attitudes of elderly support. Second, Korea is distinctive in marriage attitude. Koreans most agree with the idea that married people are happier than unmarried people regardless of gender. Whereas there is no difference in perception of mar-

riage benefits for men and women in China and Japan, the Koreans and the Taiwanese evaluate marriage benefits are greater for men than women. Somewhat interestingly, the Koreans strongly oppose to the idea of strong gender division of labor in household. The level of disagreement in Korea to the statement of gender division of labor is comparable to Japan. Taken together, we may conclude that the Koreans positively evaluate the benefits of marriages for both men and women, but this positive evaluation is not based on traditional gender division of labor. This suggests that fundamental transition in Korean families are going on. Third, there is no noticeable cross-national differences in child value. There was virtually no difference in son's necessity. However, the Koreans held the most traditional view about necessity of child. Given that the level of TFRs are comparable among the four countries, this attitudinal difference seems counterintuitive. This also suggests that Korean families may not realize their reproductive goals more than those in other countries because they think that child is necessary but have fewer children.

This descriptive analysis shows cross-national differences in demographic composition and family values. First, China is distinctive in terms of demographic composition. Second, Japan is the most liberal in terms of financial support to elderly parents, and Taiwanese show the most gendered patterns of support to elderly parents. Korea is distinctive in attitude about

marriage and child. However, patterns are not consistent. While Koreans evaluate the marriage benefits higher than others, they object traditional gender division of labor most strongly. In addition, the Koreans hold the most traditional view of necessity of children, but their TFR is not higher than other countries. This suggests that each country has its own dynamics in family values, and I will examine this by using regression analysis below.

We can also see the changes in family values in Korea and Japan. Table III-2-3 shows the results for 2016 and Table III-2-4 presents temporal changes in these two countries. For the 2016 EASS data, some items were not asked in Taiwan and China. Hence, I compare Korea and Japan in this analysis. Here I focus on the interpretation of Table III-2-4. Here, I do not present statistical significance of the cross-national and cross-temporal differences because this will make Table III-2-4 hard to read. As discussed below, the differences between these two countries tend to be larger in 2006 than in 2016. For demographic composition, there is no noticeable change in these two countries. For financial support to elderly parents, Japanese changed attitude little but Koreans changed their attitude toward more liberal direction. Consequently, the difference between the two countries becomes smaller in 2016. In terms of marriage attitude, people in both countries change their attitude in more liberal direction, but the magnitude of change is

greater among the Koreans, leading to convergence of attitude in these two countries. Finally, we can also see the similar patterns in value of child. In sum, the differences in family attitudes in Japan and Korea diminished between 2006 and 2016, increasing similarity between the two countries.

〈Table III-2-3〉 Descriptive statistics by countries

Variable	Japan		Korea	
	Mean	S.D.	Mean	S.D.
Demographic				
age	46.15	14.28	43.33	13.28
female	0.50	-	0.49	-
never married	0.24	-	0.28	-
years of schooling	13.41	2.15	13.65	3.27
father alive	0.55	-	0.55	-
mother alive	0.75	-	0.75	-
Support to elderly parent(0: Strongly agree ~ 7: Strongly disagree)				
married man to own parents	3.35	1.34	2.82	1.28
married woman to own parents	3.53	1.33	2.94	1.27
married man to SP's parents	3.64	1.29	3.00	1.27
married woman to SP's parents	3.64	1.28	3.00	1.26
Marriage(0: Strongly agree ~ 7: Strongly disagree)				
married men happier	3.91	0.95	3.47	1.40
married woman happier	3.90	1.96	3.63	1.38
gender division of labor	4.49	1.18	4.61	1.65
Children((0: Strongly agree ~ 7: Strongly disagree)				
child necessary in marriage	4.20	1.28	3.20	1.64
at least one son necessary	3.98	1.28	4.19	1.66
N	569		847	

(Table III-2-4) Comparison between Japan and Korea, 2006-2016

Variable	Japan 2006	Korea 2006	Japan 2016	Korea 2016	Diff, JP	Diff, KR	Diff, 2006	Diff, 2016	Diff,c hange
Demographic									
age	45.13	41.15	46.15	43.33	1.02	2.8	3.98	2.82	-1.16
female	0.52	0.55	0.50	0.49	-0.02	-0.06	-0.03	0.01	0.04
never married	0.23	0.23	0.24	0.28	0.01	0.05	0.00	-0.03	-0.03
years of schooling	12.88	12.56	13.41	13.65	0.53	1.09	0.32	-0.23	-0.55
father alive	0.52	0.51	0.55	0.55	0.03	0.04	0.01	-0.01	-0.01
mother alive	0.71	0.73	0.75	0.75	0.04	0.02	-0.02	0.00	0.02
Support to elderly parent(0: Strongly agree ~ 7: Strongly disagree)									
married man to own parents	3.24	2.55	3.35	2.82	0.10	0.27	0.70	0.53	-0.17
married woman to own parents	3.62	2.85	3.53	2.94	-0.09	0.09	0.77	0.60	-0.17
married man to SP's parents	3.73	2.75	3.64	3.00	-0.09	0.25	0.98	0.64	-0.33
married woman to SP's parents	3.78	2.73	3.64	3.00	-0.14	0.28	1.06	0.64	-0.42
Marriage(0: Strongly agree ~ 7: Strongly disagree)									
married men happier	3.70	3.06	3.91	3.47	0.21	0.41	0.64	0.43	-0.20
married woman happier	3.74	3.30	3.90	3.63	0.16	0.33	0.43	0.27	-0.17
gender division of labor	4.03	4.01	4.49	4.60	0.46	0.30	0.01	-0.13	-0.14
Children(0: Strongly agree ~ 7: Strongly disagree)									
child necessary in marriage	3.71	2.53	4.20	3.20	0.49	0.67	1.18	1.00	-0.18
at least one son necessary	3.67	3.41	3.98	4.19	0.32	0.78	0.26	-0.21	-0.46

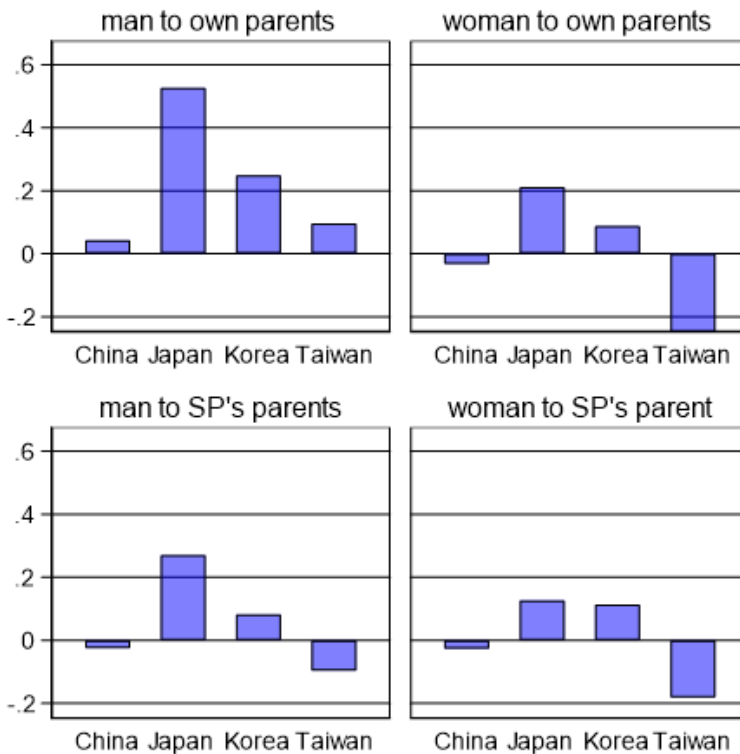
OLS regression - Financial support to elderly parents

To examine gender and age difference in family attitudes in East Asian countries, I use OLS regression for each country and year. In regression model, I controlled for marital status, years of schooling, and parental alive. Because I have total of 9 outcome variables and 6 country-year combination, I ran 54 regression analysis. It is not desirable to present 54 regression tables. Hence, instead of tables, I present coefficients of gender and age for each analysis using graphs. In all graphs, bars represent regression coefficients for gender and age. For gender, male is used as a reference category. Hence, positive value means that women hold more liberal values than men. For age, I use 20s as a reference category. Hence, if figures for age 50s are negative, this means that they are more traditional than the young people, aged 20 - 29.

Figure III-2-2 shows gender difference in the financial support to elderly parents. We can see that gender difference in attitude in financial support to elderly parents is the largest in Japan. Given that the Japanese are the most liberal among the four countries, this suggests that the Japanese women's reluctance to financial support to elderly parents is very high. Interestingly, the Taiwanese women are more supportive to the idea of financial support to the parents than men in two items; women to own parent and women to spouse's parent. This may indicate the Taiwanese women hold traditional values.

However, given the no gender difference in men to own parent support in Taiwan, this is more likely to reflect gendered patterns of financial support to elderly parents rather than the Taiwanese women's traditional family values.

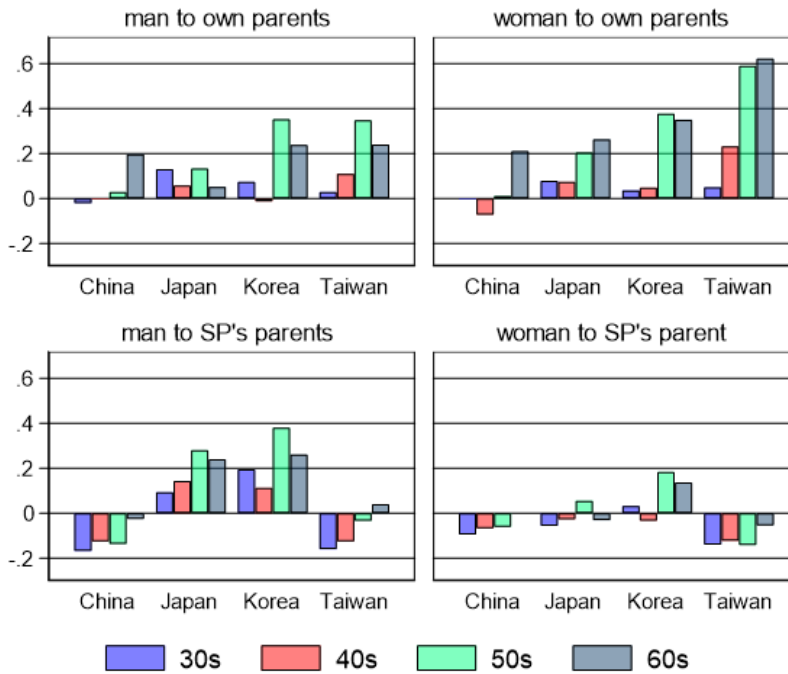
[Figure III-2-2] Trend of TFR in East Asia



* Each bar represents how women differ from men in each attitude. Positive values mean that women are more liberal than men. See the text for more detailed explanation.

Figure III-2-3 shows age difference in financial support to elderly parents. In China and Japan, there is no significant age difference. We can see some age gradient in Korea and Taiwan. In these two countries, we can see that older people tend to hold liberal attitude than old people. In particular, people in their 50s are the most liberal. This is somewhat surprising. We may expect that younger people hold more liberal values than the older people because the former tend to have more liberal and individualistic attitudes. However, considering their life stage, this pattern makes sense. The people in their 50s may assume responsibility of taking care of their extremely old parents, which is quite burdensome. By contrast, the people in their 20s are likely to be still financially dependent on their parents (probably aged 50s) or at least do not feel any immediate pressure of supporting their parents. This difference in life conditions due to different life stage may lead to this age-gradient. Further analysis examining actual intergenerational exchanges could be necessary to reach more reasonable conclusion to this issue.

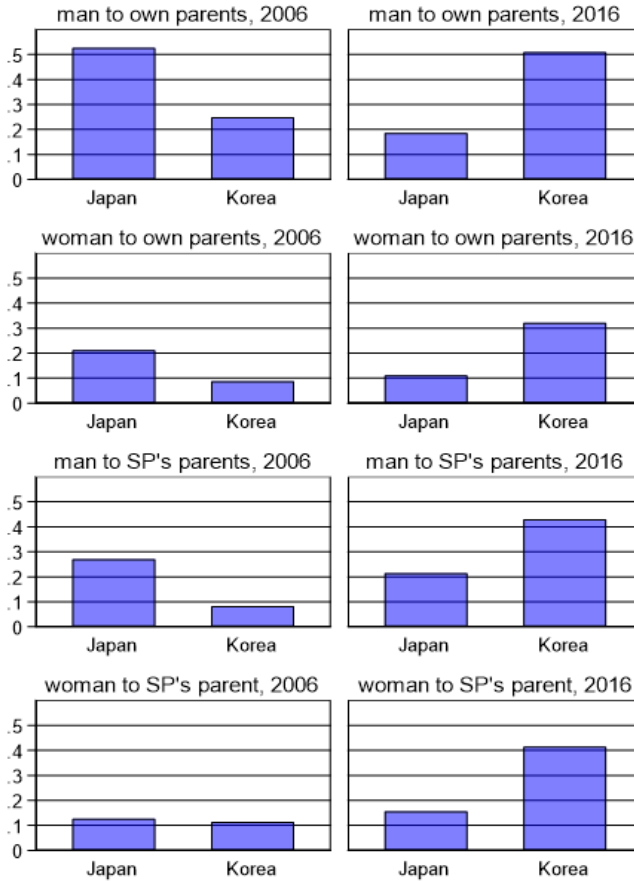
[Figure III-2-3] Age difference in financial support to elderly parents, 2006



* Each bar represents how each age group differs from their counterpart in 20s in each attitude. Positive values mean that each group are more liberal than those in the 20s. See the text for more detailed explanation.

Figure III-2-4 shows how gender difference in financial support to the elderly parents changed between 2006 and 2016 in Japan and Korea. We can see interesting changes in the two countries. As mentioned above, gender difference is larger in Japan than in Korea in 2006. This pattern reversed in 2016. While gender difference in Japan decreased between 2006 and 2016, this increased in Korea. This suggests that gender dynamic in Korea is undergoing substantial changes recently. Because Japan experienced family change earlier than Korea, this may reflect transitory change. However, given the sizeable changes in gender differences in financial support to elderly parents in Korea, this will be generating various social, economic, and familial issues in Korea. For example, let us consider a couple who have elderly parents of husband in financial need. If this couple hold a typical view of financial support to the elderly parent, they could be in serious conflict. The rising gender difference in attitude of financial support to elderly parents should have important implications because the proportion of people at risk of this situation is rapidly rising due to improvement in life expectancy.

[Figure III-2-4] Change in gender difference in financial support to elderly parents in Japan and Korea

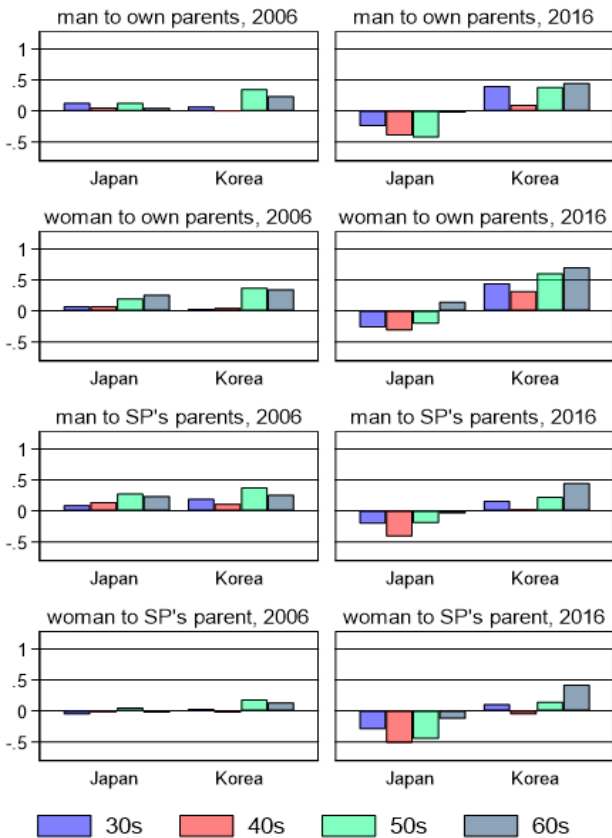


* Each bar represents how women differ from men in each attitude. Positive values mean that women are more liberal than men. See the text for more detailed explanation.

Figure III-2-5 shows changes in age difference in attitude of financial support to the elderly parents. Again, there is no significant age difference in Japan. By contrast, age difference in Korea tend to increase. This involves complicated family and

life course-related issues. We can interpret the increase in age gradient as a consequence of rising longevity. As people live longer, people in their 50s and 60s are more likely to have elderly parents in need, leading to their liberal view.

[Figure III-2-5] Change in age difference in financial support to elderly parents in Japan and Korea

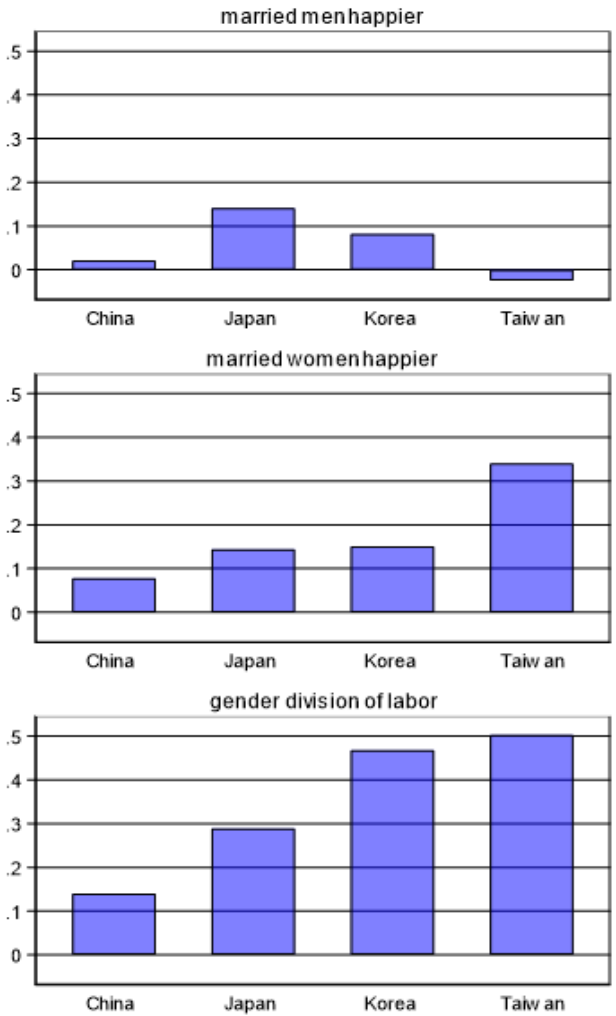


* Each bar represents how each age group differs from their counterpart in 20s in each attitude. Positive values mean that each group are more liberal than those in the 20s. See the text for more detailed explanation.

OLS regression - Marriage

Figure III-2-6 shows gender difference in marriage attitude. In descriptive analysis, we see that Koreans most highly evaluate marriage benefits for both men and women. In Figure III-2-6, we can see that there is no significant difference in Korea. This suggests that both Korean men and women positively evaluate marriage benefits. In Japan, we can see more negative evaluation of marriage for both men and women among women than men. Japanese women do not think that marriage makes men and women happier. In Taiwan, we can see an interesting contrast. There is no gender difference in men's marriage benefits, but the Taiwanese women much more likely to negatively evaluate marriage benefits for women. This pattern is somewhat consistent with attitude regarding financial support to elderly parents. In financial support attitude, we saw that the Taiwanese patterns are highly gendered; financial support to the elderly parents is son's job not daughter's. Here, we see that women's highly negative evaluation of marriage benefits for women. This suggests that the family values in Taiwan are highly gendered, warranting more systematic investigation. For gender division of labor, in all four countries, women oppose to the strong gender division of labor more than men. The gender difference is also largest among the Taiwanese.

[Figure III-2-6] Gender difference in marriage, 2006



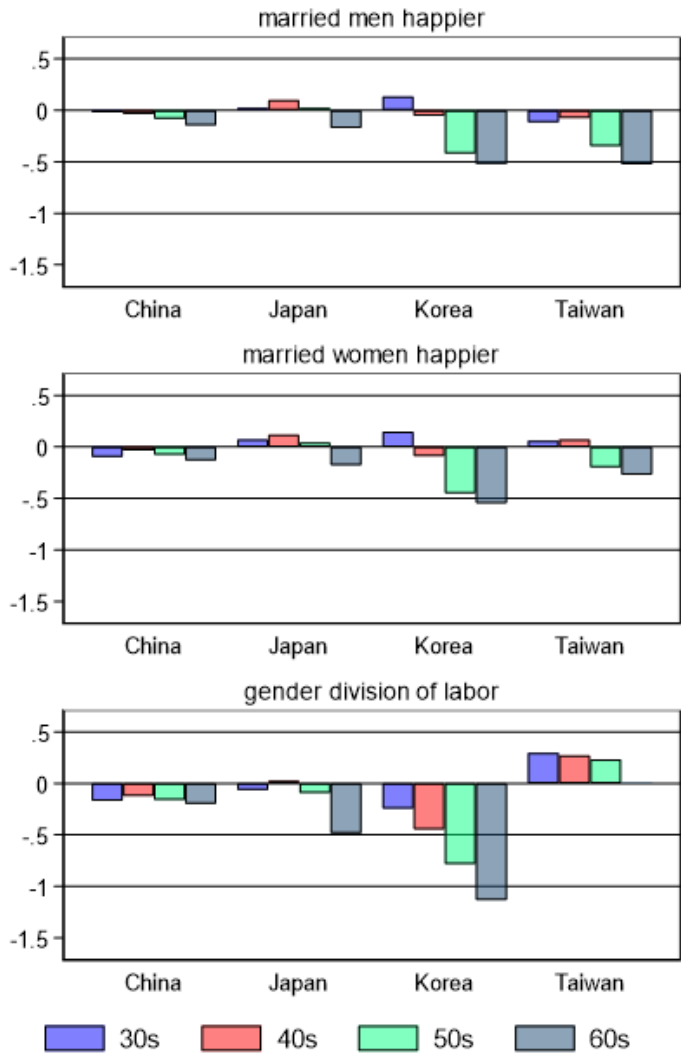
* Each bar represents how women differ from men in each attitude. Positive values mean that women are more liberal than men. See the text for more detailed explanation.

Figure III-2-7 shows age difference in marriage attitude. Age gradient is strong in Korea, but not in the other countries. For marriage benefits and gender division of labor, younger people tend to have more liberal attitudes than the older counterpart in Korea. This reflects rapid changes in marriage attitude in Korea, possibly yielding generational conflicts.

Figure III-2-8 shows change in gender difference in marriage attitude in Japan and Korea. Gender difference in marriage benefit became larger among the Japanese while there is no noticeable change in Korea. Japanese women's highly negative evaluation of marriage benefits became even stronger. In terms of gender division of labor, there is no change. The strong gender gap in the evaluation of marriage benefits may explain the increase in marriage forgone in Japan.

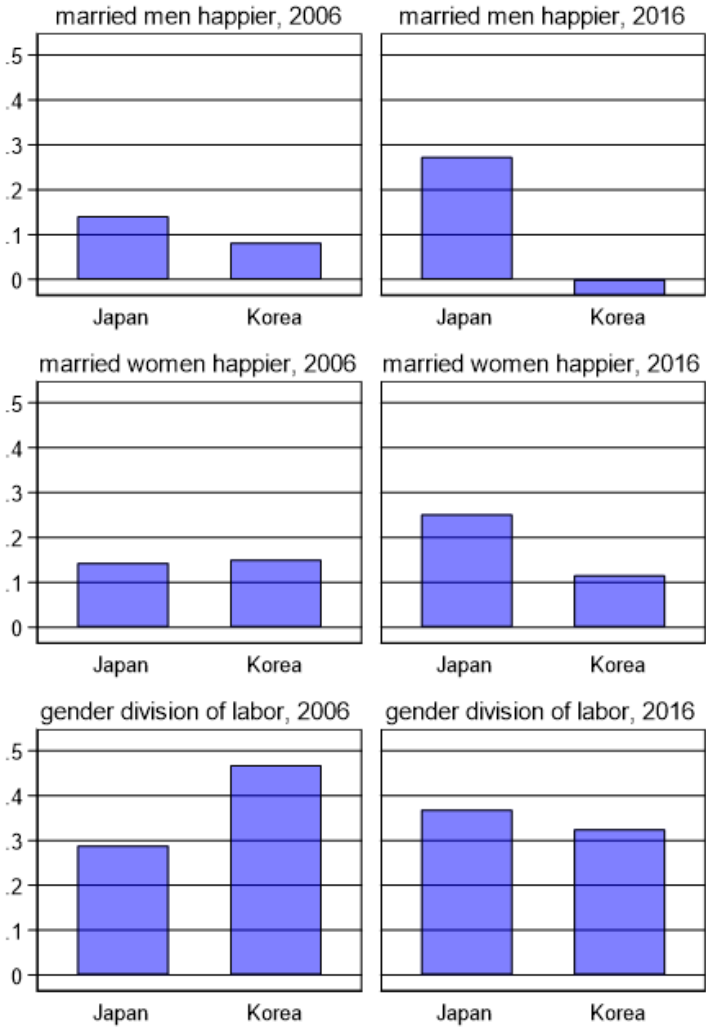
Figure III-2-9 shows that there is no significant change in age patterns in Japan regarding marriage attitude whereas age patterns change regarding women's marriage benefits change in Korea. While older people evaluated women's marriage benefits more positively than young people in 2006, age gradient in 2016 shows non-linear patterns. People in their 40s and 50s are more negative about women's marriage benefits than their counterpart in the 20s. This change suggests that value changes are stronger among the middle-aged than the people in the 20s.

[Figure III-2-7] Age difference in marriage attitude, 2006



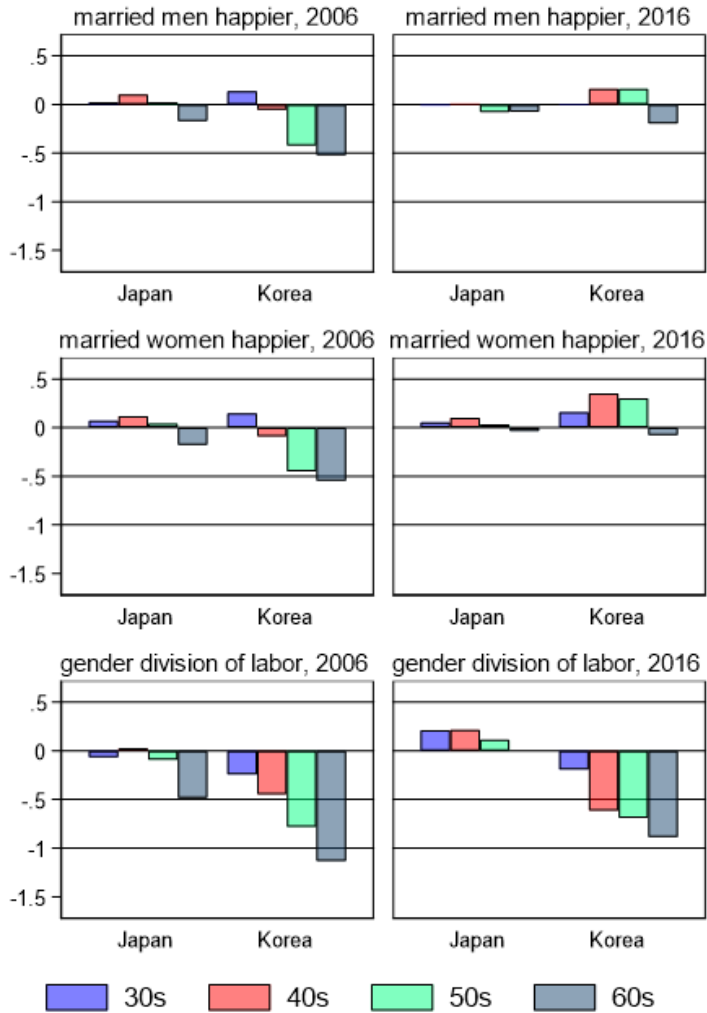
* Each bar represents how each age group differs from their counterpart in 20s in each attitude. Positive values mean that each group are more liberal than those in the 20s. See the text for more detailed explanation.

[Figure III-2-8] Change in gender difference in marriage in Japan and Korea



* Each bar represents how women differ from men in each attitude. Positive values mean that women are more liberal than men. See the text for more detailed explanation.

[Figure III-2-9] Change in age differences marriage attitude in Japan and Korea

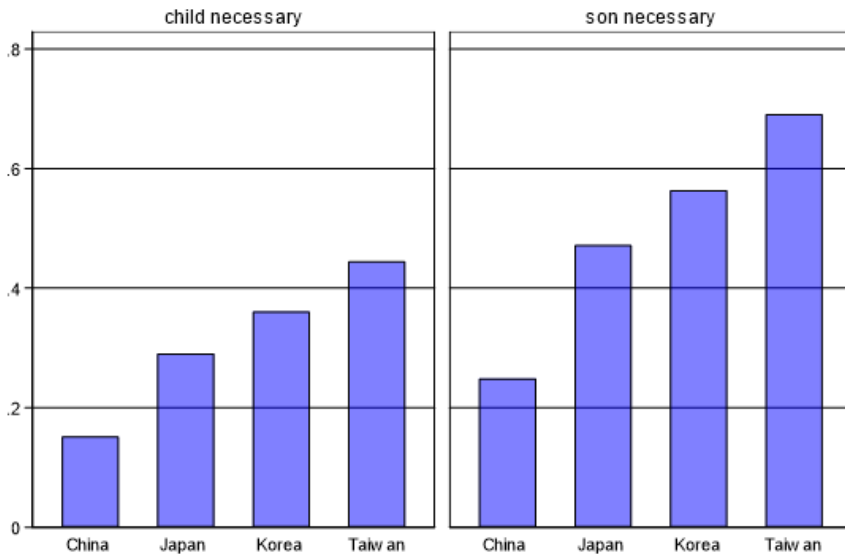


* Each bar represents how each age group differs from their counterpart in 20s in each attitude. Positive values mean that each group are more liberal than those in the 20s. See the text for more detailed explanation.

OLS regression - Marriage

Finally, we examine value of child. Figure 10 shows gender difference in child attitude. Here all coefficients are statistically significant. Women hold more liberal view about child and son necessity, and the gender difference is larger in Korea and Taiwan than in China and Japan. The pattern of the responses to whether or not son is necessary in marriage shows still strong son preference among men in East Asian countries. Regarding value of child, men holds much more traditional values, and this gender difference may posit tension in family.

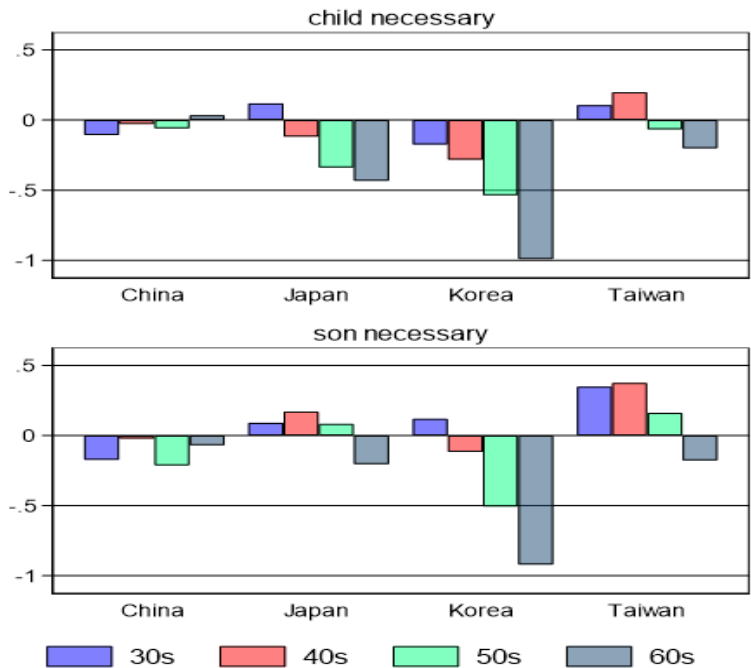
[Figure III-2-10] Gender difference in value of child, 2006



* Each bar represents how women differ from men in each attitude. Positive values mean that women are more liberal than men. See the text for more detailed explanation.

Figure III-2-11 shows age difference in child value. Here, we can see that age gradient is strongest in Korea. Korean older people tend to hold more traditional view that child and son are necessary in marriage. Japanese old people tend to think that child is necessary but the age gradient is much weaker than Korea. The strong age-gradient in Korea implies that attitude regarding children and son optional rather than necessary in marriage will become more prevalent over time.

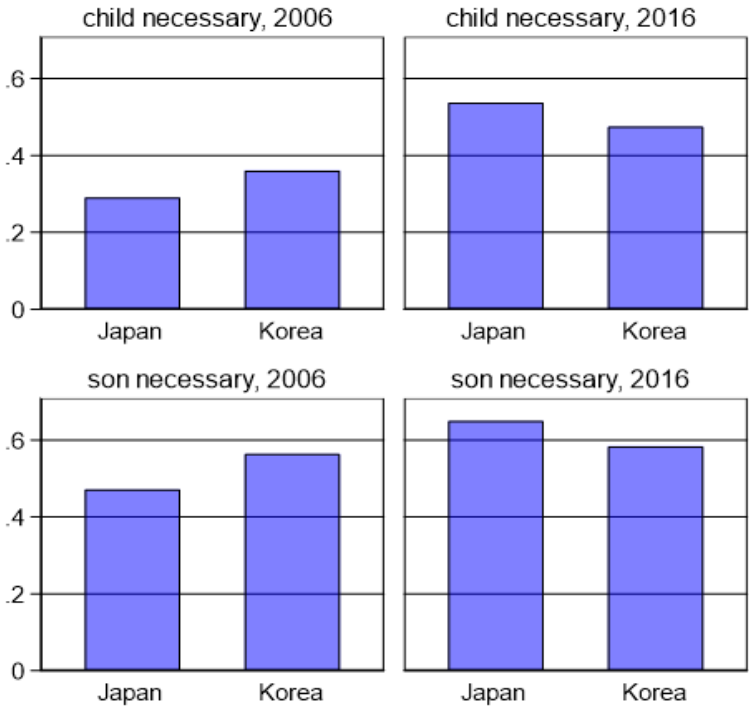
[Figure III-2-11] Age difference in child value, 2006



* Each bar represents how each age group differs from their counterpart in 20s in each attitude. Positive values mean that each group are more liberal than those in the 20s. See the text for more detailed explanation.

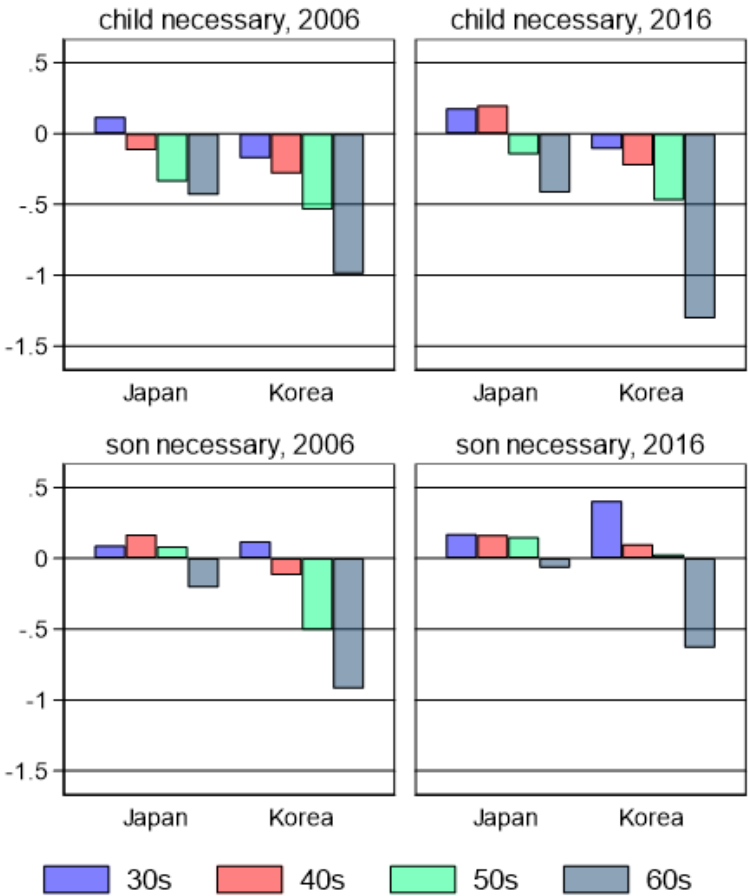
Figure III-2-12 shows change in gender difference in child value in Korea and Japan. As we can see, there is no noticeable change in this attitude. Figure III-2-13 shows changes in age difference in these two countries. As we can see, there is no change in age difference in the two countries.

[Figure III-2-12] Change in gender difference in child value in Japan and Korea



* Each bar represents how women differ from men in each attitude. Positive values mean that women are more liberal than men. See the text for more detailed explanation.

[Figure III-2-13] Change in age difference in child value in Korea and Japan



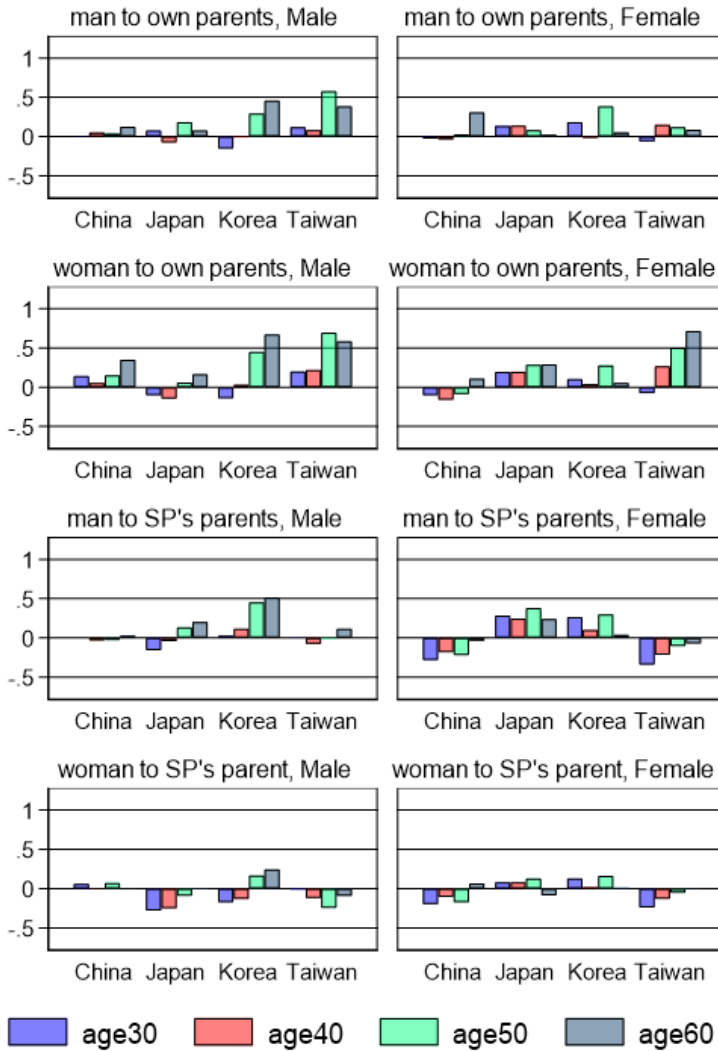
* Each bar represents how each age group differs from their counterpart in 20s in each attitude. Positive values mean that each group are more liberal than those in the 20s. See the text for more detailed explanation.

OLS regression – Gender difference in age-gradient

Changes in family values across birth cohorts may differ by gender. For example, Tsuya and Mason (1995) showed that young men's gender attitudes were not different from the old counterparts while women gender attitudes were strongly dependent on age in Korea. Such gender gap in age gradient has important implications for family relations. To see this difference, I ran the OLS regression separately by gender, and present the results. First, Figure III-2-14 shows gender difference in age gradient in financial support to elderly parents. There was no conspicuous gender difference. However, in Korea men's age gradient is different from women's in the second item, married woman's financial support to elderly parents. Older men oppose to this idea more than younger men, but there is no age difference among women. This suggests that Korean men's attitude are changing more rapidly in this matter. Second, we can clear see interesting gendered age gradient in marriage attitude in Korea (See Figure III-2-15). Korean men in their 30s are most negative about marriage benefits. By contrast, Korean men in the 20s are most positive about marriage benefits for men. Above men aged over 30, we can see expected age patterns; more negative evaluation of older men. This pattern posits some puzzle to explain. Given the rising age at marriage, men's marriage is concentrated in the 30s in Korea. The result suggests that men in primary marriage age

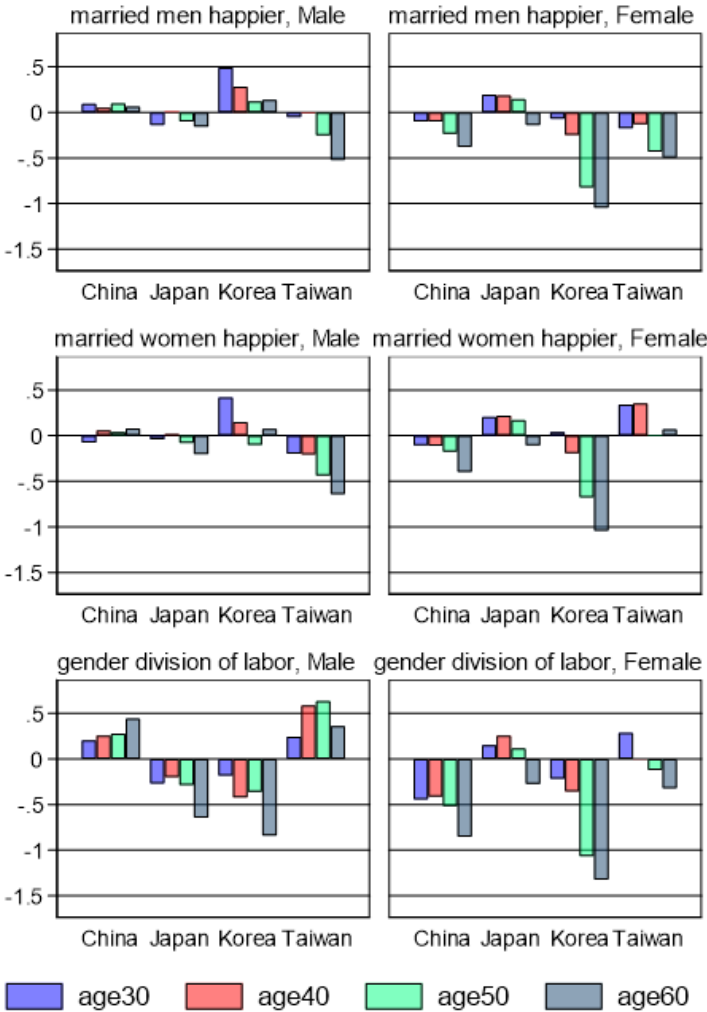
are most negative about marriage benefits. How can we explain this? Simply speaking, men dream about marriage in the 20s, and they become pessimistic by being aware of difficulty to reach successful marriage. Does this story make sense? This warrant more careful investigation. Finally, Figure III-2-16 shows gender difference in age gradient. Japan and Korea show interesting gender difference. The Japanese women's age pattern of son's necessity is different from the other countries. Except for Japan, older women tend to think that son is necessary in marriage. But, the Japanese women in their 20s have stronger son preference than their older counterpart. How can we explain such somewhat retrograde attitude among the Japanese young women? This also posits an interesting puzzle. Korean women's strong age gradient is also interesting. Age differences in child and son necessity among the Korean women are very large, compared with the Korean men. This suggests that women's attitude regarding child value is much more rapidly changing than men in Korea.

[Figure III-2-14] Gender difference in age-gradient in financial support to elderly parents



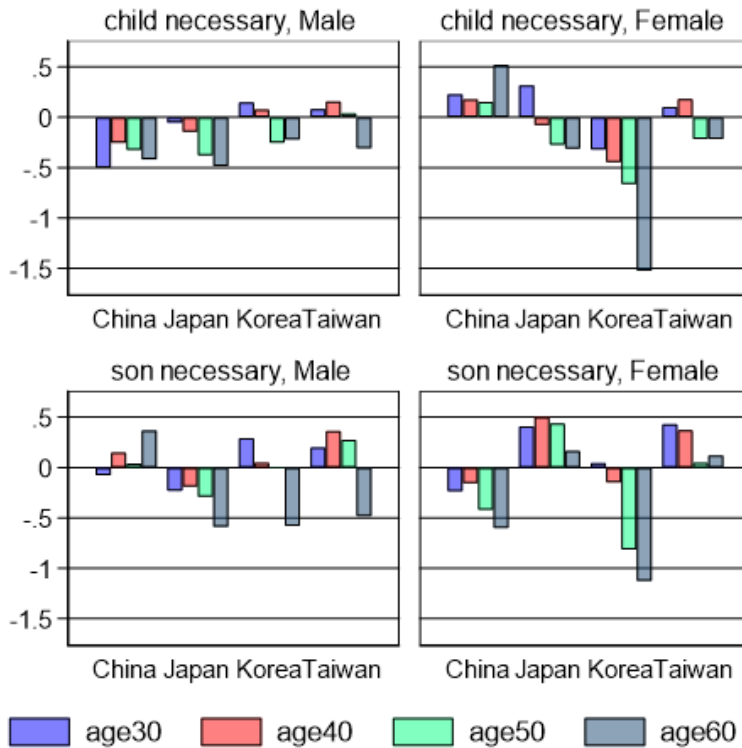
* Each bar represents how gender differences in family attitudes differ by ages. Positive values mean that gender differences in this age group are greater than that in the 20s. See the text for more detailed explanation.

[Figure III-2-15] Gender difference in age-gradient in marriage attitude



* Each bar represents how gender differences in family attitudes differ by ages. Positive values mean that gender differences in this age group are greater than that in the 20s. See the text for more detailed explanation.

[Figure III-2-16] Gender difference in age-gradient in value of child



* Each bar represents how gender differences in family attitudes differ by ages. Positive values mean that gender differences in this age group are greater than that in the 20s. See the text for more detailed explanation.

6) Summary and implications

In this study, I examine cross-national differences in family attitudes. I focus on gender and age difference, which are indicative of how family values are changing in the given society. I find the followings. First, men are more traditional than women in terms of financial support to elderly except for Taiwan, and gender gap is the largest in Japan. Second, women are more negative about marriage benefits except for Korea, and the gender gap is the largest in Taiwan. Third, women hold more liberal values about child. Fourth, older people in Korea hold more liberal value about financial support to elderly parents, but we need to be careful in interpreting this pattern because this reflects life course circumstances. Fifth, we can see a strong age gradient in marriage attitude in Korea in 2006, but the age difference disappears or becomes weaker in 2016. Finally, age gradient in child value is the strongest in Korea. Finally, I find that age patterns in family values differ by gender in Korea. Women's values appear to be changing more rapidly than men. This difference should affect various family relationships and may increase possibility of familial conflict in Korea.

This is basically descriptive, and we need more elaborate analyses to reach firm conclusion. In particular, I analyze only family values not actual behaviors such as intergenerational transfer, family formation, and parenting. We need to understand these behavioral dimensions to fully understand family

dynamics in rapidly aging circumstances. Nonetheless, this study attempts to understand multiple aspects of family values and how gender and age are associated with them differently. We do not find universal patterns such as coherently individualistic or familistic. Rather than monolithic, gender and age patterns differ by outcomes. This illustrates complexities of family relations, warranting a more complete and sophisticated approach to family values.

Several findings warrant further discussion. First, rising gender difference in financial support to elderly parents in Korea will increase strains among Korean families. Given the trend of rising life expectancy, more Korean family will face the challenges of providing support to elderly parents. Because gender differences in this attitude rose over the last decade, this may lead to serious conflicts between spouses. Given the weak public pension system, the private transfer is still important for elderly financial support in Korea. Hence, more comprehensive public support to elderly is warranted in Korea. Second, we need to think more carefully about the concept of family attitudes. In this study, I use the term liberal vs. traditional in a descriptive way. However, these terms may not be sufficient to fully capture family dynamics. Family dynamics has multiple dimensions to be addressed more appropriately. Future studies should focus on development of more encompassing concept of family attitudes to understand multi-faceted aspects of family life.

3. A Comparative Study of Marriage and Fertility in East Asia: China and Japan as the Largest Population Country since the New Century

1) Background of the Study

Among the five East Asian countries (such as The People's Republic of China, Japan, the Republic of Korea, the Democratic People's Republic of Korea and Mongolia), China is the world's most populous country, with about 1.37 billion people in 2015. Japan's population is only less than one-ninth of China's population, but it is the second largest population country in East Asian. The population of Japan is 127 million in 2015. While the total population of the Republic of Korea, the Democratic People's Republic of Korea and Mongolia is the less than 100 million. That is to say that only China and Japan have the largest population in East Asian. Historically, both China and Japan have been influenced by Confucianism, so they have the same cultural background. However, due to the different social systems and different levels of economic development, there are certain similarities as well as certain national differences between the marriage and fertility status of the two countries, on which some scholars have conducted a lot of empirical studies. Then, since the 21st century, what on earth are the similarities and differences between the marriage and fer-

tility status of men and women in China and Japan and their variation trends? What are the implications of Japan's low marriage rate and postponement in the age of being parents to China? We need to conduct some special studies and discussions based on previous study results.

(1) Summary of Studies on Marital Status

Zeng Hong (1988) found in his study of the status, characteristics and historical evolution of marriage of Chinese and Japanese women that although both countries belong to the same oriental culture, the views of women in the two countries on marriage are significantly different due to the huge differences in economic development level and difference in social living conditions. The proportion of early marriages among women in China is higher than that in Japan, and the proportion of elderly unmarried women in China is lower than that in Japan. Affected by factors such as economic development, women's enhanced self-reliance awareness and changes in marriage ethics, the divorce rate in Japanese population has risen significantly; while in China, with changes in social and economic conditions in recent years, the implementation of the new Marriage Law in 1980 and the change of people's thoughts of marriage, the divorce rate is also on the rise, but that in Japan is much higher(Hong, 1988).

Some scholars' studies on Japanese marriage found that from 1947 to 1989, the marriage rate in Japan decreased, and the age of first marriage increased: the marriage rate dropped from more than 10% before the war to 5.8 % in 1989; the wife's first marriage age increased from 22.9 years old in 1947 to 25.8 years old in 1988, and the wife's late marriage trend is greater than the husband's. The reasons for the decline in the marriage rate in Japan mainly include the increasing population in economic autonomy, the improvement of social status and the influence of the concept of anti-marriage. Liu Zongkai (1988) believes that the development of cultural education, higher educational attainments, the difficulty of employment of married women, women's reluctance to prematurely carry on family burdens and other reasons have contributed to Japan's late marriage(Zongkai, 1988). And some scholars' analysis of the causes of the marriage crisis in China and Japan found that the lack of trust between the husband and wife, the lack of communication between the two sides, the large income gap and the gap in values will aggravate the instability of marriage(Hui, 2014). In addition, the increase in the rate of late marriage and non-marriage, the formalization of the marriage process, and the weak public opinion on divorce(Youcai, 1992) have jointly promoted the constant change of marital status in Japan.

(2) Summary of Studies on Fertility Status

Based on thoughts of women in Beijing and Tokyo on marriage and fertility, Zang Jian and Li Huayu (2002), by use of historical research and questionnaire to survey 382 women in Beijing and Tokyo, found that views of women in Beijing and Tokyo on the ideal number of children and the adverse effects of fertility on career advancement and personal development are quite similar; and the proportion of women in Tokyo who are married late, unmarried, give birth to child late, and do not give birth to child is significantly higher than that of women in Beijing. Although nearly half of Tokyo women want to have two children, because Japanese childcare is far from meeting the needs of children, many professional women face the predicament of wanting to have more children but having to give up. At the same time, seventy-one percent of Tokyo women surveyed called on the Japanese government to change the current situation of low birth rate in Japan by improving childcare(Jian&Huayu, 2002).

In terms of studies on the causes of the decline in fertility in Japan, Liu Zongkai (1988) argued that hedonic consumption consciousness, the need of modernized economy for large labor investment, a decline in infant and child mortality rates and other factors have caused decline of Japan's fertility rate(Zongkai, 1988). In addition, the decline in the marriage

rate and the use of contraceptives are also the main reasons for the decline in fertility in Japan(Jin E., 1990). Furthermore, Fu Yikun (2007) surveyed 537 mothers of Wuhan with 3-year-old children and 423 mothers of 3-year-old children from Asahikawa, Japan and found the ratio of Japanese mothers that thought "it does not matter whether to have a child or not" is 9.6 percentage points lower than that of Chinese mothers; the proportion of these Japanese mothers that identified with "the husband and wife should be divorced in case of marital deterioration" is 8.2 percentage points higher than that of the Chinese mother. The mothers of China and Japan have significant differences in terms of the above viewpoints(Yikun et al., 2007).

The Jiangsu Fertility Desire and Fertility Behavior Study 2006-2007 and data of the basic survey of Japan birth trend in 2005 show that both the aggregate fertility rates of Jiangsu in China and Japan were lower than the replacement level of 2.1; and the two countries had differences in fertility desire and fertility behavior: gap between the two aspects in China was small and that in Japan was large(Yun, 2016). In terms of the variation trend of fertility rate, Qiao Xiaochun (1995) believes that the starting point of China's fertility decline is higher than that of Japan, the fertility rate is falling faster than Japan in speed, and the time of fertility rate decline is 22 years later than Japan. The decline in Japan's fertility rate is mainly determined

by Japan's lack of resources, the high cost of education and childrearing, heavy physical and mental burden of parents, and the small size of existing housing. The main reasons for the decline in fertility in China lie in economic and social development and in the promotion of family planning policies(Xiaochun, 1995).

The above studies have laid a professional foundation for us to understand the relevant situation of marriage and fertility in China and Japan, and also have provided ideas for this study. However, the special questionnaire surveys adopted in the previous studies are narrow in scope; they are only non-random sampling marriage and fertility surveys in some areas, so they could hardly represent the overall situation of China and Japan. Moreover, the time of previous surveys mainly focuses on the 1980s and 1990s, it is difficult to effectively predict or present the marriage and fertility situations in China and Japan since the new century. To this end, we need to conduct a comparative study on the marriage and fertility status of Chinese and Japanese residents and their corresponding variation trends and provide reference for promoting the healthy and coordinated development of marriage and fertility status of Chinese and Japanese residents.

2) Study Design

This study design includes two components: data sources and research methods.

(1) Data Sources

The data used in this study mainly come from three aspects. Firstly, the data on the marriage of Chinese population mainly come from the national census and sample survey of population. The data on the marital status of men and women in China in 2000 and 2010 are from the fifth and sixth national census data, and the data for 2005 and 2015 are from the 1% population sample survey in 2005 and 2015. Secondly, the data on the marriage of Japanese population mainly come from the Japan Statistical Yearbook 2017. Finally, data on fertility in China and Japan, including the average childbearing age and the number of births, come from World Population Prospects: The 2017 Revision.

(2) Study Methods

This study adopts two research methods: comparative analysis and trend analysis.

The method of comparative analysis achieves the under-

standing of the nature and laws of things and makes a correct evaluation by comparing objective things. This study compares the data on marriage and fertility indicators of China and Japan, and then shows whether the relationship between men and women in the two countries is coordinated in marriage and fertility indicators from the perspectives of proportion and size.

The trend analysis method analyzes the variation trends of various indicators reflecting marital status, such as unmarried, married, divorced, and widowed; as well as the indicators reflecting the fertility status, such as the average childbearing age and the number of births in various base periods during 2000 and 2015, and from which finds out problems and laws of marriage and fertility, so as to propose countermeasures and advice for promoting the healthy development of population, marriage and fertility status. The study objects in this paper are population aged 15 and over.

3) Main Findings

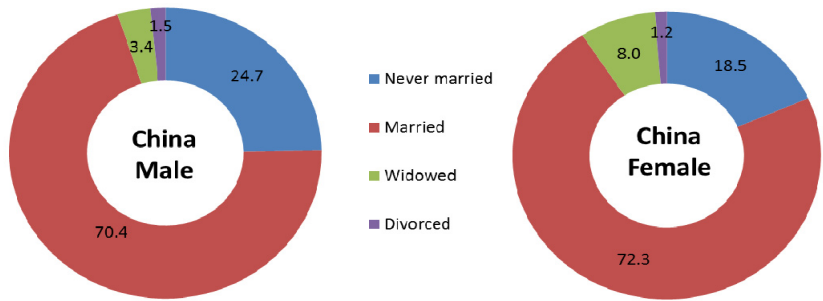
This study mainly includes marital and fertility status and the variation trends in China and Japan. The marital status in China and Japan covers the status quo and variation trends of unmarried, married, divorced and widowed. The fertility status covers the average childbearing age and the number of births

of Chinese and Japanese women and the corresponding variation trends.

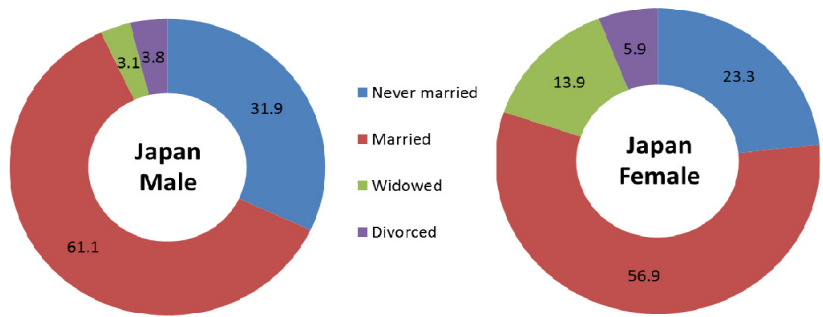
(1) Study on the Marital Status and Its Variation Trend in China and Japan

In 2010, the proportion of married men and women in China was over 70%, the proportion of unmarried men and women was 18.5%-24.7%, and the proportion of the divorced and the widowed was lower; while in Japan, the proportion of married men and women was about 60%, the proportion of unmarried men and women was 23.3%-31.9%, and the proportions of the divorced and the widowed were higher. Specifically, the proportions of unmarried men and women in China were 7.2 and 4.8 percentage points lower than that of Japan respectively; the proportions of the divorced men and women were respectively 2.3 and 4.7 percentage points lower than that of Japan; and the proportion of widowed women in China was 5.9 percentage points lower than that of Japan. In a word, the proportion of the unmarried in China was generally lower than that in Japan; and the proportions of men and women in married status in China were respectively 9.3 and 15.4 percentage points higher than that in Japan. Chinese women and Japanese women have significant differences in marital status composition (SIG.= 0.0098). See Figure III-3-1 and Figure III-3-2.

[Figure III-3-1] Proportion of population Aged 15 and Over by Sex and Marital Status 2010 in China



[Figure III-3-2] Proportion of population Aged 15 and Over by Sex and Marital Status 2010 in Japan



① The Variation Trend of the Proportion of the Unmarried

By international comparison, from 2000 to 2015, the proportion of unmarried men and women in China ranged from 15% to 25% and fell in fluctuations; and the proportion of unmarried men and women in Japan was between 22%-32% and

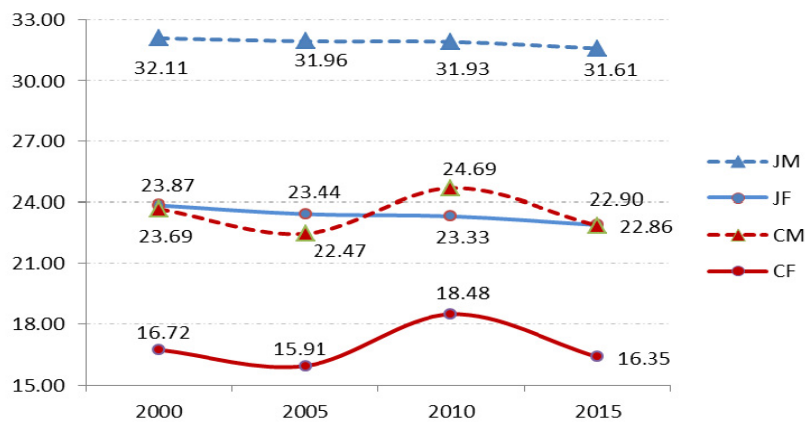
continued to decline. The proportion of the unmarried in China was always lower than that in Japan by 4.85-9.49 percentage points, and the proportion gap of unmarried men in China and Japan was the biggest in 2005, reaching 9.49 percentage points. By 2010, the proportion gap of unmarried women in China and Japan was the smallest, falling from 7.15% in 2000 to 4.85% in 2010. Since then, although the international gap in the proportion of the unmarried has expanded again, the overall gap between the unmarried women and men in China and Japan has continued to narrow. Influenced by Confucian culture, it's an immortal truth that men and women should get married in their proper ages. The influence of Confucian culture on China is greater than that of Japan. So the proportion of the unmarried in China is lower than that in Japan.

By domestic gender comparison, from 2000 to 2015, the proportions of unmarried men in China and Japan were always higher than that of women, higher by 6 and 8 percentage points respectively. The Chi-Square test values are respectively 0.0163 and 0.0061, both of them are less than 0.05. In the past 15 years, the proportions of unmarried men and women in China have fluctuated greatly, with an overall decrease of 0.83 and 0.37 percentage points, and the decline range of the proportion of unmarried men is larger than that of women. Although the proportions of unmarried men and women in

Japan are both decreasing gradually, the decrease range of the proportion of unmarried women is larger than that of men, and the percentages of the unmarried men and women are down by 0.51 and 0.97 percentage points respectively. In addition, the gender gap between unmarried men and women in Japan is greater than that in China. The proportion of unmarried men in Japan is 8.24-8.70 percentage points higher than that of women; while the proportion of unmarried men in China is 6.98-6.51 percentage points higher than that of women.

In the recent 15 years, the decline ranges in the proportion of unmarried men and women in China and Japan have been reversed. The decline in the proportion of unmarried men in China is greater than that of women, and the gender gap in the proportion of the unmarried has narrowed; while the decline in the proportion of unmarried women in Japan is greater than that of men and the gender gap in the proportion of the unmarried has constantly expanding (see Figure 3). The percent of Japanese women and man has significant differences in never marital status (SIG.= 0.0061). The specific reasons for the variation trends of the proportions of unmarried men and women in China and Japan are to be further studied.

[Figure III-3-3] Trends in the Proportion of Never-Married Population by Sex and country: 2000 to 2015

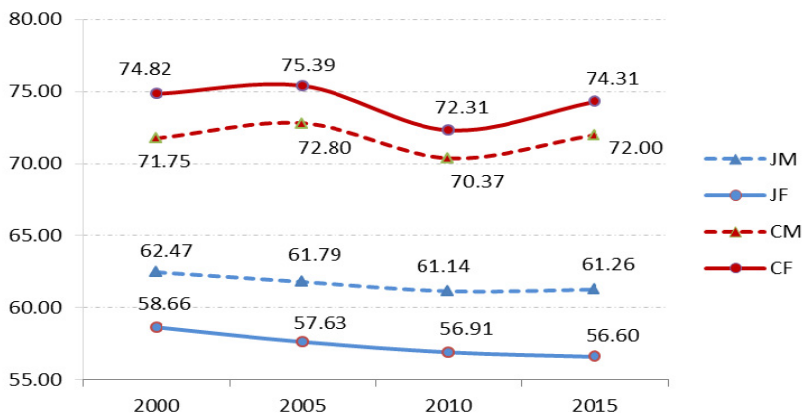


② The Variation Trends of the Proportions of the Married in China and Japan

By international comparison, from 2000 to 2015, the proportion of the married in China has always been higher than that in Japan, with a range of 9.22 to 17.76 percentage points higher. In 2010, the gap between the proportion of married men in China which was higher and that in Japan was the smallest (9.49 percentage points). However, in 2005, the proportion gap of married women in China which was higher and that in Japan was the biggest. The gap in the proportion of married women between China and Japan increased from 16.17% in 2000 to 17.76% in 2010. The percent of married

women in Japan and China is significant differences (SIG.= 0.0017). Since then, from 2010 to 2015, the national gap between the married men and women in China and Japan had once again widened. In general, from 2000 to 2015, the proportions of married men and women in China dropped first and then rose, showing an elongated inverted S shape; while the proportions of married men and women in Japan had been decreasing, which could be related to higher marriage costs, higher housing pressure, and also related to the improvement of education and enhanced employment and self-reliance consciousness among Japanese women. The specific data of the ratios of married men and women in China and Japan are shown in Figure III-3-4.

[Figure III-3-4] Trends in the Proportion of Married Population by Sex and country: 2000 to 2015

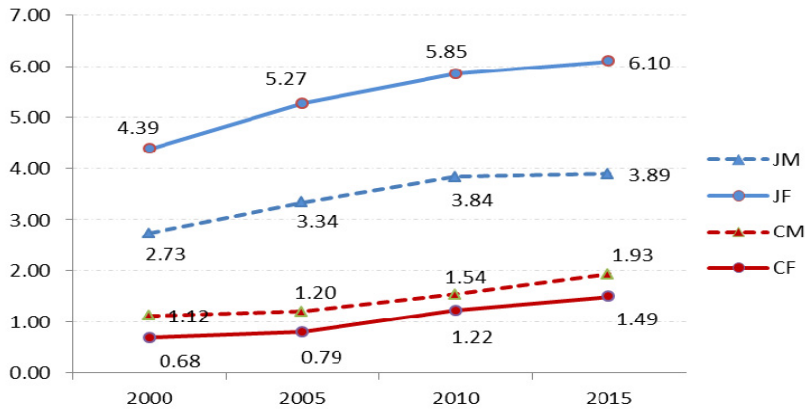


By domestic gender comparison, from 2000 to 2015, the proportion of married women in China was 1-3 percentage points higher than that of men, while the proportion of married women in Japan was 3-4 percentage points lower than that of men. In the past 15 years, the proportions of married men and women in China have fluctuated greatly. The variation trends of the proportions of married men and women are different: the proportion of married men has increased by 0.25 percentage points, while that of women has decreased by 0.51 percentage points, and the gender gap between the married men and women has narrowed by 0.76 percentage points. At the same time, proportions of married men and women in Japan both have experienced a decline process. Among them, the proportion of married men has decreased by 1.20 percentage points and that of married women has decreased by 2.06 percentage points, and the gender gap between the married men and women in Japan has increased by 0.85 percentage points. The Chi-Square test values of the married men and women in China and Japan are respectively 0.7414 and 0.9526, both of them are larger than 0.05. The variation trend of gender gap in the proportion of marriage between China and Japan is opposite, and the specific reasons need to be further studied.

③ Analysis of the Divorce Trends between China and Japan

By international comparison, from 2000 to 2015, the proportions of divorced men and women in China and Japan have always maintained an increasing trend. The proportion of divorce in China was far lower than that in Japan, with a range of 1.61-4.63 percentage points lower, and the proportions of divorced men and women in Japan were 2.01-6.70 times that of China respectively. In 2000, the proportions of divorced men and women in China were the lowest, which were respectively 1.61 and 3.71 percentage points lower than that of Japanese men and women. By 2010, the international gap between the proportions of divorced men and women in China and Japan was the largest, and the divorce ratios of Chinese men and women were 2.30 and 4.63 percentage points lower than that of Japanese men and women respectively. However, since then, the international gap between the proportions of divorced men and women in China and Japan began to narrow (See Figure III-3-5). The Chi-Square test values of the divorced men and women in China and Japan are respectively 0.8704 and 0.4183, both of them are larger than 0.05. There are not significant differences in divorce rates between men and women in China and Japan.

[Figure III-3-5] Trends in the Proportion of Divorced Population by Sex and country: 2000 to 2015



By the gender gap in the proportion of the divorced, the proportion of divorce among Chinese men has always been higher than that of Chinese women in the past 15 years, while the proportion of divorce among Japanese women has always been higher than that of Japanese men. However, there are not significant differences in divorce rates between men and women neither in China nor in Japan. From 2000 to 2015, not only the gender gap in the ratio of divorce between men and women in China was basically stable, but also the proportion of divorced men was always 0.4 percentage points higher than that of women; while the gender gap in the proportion of divorce between men and women in Japan has been widening: the proportion of divorced women was 1.66 percentage points higher than that of men in 2000, and this gap expanded to 2.21 per-

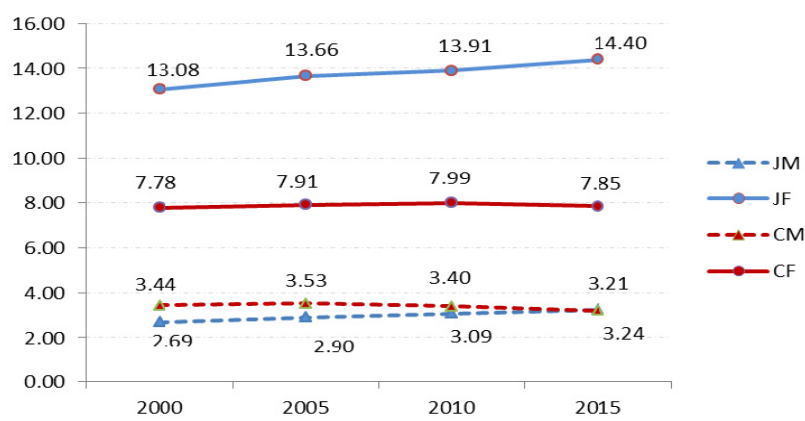
centage points in 2015. This trend indicates that the remarriage ratio of men after divorce is higher than that of women in Japan. At the same time, the gender gap in the proportion of divorce between China and Japan is opposite, indicating that the proportion of remarriage of women after divorce is higher than that of men in China, while the proportion of remarriage of men after divorce is higher than that of women in Japan. The reason could be that Chinese women are more likely to remarry, and Japanese women are more willing to pursue independent life.

④ Analysis of the widowed Trends between China and Japan

By international comparison, the proportion of widowed women in China is around 8%, and that in Japan is more than 13%. The proportion of widowed women in China is far lower than that in Japan, with a range of 5.30 to 6.55 percentage points lower. The Chi-Square test value of the widowed women between in China and Japan is 0.0005, which is less than 0.05. There is significant difference in widowed rate of women in China and Japan. In the past 15 years, the proportions of widowers in China and Japan have undergone a reverse transformation. From 2000 to 2005, the proportion of widowers in China was higher than that in Japan. With the continuous decline of the proportion of widowed men in China, and the

proportion of widowers in Japan continued to increase. By 2015, the proportion of widowers' men in China had been slightly lower than that in Japan. See Figure III-3-6.

[Figure III-3-6] Trends in the Proportion of Widowed Population by Sex and country: 2000 to 2015



By gender, the proportions of widowed men in China and Japan are always lower than that of widowed women. In the past 15 years, the proportion of widowed women in China has increased slightly, with a total increase of 0.08 percentage points; the proportion of widowers has been decreasing, with a total decline of 0.2 percentage points. Although the proportions of widowers and widows have not changed much, these variation trends still reflect the characteristic that the increase range in women's expectancy average life is larger than

that of men. Moreover, influenced by Confucian culture, people generally accept the age pattern of husband and wife with big male and small female. So the proportion of widowed women is higher than that of men. During the same period, both the proportions of widowed men and women in Japan were increasing, by 0.55 and 1.32 percentage points respectively, and increase range of the proportion of widowed women is larger than that of widowed men. The gender gap in the proportion of widowed men and women in Japan is greater than that in China: the proportion of widowed women is 10.39-11.16 percentage points higher than that of widowed men in Japan; and the proportion of widowed women is 4.34-4.64 percentage points higher than that of widowed men in China. Although the gender gaps in the proportions of widowed men and women in China and Japan both are widening, that in Japan is far greater than that in China. The Chi-Square test values of the widowed men and women in China and Japan are respectively 0.0168 and 0.0000, both of them are less than 0.05. There are significant differences in widowed rates between men and women both in China and Japan.

(2) Research on the Fertility Status and Variation Trends in China and Japan

The analysis on the fertility status and variation trends in this research consists of two aspects. Firstly, the average child-

bearing age and its changing trend in Japan and China are compared and analyzed; and secondly, trend analysis to the number of births and the childbearing age composition is made.

① The Differences in the Average Childbearing Ages in China and Japan

The average childbearing age of Chinese women is lower than that of Japanese women, and the national gap in women's average childbearing age is constantly widening. From 2010 to 2015, the average childbearing ages of women in China and Japan were 26.88 and 30.84 years old respectively. The average childbearing age of Chinese women was 3.96 years younger than that of Japanese women. In the past 15 years, although both the average childbearing ages of women in China and Japan have been increasing, the increase range in China is smaller, increasing by 0.54 years in 15 years; while that in Japan is more pronounced, with a total increase of 1.11 years. Comparing the average childbearing ages of women between China and Japan, it can be found the average childbearing age of women in China features a low starting point and a gradual delay by a small margin; and that in Japan features a high starting point and a continuous delay by a large margin, which leads to the gap the average childbearing ages of women in China and that of Japan becomes larger and larger, ranging

from 3.39 years to 3.96 years. The P value of T-test for average reproductive age of women between China and Japan is 0.0023, which is less than 0.005. This means that there is a significant difference in the average reproductive age between Chinese and Japanese.

〈Table III-3-1〉 Female mean age of childbearing by country, 2005-2015 (years)

Variant	country	2000-2005	2005-2010	2010-2015
Estimates	China	26.34	26.67	26.88
Estimates	Japan	29.73	30.22	30.84
	Japan- China	3.40	3.55	3.96

Source: United Nations, Department of Economic and Social Affairs, Population Division (2017). World Population Prospects: The 2017 Revision, DVD Edition.

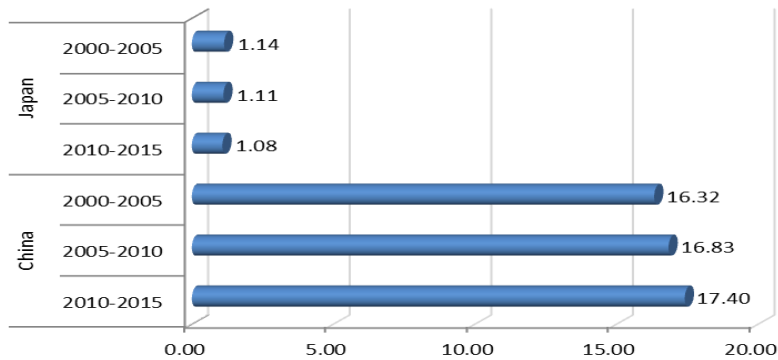
② Number of Births and Structure of Women by five-year age group in China and Japan

A. The variation trends of the sizes of the newly-born populations in China and Japan are opposite

The newly-born population in China continues to increase, and that in Japan continues to decrease. In 2000, the newly-born population in China was 16.32 million, and it increased to 17.4 million in 2015, with an average annual newly-born population increase of 6.61% from 2000 to 2015 and an average annual increase of 1.08 million people. The reason for the con-

tinued increase in the newly-born population in China could be related to the implementation of the two-child policy for the only child in recent years and the comprehensive two-child policy. Influenced by Confucian culture, in order to carry on the family line, most of Chinese young husband and wife give birth to their child after they married at the first several years. Especially after the two-child policy, most families have chances to have both son and daughter. So 2010-2015, the number of births in China is larger than before. Contrary to the constant increase trend of China's newly-born population, the newly-born population in Japan has been decreasing: the average annual newly-born population is reduced by 5.30% from 2000 to 2015, and the annual average newly-born population is reduced by 60,000 people (see Figure 7). The reason for the continued decline in the newly-born population in Japan could be related to the higher proportion of the unmarried in Japan, the excessive fertility pressure of married people, and the pursuit of personal quality of life.

[Figure III-3-7] Number of births by country from 2000-2015
(unit: million)



B. Composition of Number of Births by Age Group

The peak childbearing age of Chinese women is younger than that of Japanese women. The peak childbearing age of women in China has always remained at 20-24 years old, while that in Japan has delayed from 25-29 years old during 2000 and 2005, to 30-34 years old during 2010-2015. The peak childbearing age difference between Chinese and Japanese women increased from 5 years to 10 years in 2015 (See Table III-3-2). The Chi-Square test value of proportion of births by five-year age group of mother in China and Japan is 0.0000, which is less than 0.05. There is a significant difference between China and Japan.

〈Table III-3-2〉 Proportion of births by five-year age group of mother
(unit: %)

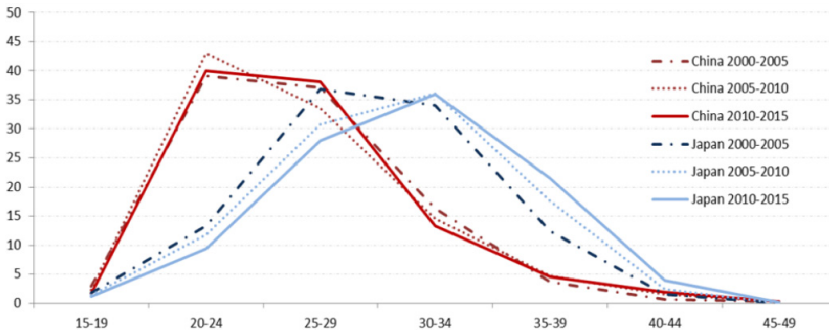
Country	Period	15-19	20-24	25-29	30-34	35-39	40-44	45-49	total
China	2000-2005	2.94	39.08	37.09	16.36	3.70	0.60	0.22	100.00
	2005-2010	2.36	43.07	33.53	14.55	4.71	1.53	0.26	100.00
	2010-2015	1.70	40.00	38.10	13.34	4.57	1.97	0.32	100.00
Japan	2000-2005	1.74	13.34	36.86	34.07	12.40	1.55	0.04	100.00
	2005-2010	1.44	11.74	30.77	36.02	17.56	2.41	0.06	100.00
	2010-2015	1.22	9.39	27.91	35.88	21.53	3.97	0.10	100.00

Source: United Nations, Department of Economic and Social Affairs, Population Division (2017). World Population Prospects: The 2017 Revision, DVD Edition

The peak curve of childbearing age of Chinese women has the characteristics of “high and wide”, the peak age of childbearing is concentrated in 20-29 years old, and the number of births given birth by women in this age group accounts for 76%-78% of the total number of births given birth by women aged 15-49. While the peak curve of childbearing age of Japanese women shows “low and slow”, the peak age of childbearing is concentrated in 25-34 years old and the number of births given birth by women in this age group only accounts for 60%-70% of the total number of births given birth by women aged 15-49. The proportion of children given birth by Chinese women at peak childbearing age is 5-14 percentage points higher than that by Japanese women at the peak childbearing age (See Figure III-3-8).

[Figure III-3-8] Proportion of births by five-year age group of mother

(unit: %)



Source: data come from table III-3-2.

With the passage of time, the age of Chinese women giving birth to children during 2000 and 2015 is becoming more and more concentrated and that of Japanese women giving birth to children is becoming more and more dispersed at the same period. From 2000 to 2015, the proportion of children given birth by Chinese women at the peak of childbearing age has increased from 76.17% during 2000-2005 to 78.10% during 2010-2015; the proportion of children given birth by Japanese women at the peak of childbearing age has decreased from 70.93% during 2000-2005 to 63.79% during 2010-2015, with a decrease of 7.14% in 15 years. In addition, the proportion of Chinese women who have children before the age of 30 has increased from 79.10% to 79.80%, while that of Japanese women who have children before the age of 30 has decreased from 51.94% to 38.52%. The difference between the proportions of

Chinese and Japanese women having children before the age of 30 has increased from 27.17 percentage points to 41.28 percentage points.

4) Conclusions and Discussions

The similarities between men's and women's marriages and fertility in China and Japan are mainly reflected in the decline in the proportions of unmarried men and women in China and Japan, the higher proportion of unmarried men than women, the increase in the proportions of divorced men and women, the increase in the proportions of widows, and the constant delay in the average childbearing age. And in terms of difference, there is a clear difference between the gender gap in the proportions of married and divorced men and women in China and Japan, the increase and decrease trend of the number of the annual births, and the proportions of children given birth to at the peak of childbearing age.

The features in Japan that the proportion of married women is lower than that of men, the proportion of divorced women is higher than that of men, and the average childbearing age of women is constantly delayed will inspire China in the following three aspects. First of all, the employment difficulties of Japanese married women and gender discrimination in employment reflected by the high proportion of unmarried wom-

en require the Chinese government to attach great importance to gender discrimination in employment and its possible impact on marriage. It's better for the Chinese government to take further positive measures to eliminate gender discrimination and promote women willing to marry to match work and marriage well. Secondly, with the increasing education level, employment level and economic self-reliance of women, their dependence on men in life is getting smaller and smaller, so women have greater autonomy and choice in divorce. Finally, the constant delay in the average age of childbearing may lead to elderly maternal age and damage to women's health. However, different provinces, autonomous regions and municipalities of China have deleted the relevant content of promoting late marriage and late childbearing in the revision of the population and family planning regulations, which is of great significance for the implementation of the comprehensive two-child policy and the promotion of women with the willingness of having the second child to avoid the problem of elderly maternal age.

4. Three-generation Co-residence and Life Satisfaction in East Asia

1) Introduction

As East Asian societies experience rapid social changes, one key issue of family studies emerges as to what extent East Asians maintain a particular pattern of living arrangement – three-generation co-residence (Raymo et al. 2015). In addition to examining the patterns of household compositions per se, other issues such as household members' well-being can be equally pressing. Does it indeed benefit most household members, for example, when family members from three or more generations live under the same roof? Who tends to benefit more physically or mentally, and who are more vulnerable to such a living arrangement?

Drawing data from both 2006 and 2016 Family modules of the East Asian Social Surveys (EASS), we first compare the extent of 3-generation co-residence across East Asian societies, and analyze who are more likely to live in a 3-generation household. We then examine how this living arrangement could be associated with one's well-being, using the extent of satisfaction with life as an overall outcome indicator. To explore such potential co-residence effects more comprehensively, we distinguish two main dimensions: the behavior of

actually living in a 3-generation household and the extent to which one treats the co-residence as an ideal or desirable living arrangement. In order to further investigate the relevant effects, we also differentiate age composition of the household members and identify whether one lives with parents or parents-in-law. While the simple and straightforward outcome measure of life satisfaction indicates the overall well-being, the combination of the factual and attitudinal dimensions could help deepen the understanding of the co-residence effects.

2) The significance of studying three-generation co-residence in East Asia

Compared to conventional norms in Western societies where living arrangements largely facilitate the duties and obligations of conjugal roles and nuclear family, one traditional norm of living arrangement in East Asia (as well as some other parts of Asia) focuses on the needs of the patrilineal extended family. The most popular type of such extended family households in many Asian societies is often referred to as three-generation co-residence (that is, when parents, grandchildren and grandparents sharing the same residence).

Extended families such as 3-generation households have been common in Southeast Asia and South Asia. In South Asia, in particular, about half of all households have been “extended

families” from the 1980s, primarily because a majority of the elderly live with their adult children, especially sons. Even though traditional norms of living arrangement face economic growth that pushes adult children to move away from extended family households, the actual pattern may have lingered and remained a peculiar regional social fact in South Asia, Southeast Asia, and East Asia (Chen et al. 2011; Yeung et al. 2018).

While such extended family households are common in some regions in Asia, similar patterns of 3-generation coresidence also could be present in Western societies. Amid family transition or when either biological parent is missing, for example, it is getting common for small children to live with at least one grandparent present. During a child’s birth, in particular, single mothers are more likely to live in a 3-generation household (Pilkauskas 2012). In addition, actual interactions between grandparents and grandchildren could be prevalent. For example, results from time-use diaries in the United States showed that about half of small children often spent free time (at least once a week) with their grandparents, even though only about 7% of children actually lived with grandparents (Dunifon et al. 2018).

Most of such 3-generation households in Western societies, however, are short lived and highly transitional (Pilkauskas 2012). Unlike these temporary, function-oriented coresidence

patterns, 3-generation co-residence in East Asia has been rooted in traditional cultural norms originated from the same Confucian model that demands peculiar gender roles in work and family roles. Amid pronounced similarities across East Asian societies, China has most likely exerted cultural influences on other parts of the region despite its unique political structure and demographic trends (Raymo et al. 2015).

Other cultural norms about extended family in East Asia indicate patterns similar to co-residence. In China, in particular, grandparents coresiding or living nearby give extensive care for their grandchildren, strengthening “intergenerational solidarity” that helps maintain or promote the wellbeing of both generations (Chen et al. 2011). Such cross-generational ties may vary within East Asia, however. In both China and South Korea, more precisely, geographic proximity plays a key role in distinguishing whether grandparents would provide childcare to grandchildren. Far more grandparents in China (58%), however, actually provide such childcare than that in Korea (6%) (Ko and Hank 2014).

Functionally, 3-generation households could benefit both young children and the elderly, whose needs for care in everyday life rely are far more demanding. In East Asia as well as other regions, one of the most consistent immediate benefits for such households has been the presence of maternal grandmothers (Zang and Campbell 2018). Unlike other regions where

coresiding grandparents provided partial and limited care to grandchildren, however, the actual well-being or downside of the coresidence pattern would need more explorations in East Asia.

Living with grandparents may lead to mixed effects in Western societies. Coresidence with grandparents in the United States, for example, tends to benefit the educational attainment of those children from single-parent households only (Monserud and Elder 2011). Measuring the effects on a broader scale, however, the presence of grandparents in family households with single parent may not buffer children from adverse schooling, health, or cognitive outcomes (Krueger et al. 2015).

While the literature on Western societies has paid much attention to how coresidence with grandparents may affect small children, the studies of East Asian coresidence also need to focus on the possible effects on other coresiding household members, particularly the elderly and the mothers. In China, coresidence serves as an essential context with which the exchange of economic, daily care, and emotional awards tends to benefit family members, particularly among older adults, as long as the living arrangement is consistent with their wishes. On the flip side, coresidence may strain one's feelings of well-being or hurt personal privacy (Chen et al. 2017).

It is obvious to examine the immediate or short-term benefits of coresidence on small children. The long-term effects,

however, have been more difficult to comprehend and analyze, with few exceptional empirical studies. Based on detailed analyses of historical data in China, for example, living with paternal grandmothers in one's childhood might have accumulated long-term effects of conflicts between mothers and their mothers-in-law, which eventually resulted in higher mortality among Chinese men in their later adult lives. Patterns of coresidence in childhood, thus, may actually have long-term consequences for mortality even though they may have benefited from short-term child care (Zang and Campbell 2018).

Similar conflicts between mothers and paternal grandmothers, or their mothers-in-law, also occur in other regions. In Muslim and Hindu families in South Asia, for example, children and grandmothers living in extended family households were better adjusted than those living in nuclear families. Mothers living in extended family households, however, faced greater risks from poorer mental health primarily because they gave away more support to families from other generations (Sonuga-Barke and Mistry, 2000).

In addition to examining the potential coresidence effects on small children and the elderly, thus, it is equally important to explore possible impacts for women in mid-life, the main caregivers in most family households. Often time the 3-generation coresidence patterns may play a role in distinguishing women's wellbeing. Such wellbeing, however, also may vary by other

household situations. In a study of the Pilipino families, for example, the classification of nuclear versus extended family alone showed little differences in terms of women's wellbeing. The change of particular family household members such as spouse or grandchildren, however, may lead to significant depressive symptoms (Chen et al 2017).

Following the findings from the above succinct literature and their implications, then, we aim to examine how 3-generation residence may impact one's well-being, in terms of overall life satisfaction. Because East Asian women play unique family roles, we plan to focus more on how such impacts could be present among women. To detect possible impacts from the stresses of raising small children and conflicts between mothers and paternal grandmothers who live under the same roof, we will also distinguish the particular age composition of household members, and identify which side of grandparents with whom one resides other.

3) Data and Measures

We draw data from both 2006 and 2016 Family modules of the East Asian Social Surveys (EASS). The 2006 data (N=9045) are based on synchronized surveys on the adult populations (age 18 or older) in China, Japan, South Korea (hereafter Korea), and Taiwan, while the latest version of the 2016 data

cover those from Japan, Korea, and Taiwan (N=5735). Because the 2016 module repeated most question items of the 2006 module, it is feasible to compare the extent of three three-generation co-residence over the decade in the region, as well as across different societies. For further analyses, however, we rely on the more comprehensive 2006 data, which include both key variables of three-generation coresidence, actual and ideal, in all four societies.

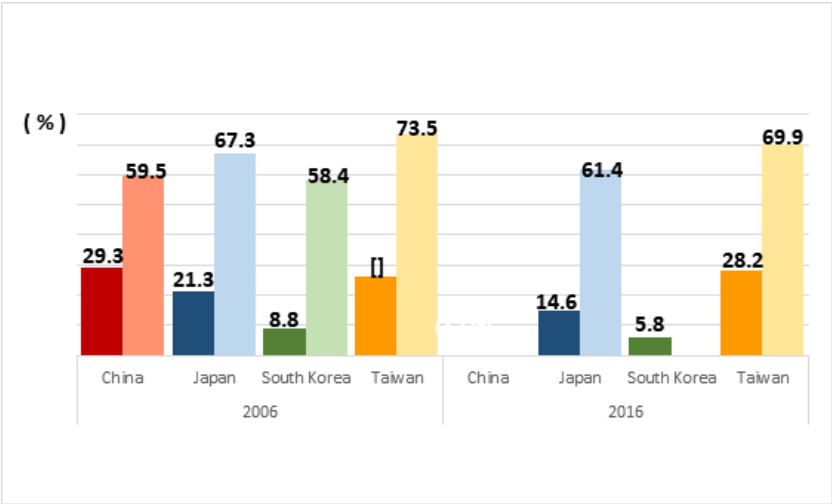
(1) Measures of 3-generation co-residence: actual and ideal

Three-generation co-residence is easy to understand and define, which means that family members from at least three generations live in the same household. It is more challenging, however, to measure such a living arrangement in a precise and consistent manner. To minimize such potential discrepancies, the EASS synchronized surveys used the same definition of operation with identical question items to facilitate direct comparisons.

In both modules, respondents first listed the family members who also lived in the same household, then identified each of the members by relationship, gender, age, and so on. Using the respondent as the focal person, we constructed a “3-generation co-residence” variable if the respondent lived with at least two other generations, disregarding the same-generation family

members such as spouse or siblings. The overall percentage of 3-generation co-residence in East Asia was about 23.0% in 2006, ranging from 8.8% in Korea, 21.2% in Japan, 26.1% in Taiwan, to 29.3% in China (Figure III-4-1). The overall rates in 2016 dropped in both Korea (5.8%) and Japan (14.6%), but increased to 28.2% in Taiwan.

[Figure III-4-1] Three-generation Co-residence in East Asia: Actual and Ideal (2006-2016)



To explore how 3-generation coresidence may affect one’s life satisfaction, it is important to distinguish those who believe it is an ideal or desirable living arrangement from those who think otherwise. We use the question item in both modules that asks respondents what they think about 3-generation

coresidence. The positive answer (ideal or desirable) prevailed in both 2006 (64.4%) and 2016 (65.1%), and the negative answer remained a minority. Because this “ideal” variable is expected to associate with life satisfaction, it would be interesting to also include the interaction term between “actual” and “ideal” factors, and to examine how the effect of actual coresidence holds while taking the “ideal” variable and the interaction term into account.

(2) Life satisfaction

The measure of life satisfaction is simple and straightforward, which taps the extent to which respondents are satisfied with their lives. The question asks: “All things considered, how satisfied are you with your life as a whole these days?”. The original answering categories range from 1 “very satisfied” to 5 “very dissatisfied”. Because the last response category (very dissatisfied) yields too few answers (2.2.% in 2006 and 1.9% in 2016), we combined the two negative categories (“very dissatisfied” and “somewhat dissatisfied”) into one and used the reverse-order ordinal categories ranging from 1 “dissatisfied” (12.5% in 2006 and 11.9% in 2016), to 4 “very satisfied” (9.3% in 2006, 13.7% in 2016).

(3) Control variables

While examining how life satisfaction varies by 3-generation coresidence, it is essential to take basic demographic and socioeconomic characteristics into account. To keep the analysis of such background information as succinct as possible, we selected six control variables: gender (male=1), age (with age square to reveal possible nonlinear effects), marital status (married=1), education (from 0 “none” to 5 “graduate degree”), whether the respondent worked at the time of the survey fieldwork (working=1), the urbanization level of the respondent’s residence, and the subjective rating of one’s own social status (from 1 to 10, the highest, but the variable was missing for China).

Constructed from independent scales of urbanization from each of the four datasets in 2006, urbanization may not be directly compatible across the four societies. Because the scale in each society corresponds to each other well (ranging from 1 “rural areas” to 4 “big cities”), however, the measure should help reveal how 3-generation coresidence and life satisfaction vary between rural and urban areas. The 2016 module adopted a more universal scale that allows respondent to select one from rural, town or small city, suburb of big city, and big city, thus providing a scale that taps respondents’ subjective (and hopefully more compatible) evaluations of their residence.

Another socioeconomic index, income, also could be an important background variable that helps understand who live in a 3-generation household or who are more satisfied with life. As in many other surveys, however, the information about personal income is either missing or non-applicable among a significant proportion of respondents in the 2006 EASS module. In China, for example, 19.7% of the national sample contained invalid responses to personal income, as did 26.7% in Japan, 45.2% in Korea, and 33.6% in Taiwan. These “missing” cases included those who did not work for monetary reward, did not work at all, or chose not to answer the question. Adding the income variable into the models, thus, would have severely reduced the size of sample for multivariate analyses. To avoid losing the cases up to 45% for regression analyses, therefore, we chose to use education level and self-rated status for socioeconomic background, which are both correlated with personal income at the 0.001 significance level.

4) Results

As suggested earlier, one key factor to the understanding of how life satisfaction varies by 3-generation coresidence relies on the interaction between the “actual” and “ideal” factors. Before differentiating such coresidence effects across societies, thus, it should help to analyze the background of both the fact

and perception of 3-generation coresidence. In addition to examining the coresidence effects per se, furthermore, it is also revealing to identify several patterns or types of family composition relevant to the coresidence, including the presence of small children and the differences in living with paternal/maternal grandparents.

(1) Background of 3-generation coresidence

Like the overall percentages of both actual and ideal 3-generation coresidence, the interaction of the two factors had been also stable from 2006 to 2016 in East Asia as a whole. Among those who lived in a 3-generation household, about 76.7% in 2006 believed that the living arrangement was desirable, and that percentage only increased slightly in 2016 (78.9%, Table III-4-1). In comparison, only 60.7% in 2006 and 61.5% in 2016 believed so. Overall, in other words, the behavior of and attitudes toward 3-generation coresidence correspond to each other well, which should play an important role in distinguishing the overall life satisfaction. For those who live in a 3-generation household but think it is an undesirable living arrangement, however, this specific living arrangement could be a stress and detrimental to well-being.

(Table III-4-1) Cross-tab of actual and ideal 3-gen co-residence

3-gen co-residence desirable	2006			2016		
	0	1	Total	0	1	Total
0	2,693	481	3,174	1,403	200	1,603
	39.3	23.3	35.6	38.5	21.1	34.9
1	4,161	1,587	5,748	2,238	746	2,984
	60.7	76.7	64.4	61.5	78.9	65.1
Total	6,854	2,068	8,922	3,641	946	4,587
	100.0	100.0	100.0	100.0	100.0	100.0

At first glance, those East Asians who live in a 3-generation household differ from those who do not in terms of demographic and socioeconomic status. Among respondents who live in 3-generation households, about 44.0% are males, lower than that (46.9%, Table III-4-2) of other living arrangements. Compared to other types of arrangements, the 3-generation coresiding respondents are also older, more likely to be married, less-educated, and living in rural areas.

〈Table III-4-2〉 Key variables by actual 3-gen co-residence

Variable	Mean	S.D.	Min	Max
gen3=1(N=2083)				
male	.440	.496	0	1
age	47.6	16.0	18	91
age2	2520	1608	324	8281
married	0.808	.393	0	1
education	2.323	1.380	0	5
urbanization	2.474	1.111	1	4
working	0.730	.443	0	1
status	5.292	1.735	1	10
lifesatisfaction	2.531	.816	1	4
gen=0 (N=6962)				
male	0.469	.499	0	1
age	44.9	16.0	17	92
age2	2269	1545	289	8464
married	0.689	.462	0	1
education	2.898	1.430	0	5
urbanization	2.890	1.053	1	4
working	0.706	.455	0	1
status	5.141	1.687	1	10
lifesatisfaction	2.468	.831	1	4

Note: The variable of "status" is missing for China. All other variables are for China, Japan, Korea, and Taiwan.

Some of these background factors turn out to be inconsistent after we also take other factors into account in multivariate logit regressions, or differ across the four societies. The gender effect, for example, is only significant in Japan. The age effect, furthermore, becomes U-shape: somewhat older respondents are actually less likely to reside with family from two other generations (in Japan and Taiwan), but the oldest respondents are all more likely to do so in China, Japan, and Taiwan (Table III-4-3a).

〈Table III-4-3a〉 Socio-demographic Background of actual 3-generation co-residence

Indep Var	China	Japan	Korea	Taiwan
male	0.046 (.083)	-0.297** (.116)	-0.321 (.196)	-0.085 (.109)
age	-0.045 (.023)	-0.074*** (.023)	0.020 (.041)	-0.072*** (.021)
age2	0.001* (.000)	0.001*** (.000)	0.000 (.000)	0.001** (.000)
married	0.840*** (.139)	0.420*** (.146)	-0.013 (.240)	0.986*** (.145)
education	-0.108** (.040)	-0.128** (.049)	-0.066 (.087)	-0.286*** (.046)
urban	-0.165*** (.036)	-0.301*** (.060)	-0.301* (.138)	-0.217*** (.055)
working	0.041 (.132)	0.222 (.138)	0.411* (.208)	-0.220 (.129)
status	- -	0.106*** (.033)	0.036 (.060)	0.018 (.032)
_cons	-0.255 (.450)	0.629 (.591)	-1.755 (1.03)	1.624** (.515)
N	3206	2080	1576	2051
Pseudo R square	0.035	0.033	0.022	0.065

Note: The variable "status" is missing for China.

* p < .05, ** p < .01, *** p < .001.

〈Table III-4-3b〉 Socio-demographic Background of the perception of 3-gen. co-residence

Indep Var	China	Japan	Korea	Taiwan
male	0.229** (.078)	0.201* (.100)	0.618*** (.115)	0.590*** (.106)
age	-0.035 (.021)	0.037 (.020)	-0.004 (.024)	0.039 (.021)
age2	0.000 (.000)	0.000 (.000)	0.000 (.000)	-0.000 (.000)
married	-0.212 (.117)	-0.316* (.123)	-0.205 (.147)	-0.111 (.132)
education	-0.284*** (.038)	0.070 (.043)	-0.001 (.052)	-0.110*** (.044)
urban	-0.273*** (.034)	-0.103* (.051)	-0.067 (.087)	-0.191*** (.056)
working	-0.036 (.125)	0.050 (.119)	0.139 (.119)	0.308** (.125)
status	- -	0.024 (.028)	-0.074* (.036)	(.014) (.033)
_cons	2.482*** (.409)	-0.241 (.512)	0.816 (.600)	0.194 (.482)
N	3206	2046	1504	2045
Pseudo R	0.058	0.007	0.026	0.044

Note: The variable "status" is missing for China.

* p < .05, ** p < .01, *** p < .001.

Two other factors remain to be strong in distinguishing who reside in 3-generation households. In all but Korea, married and less-educated respondents are far more likely to live in 3-generation household. The other factor, urbanization, exerts even stronger and more consistent significant effects on 3-generation co-residence. Across East Asian societies, 3-generation co-residence remains a predominantly rural social phenomenon. Considering the large logit coefficients in China, Japan, and Taiwan, it is very likely that the crowded housing complex in the city leaves little space for such extended families, while the traditional norms of living with (mostly paternal) parents after getting married and having one's own children remains more popular in the countryside. Not only does such a rural phenomenon apply to the patterns of actual 3-generation co-residence, but it also prevails when we examine how the perception varies by individual background. As the case with actual 3-generation co-residence, more rural residents take 3-generation to be ideal or desirable (except for Korea, Table III-4-3b).

The education effect also remains negative in the perception of 3-generation co-residence, although being significant only in China and Taiwan. In comparison, two background factors exert different effects from that of the actual co-residence. Even though married respondents are more likely to live in 3-generation households, for example, they believe that such a

living arrangement is less desirable. The most consistent and significant factor, however, turns out to be the gender effect: compared to women, men in all East Asian societies overwhelmingly say that 3-generation co-residence is an ideal or desirable living arrangement (Table 3b). In contrast to such a big gender gap in perception, nonetheless, men are actually less likely to follow this particular living arrangement while taking other demographic and socioeconomic background factors into account (Table 3a). In other words, female East Asians are more likely than males to actually live in 3-generation households, particularly in Japan, but they strongly disapprove such a peculiar living arrangement compared to their male counterparts in the country.

(2) How life satisfaction varies on 3-generation coresidence

Given the gaps between behaviors and perceptions, and the obvious gender differences, it is noteworthy to pay special attention to whether and how 3-generation co-residence impedes life satisfaction among those coresiding respondents, particularly women, while controlling for their perceptions about the arrangement. In addition to examining the effects of the fact and the perception of the living arrangement separately, it would further reveal whether and how the interaction of the two factors play any roles in differentiating one's life

satisfaction.

With such an interaction term in the models, the links between 3-generation coresidence and life satisfaction become a somewhat complex issue. First of all, one's life satisfaction varies significantly on age, marital status, and socioeconomic status (including education level and self-rated status). Across different societies in East Asia, those in the mid-age groups tend to be less satisfied in their lives in general, but the oldest groups become significantly more satisfied. The married and the more-educated respondents are significantly more satisfied with life than their counterparts within each respective society ($p < .001$ for marital status in all four societies, and for education in both China and Korea, Table III-4-4). Most notably, the higher respondents rated their own social status, the more satisfied they are with life in general ($p < .001$, for Japan, Korea, and Taiwan).

(Table III-4-4) The Co-residence effects on life satisfaction with interaction term

Indep Var	China	Japan	Korea	Taiwan
gen3actual	0.139 (.279)	-1.016* (.439)	-0.433 (.640)	-1.319** (.480)
gen3ideal	0.217 (.214)	-0.505 (.294)	0.001 (.408)	-0.307 (.317)
inter.term	-0.039 (.161)	0.513* (.241)	0.329 (.369)	0.674*** (.258)
male	-0.128 (.071)	-0.053 (.088)	-0.154 (.104)	-0.411*** (.089)
age	-0.137*** (.019)	-0.095*** (.018)	-0.068** (.023)	-0.041* (.017)
age2	0.001*** (.000)	0.001*** (.000)	0.001*** (.000)	0.000* (.000)
married	0.841*** (.108)	0.571*** (.108)	0.453*** (.135)	0.494*** (.111)
education	0.322*** (.035)	0.086* (.038)	0.064*** (.048)	0.057 (.037)
urbanization	-0.065* (.032)	-0.022 (.045)	0.062 (.078)	0.050 (.045)
working	-0.136 (.112)	0.036 (.104)	0.104 (.109)	-0.109 (.108)
status	- -	0.319*** (.026)	0.343*** (.034)	0.212*** (.028)
_cut1	-4.378 (.408)	-2.140 (.510)	-0.166 (.668)	-0.624 (.471)
_cut2	-1.604 (.401)	-0.868 (.510)	1.773 (.670)	0.424 (.470)
_cut3	1.227 (.403)	3.078 (.514)	4.084 (.677)	3.190 (.476)
N	3206	2044	1504	2045
LogLikelihood	-3338	-2424	-1778	-2307
Pseudo	0.027	0.046	0.048	0.032

When all these background factors are held constant, patterns of 3-generation co-residence play some additional roles in life satisfaction. Even though those living in 3-generation household appear to be more satisfied with their lives (Table III -4-3), the effect becomes negative as long as we also consider respondents' perception about the arrangement and the interaction term of the actual and ideal factors. Compared to those who live with no more than one other generation, for example, the coresiding respondents score 1.029 lower along the 1-4 scale of life satisfaction in Japan ($p < .05$), and 1.406 lower ($p < .01$) in Taiwan. When these coresiding respondents also believe that 3-generation co-residence is desirable, however, they tend to be a lot more satisfied with life in general, again in both Japan ($p < .05$) and Taiwan ($p < .01$).

To clarify the discrepancies between the fact and perception about 3-generation co-residence, it is important to further distinguish how such effects on life satisfaction differ between men and women. Because the Chinese subsample shows no significant coresidence effect, we focus on the other three societies (with "self-rated status" in the models) to further discern the gender gaps.

(Table III-4-5) Gender differences in the co-residence effects on life satisfaction

	Males		Females	
Japan				
3-gen actual	-0.554	(.892)	-1.151*	(.517)
3-gen ideal	-0.288	(.531)	-0.571	(.374)
interaction(actual*ideal)	0.314	(.471)	0.549	(.292)
Korea				
3-gen actual	1.270	(1.24)	-1.319	(.767)
3-gen ideal	1.151	(.731)	-0.678	(.519)
interaction(actual*ideal)	-0.773	(.675)	1.003*	(.462)
Taiwan				
3-gen actual	-0.441	(.791)	-1.995**	(.614)
3-gen ideal	0.015	(.498)	-0.549	(.423)
interaction(actual*ideal)	0.248	(.417)	1.023**	(.337)

* $p < .05$, ** $p < .01$, *** $p < .001$.

Notes: All models also include the following control variables: age (and age square), marital status, education, urbanization of residence, work status, and the subjective rating of one's own social status.

Among male respondents, none of "actual", "ideal", or the interaction term turn out to be significant in distinguishing who have better life satisfaction (Table III-4-5). For women, however, the patterns are more obvious. Overall, the coresidence effects closely resemble that of the Japanese and Taiwanese men and women combined (as shown in Table III-4-4). East Asian women are more satisfied with their lives if they live in 3-generatrion households and think that kind of co-residence is ideal ($p < .001$, Table 5), when taking both factors of 3-generation co-residence into account. The effect is particularly apparent for women in Korea ($p < .05$) and Taiwan ($p < .01$), but

not significant among Japanese women.

When all three coresidence factors are taken into account in the same model, furthermore, living in 3-generation households actually exerts negative effects on life satisfaction for East Asian women. Compared to those who live with no more than one generation, the coresiding women reported significantly poorer life satisfaction, with a 1.248 coefficient lower along the 1-4 scale ($p < .001$). Such a negative co-residence effect remains significant, particularly in both Japan ($p < .05$) and Taiwan ($p < .01$), while controlling for both residence patterns and sociodemographic background factors. Women in Japan, Korea, and Taiwan, in other words, seem to suffer more than men from living with at least two other generations, regardless of their age, marital status, education, urbanization of residence, work status, and the self-rated social status.

Because 3-generation co-residence includes quite different patterns in terms of age composition and the types of kinship involved, it is worthy to further investigate how co-residence effects on life satisfaction among women may differ by such patterns. To highlight such patterns, we constructed two dummy variables of age composition: at least one child under age 6, and at least one child between ages 7-17; and two dummy variables that indicate whether the respondent lives with one's own parents or with parents-in-law. The age composition variables serve to detect the possible stress of raising small children,

while living with different side of parents (or grandparents) also could be a factor in one's life satisfaction.

In all East Asian societies other than China, age composition of household members or co-residence with parents/parents-in-law does play some important roles in explaining the co-residence effects on life satisfaction. In Japan, for example, living with at least a child between ages 7-17 turns out to be a negative in life satisfaction for women ($p < .05$, Table 6). In both Korea and Taiwan, furthermore, living with parents-in-law also proves to be detrimental to women's life satisfaction. Such a negative effect is particularly acute in Korea, where the "in-laws under the same roof" factor brings women's life satisfaction down 1.552 points along the 1-4 scale ($p < .001$), showing a very strong impact from the living arrangement.

Whereas the 3-generation co-residence shows some negative effects among women in Japan and Korea (Table III-4-5), then, such effects become non-significant after we also consider age composition and the in-law factor. In other words, the negative impact of living in 3-generation households among Japanese women is mainly due to the presence of children ages 7-17. Similarly, the co-residence effect among Korean women can be attributed to living with the husband's parents. In comparison, the co-residence effects among Taiwanese women remain strong and significant even after we take into account both age

composition of the household members and which side of parents with whom one coresides. For women in Taiwan, that is, living with parents-in-law lowers one's life satisfaction regardless of the coresidence and other circumstances, and living in a 3-generation household shows similar negative consequence regardless of household members' age composition, in-law, and other individual background factors.

(Table III-4-6) The relevant co-residence effects on women's life satisfaction

IndepVar	Japan	Korea	Taiwan
3-genactual	-0.864 (.551)	-0.138 (.831)	-1.746** (.628)
3-genideal	-0.525 (.379)	-0.533 (.516)	-0.550 (.423)
interaction(a*i)	0.499 (.298)	0.859 (.459)	1.030** (.337)
childunder6	0.058 (.194)	0.099 (.205)	-0.087 (.179)
child7-17	-0.364* (.145)	-0.160 (.149)	0.036 (.142)
livew/parents	0.051 (.233)	-0.638 (.335)	-0.404 (.256)
livew/pa-in-law	-0.303 (.234)	-1.552*** (.470)	-0.551* (.264)
age	-0.099*** (.027)	-0.072* (.035)	-0.054* (.026)
age2	0.001*** (.000)	0.001 (.000)	0.000 (.000)
married	0.442** (.162)	0.372 (.216)	0.595** (.184)
education	0.109 (.06)	0.104 (.068)	0.073 (.056)
urbanization	0.016 (.062)	0.232* (.106)	0.047 (.068)
working	-0.110 (.136)	0.031 (.137)	-0.201 (.150)
status	0.344*** (.035)	0.344*** (.047)	0.129** (.041)
_cut1	-1.332 (.786)	0.514 (1.07)	-1.317 (.768)
_cut2	0.808 (.785)	2.571 (1.07)	-0.200 (.767)
_cut3	3.087 (.791)	4.937 (1.08)	2.676 (.771)
N	1115	831	1007
LogLikelihood	-1302	-960	-1090
Pseudo	0.056	0.063	0.034

* p < .05, ** p < .01, *** p < .001.

5) Discussion and Conclusion

Over the decade from 2006 to 2016, the 3-generation coresidence patterns in each East Asia society had largely remained stable, ranging from 8.8% to 29.3% in 2006, and from 5.8% to 28.2% in 2016. The variation within the region, however, was relatively large. Despite the variation, however, East Asians from all four societies perceive such a coresidence pattern most favorably in both 2006 and 2016: nearly two-third of respondents believed that 3-generation households were an ideal or desirable living arrangement.

The interaction of the actual and ideal factors of 3-generation coresidence plays important roles in differentiating East Asians' life satisfaction. Living with at least two other generations helps promote life satisfaction only under the circumstance that one takes such coresidence as a desirable living arrangement. Otherwise, living in a 3-generation household could be actually detrimental to life satisfaction, particularly among women. The negative main effect of 3-generation coresidence among East Asian women is noteworthy for two reasons. First, the effects become significant while controlling for the "ideal" factor and the interaction term, as well as demographic and socioeconomic background. Second, under the same circumstances, the coresidence effect remains non-significant among East Asian men.

Further analyses reveal subtle negative coresidence effects among women. Such negative effects may actually result from the presence of at least one child aged 7-17, as the case with Japan, or from living with one's parents-in-law, as the case with Korea. The negative coresidence effect for women also may linger even though living with parents-in-law also harms one's life satisfaction, as the case with Taiwan. For East Asian women, therefore, the 3-generation coresidence could be detrimental partly because the accompanying stress results from raising pre-teen and teenage children in such extended-family households. Another source of stress may well be tense relations between mother and coresiding paternal grandmother, or similar family conflicts among other family members.

The relationship between "actual" and "ideal" three-generation co-residence could be complicated and hard to untangle. To justify using the perception variable to "moderate" the effect of actual co-residence, we tried different analytical strategies to explore other alternative relationships between the two. In particular, we used the "ideal" variable as a mediating variable in separate ordered logit regression analyses for each country, and compared the results with that of the models reported in this paper. We also reevaluated the merits of using the perception factor as a moderating variable versus a mediating variable.

Based on the results of alternative analyses and relevant the-

oretical arguments, it should help to elaborate why it is more reasonable to use the perception factor as a moderating variable. First of all, the main theme of the paper focuses on whether and how the 3-generation co-residence is associated with the degree of life satisfaction. Because attitudes and behaviors are always closely intertwined, it is very likely that actual co-residence and the perception about it may influence each other. The fact of co-residence, however, reflects the extent to which people conform to the core conventional norm about such a living arrangement in East Asian culture. In other words, it is natural to assume that the actual experience of living with two other generations in the same household leads to different perceptions about the arrangement. When people enjoy or benefit from co-residence, it becomes an "ideal" arrangement for them and life will be more satisfactory. When they dislike or suffer from family life, the living arrangement will be an obvious factor to blame and their lives in general also will feel miserable.

The argument for reverse causation also would be plausible and relevant: those who perceive co-residence as ideal may actually arrange for or join such a household, and those who do not believe so may try to avoid it. When their actual living arrangements match what they wish for, then, they should be more satisfied with their lives. Like other family matters, however, living arrangement may not be voluntary and often gets

complicated. Although all respondents have a chance to express their perceptions or assessments regarding the 3-generation co-residence, in particular, not everyone is able to follow one's own perception or assessment with actual behavior. For some, the co-residence arrangement is not applicable simply because they do not have family members from two other generations. For others, the co-residence pattern could be the only option due to various reasons, such as strong expectations by family members (especially by elderly members), urgent needs (e.g., having grandparents to help taking care of small children), limitation of living space, the lack of economic independence or financial resources, and so on.

In other words, which family members to live with actually depends on an array of circumstances rather than one's own preferences. The structural constraints imposed by conventional norms, family obligations, and economic situations, in particular, may force some East Asian women to experience 3-generation co-residence regardless of their wishes. That kind of unsolicited co-residence, in turn, lowers their life satisfaction. As implied in the literature, such a gender gap in how 3-generation co-residence is linked to life satisfaction may have resulted from women's gender roles in family life. When living with more family members from different generations, women can easily become overloaded by heavy duties in cooking, cleaning, washing dishes, doing the laundry, taking

care of small children and the elderly, among other family chores. The daily hassle or stress often lingers or gets worse when conflicts occur between co-residing family members, especially the conflicts between mother and paternal grandmother. Because only women's, rather than men's, life satisfaction varies significantly by the patterns and perception of three-generation co-residence, women's tense relationship with co-residing mother-in-law could be the core of the problem associated with three-generation co-residence.

Future studies should benefit by clarifying the temporal order of the co-residence arrangement. For example, the length of co-residence should be critical to one's wellbeing, as is the timing or the stage of life cycle when the 3-generation co-residence is in effect. The negative impacts from family conflicts, in particular, tends to escalate over time for some. Some of the daily hassle associated with co-residing with others, however, could become less of a problem once family members get used to it or find a way to adapt to the household routine. Knowing the length of co-residence would help clarify such complicated issues. As the findings suggest, furthermore, co-residence actually exerts no significant direct effects on life satisfaction among Japanese and Korean women once we take into account whether small children are present in the household and which side of parents one lives with. Does the extra stress of raising small children while also dealing with other co-residence issues

subside once the children grow older? Future research designs with more temporal information also would allow us to better explore such chronological issues.

Because much well-being of family life relies on the patterns of living arrangement, it is worthy to further pursue detailed analyses about such 3-generation coresidence in East Asia, particularly when the 2016 Chinese dataset is cleaned and available. The preliminary analyses in this paper indicate obvious and consistent gender differences in how the coresidence patterns affect personal well-being in East Asia. It would be also important to explore other potential gender gaps in how family structures are linked to well-being, as well as the extent to which such gender gaps resemble or differ from that in other regions of the world.

IV

Conclusion

IV

Conclusion <<

We analyzed the changes from various dimensions of family studies in Korea, Taiwan, China and Japan using data from the 2006 and 2016 East Asian Social Survey (Family Module). Based on the analysis, we have found some common features and differences.

Except Japan, societies of Korea, Taiwan and China have experienced a dramatic fertility decline after 1970. For Japan, the change was gradual. However, the rapid expansion of women's higher education has resulted in great changes in the attitude toward traditional gender roles in Taiwan and South Korea. Better-educated women in Taiwan and Korea strongly support the egalitarian family values. From that point of view, Taiwan and Korean societies experienced rapid changes in gender-related values. There is evidence that better-educated women in Japan, China, Thailand and Vietnam also support such values. However, in comparison, this change is gradual in Japan. Equalizing the chances of men and women in society is presently one of the major policy goals across the world. Better-educated young women in each society are expected to function as carriers of ideas on gender equality. The model of life that stress active participation in labor force activities for

women with higher levels of education has diffused worldwide. However, the effects of educational expansion in any particular society can vary.

In our study, we have examined the type of family households in East Asian countries. In societies which have experienced rapidly changing global economy and political climates, families have adapted their family roles and family structures. The Japanese have transformed their family values relatively earlier compared with South Korea and Taiwan. But their family roles (behaviors) seemed to have adapted only to a certain extent. The most popular type of an extended family household in many Asian societies is often referred to as three-generation co-residence (that is, when parents, grandchildren and grandparents are sharing the same residence). The interaction of the actual and ideal factors of 3-generation co-residence plays important roles in differentiating East Asians' life satisfaction. For instance, living with at least two other generations helps promote life satisfaction only under the circumstance that one takes such co-residence as a desirable living arrangement. Otherwise, living in a 3-generation household could be detrimental to life satisfaction, particularly among women. The negative main effect of 3-generation co-residence among East Asian women is noteworthy for two reasons. First, the effects become significant while controlling for the "ideal" factor and the interaction term, as well as demographic and socio-

economic background. Second, under the same circumstances, the co-residence effect remains nonsignificant among East Asian men. Because only women's, rather than men's, life satisfaction varies significantly by the patterns and perception of three-generation co-residence, women's experience of relationship barriers pertaining to co-residing with mother-in-laws could be the core of the problem associated with three-generation co-residence. The preliminary results show an increasing share of childless, single, and dual-earner households over the past ten years. Married men participate more in parenting but not domestic chores in Taiwan.

In China, marriage may not bring happiness, but there is less agreement on divorce being the best solution. This contradicts with the rising divorce rates in China. The rise or fall of marriage rate and divorce rate in a society is not determined by any single factor. Thus, the government for each nation should aim to protect and grant equal rights to all—for those who delay marriage, those who choose not to marry and those who choose divorce.

Traditional filial norms are still functioning in Chinese society and could be further strengthened in the long run. However, modern ideas are also challenging older patriarchal values, such as inequality between men and women. Also in China, when comparing 2006 and 2017, the proportion of co-residence with parents among unmarried respondents de-

creases, while that of married respondents who live with parents or in-laws remains unchanged. The intergenerational support between respondents and their parents increases in general. These are interesting findings, indicating less co-residence but more mutual support between generations in China. In terms of gender preference for child, more respondents explicitly express their preference for a boy or a girl. Although most respondents indicate they have no preference, more respondents would prefer a boy than a girl. Further study is needed to find out why the proportion of "no preference" decreases given the economic and cultural changes in China during the past decade. What are they expressing when they are showing their gender preference for child? The policy implication of this is regarding balancing sex ratio in the society.

In terms of gender roles in the family, the respondents' attitudes toward gender roles in the family tend to be more towards in support of equality. The decrease in the three items are all statistically significant. Female respondents tend to be more equal than male respondents. This echoes with women's increasing participation in work life.

Under the family-oriented regime, the improvement of women's educational and occupational opportunities are incompatible with family formation. Women are generally forced to choose between staying home to take care of their children or their parents, and postponing family formation to continue

their work. The opportunity cost of not staying in the workforce is high when the service economy is well developed and when women's work careers are extended with rise in women's educational standard. As a result, women tend to marry later and have fewer children. Similar to Japan, southern European countries with birthrates that are the lowest among advanced countries (such as Italy and Spain) are also categorized as having family-oriented regimes. What are observed in Japan are the proportion of married women being lower than that of men, the proportion of divorced women being higher than that of men, and the average childbearing age of women being constantly delayed. This argument is applicable to both South Korean and Taiwanese cases; both societies share the same Confucian traditions. Japan, Korea and Taiwan are now facing a sharp decline in their birth rates.

We found that while Koreans generally become nontraditional about family and gender values over the ten-year period, we cannot conclude with assertion that they have completely turned away from traditional viewpoints. Koreans still show pronounced Confucian family values in some grounds—for example, father's role in family or marriage's significance in life. Then why are Koreans still sticking to conventional attitudes but are more open towards, for instance, gender roles or international support? This diversification in attitudes about family and gender could be associated with some recent social

changes such as women's educational attainments and economic participation and growing generational polarization of financial resources. Therefore, future studies should incorporate social and economic dimensions to reach a more complete understanding of changes in attitudes.

This study has some important implications to policy makers. Often, policy makers assume that most Koreans are in support of the modern ideas of the family, such as equal treatment of cohabiting couples with marital couples or more economic support to older generations from the government. But this study suggests that many Koreans are still following Confucian traditions. For example, they believe that adult children should take the main responsibility for their older parents and the government should be limited in giving aids to the old. They also believe that marriage is a sacred thing and so getting divorced should be very difficult. Hence, the government will need to communicate with the public and attain common ground with the general population before it takes some legal and policy actions.

We have also examined the family values in four East Asian countries. Men are more traditional than women in terms of financial support given to the elderly except for Taiwan, and gender gap remains largest in Japan. People tend to attribute more responsibility for taking care of the elderly to the state in Taiwan. But more than half of the respondents believe that pa-

rents or families should be the primary providers of children's educational expenses in Taiwan. Women are more negative about marriage benefits except for Korea, and the gender gap is the largest in Taiwan. Women's values appear to be changing more rapidly than men in Korea. These tensions could exacerbate the later and less marriage in regard to increased costs of marriage for women and delayed change of familial roles for men. In this sense, to promote family formations requires a specific policy objective, adopting a wide range of policies would help women to promote work-family balance by changing deeply embedded family and gender attitudes in the family, workplaces, and institutions.

In an effort to better understand the changes taking place in East Asia, we found differences and similarities among these four East Asian societies. As mentioned above, we found the tensions due to a limited change in family expectations and obligations even after experiencing a rapid change of global economy and political climates, whereas more egalitarian gender values rooted in young generations in East Asia. Tensions in the gender role attitude largely determine the formation of the family and further affects family relationships and satisfaction. Understanding this framework is essential to those policy initiatives in that this allows responsiveness and correct interpretations of the current declining rates of marriage and fertility. More importantly, the promotion of family formation

is an important policy objective, documentation of the distinctive pattern of family change in East Asia should receive more attention.

The most meaningful contribution of this study is its comparative and longitudinal analysis of the families in change, with emphasis on subjective dimensions of the family change and investigates the behavioral and structural aspects of it as well. Moreover, by systematically analyzing various family-related attitudes, we provide a clear picture how the change in gender role perception plays as fundamental drives for the other domains of family change, including family formation, intergenerational relationship, and satisfaction with family relationships.

In fact, this study aims to compare a decade of change in family relationship, family formation, and values and attitudes regarding family in four East Asian countries including South Korea, China, Japan and Taiwan. Since this study is based on an analysis of the East Asian Social Survey data, it would not be comprehensive to extract policy solely based on the results, but the findings of the study could offer detailed implications through family policy comparisons in South Korea. The implications are as following:

First, this study shows that traditional family support system for elderly parents is diminishing quickly. Taking into account the rapid population ageing problem faced by these four East

Asian countries including South Korea, changes in family support system calls to attention to a welfare system to be in place to balance out this change. Keeping to mind that in past South Korea, family members not only supported elderly parents financially but also provided social and emotional supports, future policies on elderly welfare should be able to also deliver roles that fulfill both financial/instrumental and mental/emotional support. For the elderly, working policies would recognize local differences, enabling community participation and expansion of social networks.

Second, the findings of analysis of all four countries reveal gender role changes within the family. Women's roles have shifted from familial responsibilities to economic activity and social engagement. Conflicts that arise due to gender role changes within the family can only be countered if men's gender role and social environment also change. This calls for social policies that reduce gender discrimination and male-focused company culture at work, and support for working moms such as child care support that can aid women's economic activity. From a macro perspective, policies need to instill change in social structures that can affect the work atmosphere in its entirety including working hours and industry structures. When gender role changes are not supported at the social level, familial conflicts could expand to stratification and conflicts within social settings. Policies that target these rising conflicts

seem central for all four countries of analysis that face problems of low birth rate and aging population.

Third, the results of this study imply that new family forms have appeared in East Asian countries that calls for appropriate policies. New family forms may include single-parent families caused by divorces, childless marriages, combined families with siblings of different parents due to remarriages, cohabitation without marriage, and families formed by members not related by blood. Family form changes need to be backed by policy changes that can reduce conflicts that arise from shifting trends. Family support policies that target traditional hetero-patriarchy families where man provides financially and woman takes care of the household raising children they have given birth to is limiting to one family form. In East Asian countries where traditional values still uphold the ideal family form, other family forms could be stigmatized and excluded. Future policies need to embrace various forms of family and cater to specific needs for each family.

Upon analyzing four East Asian countries, it can be concluded that changes in structure and values of family not only evidences a weakening of traditional Confucian values but may induce a structural shift combined by other social factors such as economic activity, industry structure and education. Therefore, social policy should not focus on microscopic agendas but rather base future changes on a policy paradigm that

encompasses all social factors both inside and outside of family.

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