

Gendered Patterns and Solidarity of the Unions: Differentiations between International Marriages and Domestic Marriages in China

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Abstract

With implementation of the economic reform, opening-up, and family planning policy, China has experienced profound socioeconomic and cultural changes since the late 1970s. Following the relax of migration control, the country's youthful structure of population and adequate labour force contributes to its geospatial imbalanced socioeconomic prosperity and large scale of emigration. Recently, with China's economic success, the internal and international migration has increased while international marriages experienced dramatic increase and decrease, which requires sufficient study. Using a unique dataset of international and domestic marriage registration from the provincial Bureau of Civil Affairs, this paper aims to examine the differentiation between international marriages and domestic marriages from 2010 to 2014, the effects of educational attainment, occupation and marital status on the choice of transnational relationships. Logistic and Cox regression models are used to analyse the probability of choosing international marriages and the solidarity of both international and domestic marriages. The results suggest that international married couples show a higher probability of larger age gap, remarriage, and divorce, yet the age-gap and proportion of remarriage are decreasing in recent years. Younger birth cohorts might have shorter solidarities for both types of marriage. Different from conventional understanding, this study suggests that individual with primary or college educational attainment are more likely to marry internationally while occupation in commerce and service industry might increase the possibility of choosing international marriage. The result also suggests that Mainland Chinese and residents from SARs couples experienced the lowest hazard of divorce than Mainland Chinese and Overseas sojourn Chinese couples who share more cultural and social similarities. The differences of educational attainment between husband and wife show no significant impact on the solidarity their marriage, but if the husband is at least two years younger than his wife, it will increase their risk of divorce.

Keywords: International marriage, China, marital choice, divorce

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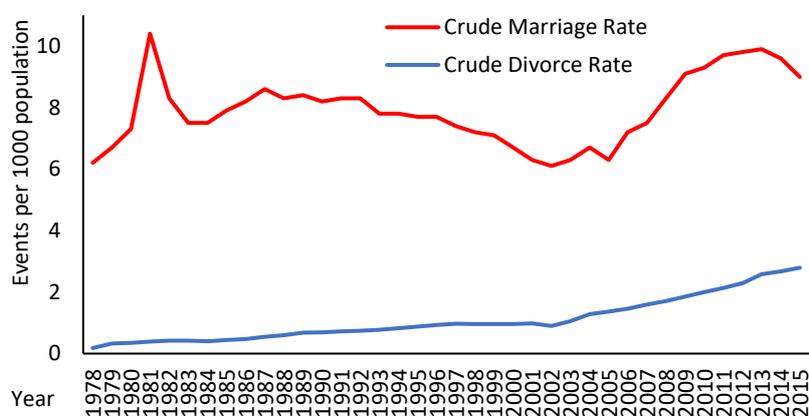
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It is commonly accepted that the 1980s is not only the beginning of systematic socioeconomic reforms but also an era of dramatic family changes in China. Its rapid marriage-family related individual behavioural changes are the direct reflections of macro level transformation of socioeconomic, cultural, ideology and demographic structure. The opening-up and economic reform policies accelerate economic growth and social disparity, while also create bridges for ideational changes. China prioritise its economic development and modernization, and certain policies were applied to ensure the success in economic advancement. With an implemented policy of “one-child” and lifted restriction of migration, the age-sex structure and geospatial distribution of China’s population went through profound changes. At the same time, the ideological directive and restriction of marriage-family behaviour have also been lifted, as lenient marital law and regulation ensure freedom for marriage and divorce, and the law of succession protect female rights of inheritance. Actions were taken to eliminate discriminations against women, especially in employment and education, such as labour law and compulsory education law, which ensure women with economic independence.

Recent decades have witnessed the major transformation in marital and family relationship. After attained low level of fertility and mortality, China began to experience further changes in marital-family behaviour. The private domestic batch become a conjunction of public order and institutional design, which reflects the country’s multi-dimensional historical changes and sociocultural variations. With loosening control from the Party and extend family, the Westernized free choice, “*ziyou lian'ai*”, partner selection replaced arrange marriages, “*baoban huyin*” (Pan 1987; Liu 1993; Shen and Yang 1995); local and international marriage brokers, and social media starts to play subside roles in partner selection. Following dramatic increasing of rural-urban migration since the early 1980s, the number of women who marry across greater geographic distances has also largely increased, both nationally and world-widely (Fan and Huang 1998), which also reflects the reduction of “closeness” from the Maoist era and the promotion of modernization and globalization progress. Under the state control of family reproductive decisions, family size decreased to 2.5 persons per household while nuclear family became the majority pattern of household. Divorce rate has also increased since emplacement of the 1980 and 2003 marriage law. In 1979, the divorce rate is 0.3 ‰ which increased to 1.05 ‰ in 2003 and 2.8 ‰ in 2015 (Figure 1). Meanwhile, family forms also diversified, as the proportion of marriages and families that include unconventional relationships has increased substantially in the following decades. International marriage and family, increasing along with single-parent family, DINK family, empty-nest family, one-person household and step-family, marks this reformation period of China’s interpersonal relationship (Deng and Xu 2000).

Nowadays, the country is no stranger to cohabitation, *de facto* marriage, international marriage, flash marriage, out-of-wedlock birth, surrogate motherhood, and same-sex relationship. With postponement of first marriage and first childbirth, low level of fertility, increasing cohabitation among younger generation (Yu and Xie 2015), and increasing rate of union dissolution (Liang 2017), notable changes in marital and family behaviours have emerged during the latest decade; despite China’s universal hypergamous marriage pattern, intolerance towards out-of-wedlock

birth, and increasing payments of bridewealth¹ or dowry are rather unwavering (Ji and Yeung 2014). Responding to the changes, scholars have directed attention to the studies of spouse selection and matching (Xu and Li 2004; Li 2008), cohabitation (Yu and Xie 2015; Liang 2017), later marriage, marriage squeeze (Li and Jin 2006; Jiang and Li 2009; Poston, Conde, and DeSalvo 2011), and marriage dissolution (Zeng, Schultz, and Wang 1993; Wang and Zhou 2010; Xu, Zhang, and Amato 2011; Xu 2012). Although less attention is being paid to the international relationships, some scholars focus on the cross-border marriages of minority groups, diseases transmission in transnational relationships, marriage squeeze and couple matching of international marriages, and legal application for international union dissolutions. International marriages are regard as a special phenomenon that embedded with the issue of economic underdevelopment and sociocultural preservation.



NOTE: Crude divorce rate = Number of couples registered divorces / ((Number of population at the beginning of the year + Number of population at the end of the year)/2) × 1000‰; Crude marriage rate = Number of Couples Registered Marriages / ((Number of population at the beginning of the year + Number of population at the end of the year)/2) × 1000‰.

SOURCE: *China Social Statistical Yearbook*, 2016

Figure 1 Crude Marriage Rate and Crude Divorce Rate in Mainland China, 1978 to 2015

Utilizing a unique set of data, this research will treat domestic and international union as two mutually exclusive choices of marriage arrangements. By taking a set of demographic background information into consideration, this paper aims to depict the variations of different type of marriages, as well as examine the relationship between human capital and marital choice, and the timing and risk factors of marriage disruptions among these two types of union. It will enhance our understanding of international marriage in Mainland China, along with the characteristics and changes of China's marriage and family.

Since the 1990s, international marriage among Asian countries has attracted much attention from scholars around the world. With the help of registration record, immigration data, census, national survey, and qualitative data, the existing research provide fruitful source of information and results on international marriage and migration. However, due to the transnational natural of international marriage and the limitation of data, while scholars depict the international

marriage in most of the developed Asian countries and areas, the study of Mainland China is still inadequate. Since the beginning of its reformation era, China has integrated into global economic and political order, with substantial socioeconomic changes and emigration. Although the international marriage between China and other ethnic-homogeneousness nation-states in Asia has caused major concern for those foreign governments, to China the international marriage is not being considered as a social issue which must be confronted with urgency. The lack of data and research, and the restricted research scheme of international marriage in Mainland China not only denied comprehensive understanding of international marriage in Asia and around the world, but also limited the study of China's transformation on marriage and family.

This chapter focuses on which type of demographic feature will have more effects on people's choice to marry internationally, and the general difference between two genders. Comparing to domestic marriage couples, which kinds of demographic feature lead to the choice of cross-border marriages. It also examines the timing and determinants of marital dissolution for both domestic and international marriages. Based on the data structure, the duration of a marriage (how long a marriage would last) is applied to measure the solidarity of a marriage and compare the similarities and differences between international and domestic marriage. It is noticed that the duration of a marriage can be related to both divorce and mortality within a relationship, but the mortality is not the focus of this paper, therefore dissolution is the main concern.

Partner Selection and Marital Dissolution in China

China's universal heterosexual marriage in the contemporary world is a peculiar phenomenon compared with other industrialized societies or Asian countries (Ji and Yeung 2014). In contrast with the general trend of "marriage revolution", "sexual transformation" or "modernity of love" (Goode 1982; Giddens 1992; Beck and Beck-Gernsheim 1995; 2014) in other modernized countries, the country's marital related attitudes and behaviours are largely diversified. While cohabitation and premarital pregnancy become a common occurrence among young people, the elder generations and the government still hold conservative attitudes towards marital and family relationships (Pan and Huang 2013). Fei (1992) and Ocko (1991) points out that traditional marital relationship in China is created and defined by patriarchal property rights, which tends to treat women as the property of their father, husband, son, and household. Even though modern regime promotes civil rights for women, its primary need of a strong state has hindered individual rights of marriage and divorce in the name of social stability, which turned marital relationships into social property under collective ownership for decades (Kuo 2003). The reform era strengthened women's civil rights in public realm, but it does not change their underprivileged status within familial relationships (Davis 2010) as traditional familial structure and marital relationships largely remain intact, especially in rural areas (Liu 2002; Zhang 2010).

Although younger generations seized their newly acquired freedom of partner selection, yet their selection criteria do not substantially change from conventional expectations, and their

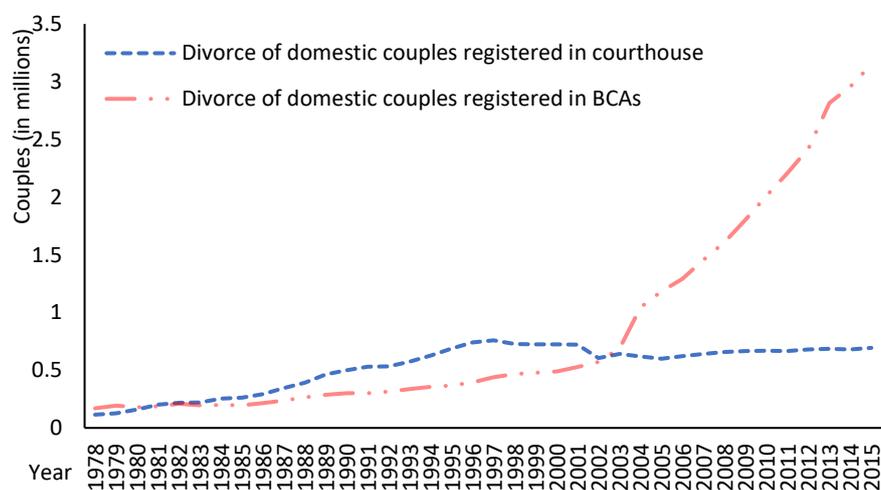
parents remain heavily involved in children's marital decisions. Modern interpersonal intimacy and Chinese familial tradition intertwined with each other as *assortative matching* of families (*mendang hudui*) and *hypergamous matching* of spouses² (*nangao nvdi*) are still persistent in practice (Greenhalgh 1985; Ocko 1991; Watson 1991; Fei 1992; Veevers 1998; Wei and Tsay 2014). The assortative matching focuses on a series of spousal similarities, such as familial background, socioeconomic status, habits, and cultural practice between two families. This is to safeguard the solidarity of marriage and reinforce social status and boundaries. On the other hand, the hypergamous matching for women marrying men with higher educational attainment and occupational status is to obtain upward social mobility (Croll 1981; Watson and Ebrey 1991; Farrer 2013; Wei and Tsay 2014). Existing research reveals that majority of China's marital relationships, modernized or not, are homogamous matched in which the couples and their parents demonstrated similar socioeconomic status while husbands are generally "above" their wives on age, human capital, and socioeconomic resources (Mu and Xie 2016; Wang and He 2014; Guo and Qin 2016).

Meanwhile, the strong son preference in Chinese culture, coupled with strict "One Child" policy, has inevitably resulted in higher-than-normal sex-ratio of the younger generation after the 1980s, which led to a large pool of surplus males (Jiang, Li and Feldman 2005; Poston and Glover 2005; Cai 2014) and imbalanced marriageable population. With the spousal selection criteria and titled sex-ratio, and conservative gender norms, it leads to imbalance in structural composition of marriageable population, which was further intensified by the country's profound internal migration, rapid economic development and stagnated sociocultural reformation. *Hukou* differences between rural-urban and underdeveloped-developed areas hold significant effects on people's choice of future spouse, especially for rural female (Lavelly 1991; Xing and Nie 2010; Wang and He 2014). The segregation of *hukou* and regional socioeconomic disparities have result in segmentation of marriage market since advanced and additional welfare and public service are attached to developed areas and urban residency. Thus, intermarriage between a resident from rural region and a resident from urban area is a *heterogenous pair*, in which the spousal differences in residential/regional status needs to be compensated by advanced socioeconomic resources or human capitals of one spouse. People with low human capitals but high-status marry those with high-achieving, low-status become an efficient way of status exchange and social mobility (Davis 1941; Merton 1941; Xing and Nie 2010).

During the past three decades, market-oriented economic reform has reduced family functions and increased the economic value of reproductive work, which largely elevated the cost on childbearing, housework, child education, childcare, and eldercare. Meanwhile, institutional empowerment of female has provided them with more choices and rights in negotiating their marriage, family, and professional life, while largely elevated the overall female human capital. Under China's conventional practice of heterogenous spousal matching, the standards of suitable husband also elevated. With large scale of internal migration and free choice of

marriage and divorce, in those less-developed countries and areas the vacuum of marriageable female was generated.

Since the 1981 Marriage Law ensured freedom of divorce, with the substantial increase in divorce rate, there has been arguments related to the association between modernization and union dissolution. After 2003, the drastic increase in divorce rate is considered as the result from the changes in governmental regulations, patterns of migration (both internal and international), family structure, and female social status, as well we globalisation (Li and Yang 2011; Gao, Zhang and Zhu 2012; Tan and Song 2015). Zeng (1993; 1995) points out that with the socioeconomic development and the amendment of the marriage law, the socio-political acceptance of divorce has increased, which contribute to the continuous increase in divorce rate. The modifications of marriage regulations in 2003 have further weakened social control over individual divorce (Figure 2), as the couples no longer need permission from their work places or residents' committees. It also provides new solutions for family related generational conflicts within families, which aided the decrease in abnormally high suicide risk among Chinese rural females since the 1980s (Pritchard 1996; Qin and Mortensen 2001; Liu 2002; Zhang, Conwell, Zhou, and Jiang 2004; Yip, Liu, Hu and Song 2005; Zhang 2010; Wang, Chan and Yip 2014). The average lifespan of a marriage is decreasing for both genders in the latest decade; women have a longer average lifespan of a marriage than men, but the decrease is more rapid (Tan and Song 2015). Research also shows that legal dispute, emigration, *Hukou* restriction, birth quota, subsistence allowance, or macroeconomic-control over real-estate, tax, and bank interest rate had also created surges of divorce shenanigans (Chi 2015).



SOURCE: *China Social Statistical Yearbook*, 2016

Figure 2 Annual Number of Divorces of Domestic Couples in Mainland China by Type of Registration, 1978 to 2015

The market-oriented socioeconomic developments and ideological adjustment might shed light on the increase trend of divorce. Since macro socioeconomic reforms have changed people's familial attitude and behaviour, combined with the structural variation of marriageable population, it might lead to increasingly fragile marital unions. Although varied models and theories were provided to interpret this surge of dissolution, scholars have not been able to

reach a consensus. Due to the limitation of data (Li and Yang 2011; Gao et al. 2013), while the public and authority tended to attribute the dissolution to the couples' materialism and irresponsible attitude towards familial life, despite the intrinsic motivations behind this has not been fully understood. By utilising a set of consolidated data, it is hoped that this study could provide some further explanations.

Spousal Matching and Solidarity of International Marriage

Majority of the studies focus on changes and variations of local marriage market while less attention was paid on the regional interaction among different countries as related data and methods are likely non-exist or the comparison is inexecutable. The common approach of analysing international marriages has accustomed this type of union in contrast to the local marital relationship to demonstrate the deviation and inferiority of transnational relationships, such as low human capital, large age-gap, language and cultural barrier, manipulative wife, and abusive husband. Compared to local marriages, international unions are regarded as perpetually at risk of divorce while potentially threatening the safety of a society and wellbeing of its citizens (D'Aoust 2013).

Main scholarly view tends to use "labour-marriage market" approach to explain the formation of international marriages. Some scholars simply treat this kind of marriage as a specific type of migration (Piper 2003), while for scholars who focus on cultural implication, the cultural linkage between ethnic communities becomes the main motivation for the cross-national marital relationship (Berger and Hill 1998, Charsley 2011). In addition to the ongoing debates between "marriage for migration" and "migration for marriage", researchers also believe that the exchange of relative advantages between spouses can be used to depict the mechanism of international marriage, even for cross-national ethnic communities. Combined with global socioeconomic and gender disparities, the structural imbalance of marriageable population has created a chain of hierarchy flow for global intimacy, as less-developed countries and areas became the "suppliers" of brides for underclass males in developed world (Constable 2005?).

Some researchers argue that intra-Asian international marriage is a typical case of "reciprocal exchange" which aims for economic proficiency and security to improve one's socioeconomic status (Ding, Yang, Zhou, Zhou, Lin and Zhang 2004; Quan 2012; Kawaguchi and Lee 2017). Women use their youthfulness as a reward in exchange for men's advantage of residency in a more developed country. Both parties are less educated, low-status, with limited human capitals and socioeconomic resources and thus cannot find or "afford" a suitable partner or attain such residency through their own efforts. Some radical studies conclude that international relationships, as exchange marriages, are instrumental and immoral abuse of interpersonal union. The motivation of such marriage is not the ultimate love and affection between individuals, but the calculation and manipulation of sacred marriage (Lin and Shen 2005; Quan 2012).

Researchers from Hong Kong use the gradient rule to explain the dramatic increase of cross-regional marriages between Hong Kong male and Mainland Chinese female (Ma, Lin and

Zhang 2010; Pong, Post, Ou and Fok 2014). The imbalanced sex-ratio among the population and economic disparities between two regions from the 1960s to the 1980s are the main pull factors of this type of marriage. Although the sex-ratio return to normal since the 1990s, with Hong Kong female's increasing education achievement and labour force participation, the following decade has witnessed their reducing desire for marriage and decreasing involvement in local marriage market, which lead to imbalance of marriageable population and the surge of cross-regional marriages between Mainland female and low-achieving Hong Kong male after 2000. As China's rapid process of modernization will improve the overall income and living standard of its population, there will be fewer exchange marriages and more "real love" international relationships, especially in more developed areas (Ding et al. 2004). In some less-developed rural ethnic communities located in mainland border areas, international marriage become a common choice for local male residents (Wu 2013; Zhang and Bao 2013), which is reasoned to connected with economic disparities and cultural similarities between countries, the gradient matching and the out-migration of local female, thus the shortage of marriageable female in local marriage market.



SOURCE: *China Social Statistical Yearbook*, 2016

Figure 3 Annual Number of Marriage and Divorces of Chinese-foreign Couples in Mainland China, 1979 to 2015

Under the scheme of exchange marriage, majority of the research in Asian also allocated an assumption that international marriage, as an abnormal relationship result from the calculation of opportunitists, is doomed to fail. Transnational relationship is also believed to be either built on the intra-cultural similarity or breakdown due to inter-cultural differences, where the cultures are imagined to be homogeneous. The relatively low educational achievement, income, social status, large age-gap, marital histories, cultural differences, and language barriers of both parties are used to present the natural defect of international marriage's quality (Kim 2015). It is also justified or accused that the unification or dissolution of international marriages is inevitability associated with the similarity or diversity of cultures while neglecting to take the socioeconomic and political context into consideration. Compared to the marriage and its governmentality among different countries, the dissolution of a transnational relationship can face more obstacles from foreign spouse, extend families, local communities, religious groups,

and the governments. As a result, legal appeal is more often applied than interpersonal agreement to obtain an officially recognized divorce, in some cases the foreign spouses are deported even before necessary paperwork for divorce are filed (Constable 2003; Kim, Park, and Shukhertei 2017). Nowadays, the international studies of the demographic trends in this type of divorce are still limited to previous legal cases, retrospective interviews and small-scale survey. While the research of international union dissolution is largely limited by the insufficiency of data, the claim and assumption of natural defect of international marriages are not supported by the existing empirical results (Kim 2013).

To understand the connection between individuals' human capital and their choice of marriage between international and domestic partners, and the relationship between socioeconomic characteristics of spouses and solidarity of two types of marriage, this paper uses a unique set of data and applied regression method to capture the dynamic of China's domestic and international marriages in 2010 to 2014. Although existing study depicts the overall pattern and trends of marriage in Mainland China, detailed examination of interaction between domestic and international marriage is in need. A comprehensive analysis on the relationships between individuals' socioeconomic status, their choice of marriage between international and domestic partner, and the solidarity of both type of marriage will contribute to enrich the research of the family and marriage transformation in modern China and Asia.

Data

It is commonly accepted that research on international marriages is constrained by the availability and comparability of data. As this type of transnational relationships inevitably encounter with at least two different political and legal institution systems, the government data collection might vary widely, from basic definitions of lawful marital relationship and the scope of background information to the focus and aim of data collection itself. It is even more difficult to collect international divorce record and information. Moreover, existing research focusing on the comparison between international and local marriages in migrants receiving countries by idealizing two types of relationships as internal consistent and external variant. It leads to major challenges for all kinds of attempts of conducting efficient research on this topic, not to mention further international comparisons. Meanwhile, majority of the research in international marriages or divorces has to apply methods such as interview or sample survey (Ye 2010; Kim 2013), only few of the studies applied registration record (Ye and Lin 1996; Ding et al. 2004; Kim 2010; Liaw, Ochiai, and Ishikawa 2010; Ma et al. 2010; Gao et al. 2013; Jeffreys and Pan 2013; Pan 2014; Wang, Mi, and Wen 2016).

In Mainland China, in addition to the Ministry of Civil Affairs' (MCA) annual statistic yearbooks³, marriage registration record from provincial Bureau of Civil Affairs (BCA) is the only resource of international marriage data with basic demographic information of the couples⁴. Records of divorce by agreement from provincial Bureau of Civil Affairs and cases of litigious divorce from the courthouses are the only two sources of international divorce data. However, the courthouse cases can only cover a small percent of the overall international divorce cases,

in which the background information of the couple is not sufficiently collected and filed, thus cannot be used for further data analysis (Lin and Shen 2005).

The administrative record of marriage and divorce registration from the bureau contains statistics about general information of the husband and wife, in which the completeness and accuracy of the provided information is verified, and a digitized database of all Chinese-foreign marriages occurred in Mainland China was constructed, as well as of all divorce by agreement records. The bureau's marital database also includes administrative record of Chinese-Chinese (domestic) marriage and divorce record, but the digitization program for domestic marriage and divorce registration records is yet to be finalized, thus early marriage records are incomplete due to the high amount of costs and workload for record inputting. In the bureau's database of the marriage and divorce registration record, the data is couple-matched which include basic demographic characteristics of wife and husband, and start dates of their marriage; the domestic marital record includes a category of *hukou* region⁵ and the international one includes a category of foreign spouse's citizenship, while the divorce record of both includes the end dates of a marriage but lacks of information for previous marital history.

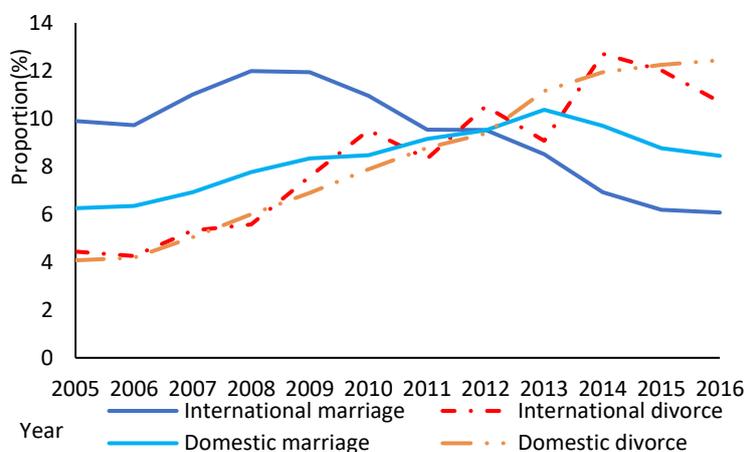
There have been some debates about the issue of coverage of Civil Affairs' marriage registration records, compared to the census data, which also capture the number of couples who married below legal marriage age. The main source of data on marriage is marriage registration, which also suffer some limitations. The marriage registration is voluntary, so some *de facto* couples would not register unless necessary, such as registering a new born child, enrolling a child to school, applying medical care, or receiving treatment in hospital that requires official status. The same coverage problem will also exist among international married co-ethnic couples in China, which has been confirmed by some researches (Zhang and Bao 2013). But the transnational nature of this type of marriage has largely reduced the couples' autonomy on whether registry or not. Since without the marriage registration procedure, it is unlikely the foreign partner will be able to receive legal status and the right of abode. Nevertheless, the registration record is the only available source for this type of marriage in Mainland China and the census does not contain any information regarding to this matter⁶. Thus, based on the purpose of this research, registration data will be used as main data source. Furthermore, as the marriage related data in registration record are different from Populations Census, to maintain consistency, this study will centre on the data from registration record for both international and domestic marriages.

Data used in this study are from a provincial *Marriage-Divorce Registration Record Database*, based on the structure and availability of data, records between 2010 and 2014 are applied for model construction and estimation; while international marriage records between 2005 to 2009 is also applied to depict the general trend and pattern. This provincial registration record of marriage dataset contains annual registered marriage and divorce records for both international and domestic couples in a certain province. It also contains a wealth of demographic variables, such as age at marriage, marriage history, educational attainment, occupation, countries of origin, and duration of marriage, which have not been utilised fully in the existing literature.

This dataset provides a better understanding of international marriage in the past decade by comparing this type of marriage with the domestic marriage to provide a comprehensive interpretation of their similarities and differences. The main methods applied in this paper are logit regression and survival analysis. For all the available demographic characteristics, their contributions on the decision of marrying domestically or internationally is analysed by logit regression model. Records of international and domestic divorce are pooled for analysis of the timing, determinants and differences of union dissolution.

Demographic characteristics of international and domestic marriage

International marriage with its inherited natural of diversity is always being considered as a different type of human marital behaviour. Much of the existing research tends to focus on the similarities and differences between two types of marriage, from demographic characteristics, cultural similarity and diversity of spouses to global economic structures. Prior study of international marriage in Mainland China has provide information on general pattern and demographic characteristics of international marriage in metropolitan cities and remote border villages (Ye and Lin 1996; Ding et al. 2004; Quan 2012; Gao et al. 2013; Jeffreys and Pan 2013; Wan, Zhu, and Tang 2013; Ye 2013; Zhang and Bao 2013; Pan 2014). But due to the limited access of China’s international marriage data, majority of the existing study focuses on specific geospatial areas, such as Beijing, Shanghai, Hong Kong, Taiwan, and co-ethnic villages along border areas, while the study either applied registration record or interviews. However, though the existing research of international marriage in Mainland China that applied registration data provide basic trend or demographic characters of this type of marriage, majority of these research focus on descriptive analysis. And the theoretical structure of these research is largely restricted, sometimes even with strong ethical judgment (Ye and Lin 1996; Jiang 1999; Ding et al. 2004; Lin and Shen 2006; Liaw et al. 2010; Quan 2012; Jin 2013; Kawaguchi and Lee 2017). As a result, these studies cannot touch upon the central concern of international marriage, such as the similarities and differences, the solidarity of union and the characteristics of spousal matching. Despite the depth of information in registration record is still limited, more comprehensive technic and analysis still can be achieved.

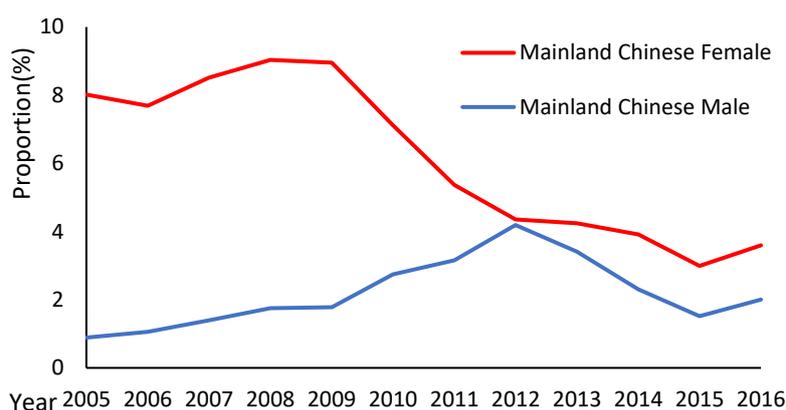


NOTES: In hopes of safeguard the confidentiality and anonymity of married/divorced couples, the province X is not identified in this research. Again, the proportion is calculated base on annual number of marriage registration from the Bureau of Civil Affair, which does not include *de facto* couples.

SOURCE: BCA provincial *Marriage-Divorce Registration Record Database*, 2005 to 2014.

Figure 4 Proportions of international marriage and divorce for province X, 2005 to 2016

Based on the registration record of province X, general trend of international and domestic marriage and divorce can be observed in Figure 4. It is obvious that from 2005 to 2016, the annual number of divorces for both international and domestic marriages increased while the number of international marriage decreased after 2009. For domestic marriage, it firstly increased then gradually decreased after 2013, which is similar with the national trend of annual number of domestic marriage. As the Ministry’s report (2018) confirmed, the national-wide crude rate of marriage has decreased continuously after 2013 while crude rate of divorce has increased continuously after 2004. However, different from the national trend of international marriage which encountered with a sudden increase in 2012 and 2013 after 2007 (MCA 1979-2016), the annual number of international marriages in this province decreased continuously since 2010.



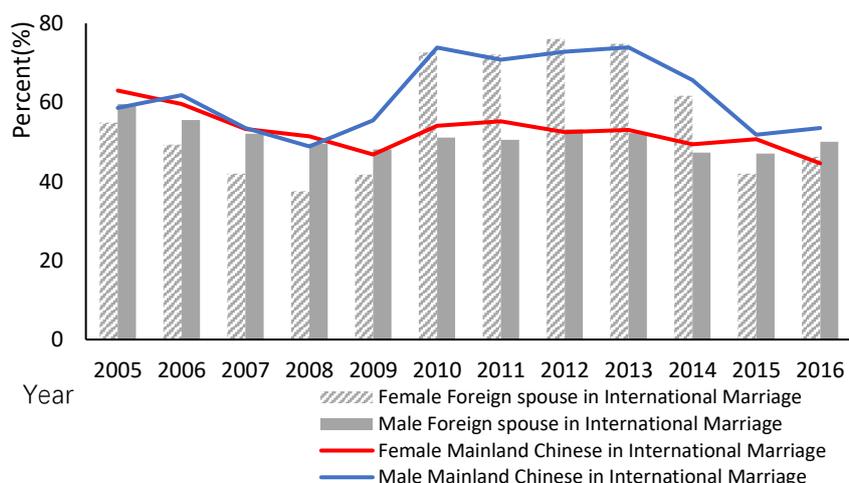
SOURCE: BCA provincial *Marriage-Divorce Registration Record Database*, 2005 to 2014.

Figure 5 Proportions of Mainland Chinese citizen in international marriage for province X by gender, 2005 to 2016

Existing research discussed about the gender differences in international marriage, as majority of this type of marriage happened between female from developing countries and male from developed areas (Jeffreys and Pan 2013; Pan 2014). In China’s case, similar gendered pattern also exists, but also changed during recent years. It is commonly accepted that majority of the Mainland China citizens who married internationally are female. According to the Ministry’s yearbook (MCA 1979-2016), from 1979 to 1999, 90 percent of international marriages registered in Mainland China is Mainland Chinese females married to foreigners or residents from Taiwan or Special Administrative Regions. During 2000 to 2009, the annual number of registered Mainland Chinese male international marriages increased while the number of Mainland Chinese female decreased continuously. Since 2010, more than 25 percent of international marriages is Mainland Chinese men married to foreign spouses and there was also another sudden increase of Mainland Chinese male international marriages. The decrease in

number of international marriages since 2009 is mainly due to the decrease in Mainland Chinese female international marriage while it is slowed by fluctuated increase in Mainland Chinese male international marriages. Some research argues that it is Mainland Chinese male in border area or less-developed villages who married internationally lead to the sudden increase in annual number of international marriages. In province X (Figure 5), the same trend can be observed. However, after 2012, its annual number of Mainland Chinese male international marriages decreased along with Mainland Chinese female international marriages.

Much existing research also argued that majority of the international marriages between Mainland Chinese female and foreigners share a pattern of high possibility of remarriage, in which a larger percent of international married individuals is previously married compared to domestic married couples in Mainland China (Ding et al. 2004; Quan 2012; Gao et al. 2013). Since the Ministry’s statistic data does not provide this type of information for international marriage in Mainland China, the general pattern of marriage history cannot be depicted on the national level. According to Gao et al. (2013), from 2004 to 2011, the percentage of remarried Mainland Chinese citizens in international marriage are similar for both gender, which were two times of their domestic counterpart, while the percentage of foreign males is the highest (37 to 42 percent) among all.



SOURCE: BCA provincial *Marriage-Divorce Registration Record Database*, 2005 to 2014.

Figure 6 Percent of First Marriage in international marriage for province X by gender and residency, 2005 to 2016

Based on the provincial registration dataset applied in this study, couples’ marriage status at registration date can be observed in Figure 6. The provincial data clearly demonstrated gender differences of individual’s marriage history in international marriage from 2005 to 2016. From 2005 to 2009 and 2015 to 2016, male foreign spouses are more likely married previously than female foreign spouses, but there has been larger percentage of Mainland Chinese male and female previously married who married internationally. The marriage status is also likely to be matched between Mainland Chinese citizens and their foreign spouses.

But the gender differences among Mainland Chinese citizens in international marriage from 2010 to 2014 is obvious. Mainland Chinese females are more likely married previously before their registration of international marriage and their foreign spouses are also more likely married previously, which is in consistence with the trend in 2005 to 2009 and 2015 to 2016. However, from 2010 to 2014, Mainland Chinese males are close to their counterparts in domestic marriages and their foreign spouses are also close to Mainland Chinese female in domestic marriages (Table 1). It is obvious that since 2005, the percentage of remarried Mainland Chinese female and their foreign spouses in international marriage are rather consistent. Yet, there has been a sudden peak of first married Mainland Chinese male in international marriage during 2010 to 2014, it also elevated the annual percentage of first married foreign female respectively.

Table 1 Percent of first marriage and remarriage by gender and marriage type, 2009 to 2014

Year	Female			Male			
	Foreign spouse in IM	Mainland Chinese in IM	Domestic Marriage	Foreign spouse in IM	Mainland Chinese in IM	Domestic Marriage	
First Marriage	2009	41.75	46.83	-	48.09	55.42	-
	2010	72.68	54.12	78.22	51.13	73.84	79.12
	2011	72.09	55.19	77.93	50.54	70.79	78.66
	2012	76.06	52.47	77.54	53.17	72.84	78.47
	2013	74.84	53.05	75.65	52.19	73.93	77.03
	2014	61.64	49.44	71.74	47.27	65.61	73.59
Remarriage	2009	58.25	53.17	-	51.91	44.58	-
	2010	27.32	45.88	21.78	48.87	26.16	20.88
	2011	27.91	44.81	22.07	49.46	29.21	21.34
	2012	23.94	47.53	22.46	46.83	27.16	21.53
	2013	25.16	46.95	24.35	41.81	26.07	22.97
	2014	38.36	50.56	28.26	52.73	34.39	26.41

NOTE: It is not possible to calculate the provincial percentage of first marriage and remarriage in domestic marriage before 2010 and after 2014. Since census, the Ministry's yearbook and report, and other statistical yearbooks did not provide such detailed information. Also, provincial digitization of hardcopy marriage registration records is not finished, thus the database does not contain all domestic marriages before 2009 and might be biased. And the record after 2014 is not obtained in this research. However, based on existing study and general trend of domestic marriage in Mainland China, the distribution of marriage history between genders are likely to be consistent with the data applied in this table.

SOURCE: BCA provincial *Marriage-Divorce Registration Record Database*, 2010 to 2014.

Comparing to couples of domestic marriages (Table 1), it is obvious that there is a higher possibility of remarriage among international marriage couples. But from 2010 to 2014 the percentage of first married Mainland Chinese male and foreign female in international marriage increased abruptly to 70 percent, almost like their domestic counterpart. This might indicate that there has been an unexpected surge of never-married Mainland Chinese male in international marriage market. Comparing to the proportion of annual number of Mainland Chinese male and female international marriage (Figure 5), for the former the increase in

proportions are in consistent with the increase in first marriage while for the later are in consistent with the increase in remarriage. Although since 2004 the obstruction of freedom of divorce has been lifted, divorce is still being considered as a defect for Mainland Chinese female (Xu 2012; Peng 2015). And according to the 6th census data (2010), the sex-ratio of marriageable population from age 20 to 44 is much higher than 300. It might also prove that international marriage can be a bridge of empowerment for Mainland Chinese female, while also a method for Mainland Chinese male to reduce the pressure of marriage squeeze.

Since previously married individuals on average are naturally older than their never married counterparts in domestic marriage, with higher possibility of remarriage among international married couples, it is more likely that for individuals who married internationally, the age at marriage is higher than their counterparts in domestic one. Prior study also provides similar interpretations. Table 2 depicts the average age at first marriage for both international marriage and domestic marriage during 2010 to 2014.

Table 2 Average age at first marriage by residency, 2010 to 2014

	Year	Domestic	International Marriage				
		Marriage	Mainland	Overseas Sojourn	Hong Kong and Macao	Taiwan	Foreign Countries
Male	2010	30.60	28.16	25.88	40.67	36.43	41.30
	2011	30.87	29.48	24.80	38.77	35.83	40.71
	2012	30.80	28.88	27.24	37.67	37.95	40.62
	2013	30.56	29.39	25.24	33.55	36.99	40.35
	2014	30.51	29.76	26.77	46.00	37.11	39.26
Female*	2010	28.50	27.09	23.50	37.00	30.80	23.62
	2011	28.99	27.33	22.60	37.50	38.00	24.35
	2012	28.39	27.92	24.22	-	35.22	24.32
	2013	29.02	28.21	26.37	37.00	30.17	25.13
	2014	29.13	28.98	24.37	37.80	33.11	26.28

NOTE: Calculated based on the Bureau's registration database. *The average age at first marriage of Hong Kong, Macao and Taiwan female residents are limited by the amount of cases, which result in large fluctuation among years.

SOURCE: BCA provincial *Marriage-Divorce Registration Record Database*, 2010 to 2014.

According to Gao et al. (2013), Mainland Chinese male's and female's average age at first marriage in international marriage in Beijing is higher than their counterparts in domestic marriages. Based on the provincial data applied in this study, the result is different during 2010 to 2014. Both international married Mainland Chinese male and female have relative lower average age at first marriage, comparing to domestic married male and female. Meanwhile, Overseas Chinese sojourner has the lowest average age at first marriage while foreigner has the highest. Female from foreign countries also have relatively lower average age at first marriage.

Further calculation of average age at first marriage by different residency in international marriage (2005 to 2009, 2015 and 2016) also revealed that the age pattern of first marriage is

consistent from 2005 to 2016 for Overseas Chinese sojourner, Hong Kong, Macao, and Taiwan residents. For Mainland Chinese female in international marriage, the average age at first marriage increased from 25 to 29, while for Mainland Chinese male it increased from 26 to 29. For male foreigners the average age at first marriage dropped from 41 to 39, while for female foreigners, in addition to the suddenly decrease during 2010 to 2014, the average age maintains at 27 to 28. Combining the result from marriage status, average age at first marriage, and the annual number of international marriages by gender, it is likely that during 2010 to 2014, there has been a surge of first married Mainland Chinese male who aged 28 to 29 married with younger foreign female. As Figure 1 shows that during 2010 to 2014 is the second peak of marriage in Mainland China, which also echoed the country's second birth peak in the 1980s. It is also clear that during this period the percentage of first marriage male and female also increased in domestic marriage. The relationship between marriageable population in local marriage market and incidence of regional international marriage has also been tested in previous study, and the data from provincial registration records also corroborated with this finding.

Gao et al. (2013) concludes that the relatively high average age at marriage for male foreigners (39 to 40) in Beijing is likely to be the result of high percentage of remarriage, which is not supported by this provincial record. Take the overall average age at marriage into consideration, if the marriage status at registration is not considered, then the provincial data give a comparable result as Gao et al. (2013) presented. On average, the age at marriage of Mainland Chinese female gradually changed from 29 to 34 from 2005 to 2016, while Mainland Chinese male increased from 32 to 35 (except 2010 to 2014). For Overseas Chinese sojourner male it increased from 32 to 36, while female changed from 29 to 36. The average age at marriage of male foreigners increased from 44 to 46. But for female foreigners, in addition to the sudden drop during 2010 to 2014, the average age at marriage increased from 33 to 35 during 2005 to 2009, then drop to 31 in 2016. Gao et al. (2013) high-lighted on average the age difference between Mainland Chinese citizens and residents from other countries and areas has decreased continuously in Beijing, which they believe might mark the change of spousal homogenous matching on age at marriage. However, the provincial records show that if take the marriage status into consideration, the internal differences in international marriage is still obvious.

The age-gap between couples is believed to have significant impact on the quality of marriage, especially for the solidarity of international marriage (Ding et al. 2004; Quan 2012; Gao et al. 2013; Kim 2013). Ding et al. (2004) applied the marriage registration record from Shanghai in 2002 to present the "abnormal large gap" of average age at marriage between Mainland Chinese female and their foreign spouses. He concludes that this proves that residents from other countries and areas holds advantage on their social status and country of origin, and Mainland Chinese female in Shanghai used their youth to exchange for higher and exotic socioeconomic status. According to Kim (2013), majority of international married Mainland Chinese citizens and South Korean citizens share a large gap of age at marriage comparing to the domestic couples of South Korea, on average the Korean husbands are 7 to 9 years older than their

Chinese wives. More than 80 percent of Korean husband is five years older than their foreign wife, while for domestic married couples in South Korea, this number is only 21 percent. It is believed that this above average age-gap is due to marriage squeeze in South Korea, male Korean have to postpone their marriage and marry foreigners as there are large number of surplus males in the marriage market. Although Kim (2013) hypothesis that the large age-gap within international married couples is highly related to the dissolution of international marriage, his empirical analysis did not support this assumption.

Table 3 provide a comparison of age-gap between husband and wife among different types of marriage and sources of data. The calculation of age-gap within couples as based on the category of age pattern of domestic marriage in Mainland China: if husband's age at marriage is one year younger to four years older than the wife's, their age-gap were categorized as equal (Husband=Wife); if husband's age at marriage is five or more years older than the wife's, their age-gap were categorized as husband's larger than wife's (Husband>Wife); if husband's age at marriage is two or more years younger than the wife's, their age-gap were categorized as husband's less than wife's (Husband<Wife).

Table 3 Age-gap between husband and wife by type of marriage

	Domestic Marriage	International Marriage	CWSS			1% population sampling survey
			1990	2000	2010	
Husband>Wife	61.6	65.49	69.8	67.7	67.9	67.0
Husband=Wife	15.5	25.72	16.4	16.7	16.9	15.4
Husband<Wife	22.8	8.79	13.8	15.6	15.2	17.7

NOTE: The age-gap of international marriage is calculated from 2005 to 2016, while domestic marriage is calculated from 2010 to 2014. The results from CWSS and population survey are national-wide overall distribution of age-gap within couples. Raw data was applied from all sources without weighted.

SOURCE: BCA provincial *Marriage-Divorce Registration Record Database*, 2005 to 2016; *Chinese Women's Status Survey*, 1990, 2000 and 2010; *1% Population Sampling Survey*, 2005.

It is obvious that on average, international married couple are not more likely to have a larger age-gap, comparing to their domestic counterparts. In fact, further calculation of international married couples' age-gap on every year from 2005 to 2016 revealed that before 2008 more than 70 percent of the husband is at least five years older than the wife; from 2010 to 2016 the percentage dropped from 67 to 50, along with continuous increased percentage of husband and wife matched homogenously on age at marriage. The group with "husband is at least five years older than the wife" in international married couples was further divide into two subgroups: husband is five to nine years older than wife and husband is at least ten years older than wife. The results show that before 2010, more than 50 percent of husband is at least ten years older than his wife, the percentage dropped continuously to 33 percent in 2016, which might also indicate the changing patterns of spousal matching in recent years.

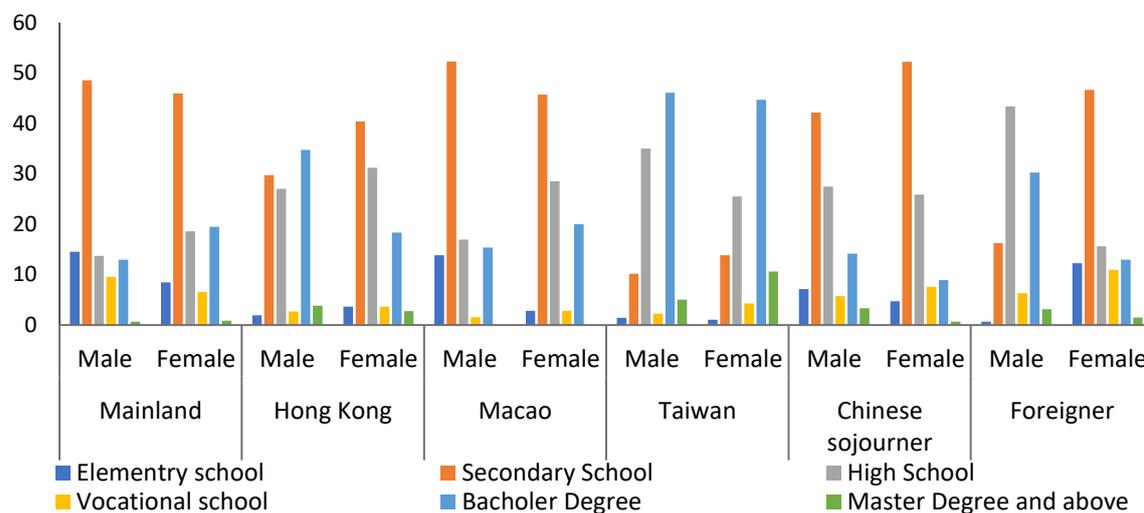
Industrialization and globalization have integrated societies around the world into one interwoven economic and politic orders, in which the global movement of labour has a profound impact on local educational and professional system and practice. Consequently, it is

contributing to the global uniformity of national design of educational system (Spring 2008). Much of existing research on international marriage tends to address the importance of individual's educational attainment. Since historically speaking, international marriage is related to international movement of human capital or treated as nothing but international migration (Piper 2003), it is natural that the existing research pay much attention to the characteristics of educational attainment within international married couples. Meanwhile, from the perspective of marriage and family study, the educational attainment, and its similarities and differences between spouses, is important to the formation and dissolution of interpersonal relationships, especially among different racial or ethnic groups. Individuals tend to match on their educational attainment as homogamy marriage is the main form of spousal selection (Raymo and Xie 2000; Li 2008). Still, individual's educational attainment as a self-achieved factor can also break the barrier among different social castes, which also make intermarriage possible (Davis 1941; Merton 1941; Fu 2001; Gullickson 2006).

In the research area of international marriage, educational attainment is believed to significantly affect the spousal selection in transnational marital network. Study shows that individual's educational attainment can be both advantage and shortcoming in international marriage market, and it is also highly gendered (Breger and Hill 1998; Constable 2004; Farrer 2008). The commonly accepted hypothesis believes that international marriage is a type of status exchange marriage, in which individuals from less-developed areas seek for upward socioeconomic mobility through marriage. Some of the research argues that individuals (mostly female) from developing countries trade their youthfulness or psychical attractiveness for the trait they lack of: higher socioeconomic origin, higher level of income, or social mobility (Ye and Lin 1996; Ding et al. 2004; Lin and Shen 2006; Kim 2010; Quan 2012; Kim 2013; Kim 2015). It is commonly believed that individuals (mostly male) from more developed areas have to seek their spouses outside the conventional local marriage market due to their relatively low social status in their home countries. Similar to the view of cross-race intermarriage research, existing study argues that in a transnational marriage market, the party with preferable country of origin is likely to be disadvantaged in human capital and resource comparing to their domestic counterparts. With local female's homogamous or upward spousal selection, it led to a vacuum of marriageable female for these individuals while create the need for international marriage. As a result, there will be two type of heterogenous pair on spouses' human capital: underprivileged men with below-average socioeconomic status from developed regions married to underprivileged women with high human capital from less-developed regions; or underprivileged men with below-average socioeconomic status from developed regions married to underprivileged, young, and attractive women with low human capital from less-developed regions.

Scholar could not reach an agreement on the pattern of spousal matching of socioeconomic status in international marriage. Some of the research provide support for the first type of heterogenous matching (Breger and Hill 1998; Yamanaka and Piper 2005), some emphasis the generality of the second one (Ye and Lin 1996; Ding et al. 2004; Lin and Shen 2006; Liaw et

al. 2010; Quan 2012; Kim 2013), while others cast doubt on the research paradigm of status exchange (Constable 2004; Farrer 2008). Study based on South Korea, Japan, Hong Kong, and Taiwan argues that the marriage between their residents and Mainland Chinese citizens belongs to the second type of heterogenous pair (Nakazawa 1996; Saihanjuna 2007; Liaw et al. 2010; Kim 2013; Kawaguchi and Lee 2017).



NOTE: The educational attainment is self-reported by individuals and categorized by the Bureau, which means that the foreign spouse’s educational attainment was converted to the six categories based on Mainland China’s standard. Unfortunately, individual’s year of education is not available in this dataset, the result is about the degree attained rather than years of education.

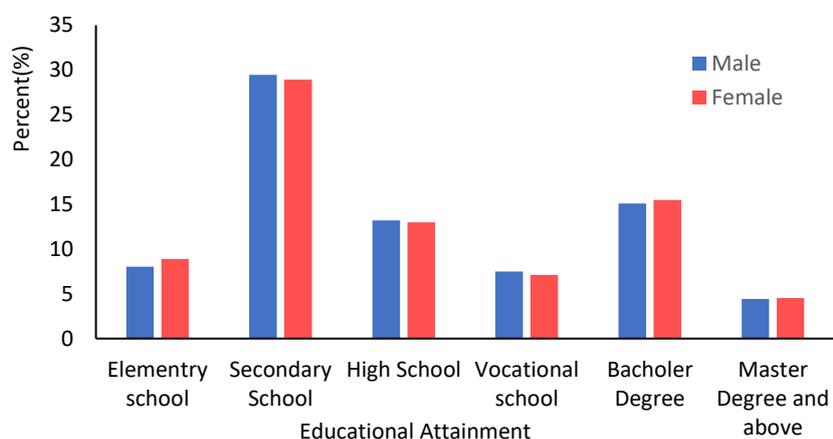
SOURCE: BCA provincial *Marriage-Divorce Registration Record Database*, 2005 to 2014.

Figure 6 Distributions of educational attainment in international marriage for province X by gender and residency, 2005 to 2016

Research on international marriage in Mainland China is inconclusive as it is limited by the availability of data. Existing research tends to focus on specific cases, such as cross-border marriage between co-ethnic groups from rural area of Jilin, Neimenggu, Yunan, and Guangxi or Korea, Mongolia, Vietnam, and Myanmar (Hao 2013; Zhang and Bao 2013; Zhong 2013; Wang 2015; Huang and He 2016), in which the spouses is considered both being under-class of their home countries. Meanwhile, in the research about metropolitan areas or more developed regions, some research provides a sketch of the social origin of international married couples; though the study is largely limited on data, yet majority of these research argues that in international marriage the Mainland Chinese citizens’ social origin and economic status are below average for both male and female (Ye and Lin 1996; Ding et al. 2004; Lin and Shen 2006; Quan 2012; Jin 2013; Pan 2014). Despite Farrer (2008; 2013) and Gao et al. (2013) both points out that in Shanghai and Beijing, the educational attainment of Chinese men and women in international marriage is relatively equal or even higher than their domestic counterparts.

According to the provincial bureau’s database, the educational attainment of international married couples can be observed in Figure 6. Among all types of residency in international marriage, residents of Taiwan hold high percentage of higher education while women from

Taiwan have the highest educational attainment, similar pattern can also be observed in Taiwan's marriage registration record of Mainland Chinese-Taiwanese marriages; male foreigner also have high percentage of higher education. Residents from Hong Kong and Macao also holds high percentage of higher education, but the educational attainment of male from Macao also show relative high amount of primary and secondary school education. Comparing to Mainland Chinese male in international marriage, on general the educational attainment of Mainland Chinese female is relative centred on secondary/high school and university and the percentage of higher education is relatively low among Mainland Chinese male. Female foreigners' pattern of educational attainment is also similar with Mainland Chinese male. Overseas sojourn Chinese female also has low percentage of higher education. While comparing to the general pattern of educational attainment among domestic marriage in Mainland China (Figure 7), the similarity of the pattern between Overseas Chinese sojourners and individuals of domestic marriage is obvious. The result also cast doubt on the hypothesis of two types of status exchange.



SOURCE: BCA provincial *Marriage-Divorce Registration Record Database*, 2010 to 2014.

Figure 7 Distributions of educational attainment in domestic marriage for province X by gender, 2010 to 2014

Detailed analysis on the registration dataset enhanced our understanding of international marriage and its domestic counterpart, yet it also led to more questions regarding to conventional assumptions and hypothesis of international marriage in Mainland China. To provide a more comprehensive analysis of marriage choice and solidarity while also put the hypothesis into test, further study is conducted through different modelling methods.

Methods

The annual numbers of marriage registration are more than 0.3 million for domestic couples and less than 3000 for international couples, while the numbers of divorce are below 0.2 million and even less for international one. Responding to this data structure, random sampling was applied to construct a pooled dataset of both international and domestic marriages (Table 4). According to Allison (2012), the disproportionate stratified random sampling on the dependent variable will not generate biased estimates for coefficients of maximum likelihood estimation. The slope coefficients are not biased by disproportionate random sampling, but the intercept

does change under such sampling schemes. Thus, full marital records for all Chinese-foreign marriage couples and 1% random selected sample of the Chinese-Chinese marriage couples were pooled to construct a choice-based dataset of Chinese citizens' marital outcomes between 2010 and 2014⁴. In total, 22,412 couples and 33,606 Mainland Chinese citizens were included in the logistic analysis. Gender and age are used as control variables, other variables represent the effect of occupation, education, ethnicity, registration period, and marriage history.

Table 4 Descriptive Means and Proportions for Variables in the Analysis

Variable		Sample	Population
Gender	Male	50	50
	Female	50	50
Average Age at marriage		34.05	33.78
Marital choice	Domestic	50	99.9
	International	50	0.1
Marriage year	2010	24.17	17.95
	2011	20.88	19.38
	2012	20.97	20.14
	2013	18.76	21.97
	2014	15.22	20.56
Marriage history	Never married	70	71.74
	Divorced	28	26
	Widowed	2	2.26
Education achievement	Primary school	7.86	7.31
	Secondary school	39.5	38.1
	High school	15.26	15.28
	Vocational school	11.7	12.2
	College and uni.	20.57	19.82
	Graduate school	4.05	4.48
Residency*	Mainland	74.96	-
	Overseas sojourn	3.65	-
	Hong Kong	0.34	-
	Taiwan	2.08	-
	Macao	0.13	-
	Foreign countries and areas	18.84	-

NOTE: Population data of MCA's registration record has been adjusted due to small amount of systematic error and missing cases, however the final structure of data did not change, and the distribution of key variables maintain the same. The distribution of residency is not reported as comparing to the large amount of domestic married Mainland Chinese population, the proportion of foreign residents will be extremely low.

SOURCE: BCA provincial *Marriage-Divorce Registration Record Database*, 2010 to 2014.

The outcome of marriage is coded as an underordered binary choice, in which the value 0 suggests domestic marriage while 1 equals international marriage, and the case observations with ones ($Y = 1$) is equal to the control observations with zeros ($Y = 0$). A logit model is applied to analysis the odds ratios of probable outcome of a marital choice π_{ij} , such that

$$\text{logit}(\pi_{ij}) = X_i\beta + \eta_{ij} \quad (1)$$

where X_i denotes a set of vectors of independent variables. Following the exchange theory in existing research of international marriage, certain assumption also could be made. Based on this scheme, individual's marital choice aims to maximize the utility of their marriage. However, the maximization might encounter with errors as not all the factors influencing marital behaviour can be predicted, observed, or controlled as the interaction between individual characteristics and marital choice cannot be perfectly predicted. Meanwhile, the case-controlled sampling will yield unbiased coefficient estimation for independent variables, but the intercept still needs adjustment (Allison 2012). Thus, to avoid possible violation of three primary "limitations" of logistic model (Train 2009) and test the soundness of the model, random-utility model is also applied. The results should be robust in both models. General model (McFadden 1974; Maddala 1983; McFadden and Train 2000) is specified as

$$U_{ij} = X_i\beta_j + \varepsilon_{ij} \quad (2)$$

where X_i denotes the case-specific and alternative-invariant characteristic of individual i , β_j represents the coefficients on the odds of choices, and U_{ij} stands for the value of the j -th choice to the i -th individual. ε_{ij} concludes the latent vectors that might affect marital choices, which follow a type I Gumbel distribution.

To investigate the hazard of marriage dissolution, survival analysis is applied. Although the existing research of divorce and union dissolution points out that there is a possible invert U shape relationship between hazard of divorce and duration of marriage, it was mainly based on research from Western societies (Diekmann and Mitter 1984; Andersson 1997; Lyngstad 2004); while research of China's divorce has provided inconclusive results. The survival function for international marriages and domestic marriages in Mainland China still need to be estimated. Although existing study also argues about the potential influences of couples' differences on age at marriage and educational attainment might have on quality of marriage, the relationships are not sufficiently studied, especially for comparison between international and domestic marriages. This study treated international marriage as mutually exclusive marriage choices for Mainland Chinese citizens, and the analysis of marriage dissolution is also based on an integrated dataset of both types of marriage. By merging the marriage and divorce record of international and domestic marriage into one dataset, this study also aims to depict the connection between human capitals and marriage duration.

Since the bureau's record contains all divorce by agreement cases in Mainland China, the Kaplan-Meier product-limit method is applied to estimate the nonparametric survival function for both types of marriage respectively. Demographic characters of the couples provided by the BCA are age, gender, educational background, and occupation; and these predictors are not time-varying. Because the divorce record also provides precise information on the dates of marriage and divorce, the length of marriage is measured in days, while the window of observation is from January 1, 2010 to December 31, 2014. However, international marriage is only publicly recognized and recorded by the country since 1979, the longest duration of

Chinese-foreign marriages in Mainland China is limited comparing to domestic marriages, thus the sample of domestic marriages was adjusted accordingly. It is also noticed that due to the limitation of dataset, the marriage and divorce record of domestic couples and international couples before and after the window of observation is not available in the data which applied for survival analysis. Meanwhile, the longest duration of each types of marriage (continue without divorce) during this window is five years. Therefore, though half of the marriage in this data is right-censored, the observed divorce cases for both types of marriage during the five year are depleted fully, which means the survival functions are expected to equal to zero at the end of observation. Cox proportional hazard model can be applied to measure potential covariances between individual characteristic and dissolution of a marriage without specify the hazard function, such that

$$\lambda(t|X_i) = \lambda_0(t)exp(X_i\beta) \quad (3)$$

where the β is the vector of unknown parameters and X_i denotes individual characters, while $\lambda_0(t)$ is a unknown function of basic hazard giving the condition X_i equals to 0. It is noticed that the dataset does not include all marriage and divorce cases, as not all marriage will fall apart when data collection ended; and some inter-provincial married couples might get married or divorced in another province while some international couples might get married or divorced outside Mainland China. Thus, not all marriage and divorce can be traced by this dataset and this might cause problem of censoring, yet since no conclusive analysis can be applied to determine the type of censoring, it is treated as noninformative.

The issue of missing detailed information on occupation raises the issue of missing data. Majority of the predictors have relatively low level of missing information, usually less than 2 percent, while for occupation at marriage the information was not sufficiently stratified. Although the detailed information of occupation were recorded during registration process, the online database only provides classification of 8 types of occupation according to China's GB standards. A number of occupation information were missing due to the computerization process⁵, and these cases were set aside with sensitivity analyses by refitting models with samples with complete information on the predictors.

Additionally, China's general reform and change of marital behaviour is also a key variance which might influence individual's choice of divorce. Since the new marriage law (Palmer 2007) in Mainland China was putted into effect in 1981 and further judicial interpretations were applied in 2001, 2004, and 2011, these years marked the cutting points of Chinese marriage and divorce behavioural changes. Since major economic reformation and globalization has happened during the following decades, the period is also used as a dummy variable to control the time varying covariates in the analysis of divorce.

Marriage Choices and Solidarity of Union

Research of marriage in Mainland China is fruitful but lack the focus of its international counterpart, while study on international marriages in Mainland China is insufficient. In hopes

of provide a more comprehensive understanding of the interaction between human capital and international/domestic marital choice, this study applied several statistic model to analyse the relationship between demographic characteristics, similarities and differences, and formation and dissolution of international and domestic marriages in Mainland China. Zero-order correlation coefficient was applied to reveal possible relationships between variables, and it shows that age, gender, marital history, educational attainment, occupation, and ethnicity are significantly related to individuals' marital choices and the duration of both types of marriage.

In logistic model, the analysis of marital choice is examined for a sample of 44,824 individuals' marriage choice, in which the observations only contain Mainland Chinese citizens. For each observation, the marital choice is a discrete alternatives choice between domestic marriage and international marriage. Thus, the estimations examined and predicted the correlation between individual characteristics and marital choices between marrying domestically or internationally.

Table 5 Maximum likelihood estimation coefficients for predictors of marriage choice of Mainland Chinese citizens

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Marry age	0.349*** (33.47)	0.366*** (34.51)	0.275*** (24.86)	0.302*** (26.63)	0.220*** (3.87)	0.220*** (3.87)
Age square	-0.005*** (33.34)	-0.005*** (34.23)	-0.004*** (26.89)	-0.004*** (28.48)	-0.003*** (4.09)	-0.003*** (4.09)
Gender (ref=male)		0.514*** (21.29)	0.409*** (16.51)	0.463*** (18.26)	0.541*** (4.10)	0.541*** (4.10)
Marital history (ref=never married)						
Divorced			0.910*** (29.26)	0.836*** (26.18)	1.176*** (7.81)	1.176*** (7.81)
Widowed			1.220*** (13.77)	1.081*** (11.93)	1.558*** (4.67)	1.558*** (4.67)
Education (ref=Primary school)						
Secondary school				-0.530*** (12.02)	-0.699*** (3.40)	-0.699*** (3.40)
High school				-0.764*** (14.51)	-0.666*** (2.62)	-0.666*** (2.62)
Vocational school				-0.218*** (4.15)	-0.897*** (3.32)	-0.897*** (3.32)
College and undergraduate				-1.008*** (20.30)	-0.433 (1.58)	-0.433 (1.58)
Postgraduate				-2.270*** (22.00)	-1.974*** (3.09)	-1.974*** (3.09)
Occupation (ref= Farming, forestry, animal husbandry and fishery)						
Production and transportation					-0.199 (0.52)	-0.199 (0.52)

Commerce and service					1.633***	1.633***
					(9.75)	(9.75)
Professional/Technical					-0.199	-0.199
					(0.47)	(0.47)
Staffs in offices					-1.315***	-1.315***
					(4.64)	(4.64)
Military personal					-0.299	-0.299
					(0.29)	(0.29)
Administrators					-0.612**	-0.612**
					(2.32)	(2.32)
Constant	-6.49***	-7.058***	-5.426***	-5.291***	-7.385***	-7.997***
	(36.62)	(38.94)	(28.67)	(27.19)	(7.51)	(7.85)
N	33,590	33,590	33,446	33,395	13,908	27,816

NOTES: (1)–(5) Logit regression, (6) Mixed logit regression. ** denotes significant at 5% level; *** denotes significant at 1% level. The table reports coefficients of logistic regression models and standard errors (in brackets).

Source: BCA provincial *Marriage-Divorce Registration Record Database*, 2010 to 2014.

Scholarly views commonly accept the fact that age at marriage has critical effects on individuals' choice of marriage in China. The model starts with linear and quadratic effects of individual's age at marriage, which shows an invert U shape curve relationship between individuals' age at marriage and marriage choices between international and domestic marriage. The results show that in Mainland China, individuals' choice of marriage is significantly related to their age at marriage. Comparing to the individuals who choose to marry a domestic partner, the possibility of marrying internationally will increase, then decrease for both genders if the individual's age at marriage increased, while for female this effect will be more powerful (model 2). In spite of the fact that more variables are added through model 2 to model 6 to test and control the effect of individuals' socioeconomic status, the effect of age at marriage is still significantly correlated with individuals' marriage choice.

In model 4, 5, and 6, individuals' educational attainment is added to examine its relationship with marriage choice between domestic and international marriage. It is obvious that comparing to individuals who obtained primary school education, the possibility of choosing international marriage decreased when educational attainment increased. But comparing to other type of educational attainment besides primary school education, individuals who obtained vocational school education have higher possibility to choose international marriage. Once the effect of educational attainment is being considered in model 4, the correlation of age at marriage and gender also increased comparing to model 3. It is possible that for female who obtained lower educational attainment, the increase in their age at marriage will also increase the possibility of choosing international marriage.

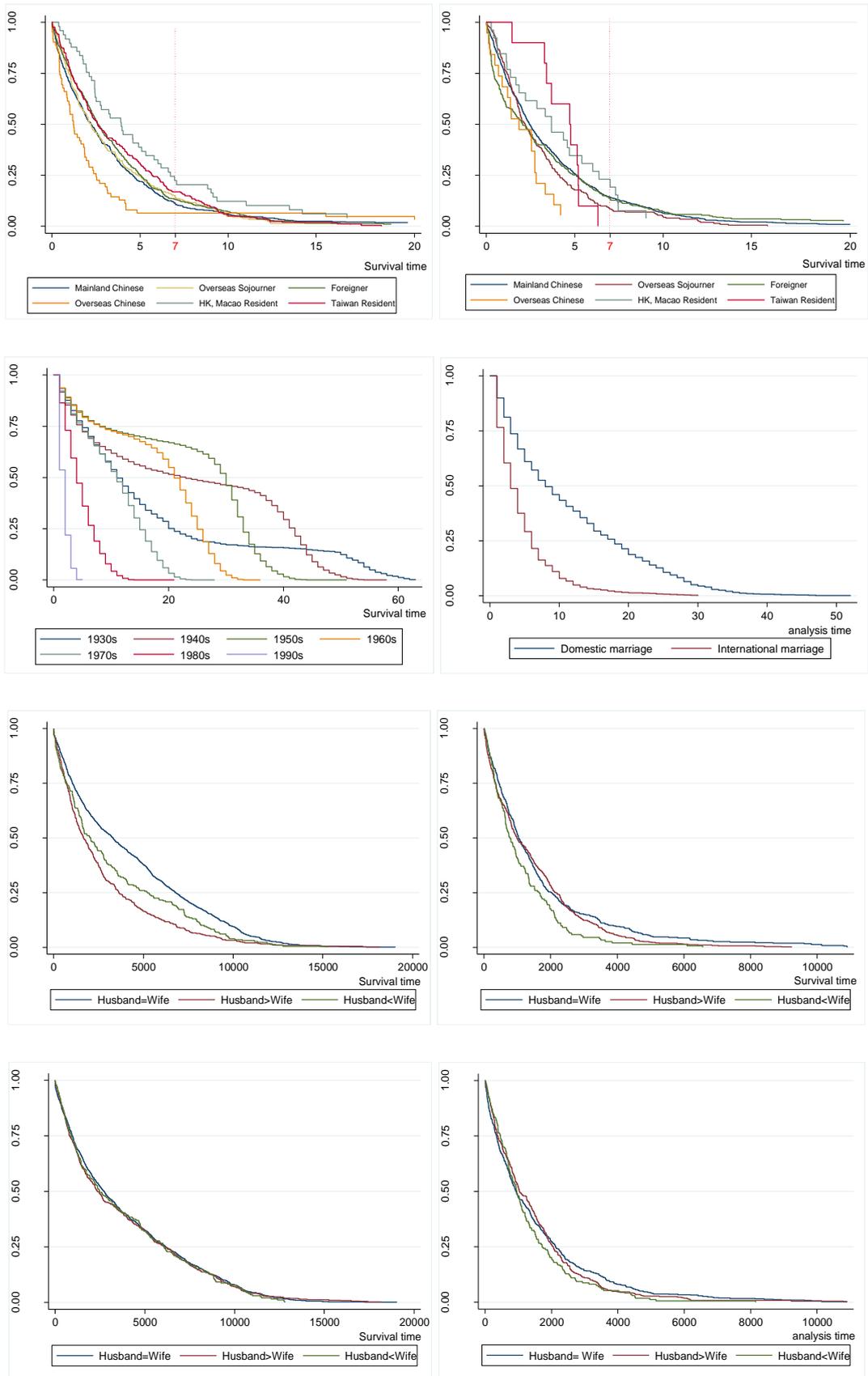
Model 5 and model 6 demonstrated the results of discrete choice and random utility models. As the effect of occupation is added into the model, the correlation between age at marriage and marriage choice has decreased, but the correlation of gender and marriage history increased. After the effect of occupation is controlled, the possibility of individuals who obtained college

and undergraduate level of educational attainment to marriage internationally has no significant differences comparing to individuals with primary school education. The possibility of choosing international marriage is not significantly different among farmers, production and transportation worker, professional or technical personnel. While hold other variables constant, individuals who engage in commerce and service industry have higher possibility to marry internationally while staffs in offices and administrators are less likely to involved in international marriage. Majority of these two types of occupations are “in-institution” jobs with political and material privileges, and high social status under the state system (Bian, Breiger, Davis, and Galaskiewicz 2005).

Some of the results are also consistent with prior discovery from this study and existing literatures: while holding other socioeconomic vectors constant, Mainland Chinese female are still more likely to choose international marriage than Mainland Chinese male; and individuals with previous marriage history are more likely to marry internationally than individual who never married before their marriage registration. Even though during 2010 to 2014 there has been a sudden surge of first marriage Mainland Chinese male registered for international marriage, the correlations between marriage history and international marriage are still significant. However, there is no significant differences between primary school and university educational attainment on individuals’ choice between domestic and international marriage, which is also different from conventional assumptions. This might indicate that both well-educated and poorly-educated individuals in Mainland China are more likely to choose international marriage comparing to their domestic counterparts.

Individuals’ ethnicity⁹ is another vector which might affect people’s choice of marriage, the zero-order correlations also indicate this. Ethnic identity is also controlled in the modelling process. The result shows that cross-border co-ethnic groups have significantly high possibility of international marriage comparing to the *Han* group, while other non-cross-border minority ethnic groups are not significantly different from the *Han* group on their choice of marriage.

Although the data here is selected on disproportionate sampling, the estimation results still provide similar possibilities of marriage choices comparing to the population, in which given all individual characteristics being controlled, 99.9% of individuals will choose marry domestically. The estimation also shows that the choice-specific constants are highly significant. According to McFadden (1937), these constants are results “in the average probability for each option being equal to the actual share in the sample”. These constant also captured the average effect of all unobserved variables, among those the most important vector might be the differences between household registration status, which unfortunately cannot be captured in this study due to limitation of data.



Notes: a) Top-left, international (Chinese-foreign) divorce of male by residency, measured by years; b) Top-right, Chinese-foreign divorce of female by residency, measured by years; c) Second-left, domestic (Mainland Chinese-

Chinese) divorce by cohort, measured by years; d) Second-right, comparison of duration between international and domestic marriage, with weighted adjustment, measured by years; e) Third-left, domestic divorce by gap of age at marriage within spouses, measured by days; f) Third-right, international divorce by gap of age at marriage within spouses, measured by days; g) Bottom-left, domestic divorce by gap of educational attainment within spouses, measured by days; h) Bottom-right, international divorce by gap of educational attainment within spouses, measured by days.

Source: BCA provincial *Marriage-Divorce Registration Record Database*, 2010 to 2014.

Figure 8 Kaplan-Meier Survival Estimate of Chinese-foreign and Chinese-Chinese Divorce

Figure 8 demonstrated the nonparametric survival curve estimated by the Kaplan-Meier method. Foreigners are divided into two groups: Overseas Chinese with foreign citizenships and other foreigners. Top two figures (8a and 8b) shows the survival curve of international marriage by gender and residency, in which the similarities and differences are quite obvious. The survival curve of Mainland Chinese male and male Overseas Chinese sojourners are close to each other, while Mainland Chinese female have a higher risk of divorce than female Overseas Chinese sojourners. Male foreigners' survival curve is similar as male Taiwan residents', but their risk of divorce elevated after 3 years of marriage. Female foreigners have highest risk of divorce within two years of marriage, while female Taiwan residents have the lowest risk among all females. But the observed numbers of divorce between Mainland Chinese male and female Taiwan residents/Overseas Chinese with foreign citizenships is relatively small, the survival curves might be inconclusive for these two groups. Different from conventional believes, marriage between residents from Hong Kong/Macao and Mainland Chinese citizens have lower risk of divorce for both genders, and the marriage between Overseas Chinese with foreign citizenships and Mainland Chinese citizens have the highest risk of divorce. Log-rank test also confirm that there are significant difference across strata of gender and residency.

In domestic marriages (8c), the 1950s and the 1960s birth cohorts have the lowest risk of divorce within 20 years after marriage, while the 1980s and 1990s birth cohorts have the lowest risk of divorce. Still, since the longest duration of marriage for 1980s and the 1990s birth cohorts is 14 years in 2014, the result for both cohorts is inconclusive. But it is similar to the results from existing research. The 1930s birth cohort have highest risk of divorce comparing to the 1940s, 1950s, and 1960s. It is possible that the durations of marriage for the 1930s cohort is affected by major historical events, since similar pattern can be observed in the 1940s, 1950s, and 1960s cohort. In addition, overall in domestic marriage, male has higher risk of divorce comparing to female among all cohorts. Comparing international divorce with domestic divorce, it is clear that international marriages have higher risk of divorce than domestic marriages (8d). Even though the longest duration of international marriage in Mainland China is 35 years in 2014, the risk of divorce of international marriage is still higher than domestic marriage.

Considering the relationship between solidarity of marriage and patterns of matching of spousal age and educational attainment, the results are quite different. The differences of age-gap of spouses and the duration of marriage shows that international marriage and domestic marriage has different patterns. For domestic marriage (8e), if husband's age at marriage is one year

younger to four years older than wife's, they will have the lowest risk of divorce; if husband's age at marriage is at least five years older than wife's, they will have the highest risk of divorce. In international marriage (8f), these two types of age-gap shows relatively similar risk of divorce while after 6.8 years the former have a lower risk of divorce; if husband's age at marriage is at least two years younger than wife's, they will have the highest risk of divorce. The differences of educational attainment of spouses are also plotted in this paper. In domestic marriage (8g), the risk of divorce is relatively similar among all types of educational matching between spouses. However, in international marriage (8h), if husband's educational attainment is lower than wife's, they will have the highest risk of divorce.

Table 6 Cox estimation for solidarity of international and domestic marriages

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
International marriage (ref=Domestic marriage)	0.879*** (31.26)	0.775*** (25.41)	0.481*** (14.92)	0.595*** (15.79)	0.660*** (16.31)
Age-gap (ref=Husband=Wife)					
Husband>Wife		0.287*** (9.31)	-0.004 (0.21)	0.011 (0.32)	-0.026 (0.75)
Husband<Wife		0.320*** (8.07)	0.114*** (2.81)	0.112*** (2.76)	0.114*** (2.63)
Educational attainment (ref=Husband=Wife)					
Husband>Wife		0.003 (0.09)	-0.030 (1.05)		
Husband<Wife		0.076 (1.90)	0.049 (1.22)		
Age at marriage			0.141*** (17.34)	0.145*** (17.67)	0.152*** (17.02)
Age square			-0.001*** (12.55)	-0.001*** (12.74)	-0.001*** (12.43)
Residency(ref=Mainland China)					
Overseas sojourn				-0.081 (1.24)	-0.108 (1.61)
Foreign countries				-0.156*** (3.02)	-0.106 (1.94)
Hong Kong, Macao				-0.659*** (4.46)	-0.670*** (4.44)
Taiwan				-0.582*** (6.61)	-0.522*** (5.65)
Education (ref=Primary school)					
Secondary school					-0.153*** (2.92)
High school					-0.267*** (4.52)
Vocational school					-0.118

					(1.65)
College and undergraduate					-0.270***
					(4.46)
Postgraduate					-0.040
					(0.43)
Occupation (ref= Farming, forestry, animal husbandry and fishery)					
Production and transportation					-0.586***
					(6.74)
Commerce and service					-0.140
					(1.70)
Professional/Technical					-0.653***
					(4.26)
Staffs in offices					-0.272***
					(5.14)
Military personal					0.357
					(0.94)
Administrators					-0.205***
					(3.04)
LR chi-square	907.07***	1027.19***	1894.17***	1965.12***	1938.30***
df	1	5	7	10	20
N	6582	6582	6563	6541	5846

NOTES: Gender effect is omitted as the divorce record is couple-matched. ** denotes significant at 5% level; *** denotes significant at 1% level. The table reports coefficients of cox models and standard errors (in brackets).

Source: BCA provincial *Marriage-Divorce Registration Record Database*, 2010 to 2014.

To further test the relationships between individuals' human capital and solidarity of marriage, Cox model was applied (Table 6). The results indicate that couples of international marriage have significant higher risk of divorce comparing to domestic couples, but the differences on risk can be explained by a series predictors of individuals' socioeconomic status. Comparing to domestic marriage, the rate of divorce increase by 93.48% if all other variables were held constant (Model 5).

Different from the existing literature, the differences of educational attainment within spouse show no significant impact on the solidarity of both type of marriage (Model 2 and Model 3), which is similar with the Kaplan-Meier output (Figure 8g and 8h). Comparing to primary school education, although there is no significant difference for college graduates in their marriage choice (Table 5), the differences on duration of marriage is significant (Model 5). With the increase of couples educational attainment, it will significantly decrease the risk of divorce. The interaction between husband's and wife's educational attainment was test during the modelling procedure. While hold other predictors constant, comparing to the couple who both have primary school education, couple with both high school education, both college and above education, or husband with college education and wife with primary or high school education will have significantly low risk of divorce; if the husband obtained primary school education

but the wife obtained with vocational school education, their risk of divorce is significantly higher than other types of pair on educational attainment.

Although the differences of age at marriage within spouses show effect on the duration of the marriage, comparing to the couples that homogenously matched on age at marriage, if the husband's age at marriage is at least two years younger than the wife's, as the age-gap increases by one unit, the rate of divorce increases by 12.08% (Model 5). There is also an inverted U shape curve relationship between individuals' age at marriage and the duration of their marriage (Model 3, Model 4, and Model 5), which demonstrated a different relationship between age at marriage and duration of marriage. According to Li and Wang (2014), for Mainland Chinese female in domestic marriage, the risk of divorce is significantly related to their age at first marriage with a U shape curve, with the increase in age at first marriage, the risk of divorce will decrease then increase, and the cutting point is 40. Due to the limitation of dataset, the predictor "age at marriage" applied in this research cannot separate first marriage and remarriage population among domestic marriage population, thus the relationship is expected to be affected by the observations of remarriage as the province also has above-average crude divorce rate in Mainland China. Meanwhile the population in this study is different from conventional research, as couples of international marriages are more likely marry at older age and previously married before their registration (see Table 1 and Table 2). Based on the results from this dataset, with the increase in age at marriage, the risk of divorce will increase then decrease, and the cutting point is 52 for female and 54 for male; male also shows higher risk of divorce through all age groups. Also, the risk of divorce increases with individuals' birth cohort; the 1980s and the 1990s birth cohorts show the highest risk of divorce, comparing to the 1940s. However, if the interaction of spouses' birth cohort was taken into the model, the inverted U shape curve between female's age at marriage and the risk of divorce also disappeared, but the effect became much stronger for male.

Comparing to all the Mainland Chinese citizens, while holding other variables constant, residents from Hong Kong, Macao, and Taiwan have lower risk of divorce in international marriage (Model 5), while the risk of divorce shows no significant differences between Mainland Chinese-foreigners and Mainland Chinese-Overseas Chinese sojourners couples. To further dissect the effect of residency and marriage, the interaction between husband's and wife's residency was taken into consideration. If other variables were held constant, Mainland Chinese male husbands and their foreign female wives have significantly higher risk of divorce, while other types of residency arrangement between spouses show no significant difference on the risk comparing to domestic couples. In addition, the Mainland Chinese citizens and Overseas Chinese sojourners couples also show higher risk of divorce compared to domestic couples, but the results are not statistically significant.

Individuals' occupation also shows significant correlation with their risk of divorce. Comparing to the low social status occupation in farming, forestry, animal husbandry, and fishery the high social status "in-institution" occupation will significantly decrease the risk of divorce, while the commerce and service industry shows no significant differences in risk of divorce. The

ethnic background of spouses is also tested in the survival analysis, which show no significant correlation with the risk of divorce. Comparing to the marriage within the *Han* group, ethnic endogamy, ethnic exogamy shows no differences on their risk of divorce in both types of marriages, even for the cross-border ethnic groups.

Discussion and Conclusion

Two decades after its opening-up and economic reformation, China became one of the largest global economies as its implementation of market principles has resulted in great economic growth. The remarkably increase in economic growth has also lead to immense changes in its society, such as increase of income, improve of living standard, increase of life expectancy, and improve of educational attainment. With China's dramatic changes during the last three decades, it not only became an economically-advanced country within Asian region, but also created more disparities within the country. The imbalanced regional development and inequality of personal income have further exposed the large gaps among different social status and origins in the country. The wealth gaps between social classes and regions, combined with low level of fertility, high speed of population ageing, imbalanced sex-ratio, gender inequality, and assortative and hypergamous matching, have led to dramatic changes in China's marriage and family behaviours. Although Chinese culture and institutional design placed great importance on marriage and family (Greenhalgh 1985; Watson and Ebrey 1991; Fei 1992), the conventional norms and regulations did not efficiently adapt to the changing circumstances of the society.

International marriage in Mainland China is intervened with the political situation and environment of state. This type of marriage is considered as a abnormal marriage behaviour with the sole motivation of emigration, as a result, its research and management is largely limited since 1979 to the early 2000s while the state, social media, and some scholars also attributed the sudden growth of international marriage to Mainland Chinese women's materialism and xenophilia attitude. With surges of sudden increase in Mainland Chinese men's international marriage (2005 and 2010), the state and scholars starts to focus on its effects on national security, political influence, and population and epidemic control. The concern of intergrading of foreign spouses and their offspring into Chinese society also rises (Xiong and Yang 2016; Wang 2016). In fact, though international marriage in China has existed for three decades, and largely affected the population and social structure among Asian countries and areas, yet the basic feature and mechanism of international marriage in China and its connection with domestic marriage is not well understood.

Based on the provincial data of marriage registration record, this study has putted several assumptions on China's international marriage into examination. Previous study which based on national statistic and yearbooks demonstrated that there has been a sudden increase in Mainland Chinese men's international marriage from 2010; the sex-ratio of marriageable population and regional incidence of international marriage are significantly related. The results of this data has also shown that from 2010 to 2014, there has been a sudden surge of first marriage Mainland Chinese male who married to first marriage and young foreign female.

Comparing to the annual numbers of domestic marriage registration, it is obvious that there has been peaks of both types of marriage since 2010, which is the echo of the 1980s birth peak cohort. It might also support the connections between marriageable population and local-global marriage market. The intensified economic pressure, social precarity, and shrinking gender gap in education, combined with China's spousal selection norms, have increased women's desire to marry to economically established men, which result in the age hypergamy and "marriage squeeze" for men with low socioeconomic status in domestic marriage increased in recent years (Mu and Xie 2014). While on national level, the percentage of hypergamous pair among domestic married couples became relatively higher than international married couples (Table 3), it might also related to the pattern of marital age hypergamy. Considering the fact that with the increase in age at marriage the possibility of individual choosing international marriage than domestic marriage also increase, this might also implied that with the up-ward selection of female, the marriage squeeze not only cast pressure on low socioeconomic status men, but also built up obstacle on women with above-average status. Under China's spousal selection feature and gender disparities, comparing to men, women with higher educational attainment, higher occupation, higher income, previous marriage history (and/or children), or marriage at a later age can be considered as the non-preferable wife in domestic marriage. This might result in their desire in choosing a more suitable foreign spouse with higher socioeconomic status or origin.

It is commonly believed that the most distinctive feature of international marriage, comparing to domestic one, is the status exchange between spouses, even though the exchange also exists in domestic marriages. The existing literature also applied this assumption of status exchange on China's international marriage, in which it emphasized that individuals with below average social status are more likely to seek a spouse from transnational marriage market to compensate the trait they are lack of. It is also argued that with the exchange between spouses, often the mechanism is exchange of youth and beauty to work or residency in more advanced society; and their marriage is more likely to be a low quality one.

Based on the data applied in this research, the descriptive analysis indicate that though international marriage are more likely to be remarriage, the homogamous features of their age at marriage, educational attainment, and marriage history are quite obvious in the recent decade. In Mainland China, the possibility of choosing international marriage for individuals who obtained below average educational achievement and higher educational achievement is not statistically different. It might indicate that the international marriage is a choice for individuals from both lower-end and higher-end social status, as these two are more likely to confront with the pressure of structural shortage of suitable spouses, especially for highly educated women and low human capital men. The educational attainment also have effects on the duration of marriage, with the increase of education, it will significantly decrease the risk of divorce. Individual obtained higher status on occupation will have lower risk of divorce. If an individual obtained a job among the "in-institution" occupation with social, political, and prestige advantage, it will significantly decrease the possibility of choice a foreign spouse and their risk

of divorce. Individual in commerce and service industry are more likely to choose international marriage and their risk of divorce is also higher than other types of occupation.

Mainland Chinese citizens with previous marriage are more likely to marry internationally, with the increase in age at marriage it will also increase then decrease the possibility of choosing international marriage. In addition, marriage history and age at marriage also affect the duration of marriage. With the increase of age at marriage, the risk of divorce also increase then decrease for Mainland Chinese male; but for Mainland Chinese female, if the influence of birth cohort is controlled, their risk of divorce will only increase with their age at marriage. As the data does not provide information to identify the marriage history in divorce record, and couples with previous marriage history are older and more likely to divorce, it is possible that the correlation between age at marriage and risk of divorce is over-estimated for the first marriage couples.

However, different from existing research, the results indicate that the gap of educational attainment between spouses have no statistically significant effect on the dissolution of their marriage, both internationally and domestically. But for the relationships between risk of divorce and age-gap between spouses, international marriage and domestic marriage show different patterns. For domestic marriage, different age-gap show different level of risk while the homogamy on age at marriage couple have the lowest risk of divorce; for international marriage, comparing to their domestic counterparts, if the husband is at least two years younger than his wife, it will significantly elevate their risk of divorce.

Overseas Chinese sojourners share more cultural similarities with Mainland Chinese citizens, their risk of divorce is similar with Mainland Chinese citizens. Comparing to other foreigners, foreigners with Chinese lineage have much higher risk of divorce. The risk of divorce of foreigners is relatively lower than Mainland Chinese citizens in international marriage, but compares to the domestic marriage couples, it is not statistically different. The marriage between Mainland Chinese citizens and residents from Hong Kong, Macao, and Taiwan has the lowest risk of divorce, even compares to domestic couples.

It is also noticed that several limitations exist in this research. Since the Ministry's annual statistic yearbooks does not provide detailed individual information for international and domestic marriage, it thwart any attempt to confirm or deny the pervasive features and structures of China's international marriage on national level. In addition, since the Ministry and Bureau of Civil Affairs collect marriage and divorce information based on their own governmentality concerns, it largely limited the scope and depth of information in registration database. And with the large amount of annual marriage and divorce registration documents, the digitalization process of the record is still in progress, which also put limit on the online database. Meanwhile, in order to preserve the confidentiality and integrity, the provincial Bureaus often does not permit public access of registration documents.

In the provincial data applied in this research, the analysis is also limited by certain defect of the data: such as the missing values of occupation, the lack of coding and categorize of Chinese citizens' household registration status, and the coverage and depth of information. During the

stage of registration and data input, even though individuals provided detailed information of their occupation, the transcript of this information is limited due to the defect of the Ministry's online system and the acquirability of hardcopy documents. In spite of the online database provide detailed geographic location of the place of household registration for married/divorced individuals, it does not provide any information related to the rural, urban, or collective status of this *hukou* information. As a result, the analysis on international and domestic marriages are largely restricted due to this natural defect of marriage (See also Ding et al. 2004; Gao et al. 2013). Even though the hardcopy contain information of occupation, and the online database provide information about *Hukou*, due to the vast amount of records and the strict regulation on public accessing the registration documents, any attempt of manually transcript or collect these information will be highly time and manpower consuming.

To maximize the utility of this data, multiple imputation with Monte Carlo Markov Chain data augmentation methods was applied. The coefficients were changed but the general effects of explanatory vectors did not change, especially for the models of marriage choice. This imputation tested the efficiency of model, even with the systematic missing value of occupation, it still generated similar results. Because previously study shows that there is a undeniable correlation between rural/urban consumption and the regional incidence of international marriage, as well as much research on China's domestic marriage and its solidarity also revealed the connection between household status and marital behaviours, the individuals *Hukou* status is expected to affect their marriage choice and solidarity of union. However, as this information is not usable from the provincial database, the qualitative analysis from this database cannot support or deny the possible connection between Hukou origin and international marriage in Mainland China. This disadvantage might be compensate by case study or survey data, which can be applied in the future study.

Notes

The authors acknowledge the support of the Bureau of Civil Affairs, the Higher Degree Research Office at Macquarie University and Centre for Population and Development Studies at Renmin University of China.

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1 Bridewealth is a type of wealth paid by groom or his family to the parents of bride as a ritual and symbolic gesture to ratify marriage, it is also known as bride price or bride token. While dowry is a type of parental wealth transfer to the bride at the marriage. In China, both bridewealth and dowry will be paid at the marriage, either in forms of dwelling, motor vehicles, jewellery, furniture, home appliances, and wedding ceremony for the newly wedded couple, or sometimes bride's parent might transfer the bridewealth and dowry to the bride and the new family. However, in less-developed area, bridewealth become a necessary insurance for male to get married: if a family cannot provide enough bridewealth for its son to marry a wife, its daughter will marry to another family in order to get bridewealth from them, which in return will transfer to the parents of the son's wife. In recent years, the combined effect of empowerment of female, socioeconomic disparities, and local imbalance of sex-ratio of marriageable population has largely elevated bridewealth to the extent that some rural males cannot afford to marriage. Some local governments intervened by declaring if the bridewealth higher than 20 thousands RMB, the marriage will be declared as illegal "mercenary marriage", and the offender shall be found guilty of human trafficking. For further refence, please see Goody and Tambiah (1973) or Poston, Yang, and Farris (2013).

2 In China, the conventional mate selection follow both arrangement in practice: the "*mendang hudu*", also known as assortative matching of families; and the "*nangao nvdi*" depicts hypergamous matching of spouses with mating gradients that "dictates that women should marry up and men should marry down applies not only to age, but also to height, weight, socioeconomic status, education, and perhaps intelligence (Veevers 1988)".

3 The Ministry's yearbooks only provide a summarised tabulation for the annual marriage and divorce registration that exclude detail demographic information. It is based on provincial Bureaus of Civil Affairs' monthly or annually statement from database. It is noticed that there is inconsistency between the provincial database and the national statistical yearbook data. It does not affect the validity of the analysis as this paper utilize the original records from regional Bureau's database.

4 It is also noticed that the marriage and divorce of Mainland Chinese citizens which occurred out of Mainland China cannot be found in the record of the Bureau of Civil Affairs' database, or courthouses. In other countries, in addition to the local government or marriage officiants, China's embassies can also provide marital registration service if one of the couple is Overseas Chinese sojourner or Hong Kong resident. Provincial Bureau of Civil Affairs and China's foreign embassies process marriage registration separately, and the registration records from embassies is not available to the public or the BCA.

5 Although the dataset provide detail geographic information of individual's *hukou*, it does not sort out the types of *hukou*, the workload of manual classification is enormously high and the accuracy might not be ideal.

6 Although in the 6th Census there has been data collection of foreigners in China, the questionnaire and data is not publicly accessible, and cannot be obtain in this research.

7 Due to the unit variance of population base of these two subgroups, the dataset is an imbalanced choice-based sample. However, it will not affect the slope or goodness of fit of our models, but the standard error terms. The confidence interval of coefficients may vary, but the model basically remains the same.

8 Despite the occupations was classified into eight general types based on Chinese national standard, the provincial Bureau's informatization process were not strictly complied with the GB standard, hence the missing information were largely classified as "others who are not able to be classified". The robustness checks produce similar results. For practical considerations, the simulation tests and interaction are not provided here.

9 There are 59 categories of ethnicities in Mainland China. In the provincial dataset, Mainland Chinese male can be categorized into 12 ethnic groups, Mainland Chinese female can be categorized into 16 ethnic groups. The ethnicities is not identified in this research in hopes of preserving the confidentiality. For practical considerations, the correlations between interaction of spousal matching in ethnicity and marriage choice/duration are not provided here.

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