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Citation

TEERAWICHITCHAINAN, Bussarawan.(2012). *War, Military Service, and Union Formation in Northern Vietnam*. Paper presented at the Population Association of America Annual Meeting, 3-5 May 2012, San Francisco.

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War, Military Service, and Union Formation in Northern Vietnam

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ABSTRACT

As wars exert increasing force on global affairs, there is greater demand for understanding the international diversity of family experiences with conflicts. This study examines the relationship between military participation during the Vietnam War (1965-1975) and first-marriage timing among northern Vietnamese men and women. Based on the Vietnam Longitudinal Survey and its recent follow-up, this paper describes cohort variations in the likelihood and timing of first marriage during pre-war, wartime, and post-war years and addresses the effects of veteran status, combat exposure, duration and timing of service. We find war did not decrease marriage likelihood among men but caused significant delays in first-marriage among veterans. Except for urban women, female first-marriage timing was largely immune from war impacts. Parental role in mate selection, residential propinquity, and post-nuptial living arrangement helped facilitating wartime union formation. We extend the present discussion of marriage resilience to shed light on Vietnam's current marriage trends and the "flight from marriage" patterns in Pacific Asia.

Submitted to the Annual Meeting of the Population Association of America, May 3-5, 2012.

War, Military Service, and Union Formation in Northern Vietnam

As wars and terrorisms exert increasing force on global affairs, there is a greater demand for understanding the international diversity of family experiences with armed conflicts. Yet, theoretical perspectives on the impacts of war on family formation have been formulated primarily from the Western industrialized experience (MacDermid-Wadsworth, 2010). Data-based evidence is apparently lacking for less-developed societies. The objective of this study is to examine the relationship between military participation, especially service during the Vietnam War¹ (1965-1975), and first-marriage timing among Vietnamese men and women in northern Vietnam (formerly North Vietnam). During wartime, Vietnam witnessed widespread conscription of young men, mobilization of civilians into militia forces, and staggering war casualties, particularly among young men of normatively marriageable age (Hirschman et al., 1995; Merli, 2000; Pike, 1986). Mortality, disability, and dislocation caused by war and military demands tended to disrupt the process of family formation, as evidenced in other settings (Cooney and Hogan, 1991; Lundquist, 2004; Teachman, 2007). While past studies alluded to the impacts of war when describing the Vietnamese marriage patterns (Goodkind, 1997; Pham, 1999), the effects of military service have never been measured directly. Largely unknown are the mechanisms through which military experience (e.g., veteran status, combat and trauma exposure, timing of induction, and duration of service, location of deployment) influenced union formation in Vietnam.

Based on the analyses of the Vietnam Longitudinal Survey (VLS) and unique data collected in 2010 as a pilot follow-up to the VLS, this study describes cohort variations in the likelihood of union formation and timing of first marriage among individuals coming of age prior to the Vietnam War, during the war, and after the war. We are particularly interested in addressing differentials in family formation by gender, by veteran status, and by military service experience. More specifically, we ascertain whether military service increased or decreased the likelihood that veterans would get married and the extent to which first-marriage timing was influenced by veteran status, combat exposure, duration of service, and the timing of service in the life course. We investigate how social organization during the war years, especially at the family and community levels, facilitated the transition to marriage among young Vietnamese men and women.

Our preliminary findings suggest that the Vietnam War did not decrease the likelihood of eventual marriage among northern Vietnamese men but it caused significant delays in first-marriage timing among veterans, particularly those with extended duration of service. The impact of war on female transition to marriage was different from the male experience. Among women who reached marriageable age during wartime and immediately after the war, timing of union formation was largely immune from the effects of armed conflicts. Yet, a small but noteworthy proportion of women in urban areas experienced permanent singlehood possibly as a result of marriage squeeze. Extending theoretical perspectives on the social impact of war and family experiences, our evidence supports the life course notion of competing roles and the marriage squeeze hypothesis.

Further, our findings demonstrate that the resilience of Vietnamese marriage amidst the protracted war was particularly remarkable. A majority of men who participated in the Vietnam War were drafted prior to reaching a normative first-marriage age. Many were married while they were in service and well before their discharge. Because of long duration of service (often more than 5 years) and deployment in remote places were common, separation of newlywed couples during their early

¹ The war was referred to by the Vietnamese as the American war.

years of marriage was a shared experience among male and female members of the 1940s and 1950s birth cohorts. Evidence further suggests significant roles of prevailing mate selection and kinship systems in facilitating union formation during wartime. This includes parental role in mate selection, pre-marital residential propinquity, and post-nuptial living arrangement. We attempt to extend the present discussion of Vietnamese marriage resilience to shed some light on Vietnam's current patterns of nearly universal and relatively early marriage, which provide a stark contrast to the "flight from marriage" patterns common in East and Southeast Asian societies (Jones, 2005; Jones and Gubhaju, 2009)

BACKGROUND

War tends to reorder society by disrupting the economy, heightening military demands, and increasing morbidity and mortality levels (Modell and Haggerty, 1991). At individual level, military service in early life, particularly wartime service, can reshape one's subsequent life course outcomes including family formation. Research has shown that the effects of military service are not always straightforward but tend to vary across pre-service characteristics, the timing of military service in the life course, duration of service, historical periods of service, and service experiences (MacLean and Elder, 2007). Various perspectives have been formulated to explain the relationship between military service and first-marriage timing. In this section, we review three key perspectives—including the competing roles, economic stability, and marriage squeeze hypotheses—and hypothesize their applications to the case of northern Vietnam.

Put forth by life course researchers, *the competing roles hypothesis* focuses on the compatibility between various roles and marriage. Demanding roles are often incompatible with each other such that individuals who fill one role are less likely to fill the other. This hypothesis suggests a negative relationship between military service and marital timing. US-based studies have shown that military service is incompatible with marriage (Cooney and Hogan, 1991; Hogan, 1981). According to this hypothesis, military service and marriage are both viewed as demanding institutions requiring time and energy commitments, which limit their compatibility. Soldiers are subject to long working hours, demanding work schedules, stressful job environments, and frequent moves that may make it difficult to form a marriage. These men may also be stationed in locations with unfavorable marriage markets (e.g., remote sites or overseas) that further reduce their chances of finding a mate.

Vietnam has been considered one of the most highly mobilized societies in contemporary history (Beresford, 1988). Military service was almost a universal rite of passage for young men in northern Vietnam who came of age from the 1960s through the 1980s (Teerawichitchainan, 2009). The draft law, first introduced in 1960, subjected all men ages 18-27 to an annual draft and required draftee to serve in the Vietnam People's Army (VPA) between 2 and 4 years. During the escalation of the war, the draft age was broadened to ages 16-45 and the duration of service was extended indefinitely. While some inductees may be stationed in the home front, many were deployed to combat zones in central and southern Vietnam, Laos, and Cambodia (Pike, 1986). In addition to regular armed forces, a substantial proportion of northern Vietnamese female and male youth were encouraged to participate in the Youth Shock Brigades, while the general population was mobilized to join the paramilitary forces. The life-threatening nature of military service and encompassing nature of the military mobilization in Vietnam

accentuated the incompatibility between service and marriage. We thus anticipate military participation, especially wartime service, to be negatively associated with first-marriage timing for both genders.

Common in research examining men's marital timing, the *income and economic stability hypothesis* posits that men who earn more are better able to sustain a marital household at a socially acceptable standard of living and that men who are optimistic about their future earning capacity (based on their educational level or previous economic performance) will be more likely to marry. The hypothesis finds ample support in evidence drawn from advanced societies where nuclear families are common (Oppenheimer, 1988). The role played by military service in marital timing is linked to military pay rates and the stability of military employment (Teachman, 2007). In the US context, this is expected to be particularly salient during the all-volunteer era for servicemen from minority and disadvantaged background. The military can be considered as a source of very stable employment providing a degree of economic certainty that is difficult for these disadvantaged men to find in the civilian labor market (Lundquist, 2004). Military service is therefore expected to be positively associated with early marital timing. Yet, any effects of military service should disappear or diminish greatly when controlling for income and economic stability.

During the 1950s, not only did the socialist government of northern Vietnam try to mobilize the population for impending war efforts but it also attempt to transform the newly independent country into a centrally planned, redistributive economy. Household economy was therefore tightly controlled and the structure of labor market was profoundly affected. These structural changes may have reshaped the society and its perceptions towards military service (Merli, 2000). Perhaps war served to create a new sense of status and nationalist zeal among the higher-status groups in society. Additionally, northern Vietnamese men of advantaged social origins might have wanted to serve in the army because of the arrays of incentives promised by the VPA to its veterans (Van Dyke, 1972). For example, the government promised to give preferential recruitment of returning veterans for positions in commune administration and membership in the Labor Youth Group, which was considered a stepping stone to leadership in the Communist Party. It is unclear to what extent veterans and their families benefited from these incentives. Yet, because of a renewed sense of patriotism and severely restricted economic opportunities during wartime, researchers have argued that young men and their families were likely to perceive military service as a viable alternative for economic activities and upward social mobility. Military service may have enhanced servicemen's prospects for income and economic stability and in turn, their marriageability.

The third perspective –*the marriage squeeze hypothesis*—posits that gender imbalances in the number of young adults may have implications for marriage markets. Guttentag and Secord (1983) argued that when one sex is in relative surplus, the rare sex has an advantage in dyadic power due to the larger potential pool of partners available to it. The surplus group must either marry later or remain single. Empirical evidence suggests that imbalanced sex ratios may indeed affect family formation behavior (South and Trent, 1988). A marriage squeeze against women is common whenever population growth combined with norms requiring women to marry earlier than men. As each successive birth cohort of female grows, they must seek a mate from the smaller pool of older males born just before them².

² In Vietnam, men marry later than women, and rapid population growth accelerated sharply in the North during the late 1950s and early 1960s. Thus, the birth cohorts contributing to that growth reached peak marital ages in the 1970s and 1980s (Goodkind, 1997).

According to Goodkind (1997), Vietnam experienced two war-related factors that reduced the ratio of men to women leading to a marriage squeeze. First, there was excess male mortality during the Vietnam War, which was the sixth most severe of all wars since 1816 in terms of per capita battle deaths to the home country (Small and Singer, 1982). There were approximately 1 million Vietnamese deaths during the war and the vast majority was males (Hirschman et al., 1995). Mortality rates for young northern Vietnamese men were about 10 times higher during 1965-1975 (Merli, 2000). The effects of excess male mortality likely lingered in the marriage market some time after the end of the war. The second factor concerns the excess of male emigrants in the Vietnamese diaspora after the war of reunification. The reasons for sexual differentials in migration include the greater mobility of males in the wake of Vietnam's social and economic turmoil during the late 1970s as well as Vietnamese teenage males attempted to avoid being drafted. In a decade and a half since reunification, well over a million and a half Vietnamese left the country, and currently some 2 million living aboard (Goodkind, 1997: 111). Both factors likely caused a marriage squeeze against Vietnamese women and may affect their marriage prospects and first-marriage timing. Goodkind found evidence in support this hypothesis based on his analyses of Vietnam census data.

In addition to these three theoretical perspectives, it is important to take in account issues related to *military selection*. Men who enter the military are not a random subset of all individuals. Enlistees are carefully screened and must meet physical, mental, educational, and moral standards for enlistment. Men with health limitations who do not meet relatively stringent standards, who have little education, or who have a felony conviction are not eligible for enlistment. In the context of Vietnam, where there was a universal conscription, social class bias in military selection was supposed to be reduced substantially because almost all young men were expected to be inducted. Deferment was nonetheless granted on occasion to men who were physically disabled, sole remaining sons, principal household economic providers, select Communist Party functionaries, highly talented college students, or technicians with special skills. While nonveterans during the war were likely to be men who were physically or mentally unfit, one may also suspect that some families might have tried to use their social status to reduce their sons' chances of being assigned to risky deployments or of serving for a lengthy period of time. However, empirical evidence suggests that during the Vietnam War there was modest positive selection into the military – that is, Vietnamese men with better-educated fathers were slightly more likely to be inducted and more likely to experience war casualties than those from lower socioeconomic status (Merli, 2000; Teerawichitchainan, 2009).

DATA AND METHODS

This study describes the extent to which the Vietnam War affected marital timing of men and women in northern Vietnam based on an analysis of the Vietnam Longitudinal Survey (VLS) and unique data recently collected as a pilot follow-up to the VLS.

While individual responses to the impact of war and military service have always been a topic of interest to Vietnam scholars, wartime experience – particularly military service experience – have rarely been measured directly in previous empirical studies. Birth cohorts and age are often used as a proxy for the effects of wartime. Meanwhile, other measures such as duration living apart from spouse are used as an indicator for military service. Goodkind (1995), for example, uses a measure of separation from

spouse for three or more months as a proxy for spousal apartness during wartime. The measure accounts for all types of spousal separation including seasonal or other types of migration. Therefore, it is not an accurate measure of the effects of military service experience. One exception is a study by Nguyen (1997) in which the author includes a measure of military experience (i.e., whether or not one has ever served in the military). Nonetheless, other important aspects of military service such as timing of induction and duration of military service have not yet been documented for the case of Vietnam before. According to the life course perspective, both timing of induction and duration of military service significantly explain young people's life course pathways and later outcomes (Elder, 1986).

Information on Vietnamese military manpower during the American war was rarely published and usually treated as top-secret intelligence (Ng, 1974; Pike, 1986). Therefore, it was difficult for researchers to measure the social impact of war on the lives of the Vietnamese. To my knowledge, the VLS is the only available social survey that contains systematic information on military participation of Vietnamese men born between the 1930s and 1970s. The VLS asked respondents about their military experience, including whether they had ever served in the military, the year in which they entered and left the military, and the number of times they served in the military. This information allows me to determine whether military service, age at induction, or duration of military service have effects on marriage patterns in Vietnam.

The VLS was first conducted in Ha Nam Ninh province in northern Vietnam's Red River Delta. At the time of the 1989 census, Ha Nam Ninh was the province with the largest population in northern Vietnam. Subsequent to the VLS baseline survey in 1995, Ha Nam Ninh was subdivided into three provinces, including Ha Nam, Nam Dinh, and Ninh Binh. The population of the Red River Delta was extensively mobilized by the socialist government during wartime. The region was also heavily bombed during the American war. The VLS questionnaire was administered to 1,855 households randomly sampled in ten urban and rural communes, including 4,464 individuals between the ages of 15 and 65. This study limits the sample to men and women born between 1930 and 1975. We use improved measures of wartime and military service. We study how young Vietnamese men and women make transitions to marriage and how the timing of marriage are conditioned by the influence of war and military mobilization in addition to general socioeconomic changes.

The second source of data comes from our recent follow-up to the VLS, which is referred to here as the VLS Health and Aging Pilot Study. In collaboration with the original VLS creators, we conducted a pilot survey in June-July 2010 in one of the 10 original communes with the goal to address life history and current wellbeing of Vietnamese men and women who entered early adulthood during the Vietnam War (i.e., those born in 1955 or earlier who were at least 20 years old by the time the war ended) and are now approaching older adult years. The questionnaire of our pilot survey was designed to provide information for constructing life-course measures of war and military experiences, marriage history, and current measures of wellbeing. These measures were also constructed to be comparable to those in the original VLS. The questionnaire was also designed to probe the traits of originally surveyed adults who have died since the baseline VLS data collection. In particular, we attempted to locate and interview close family members of original VLS decedents about timing and cause of death in order to better understand the attrition issues and potential selection bias common in studies of impacts of war.

The pilot study commune was selected based not only on practical matters such as permission from local authorities, but also the fact that it represents a typical rural community in this region that has

undergone rapid economic development during Vietnam's transition from a collective to market economy. Compared to 1995 when the VLS was first conducted, the commune's population has grown by about 10 percent and its residents have recently enjoyed an improved infrastructure, including availability of electricity, clean water, sanitary systems, paved roads, telephones, and a relatively well-equipped community health center.

The pilot survey consisted of two phases. First, we attempted to contact and interview 310 individuals age 55 and older who had been surveyed in the baseline VLS. We successfully interviewed 215 of the 310 original respondents (approximately 70 percent). Of the 95 attrition cases, 81 died during 1995-2010 and the rest moved away from the commune. Seventy-five percent of the decedents were nonveterans³. In the second phase, in order to reach our target sample size of at least 400 respondents, we randomly selected an additional 196 individuals age 55 and above who had not been interviewed in the 1995 VLS from the current household registration database. A high response rate of nearly 97 percent is largely due to several years of amicable relationship between our host research institution in Vietnam and the commune residents. In total, we interviewed 405 respondents. When a respondent was too physically or mentally incapacitated to be interviewed, their spouse, adult children, or siblings who were knowledgeable about the respondent's life history were invited to provide factual information. Questions related to feelings and perceptions were not answered by the proxy. We conducted a total of 19 proxy interviews. Sixteen of them were females over age 70 and 18 cases were nonveterans.

Measurement of dependent variables: We incorporate three measures of marital timing including 1) early marriage, 2) "on-time" marriage, 3) late marriage (nearly non-marriage). Each of these measures attempt to capture dynamics of marital timing and to document influences that explain these dynamics, while allowing me to take care of data truncation issues – that is, the fact that there are some single respondents in the sample who may marry at some unknown point in the future⁴. Each variable is treated as a dummy variable indicating whether the respondent weds early, enters marital union in the normative age range, gets married late, or nearly foregoes marriage.

In the analysis of marital timing for men, early marriage is defined as getting married before age 20. The 1960 Marriage and Family Law stipulated age 20 as a legal minimum age of marriage for Vietnamese men. Respondents whose first marriage took place before age 20 are considered having early marriage and therefore, are given a value of 1 for the measure of early marriage. For those who wedded at an age of 20 years old or later are assigned a value of 0. This measure can be computed for the population of men age 20 and above at the time of survey. Further, men in the VLS sample who were married before age 25 are considered having on-time marriage. This assumption is based on evidence from the 1989 Vietnam census, which indicates that the singulate mean age at marriage (SMAM) for Vietnamese men was 24.5 years old. The measure of on-time marriage is computed for men age 25 and above. Moreover, Vietnamese men in the sample who were never married until age 35 are considered having very late marriage or perhaps experiencing non-marriage. These men are assigned a value of 1 for the measure of late marriage, which is computed for men age 35 and above. According

³ Of men and women in the 1995 VLS whom we attempted to re-interview in 2010, 74 percent of those who out-migrated, 75 percent of decedents, and 65 percent of those followed-up were nonveterans. Of men in the 1995 VLS, 25 per of outmigrants, 52 percent of decedents, and 33 percent of those followed-up were nonveterans.

⁴ Censoring problem can be severe among members of the most recent cohorts (i.e., individuals ages 20-25) because many of them have not yet married at the time of interview. They might get married at a later date but the information about their marriage was censored by the date of the survey. This can bias the analysis if the marriage behaviors of the most recent cohorts are described based only on the experiences of respondents who have married at a relatively early age.

to the 1989 census, most men in Vietnam were married well before age 30. Only 7.5 percent of men in the 30-34 age group and 3.3 percent of those ages 35-39 remained single respectively (Banister, 1993; Goodkind, 1997). This measure, therefore, is suitable for documenting marriage delays and non-marriage in Vietnam.

It is common, although far from universal, that wives are younger than their husbands and that women marry at a younger age than men. Because there are different socio-cultural expectations towards women in Vietnam, the measures of marital timing for women in this study are slightly different from those of men. According to the 1960 law, the minimum legal age for women to get married is 18 years old. Women in the VLS sample who were married before age 18 are classified as marrying early. In this analysis, on-time marriage for women is defined as being married before age 22. Based on the 1989 census, the singulate mean age at marriage for women was 23.2 years old, while evidence from the 1988 Vietnam Demographic and Health Survey suggests that the median age at first marriage for women is 21.3 (Nguyen, 1997). Age 22, therefore, appears to be an age associated with on-time marriage for Vietnamese women. This assumption is consistent with findings from an ethnographic study by Belanger and Khuat (2002: 98). The authors found ages 18-25 to be a prime time for women in Vietnam to find a good match for marriage. After that, Vietnamese women in their mid- and late-20s are socially considered too old to enter a good marriage and thus, become less desirable in the marriage market. In this analysis, women in the sample who remained single until 30 years are considered having a very late marriage or perhaps at risk of experiencing non-marriage.

In general, the dependent variables in this analysis are very good measures of marital timing and suitable for the retrospective data from the VLS. The only handicap for using these measures is the link between causal forces in marriage delays can be somewhat obscured because there is not an exact link between the timing of independent variables and timing of marriage. For example, the proportions of men ever married by age 25 includes both men who postponed marriage in the early range (e.g., between ages 18-22) as well as those who postponed marriage in the middle range (e.g., between ages 23-25).

PRELIMINARY RESULTS

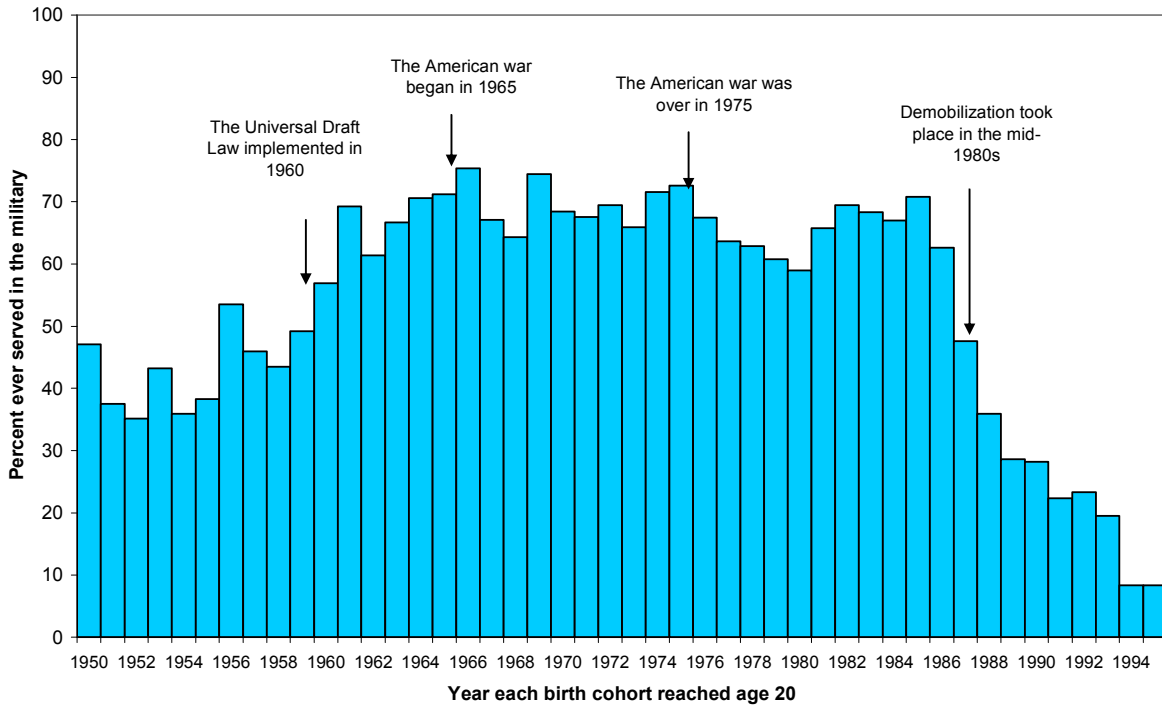
Trends of Military Service in the Early Life Course

Fifty-seven percent of men in the VLS sample were veterans. Findings suggest that their military experience varied considerably depending on whether they grew up during the period of war and heightened military demand. Figure 1 presents three-year moving averages of the percentage of men who ever served in the military for cohorts born during 1930-1975. The year in which a cohort reached age 20 is reported instead of year of birth; age 20 serves as a proxy for timing when members of a particular birth cohort reached their early adulthood.

Figure 1 shows that prior to 1960 proportions of young men in the Red River Delta with military experience hovered trendlessly between 35 and 55 percent. A sustained increase in military participation became more apparent for the cohorts of men coming of age after 1960. It was likely that the universal draft law implemented in 1960 explained this significant upsurge in military participation among young men in the Red River Delta. Between 60 and 70 percent of men who reached age 20 during the 1960s and the 1970s were veterans. Given that mortality rates among young men during the American war

were extraordinarily high (Merli, 2000) and that the VLS sample includes only men who were war survivors, the actual proportion of men who served in the military during this period was undoubtedly higher than the proportion reported here.

Figure 1. Percentage (3-year moving average) Ever Served in the Military by Birth Cohort, Men Born 1930-1975 in the Red River Delta.



While the American war ended in 1975, men in the Red River Delta continued to be extensively mobilized until the 1980s. Findings indicate that approximately two thirds of men growing up between the mid-1970s and early 1980s had been inducted into the military. It was not until the late 1980s that a substantial decline in military participation was observed. The percentage of veterans dropped sharply from 40 percent in the late 1980s to less than 10 percent in 1995. This could be explained by Vietnam’s military demobilization, which took place during this period largely as a result of the withdrawal of military aid from the Soviet Union (Thayer, 1994).

Similar to military service experience, timing of entry into the military and duration of the service differed significantly across birth cohorts. Table 1 describes cohort trends in age at induction and length of military service. Based on results presented in Figure 1, the cohorts of men in the sample are categorized into four groups. We label each group according to important historical events they experienced while growing up. For example, men who came of age prior to the 1960 universal draft law are dubbed as “pre-mobilization generation”. We label those who reached age 20 during the period of American war and heightened military demand as “the American war generation”. Further, the “reunification generation” refers to men growing up after the American war was over but who continued to experience high levels of military mobilization during the 1980s. The youngest cohort of men in the sample reached their early adulthood during the period of demobilization and economic reform; therefore, they are labeled the “renovation generation”.

Table 1. Cohort Trends in Age at Induction into the military and Duration of Military Service by Birth Cohort, Men Born 1930-1975 in the Red River Delta.

	Year in which each birth cohort of men reached age 20:			
	< 1960	1960-1975	1976-1986	1987-1995
	Pre-mobilization generation N=199	American war generation N=600	Reunification generation N=688	Renovation generation N=364
% Age at induction				
Total	100%	100%	100%	100%
Never served	57	32	34	73
19 years old or less	9	35	40	22
20-24 years old	13	27	25	6
25+ years old	22	6	1	0
% Duration of service				
Total	100%	100%	100%	100%
Never served	57	32	34	73
3 years or less	18	15	33	25
4-6 years	11	21	24	2
Over 6 years	15	33	9	0

Source: Vietnam Longitudinal Survey, 1995

Men from the pre-mobilization generation were inducted into the military at an older age than those from later birth cohorts. While more than half of the pre-mobilization men never served in the military, nearly half of those who did serve entered the military at age 25 and older (i.e., 22 percent of all men from this generation). When the 1960 universal draft law became effective, men ages 18-27 were called to serve. Many civilians from the pre-mobilization generation who were already in their mid-20s or older were recruited into the military at this time. After the draft law was well-established, trends in standardization of age at entry into the military were observed throughout the Red River Delta. It became increasingly common among the cohorts of men who came of age after 1960 to be drafted in their late teens or early 20s. New draftees who were in their mid or late 20s were rare. Between 50 and 60 percent of veterans from the American war and reunification cohorts were inducted by age 19. While military service experience became less common for the renovation cohort, among those who did serve, an overwhelming 80 percent entered the military before age 20.

While the universal draft law generally required a new draftee to serve between two and four years, results indicate that men from the pre-mobilization and American war generations served much longer than that. Not only did a majority of men from the American war cohort fight in the war, but half of those who were veterans also stayed in the military for more than six years – a duration unimaginable for American soldiers during the Vietnam era who were required to serve for one year in Vietnam. After the war was over, long-term service became increasingly uncommon. There was a sharp contrast between the experience of men from the older and younger generations. For example, among the few of the renovation cohort who had military experience, nearly all of them were in the military less than three years.

Patterns and Determinants of Male Marital Timing

The descriptive analysis presented in Figure 2 examines the pace at which young men in the Red River Delta get married and how their marriage rates vary by birth cohorts. To summarize marriage patterns, We calculate the percent single at each year of age from ages 15 to 40 for each birth cohort. Due to data truncation, the complete range of years of marriage cannot be observed for the two younger

generations (cohorts). Observations are censored at age 29 for the reunification generation and at age 20 for the renovation generation.

Results suggest that child marriage (i.e., married before age 15) was very rare for men in the Red River Delta. It is virtually non-existent among men in the VLS sample. After age 15, however, men from the pre-mobilization cohort started marrying off quickly. By the time this cohort reached age 20, 35 percent were married. By age 25, only 20 percent of them remained single. The pre-mobilization men were married at an earlier timing and at much faster pace than their younger counterparts. Unlike their predecessors, very few men from the American war, reunification, and renovation generations got married in late teens – less than 10 percent did so.

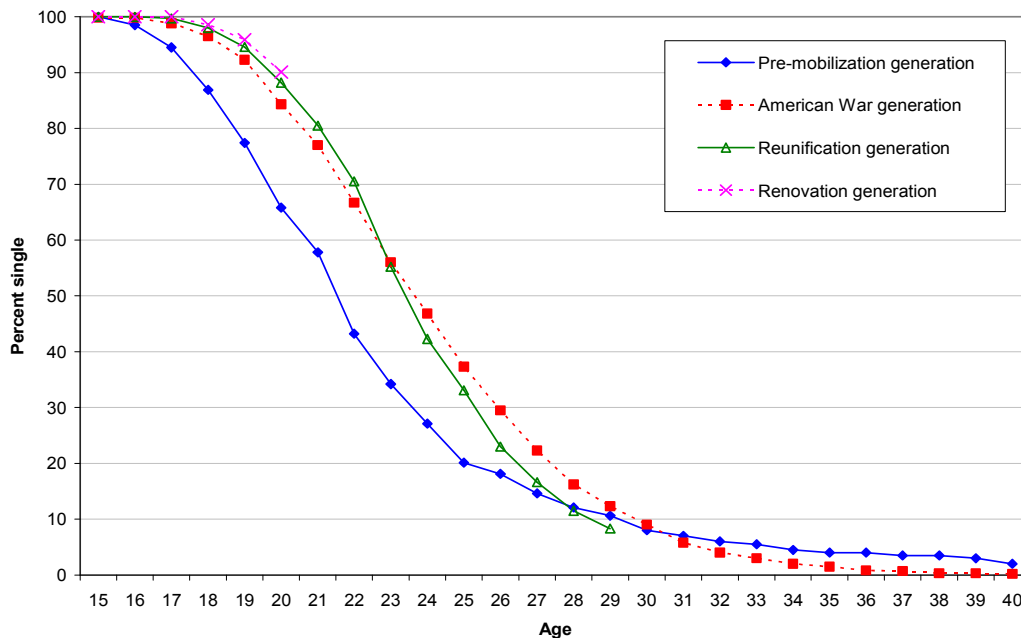


Figure 2. Percent Single by Age by Birth Cohorts, the Red River Delta Men Born 1930-1975 (N=1,851).

Men from the wartime and reunification generations were married at a similar pace when these two cohorts reached their early 20s (with the wartime cohort marrying off slightly faster). However, after age 23, men from the reunification generation began to outpace the wartime cohort in marriage rates. This pattern suggests that wartime exercised delaying effects on marital timing of men in the American war generation. Throughout their 20s, men in the wartime cohort delayed marriage relative to those in the pre-mobilization and the reunification generations. Wartime postponed marriage, but it did not prevent these men from getting married eventually. By the time the American war generation reached the age of late 20s, they started to catch up with their predecessors. Excessive male mortalities which led to an imbalance in sex ratios in the 1970s and the 1980s may have put male survivors from the war cohort in a very favorable position in the marriage market.

If wartime did postpone marital timing for many Vietnamese men, did the delaying effects vary by their military experience? The analysis presented in Figure 3 examines the pace of marriage rates for men from the American war generation by the duration of their military service. Findings suggest that wartime caused many Vietnamese men to postpone their marriage. Instead of marrying in their early or mid-20s, these men wedded in their late 20s or early 30s. The delaying effects appear to vary by the

length of men’s military service. Results indicate that a short-term service in the military did not delay marriage to the same degree as did the medium- and long-term service. The marriage rates of non-veterans and veterans with a short-term experience show very little difference. Only a few of these men married in their late teens, but they married in their early 20s at rates comparable to non-veterans. By the time they reached age 25, only one fourth of them remained single. Note that as the cohort approached their late-20s, there was a slowdown in marriage rates among short-term veterans, compared with non-veterans.

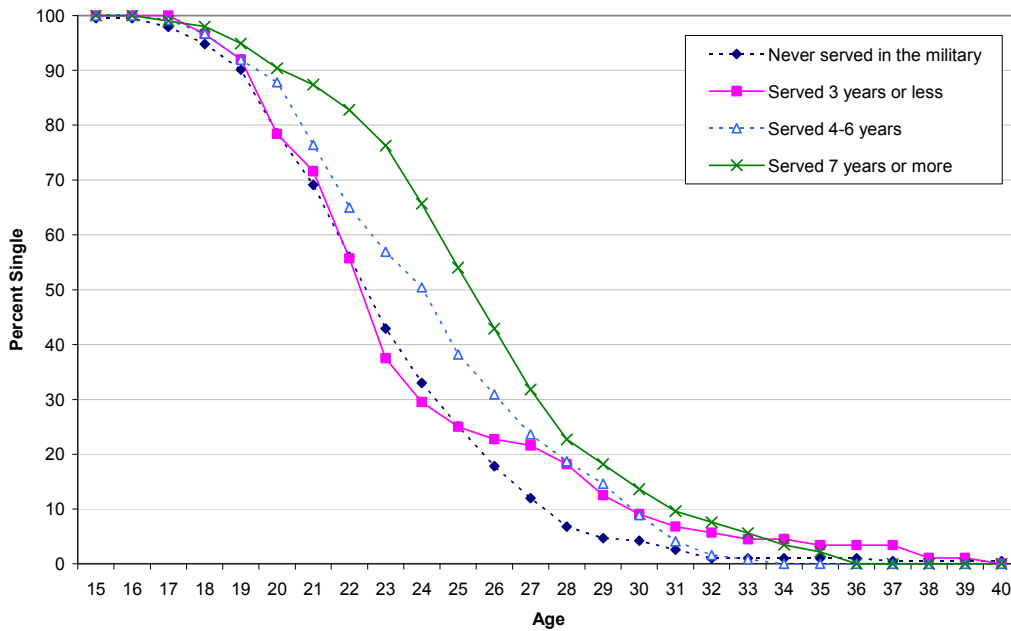


Figure 3. Percent Single by Age by Military Experience, the Red River Delta Men from the American War Cohort (N= 600).

The marital timing patterns of men who served medium- or long- term stand in sharp contrast to those who never served or who served for only a short period. Many of these men remained single throughout their late teens and early 20s. This is particularly the case for those who had long-term service. At age 20, only 10 percent of them were married. They married off at a slower pace in their early 20s, compared to men who never served or served for a shorter period of time. At age 25, over half of men in this group remained single. It was not until when they were in their late 20s that these long-service veterans began catching up with the rest of the wartime cohort. This confirms my prior findings which suggest that wartime and military service only caused delays in marital timing for men but these factors did not force Vietnamese men out of the marriage market.

The descriptive analyses tell a compelling story of how marital timing varied across generations of men who grew up during different historical periods and how wartime and military service influenced these marital patterns. However, they have not yet taken into account the influences of these socioeconomic factors associated with modernization and development which may an important role in shaping patterns of marital timing. The binary logistic regression analysis presented in Table 2 consists of three models. Each model attempts to capture different aspects of marital timing, while taking care of the biases that could arise with data truncation. These three models examine the following aspects of

marital timing: 1) early marriage or ever married by age 20; 2) “on-time” marriage or ever married by age 25; 3) very late marriage or remaining single by age 35.

Results presented in Table 2 indicate that while marriage is still nearly universal in Vietnam, there are clear trends in marriage delays among the cohorts of men in the sample who came of age during the 1950s-1990s. A combination of factors account for the patterns observed, including wartime and military service, state policies, modernization and development, and culture. Wartime by itself causes men to postpone their marriage. This is shown in the cohort effects and perhaps operated through economic hardship experienced by men growing up during the American war. The cohort effects might have also captured the influences of state policies such as the 1960 Marriage and Family Law implemented concurrently with the escalation of the American war. In addition to the cohort effects, military service has very strong and persistent delaying effects on marriage. The longer the military duty, the more likely and the longer the postponement would take place.

Table 2. Binary Logistic Regression Analysis: Determinants of Getting Married by Age 20 and Age 25 and Remaining Single by Age 35 for the Red River Delta Men Born 1930-1975.

	Married by Age 20		Married by Age 25		Remaining Single By 35	
	Odds Ratio	Std.Er.	Odds Ratio	Std.Er.	Odds Ratio	Std.Er.
Cohort						
Pre-mobilization generation (omitted)	1.00	--	1.00	--	1.00	--
American war generation	0.37 ***	0.27	0.58 **	0.21	0.35 *	0.53
Reunification generation	0.25 ***	0.31	0.60 *	0.22	0.29 *	0.64
Renovation generation	0.16 ***	0.37	0.86	0.28	--	--
Religion of family of origin						
Catholics	0.80	0.24	1.52 **	0.16	0.66	0.77
Non-catholics (omitted)	1.00	--	1.00	--	1.00	--
R's Place growing up						
Urban	0.33 †	0.62	0.35 ***	0.23	4.83 **	0.56
Rural (omitted)	1.00	--	1.00	--	1.00	--
Father's work when R grew up[§]						
Family Farm (omitted)	1.00	--	1.00	--	1.00	--
Agricultural Cooperatives	1.35	0.26	0.99	0.16	0.65	0.59
Non-agricultural, Private	1.35	0.36	0.81	0.23	0.39	0.86
Non-agricultural, Public	0.91	0.36	0.66 *	0.19	1.17	0.62
R's Education attainment at age 18						
Primary schooling or less	1.36	0.23	1.00	0.16	0.62	0.59
Lower secondary (omitted)	1.00	--	1.00	--	1.00	--
Upper secondary or higher	0.29 ***	0.36	0.42 ***	0.14	1.43	0.46
R's military experience						
Non-veteran (omitted)	1.00	--	1.00	--	1.00	--
Veteran, short-term service	0.53 **	0.25	1.04	0.15	2.36 †	0.56
Veteran, medium-term service	0.62 †	0.27	0.60 ***	0.15	0.76	0.72
Veteran, long-term service	0.43 **	0.30	0.30 ***	0.16	2.95 *	0.52
Degree of freedom	14		14		13	
-2 Loglikelihood	904.18		1980.50		235.02	
Number of observations	1851		1648		1146	

Source: Vietnam Longitudinal Survey, 1995

Notes: † p ≤ .1, *p ≤ .05, **p ≤ .01, ***p ≤ .001

§ Cases with missing values (DK) are included in the models but the coefficients are not reported

Perhaps as important as military service, the effects of socioeconomic development indicated by level of education and urban status explain substantial variations in marital timing, particularly marriage delays between the age of late teens and mid-20s. Further, father's occupation, influenced by the socialist transformation of the economy, has mild effects on timing of marriage, particularly on normative marital timing. The effects of culture, operated through a measure of growing up in a catholic community, partially explain variations in on-time marriage among men in the sample. Having a Catholic background increases the likelihood of being married on-time. Results suggest that while socioeconomic development cause significant delays in marriage in Vietnam, it is important to take into

account the wartime experience, particularly military service, to understand marital timing patterns of Vietnamese men.

Patterns and Determinants of Female Marital Timing: Women

Figure 4 presents findings from the descriptive analysis of marriage rates among adult women ages 20-65 in the sample. Comparable to the previous descriptive analysis for men, marriage rates observed between ages 15-40 illustrate the pace at which women are married and how the pace varies across birth cohorts. Due to data truncation, the complete marriage rates are not observed for the two youngest cohorts. Marriages rates are censored at age 29 for women from the reunification generation and at age 20 for those from the renovation generation.

For every birth cohort, teen marriages are more common among women than among men in the VLS sample. Nearly 30 percent of women from the pre-mobilization cohort are married before turning age 18 – relative to 15 percent of men. By the time this cohort reaches age 20, over half of women have already made a transition into marriage. Women from the American war and reunification generations are married at a slightly later age than the earlier cohort. This perhaps shows the delaying effect of the 1960 Marriage and Family Law, which stipulated a minimum legal age at marriage for women at age 18. While the law appears to be very effective in preventing men from an early marriage, it seems to have only modest effects on women’s marital timing. Results presented in Figure 4 indicate that nearly one in every four women in the sample who came of age after the implementation of the law in 1960 are married before the age of 18.

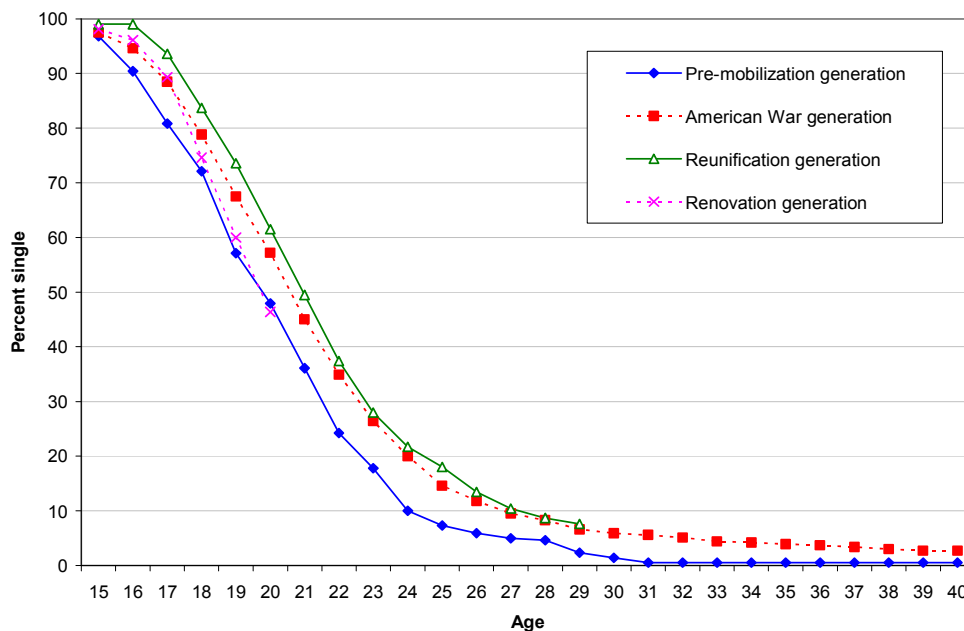


Figure 4. Percent Single by Age by Birth Cohorts, the Red River Delta Women Born 1930-1975 (N=2,087).

Most women marry between ages 18-25. This finding is consistent with past studies which indicate that the prime time for Vietnamese women to get married is between late teens and mid-20s. This is the case for every cohort of women in the sample, with an exception of the renovation cohort in

which the observations are censored at age 20. Proportions single drop very rapidly between ages 18-25. For the pre-mobilization cohort, percent single decreases from 70 percent to less than 10 percent within this age interval. About 80 percent of women from the American war and renovation generations are single at age 18. When they reach age 25, less than 20 percent of women from these two cohorts remain unmarried. The pace of marriage slows down after the age of mid-20s because most women have already been married. Marriages taking place after mid-20s are considered uncommon, while those after age 30 are rare. Ethnographic studies suggest that Vietnamese women who remain single after their mid-20s are in an unfavorable position in the marriage market. According to Belanger and Khuat (2002), these women could still get married but they would be suitable for only the less desirable “second-class” marriage market where they are more likely to meet older men who have been either divorced or widowed.

While there is generally a trend away from early marriage across birth cohorts, it is not the case for women from the renovation generation who appear to get married earlier and at a faster pace than their mother’s and sister’s generations. While these women have a similar pace of marriage as those from the American war and renovation generations before reaching 18, they begin marrying soon after 18 making similar to the pre-mobilization cohort. This evidence can be interpreted in two ways. First, rapid socioeconomic development after the *doi moi* reform makes it more feasible for young women to start their family sooner than earlier cohorts. Secondly, it may only appear that women from the renovation generation get married sooner because wartime causes their predecessors to postpone marriage. In absence of war, women from the American war and reunification generations may have had similar marriage rates to those from the pre-mobilization cohort. While these two explanations are plausible, it is beyond the scope of the descriptive analysis to tease out the net effects of wartime and socioeconomic development.

While marriage is almost universal for women from the pre-mobilization cohort, about 5 percent of the American war generation remains single by the time they reach age 40. The evidence suggests that these women are likely to experience permanent singlehood. Recent studies label these women as “war spinsters” (Goodkind, 1997). While war spinsters may account for a small proportion of female population in Vietnam, the phenomenon needs further investigation because singlehood in Vietnam takes place only in rare circumstances. Wartime appears to upset the normal patterns in Vietnamese marriages. The analysis presented in Figure 5 describes the pace of marriage among women from the American war generation by their location of growing up. It is aimed at providing a close examination of whether permanent singlehood or non-marriage takes place during wartime. About 92 percent of women from the war time cohort have rural background, while 8 percent are from urban areas.

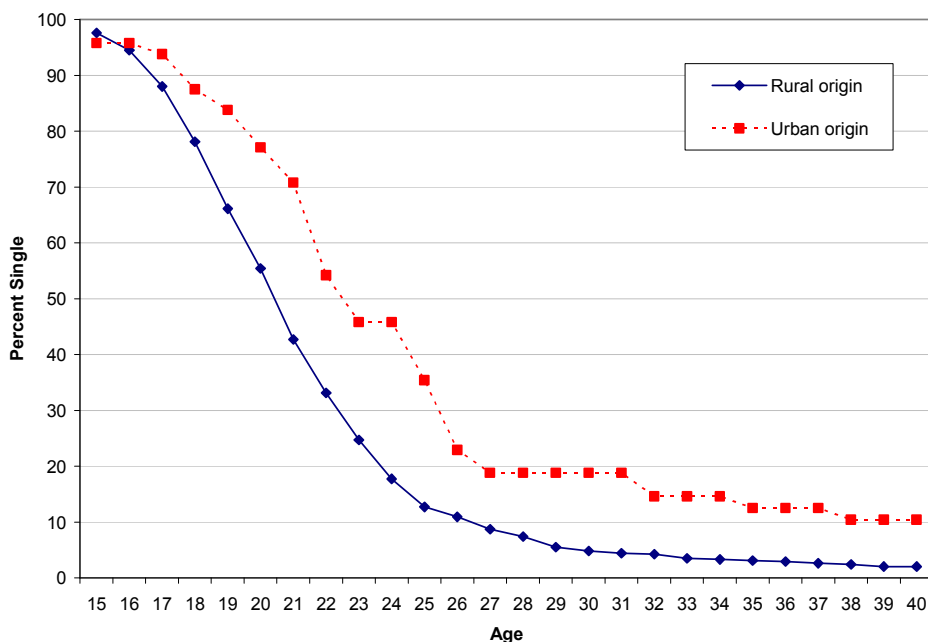


Figure 5. Percent Single by Age by Place growing up, the Red River Delta Women from the American war generation (N=591).

Consistent with the modernization theory, women from rural areas marry earlier than women in cities. By age 18, nearly one fourth of rural women have already been married. Between ages 18 and 25, proportions single for rural women decline in a linear fashion from nearly 80 percent to 10 percent. The transition to marriage is less concentrated at young ages for women from urban areas. At age 18, about 85 percent of them remain single. Proportions single then decrease substantially. Yet, as they approach mid-20s, 35 percent of women from urban areas are still unmarried. The differences in marriage rates between urban and rural women persist even at age 40. There is no sign indicating that urban women would eventually catch up with their rural counterparts. By age 40, while most rural women are married, over 10 percent of urban women remain single – most likely permanently. Given that marriage is generally early and universal in Vietnam, the proportion women in permanent singlehood among the American war cohort is considered very high.

Certain conditions associated with wartime and urban location may lead to permanent singlehood. An imbalance in sex ratios influenced by high male casualties is often believed to be a major cause (Goodkind, 1997). This phenomenon might also be an outcome of women’s increased autonomy. Despite several compelling explanations, determinants of female marital timing have not yet well been documented. The following multivariate analyses attempt to tease out the net effects of wartime and socioeconomic development on marriage patterns of Vietnamese women.

Similar to the multivariate analyses for male marital timing, this study incorporates three binary logistic regression models (Table 3) to document different aspects of marital timing for women in the sample, including 1) early marriage or ever married by age 18; 2) on-time marriage or ever married by age 22; 3) very late marriage or remaining single by age 30. The multivariate analysis attempts to answer the following questions: Do cohort differences in marital timing observed in the descriptive analysis remain after an introduction of other covariates? Are women coming of age during the

American war or the period immediately after the war more likely to postpone marriage? Why? Can the reversal trend in early marriage among women from the renovation cohort be observed in the multivariate analysis? Net of the wartime effects, what are the effects of socioeconomic development on timing of marriage? Do the effects of wartime and modernization vary across three measures of marital timing? How are these effects on marital timing different for women than for men in the sample?

The multivariate analysis presented in Table 3 show that the determinants of marital timing for women are somewhat different from those of men. In general, there are trends away from early marriage across cohorts for both men and women in the sample. While wartime and military service are one of the most important indicators of marital postponement among men, it is socioeconomic development indicators such as increased level of education that appear to be the strongest predictors of female marital timing. Marriage delays are common for women from the wartime and reunification generations. Consistent with the descriptive analysis, results from the multivariate analyses suggest a reversal trend to earlier marriage among the cohort of women who grew up during the market reform era. We also find evidence in support of the marriage squeeze for young women. A small, yet substantial, proportion of women from the American war and reunification generations experience permanent singlehood.

Table 3. Binary Logistic Regression Analysis: Determinants of Getting Married by Age 18 and Age 22 and Remaining Single by Age 30 for the Red River Delta Women, Ages 20-65.

	Married by Age 18		Married by Age 22		Remaining Single by 30	
	Odds Ratio	Std.Er.	Odds Ratio	Std.Er.	Odds Ratio	Std.Er.
Cohort						
Pre-mobilization generation (omitted)	1.00	--	1.00	--	1.00	--
American war generation	0.92	0.24	0.86	0.19	3.31 *	0.52
Reunification generation	0.80	0.29	0.88	0.21	4.21 **	0.55
Renovation generation	1.50	0.30	2.27 ***	0.23	--	--
Religion of family of origin						
Catholics	2.92 ***	0.17	2.20 ***	0.15	0.56 †	0.35
Non-catholics (omitted)	1.00	--	1.00	--	1.00	--
R's Place growing up						
Urban	0.54	0.42	0.41 ***	0.18	1.49	0.36
Rural (omitted)	1.00	--	1.00	--	1.00	--
Father's work when R grew up [§]						
Family Farm (omitted)	1.00	--	1.00	--	1.00	--
Agricultural Cooperatives	0.54 **	0.20	0.92	0.15	1.25	0.31
Non-agricultural, Private	0.73	0.33	0.63 *	0.22	1.09	0.49
Non-agricultural, Public	0.64 †	0.27	0.76 †	0.17	0.83	0.39
R's Education attainment at age 18						
Primary schooling or less	2.06 ***	0.20	1.33 *	0.14	1.27	0.29
Lower secondary (omitted)	1.00	--	1.00	--	1.00	--
Upper secondary or higher	0.12 ***	0.60	0.52 ***	0.14	0.80	0.32
Degree of freedom	11		11		10	
-2 Loglikelihood	1201.62		2497.55		717.63	
Number of observations	2087		1982		1516	

Source: Vietnam Longitudinal Survey, 1995

Notes: † p ≤ .1, *p ≤ .05, **p ≤ .01, ***p ≤ .001

§ Cases with missing values (DK) are included in the models but the coefficients are not reported

Although the imbalance in sex ratios might have caused women to get married very late or even forego marriage altogether, an ethnographic study of war spinsters in rural Vietnam suggests that the demographic pressure might not be the only reason. Women themselves may also choose not to get married at an older age (Belanger and Khuat, 2002). Several women in the study denied their marriage proposals in their late 20s. The authors argue that because of massive mobilization into the military during wartime these women had to take care of their families and replace their absentee parents and

brothers in agriculture. In other words, daughters' singlehood was a part of a family strategy to ensure survival of other family members during wartime. This positively changed the daughters' position in the household. They were no longer viewed as useless and had to be married. Thus, their desire to postpone, refuse, or avoid marriage might have been more respected by their families.

Preliminary findings from the VLS Health and Aging Pilot Study

Table 4. Marriage characteristics of the VLS Health and Aging Pilot Study Sample, 2010.

Marriage characteristics	Combat vet (N=62)	Noncombat vet (N=47)	Nonvet militia (N=90)	Nonvet nonmilitia (N=206)
Current marital status				
Total	100%	100%	100%	100%
Currently married	88.7	93.6	68.9	67.5
Never married	0.0	0.0	2.2	2.4
Widowed and separated	11.3	6.4	28.9	30.1
Number of marriage				
Total	100%	100%	100%	100%
Once	100.0	97.9	97.8	98.0
Twice	0.0	2.1	2.2	2.0
Mean age at first marriage	23.76	24.04	21.44	20.56
Median age at first marriage	23.00	24.00	21.00	20.00
How did you meet the 1st spouse?				
Total	100%	100%	100%	100%
Parents, relatives, matchmakers	33.9	25.5	46.1	51.7
Friends, neighbors, growing up together	48.4	51.1	37.1	32.3
School, work, other means	17.7	23.4	16.9	15.9
% of those who married who lived apart from the 1st spouse during courtship	19.4	23.4	9.0	7.0
Median duration of physical separation during courtship (months) among those who experienced separation	36.00	36.00	50.00	23.50
Reasons for separation during courtship				
Total	100%	100%	100%	100%
Military service and war	100.0	81.8	75.0	69.2
Other reasons	0.0	18.2	25.0	30.8
% of those who married who lived apart from the 1st spouse after being married	59.7	70.2	25.8	31.7
Median duration of separation after being married (months) among those with the experience	72.00	42.00	37.00	49.00
Reasons for separation after being married				
Total	100%	100%	100%	100%
Military service and war	91.9	74.2	57.9	72.4
Other reasons	8.1	25.8	42.1	27.6

Source: VLS Health and Aging Pilot Study, 2010.

DISCUSSION

This study shows that war and military service had significant influence on individual timing of family formation. War caused significant delays in marriage among men from the American war generation, particularly veterans who served for an extended period of time. The war impact on women's marital patterns was somewhat different from men. While male veterans who postponed their marriage well into their 30s were eventually married, a small, yet significant, proportion of Vietnamese women who came of age during the 1970s never married. For example, about 20 percent of women from the wartime cohort who grew up in urban areas were unmarried by the time they reached age 30 and slightly over 10 percent of them remained single at age 40. The proportion unmarried was historically high. This evidence supports prior arguments about Vietnamese marriage squeeze due to excessive male mortality during wartime and out-migration after the American war (Goodkind, 1997).

While war and military mobilization created shocks to the Vietnamese family formation patterns, We find that Vietnam's ongoing process of socioeconomic development guided by the socialist revolution and subsequently by the market reform had profound influence on how young Vietnamese made transitions to marriage. Consistent with findings in most societies, education plays the most important roles in postponing marriage. Another significant factor is urban location. These effects appear to be stronger in female than in male patterns. In addition, we find evidence of how institutional changes such as the 1960 Marriage and Family Law may have implications on marriage timing. These institutional influences are documented through measures of birth cohorts and father's status as a state worker.

Economic hardship during wartime, coupled with the state policy that encouraged delays in marriage, may have led young people to postpone their transitions to marriage. However, we observe reversal trends among Vietnamese men and women from the most recent cohort. They tend to get married sooner than their parents' generation who grew up during wartime. This evidence suggests recent changes in sexual behaviors as well as changes in household material wellbeing that perhaps enable young people to form their families sooner.

In examining the impact of war and social changes on the transitions to marriage, cultural factors such as being Catholic play an important role in explaining variations in family formation patterns in the Red River Delta. We find persistent Catholics effects in timing of marriage and first birth, independent of other influences. This issue has rarely been addressed in the literature. Catholics versus non-Catholics variations in life course trajectories deserves further investigation.

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