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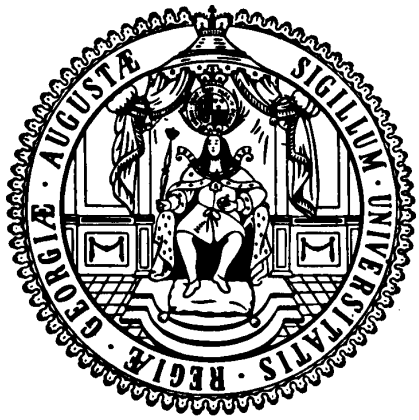

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Missing Men:
Differential Effects of War and Socialism on Female Labour Force Participation in Vietnam

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Missing Men: Differential Effects of War and Socialism on Female Labour Force Participation in Vietnam

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(Comments are very welcome! Please do not quote without the authors' consent.)

Abstract

We investigate the effect of the Vietnam War and the socialist regime in the Northern part of the country on female labour force participation. We differentiate the effect across birth cohorts, thus comparing immediate and long-term impacts. After presenting a theoretical model implying effects due to the role played by the 'added workers' and cultural change, we use data from three national household censuses in 1989, 1999, and 2009 to estimate probit models of determinants of women's choice to enter the labour market. Proxying war intensity with the provincial share of female population after the war, the effect of 'missing men' on the work status of women is found to be positive and significant for those cohorts directly affected by the war. For those cohorts entering working age after the end of the conflict, the effect is still positive but smaller and in some specifications insignificant. Living in the Northern part of the country increases the likelihood of a woman working by around eleven percentage points, suggesting a larger and more persistent effect of socialism on female labour force participation.

Keywords: Female labour force participation, conflict, Socialism, Vietnam

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1 Introduction

In general, changing the way societies define the roles of women and men and their position in the household and the labour market is a very slow process (see World Bank 2011, Gaddis and Klasen 2014, and Fernàndez 2007 for a discussion). It depends on many factors, among others on urbanisation, education, and the political context. However, violence can act as an external shock: In times of war, it is men who leave to fight and might be killed. Consequently, women take over positions and tasks that would have been unusual and partly unacceptable before – they become 'replacement workers' and heads of household. At some point, however, the men will return and a next generation will grow up to take over responsibility in the family and the community and the question arises whether women remain in their newly gained positions or whether the society returns to the pre-conflict status.

In this paper, we examine this dynamic for a conflict with very high military mobilisation, the Vietnam War. In particular, we focus on how wartime mobilisation and destruction has had persistent effects on labour force participation of Vietnamese women. As the conflict took place between 1965-'75, it is possible to differentiate short-term from long-term and direct from indirect effects. Vietnam also provides an interesting case study as we can directly compare the impact of socialist ideology on female labour force participation which affected the North of Vietnam for much longer and more persistently with the effect of wartime mobilisation and destruction.

We analyse these questions using a theoretical model of structural change and econometric analyses where we identify the effect of the conflict with the share of female population shortly after the war, and the effect of socialism with the length of pre-economic reform socialist rule in Vietnam. Applying three waves of national censuses for the years 1989, 1999, and 2009, we find that women who were of working age during the conflict are significantly more likely to work in areas that were more heavily affected by fighting. For younger women, the effect of 'missing men' on their decision to work is still visible but much smaller. However, the impact of living under the socialist system of North Vietnam appears to be more influential and persistent than the one of wartime mobilisation.

In the next section, we summarise the literature that this work contributes to. To the best of our knowledge, this is the first study to look at the long-term consequences of war on the labour force status of women and thus, indirectly, culture and gender roles, in a developing country. We are also the first ones to include a comparison with the impact of a political system such as socialism. In our theoretical model in section 3, we determine the labour market participation of women by the political context and the impact of war through the channels of changing values and economic necessities. After giving some background information in section 4, we describe our econometric approach and our results before section 6 concludes.

2 Literature

This work contributes to three strands of literature: The determinants of female labour force participation in general, as well as the 'added worker' hypothesis and cultural change more specifically. All of these are also combined in a small literature analysing the impact of war on women, in which most of the articles deal with the consequences of World War II (WWII), particularly in the United States of America (USA).

At the country level, the relationship between economic development and female labour force participation is often found to follow a U shape (Goldin 1994, Mammen and Paxson 2000). The narrative prevalent in the literature posits that, in very poor societies, every household member has to work to contribute to the common income. Furthermore, employment is often in agriculture which means that women stay close to their homes and can easily look after their children while working. As economies grow, they are often industrialised which makes combining market and housework more complicated. At the same time, men earn enough to provide for their families so that the cultural norm for women becomes to stay at home. As countries become even richer, education – also of women – increases so that it becomes costlier for them to stay at home. In addition, fertility decreases and women increasingly enter the workforce. While this 'feminisation U-hypothesis' is intuitively appealing and can be found in cross-country studies, panel data have produced mixed results and there appears to be a great persistence in female labour force participation differences between countries, suggesting that more deep-seated cultural and institutional factors are very important (Cagatay and Özler 1995, Gaddis and Klasen 2014, and Tam 2011).

When trying to explain these cross-country differences in women's participation in the labour market, a range of factors have been found to play a role. The historical structure of the economy can either include or exclude women from labour markets. If, for example, the region was historically more suitable for the usage of a plough requiring more strength and less manual work, women are more likely to be confined to housework (Boserup 1970, Alesina et al. 2011a, and Alesina et al. 2013). Similarly, economies that heavily rely on the extraction of mineral resources mainly depend on male workers (Ross 2008).

Another aspect that operates in the rather long run are religious beliefs, which can have a differentiated effect on the intra-family division of labour (Amin and Alam 2008 and Lehrer 1995). Specifically, Protestantism has been found to foster work ethics in general (Weber 1905 and Feldmann 2007) while overall, all religions are apparently discouraging female employment (Guiso et al. 2003). Specifically, more religious women haven been shown to react less to family benefits aiming at an increase in working

mothers than more secular ones (Jaeger 2010). Closely linked, cultural values are generally strong predictors of women's working behaviour and have a lasting impact: Attitudes towards working women are developed during youth, influenced by parental education and religious affiliation, and are then reflected in adult daughters' or daughter-in-laws' working decisions (Farré and Vella 2013, Fernàndez et al. 2004, and Fortin 2005). A range of studies finds that culture is not only important within a country or context (e.g., Clark et al. 1991 and Kevane and Wydick 2001) but is actually a mobile factor, that people take with them when moving across countries. First- and second-generation immigrants in the USA still reflect attitudes and behaviour that are linked to their country of origin (Antecol 2000, Fernàndez 2007, and Fernàndez and Fogli 2009).

In the shorter run, policy makers have the possibility to set incentives, e.g., in the different ways of taxing married couples' incomes or regarding issues such as child care, paid parental leave, child benefits, or the organisation of a school day (Gustafsson 1992, Gustafsson et al. 1996, Priebe 2010, and Alesina et al. 2011b). Especially in the case of the East Asian Tigers, basing their fast growth on strategic openness of the export sector, the inclusion of women as additional workforce and human capital has been found to be crucial for promoting growth as well as female economic participation (Klasen and Lamanna 2009, Seguino 2000).

Socialist countries represent an extreme example of a policy environment that particularly encourages female labour force participation. This is the case for both the former socialist states of Eastern Europe and the former Soviet Union as well as for some present-day socialist states such as Cuba. Women's labour force participation in these socialist regimes was or is promoted through high investment in female education and generous provision of state-provided child care and other family support measures. While the descriptive statistic of higher rates of working women in socialist states as compared to other political systems is undisputed, the degree to which it stems from an ideological commitment to gender equality or from a necessity of increased labour due to inefficient production processes is controversially discussed (e.g., Klasen 1994 and Kornai 1992).

At the micro level, female education and the economic situation of the household play important roles (Fortin 2005, Klasen and Pieters 2015). Going back to the seminal works by Mincer (1962), Ashenfelter (1980), and Lundberg (1985), the decision of women to enter the labour market or to increase their labour supply when their husbands become unemployed or earn less has been termed the 'added-worker effect'. This means of consumption smoothing has been found to hold in different contexts, e.g., in Argentina, Mexico, and Europe (McKenzie 2004, Parker and Skoufias 2004, Prieto-Rodrìguez and Rodrìguez-Gutiérrez 2003). Bhalotra and Umaña-Aponte (2010) point out that many households in developing countries do not have access to mechanisms of coping with income shortages such as insurance,

credit, or social security. Especially in times of macroeconomic crises they often lack assets to sell or networks to fall back on. As a result, households use the one asset they control, their labour. Bhalotra and Umaña-Aponte (2010) find this relationship to be present in Latin American and Asian countries, while African women have the tendency of falling out of employment during recession. They explain these heterogeneous results with different family structures and varying structures of the economies.

Violent conflicts are extreme cases of exogenous shocks generating the 'added worker effect'. The first studies analysing the effect of conflict on women's roles dealt with the impact of World War II (WWII). As Goldin (1991) and Clark and Summers (1982) show for the USA, after female labour force participation had increased from 28 per cent to 34 per cent between 1940 and 1945, more than half of the women drawn into the labour force by the war left again by 1950, leaving the direct impact on the war generation to be moderate. The authors explain the first rapid increase with both a labour demand shock following the mobilisation of men and the necessity to replace their forgone earnings at the household level. When the men returned from war, preference was given to them when assigning jobs. Akbulut-Yuksel et al. (2011) find similar results for the German 'rubble women' who were drawn into the labour force by post-war mandatory employment laws. They do not find evidence for any long-term effects on daughters and grand-daughters of the war generation. Along the same line, Ridd and Callaway (1987) caution that gender roles are modified only temporarily for the duration of conflict, but often return to the pre-conflict norm when conflict ends. In contrast to this, Fernàndez et al. (2004) find an impact of WWII on post-war generations' working status. They argue that due to the formation of preferences and norms during childhood (see also section 3), wives of men whose mothers worked are themselves significantly more likely to work. Following Acemoglu et al. (2004), they use mobilisation rates of US American men as an instrument for female labour force participation, as they are considered to represent an exogenous variation in female labour supply.

Looking at developing countries, Schindler (2010) and Brück and Schindler (2009, 2011) analyse the consequences of the Rwandan genocide. The loss of men and children is visible both in women's fertility decisions where a clear 'replacement effect' is found as well as in the new roles that women take in private and public life. Interestingly, this applies mainly to widows and female household heads while young women appear to conform especially strongly with traditional gender roles, arguably in order to increase their chances on the marriage market. In line with this, an emancipatory effect cannot be identified within male-headed households. In El Salvador, Nepal, Tajikistan, Peru, Sri Lanka, and Sierra Leone, women also acquired new skills and became the breadwinners of the household during civil wars replacing men who were either dead, fighting or absent (Ibàñez 2001, Menon and van der Meulen Rodgers 2013, Shemyakina 2015, and Wood 2008). All of these conflicts, however, are too recent to make a

statement about long-term effects.

Summarising, while there is a considerable literature on determinants of female labour force participation and differences in this regard between both countries and households, most of these works focus on developed countries or cross-country analyses. This paper thus contributes to the existing research by including the 'added worker' perspective, the role of the political framework as well as a long-term viewpoint in developing countries.

3 Model

The simple theoretical framework developed in this chapter aims at modelling the combined effect of wartime mobilisation and socialism on female labour force participation in Vietnam. Both the necessity of the wartime mobilisation of men taking away the breadwinner of the family as well as the political influence on peoples' values and the role of women for the working decisions of females are taken into account.

The static neoclassical model of labour force participation suggests that an individual will maximise her utility by choosing a specific combination of leisure and consumption. In order to finance the consumption, the person has to work in the market at a particular wage rate and at the expense of leisure. This way of modelling implies that time out of work is a result of choices. In many developing countries, however, this is not likely to fit the reality of the population. The seminal paper modelling unemployment as a constraint rather than a choice, thus recognising its character as a disequilibrium, is Ashenfelter (1980). When one household member is unemployed, i.e., they face the binding constraint of not being able to sell the desired number of hours on the labour market, the other household members factor this constraint into their decision. Through both the income and the substitution effect, in the case of an exogenous spell of unemployment for the husband, Ashenfelter's model predicts that the wife would seek to work more outside the house. This is the so-called 'added worker effect' also described in section 2. During conflict, the man is rather absent than unemployed. Yet, his reduced income and the assumption that the other household members take this into account when making there working decisions is equivalent to the case of unemployment.

While Ashenfelter's model considers an unspecified household size of *n* members, we simplify the approach by only taking into account *n*=2, i.e., husband and wife. Together, they act in a way that maximises the household's utility at time *t*, $U_{HH}(C_t, I_t, S_t)$. As in the neoclassical models, the utility depends on the household's consumption, C_t. Additionally, the social stigma assigned to a woman working, S_t, results from the society's perception of the woman's role being one of housewife and mother. This

social stigma is rarely taken into account (exceptions being Hazan and Maoz 2002, Fernàndez et al. 2004, Fernàndez 2013, and Fogli and Veldkamp 2011) but it is crucial to understand the dynamics of female labour force participation (FLFP). I_t is an indicator variable equal to one if the wife works. One work closely related to the way of modelling presented here is Hazan and Maoz (2002) who proxy the stigma attached to a woman being active in the labour market today by the previous generation's share of working women. In Fernàndez et al. (2004), the specific channel from one generation to the next is the share of men's mothers working in the previous period, making it more likely that men's wives today will take up employment. Fernàndez (2013) models cultural change as the result of a rational, intergenerational learning process based on the public beliefs towards a woman's role in society represented by the share of women working in the past and private information about the costs of working. Fogli and Veldkamp (2011) model the learning process in the form of geographical clusters where women learn from their older female neighbours who worked previously, a higher share of neighbours working in the past having an encouraging effect on young women at present. What all of these models have in common and what will also be applied here is that cultural perceptions of the role of women play a role when households decide whether a woman should work and that this social rule is reflected in how many females worked in the past.

We add to this literature by specifically combining the 'added worker' and the cultural change models, assuming that perceptions about the role of women today are shaped by economic necessities in the past. Another augmentation is the inclusion of political measures or ideology into the model. Both these factors are expected to have the ability to 'fast forward' social change.

Specifically, the model is designed as an overlapping generations model, with couples working in period *t* and consuming in period *t+1*. With

$$\underset{I_t}{\text{Max}}\, U_{HH}(C_{HH,t+1}, I_t, S_t) = log(C_{HH,t+1}) - I_t * S_t, \tag{1}$$

the social stigma only affects the household's utility, if I_t = 1, i.e., if the wife works. Please note that, as the consumption is included in its logarithmic form, it has decreasing marginal returns with regard to utility, i.e., additional consumption becomes less important at higher levels. Furthermore, U_{HH} is separable, so that the utility of consumption is independent from the stigma. The couple's consumption in *t+1* is made up of the husband's income, y_t^h, and – if she works – the wife's income, y_t^w in period *t* and multiplied with the interest rate:

$$C_{HH,t+1} = (y_t^h + I_t * y_t^w) * (1 + r). \tag{2}$$

Consequently, the wife will work in the market if and only if the additional consumption in the future

outweigh the contemporaneous social stigma, i.e., if the household's utility is at least as high when she works as when she does not work:

$I_t = 1$ iff

$$U_{HH}(C_{HH,t+1}, S_t) \geq U_{HH}(C_{HH,t+1}, 0), \tag{3}$$

or

$$log[(y_t^h + y_t^w) * (1 + r)] - S_t \geq log[y_t^h * (1 + r)], \tag{4}$$

which reduces to

$$log(1 + \frac{y_t^w}{y_t^h}) \geq S_t, \tag{5}$$

so that the wife works either if her own wage is so high that it offsets the social stigma or if her husband's wage is low enough to have the same effect. As can be seen, S_t is taken to be statically exogenous and constant. However, dynamically, it is endogenous and depends on the situation in the period before, i.e., on the share of the women who participated in the labour market in the previous generation, P_{t-1} ($0 \leq P_{t-1} \leq 1$). Specifically, the stigma is assumed to be smaller the more women worked in period *t-1*, as they are considered to be a proxy for past beliefs and to represent a social learning process.[3] Furthermore, a country-wide 'crisis and policy effect', E_t, is included, that weakens the stigma in the current period (for example because the absence of men makes it generally more necessary for women to work) but has the potential to be reduced in the following period, thus allowing the stigma to unfold again.

$$S_t = S_t(P_{t-1}, E_t) = D - \beta(P_{t-1} + E_t), \tag{6}$$

with *D* denoting a random variable with the cumulative density function F(D), $\beta > 0$, and $0 \leq C_t \leq 1$. In the case of Vietnam, E_t comprises the direct impact of war destruction as well as the political context, i.e., the duration of socialism. Depending on the household's *D* the stigma can even turn out to be positive, e.g., in socialism a family could gain utility when the woman works, too.

Plugging equation 6 into equation 5 shows that a married woman will work iff

$$D \leq log[1 + \frac{y_t^w}{y_t^h}] + \beta(P_{t-1} + E_t). \tag{7}$$

[3] See also above for works following this approach.

Consequently, the total number of women working in *t* can be denoted as a function of the previous period's female labour force participation rate (FLFPR) and the current economic and political situation:

$$P_t = F(y_t^w, y_t^h, P_{t-1}, E_t). \tag{8}$$

Thus, the static increase of FLFP due to a general slump in male income would persist dynamically in 'fast-forwarding' cultural change because of a drastically reduced stigma S_t in the following periods. A fall back into old gender roles after a resurgence of male earnings would be possible to the extent that E_t would return to its pre-crisis level.

4 Background

The traditional Vietnamese society during the French colonial rule[4] could be characterised as rather patriarchal, authoritarian, and reliant on subsistence agriculture, where women's activities were confined to the household and the family's plot (Bunck 1997). In the course of the 1930s, the communist nationalist movement linked women's rights and the struggle against colonialism. Feminism was seen as a theme cutting across classes, thus increasing the base for mobilisation, as women would participate in the revolution on a basis of equality with men. After independence from the French in 1954, the country was divided at the 17^{th} parallel, separating the socialist North ruled by Ho Chi Minh from the pro-Western South, governed by Diem. In the Northern part of the country, the government of the Democratic Republic of Vietnam codified in their 1960 constitution that 'women enjoy equal rights with men in all spheres of political, economic, cultural, social, and domestic life' (Turley 1972).

While already the fight for independence (1946-'54) brought turbulence over the country, the Vietnam (or American) War (1965-'75) induced massive changes to its social, economic, and political structure. In 1946, women played only a minor role in political life and their labour force participation was very low. Although by 1965, their public visibility had increased slightly, a major shift was seen by 1971/ '72 (Werner 1981). In the whole country, increasing numbers of men entered the armed forces from the mid-1960s onwards, resulting in a severe shortage of male labour. Many of the young men who were drafted never returned. Compared to non-war mortality, the risk of dying for males between the age of 15 and 29 was more than seven times higher, at age 30 to 44 it was still two and a half times greater. During the years 1965-'75, mortality among all Vietnamese men older than 15 was twice as high as it would have been expected in times of peace – for women the likelihood of dying was 35 to 39 per cent higher (Hirschman et al. 1995). It is estimated that the conflict made around 1,000,000 Vietnamese women widows (Stewart 1993). Consequently, women entered the workforce in large numbers and in all sectors, but especially in agriculture where the share of women among all workers increased from 60 to 70 per

[4] French Indochina, i.e., the French colonial rule in Southeast Asia lasted from 1887 to 1945/ '54.

cent in 1966 to 80 to 90 per cent in 1971 (Turley 1972).

In the North, it was the combination of war necessities and the socialist restructuring of the economy which is seen to have made the increase on female labour force participation specifically lasting (Goodkind 1995 and Werner 1981). In line with the political agenda but also faced with the severe shortage of male workers, policies were implemented to draw women into the workforce, such as nurseries, paid parental leave and equal pay as men's (Einhorn 1995). At the same time, family farms were converted into state cooperatives which were often led and administered by women, leading to a 'feminisation of agriculture' with women performing tasks that would have previously been thought unfit for them (Bunck 1997). In fact, this was part of a political calculation with party leaders being convinced that war-time mobilisation of women could alter values, self-concepts and perceptions of women's role sufficiently to make it unlikely for them to reverse after war, which would be useful with regard to reconstruction (Turley 1972). In fact, when looking at the World Values Survey for Vietnam in 2001 (World Values Survey Association 2001), a significantly lower share of the population in the North than in the South (41.3 vs. 50.6 per cent) would agree with the statement 'when jobs are scarce men should have more right to a job than women' even a long time after reunification.

With the defeat of the South and reunification at the end of the war, the whole of Vietnam became a socialist Republic in 1976. However, in the course of the Doi Moi reforms of 1986, it underwent a massive change towards a 'market-oriented socialist economy under state guidance', leading to high economic growth rates throughout the 1990s and 2000s. This meant a re-privatisation of ownership, an abandonment of central planning and allowing the farmers to sell excess production (Beresford 2008 and Corfield 2008). Following privatisation, the state laid off around 900,000 workers and closed thousands of state enterprises. Of the people losing their jobs, around 60 per cent were women, yet many of them were absorbed by the rapidly growing private sector (Bunck 1997). Another challenge to female employment were the returning men who also required jobs. The political stance on the issue changed towards the idealisation of the family and the woman's role within it as opposed to new technologies being the domain of men. This also led to policies such as child care and parental leave being severely cut. Consequently, the advances made by women during the war were partly reversed and partly diverted into high occupational segregation (Goodkind 1995, Tuyen 1999, and Werner 1981).

Thus, after approximately fifty years of increases in female labour force participation due to conflict and political ideology, at a least a partial turnaround has been observable over the last twenty years. However, a quantification of the two positive effects as well as an analysis of their development over time offers valuable insights.

5 Empirical Analysis

Based on the theoretical model in section 3 and the historical background described in section 4, we will empirically test the following hypotheses in this section: Women living in provinces that were more severely hit by the Vietnam War should be significantly more likely to take up work than those living in more peaceful areas. Specifically, the effect should be more pronounced for the birth cohorts directly affected by the war, i.e., those of working age in the 1965-'75 period. This reasoning is based on the 'added worker' effect in equation 5 as husband's income, y_t^h, equals zero (or is very small) when the husband has been drafted to fight, thus overruling stigma S_t. At the same time, S_t is reduced because of a high 'crisis term' E_t.[5] For the following generations, and thus visible in the overall effect, the impact of war is passed on through cultural change as depicted in equations 5 and 8. Independent from the Vietnam War, the longer exposure to socialism in the North of country (the Democratic Republic of Vietnam) should increase the FLFPR relative to the Southern part of the country, according to equation 7, as E_t is permanently higher.

5.1 Data

The dataset applied is a combination of the Vietnamese Population and Housing Censuses of the years 1989, 1999, and 2009 (Vietnamese General Statistics Office 1989, 1999, 2009). It is an ever-married, all-female sample at working age, i.e., aged 15 to 60, comprising 3,154,587 women in 47 provinces.

Table 1 shows the descriptive statistics of the sample.[6] The outcome variable is a binary variable taking the value of 1 if the woman is part of the labour force and the value of 0 if she is coded as 'inactive'. Specifically, a woman is considered to participate in the labour market if she is employed or self-employed and has worked for at least six out of the preceding twelve months or if she is unemployed but looking for work.[7] As can be seen in Table A1, the FLFP is rather high in Vietnam, specifically, the average increased from 78 per cent in 1989 to 86 per cent in 2009. Overall, the vast majority of women in the sample (64.71 per cent) works in agriculture, fishing, and forestry, followed by wholesale and retail trade (11.89 per cent), manufacturing (8.19 per cent), and education (5.05 per cent). While most women work on their own account (58.69 per cent), another large share are unpaid family workers (23.31 per cent) or wage/ salary workers (17.78 per cent, half of which work in the private and public sector, respectively).

The main variable of interest is the share of female population at the province level in 1979, i.e., very shortly after the end of the Vietnam War (Vietnamese General Statistics Office 1982).[8] The variable is

[5] As we do not have any information whether or not the husband fought in war, we cannot distinguish these two channels empirically.

[6] For descriptive statistics by year, please see the appendix.

[7] We choose this specification of the 'working' variable as it follows the definition of FLFP. Only 0.78 per cent of the women in our sample are unemployed. Dropping these observations does not change our results.

[8] We are extremely grateful to Charles Hirschman for sharing this report.

Table 1: Descriptive Statistics

	Min.	Max.	Mean	SD	N
Working	0.00	1.00	0.85	0.36	3701971
Percent female population in 1979	44.25	53.64	51.39	1.33	3701971
Total U.S. bombs, missiles, and rockets per km2	0.01	335.47	25.15	41.37	3701971
Age	15.00	60.00	39.46	10.34	3701971
Less than primary completed	0.00	1.00	0.38	0.48	3699562
Primary completed	0.00	1.00	0.48	0.50	3699562
Secondary completed	0.00	1.00	0.10	0.30	3699562
University completed	0.00	1.00	0.04	0.20	3699562
Husband working	0.00	1.00	0.81	0.39	3698409
Husband less than primary completed	0.00	1.00	0.30	0.46	3219655
Husband primary completed	0.00	1.00	0.53	0.50	3219655
Husband secondary completed	0.00	1.00	0.11	0.32	3219655
Husband university completed	0.00	1.00	0.05	0.22	3219655
Husband absent	0.00	1.00	0.08	0.28	3701971
No. of children under 5	0.00	6.00	0.35	0.61	3701971
Household migrated in past 5 years	0.00	1.00	0.02	0.15	3700087
Urban	0.00	1.00	0.30	0.46	3701971
Province FLFPR	0.46	0.97	0.85	0.11	3701971
Change in population density, 1990-2001	2.23	670.98	86.04	148.48	3701971
Consumption expenditures p.c., 1992/3 (in 1998 Dong)	1407.42	5453.99	2586.94	791.36	3701971
Proportion born in current village, 1997/8	0.00	1.00	0.72	0.22	3631847
Province literacy rate, 1999	0.55	0.97	0.88	0.08	3701971
Proportion of HH with access to electricity, 1999	0.30	1.00	0.73	0.20	3701971
Proportion of land cultivated, 1999	0.00	54.57	11.30	12.48	3701971
Southern province	0.00	1.00	0.47	0.50	3701971
Year = 1989	0.00	1.00	0.11	0.31	3701971
Year = 1999	0.00	1.00	0.11	0.32	3701971
Year = 2009	0.00	1.00	0.78	0.42	3701971

taken from the report on the 1979 census and directly captures the outcome of the conflict of interest here, the absence of men. Although a large share of drafted men should have returned home by that time, it is still a proxy for the death rate and the gender bias therein mentioned in section 4. As such, it is used as a proxy for stigma S_t in the model in section 3, as it influences both the 'crisis term' E_t at the province level and indicates a very low (or zero) husband's income y_t^h, which in turn reduce the stigma. Figure 1 shows the spatial distribution of this variable.

An alternative measure of war intensity would be to use a measure of wartime fighting. Miguel and Roland (2011) use an indicator for the total number of U.S. bombs, missiles, and rockets dropped per km^2 in 1965-'75 to estimate the 'long-run impact of bombing Vietnam' on economic development. They do not find any effect on local poverty rates, consumption levels, infrastructure, literacy or population density still detectable in 2002. However, their indicator of physical destruction is not significantly correlated with our measure of human harm.[9] This might be because men did not fight and were not killed by bombings close to where they were drafted and where their families lived. Thus, where bombing was heaviest might not be where men were missing. As what we wish to measure is the effect on the Vietnamese population, specifically on male mortality, the share of female population is a more direct indicator than the amount of ordnance dropped.

[9] The bombing intensity indicator is also not significantly related to FLFPR.

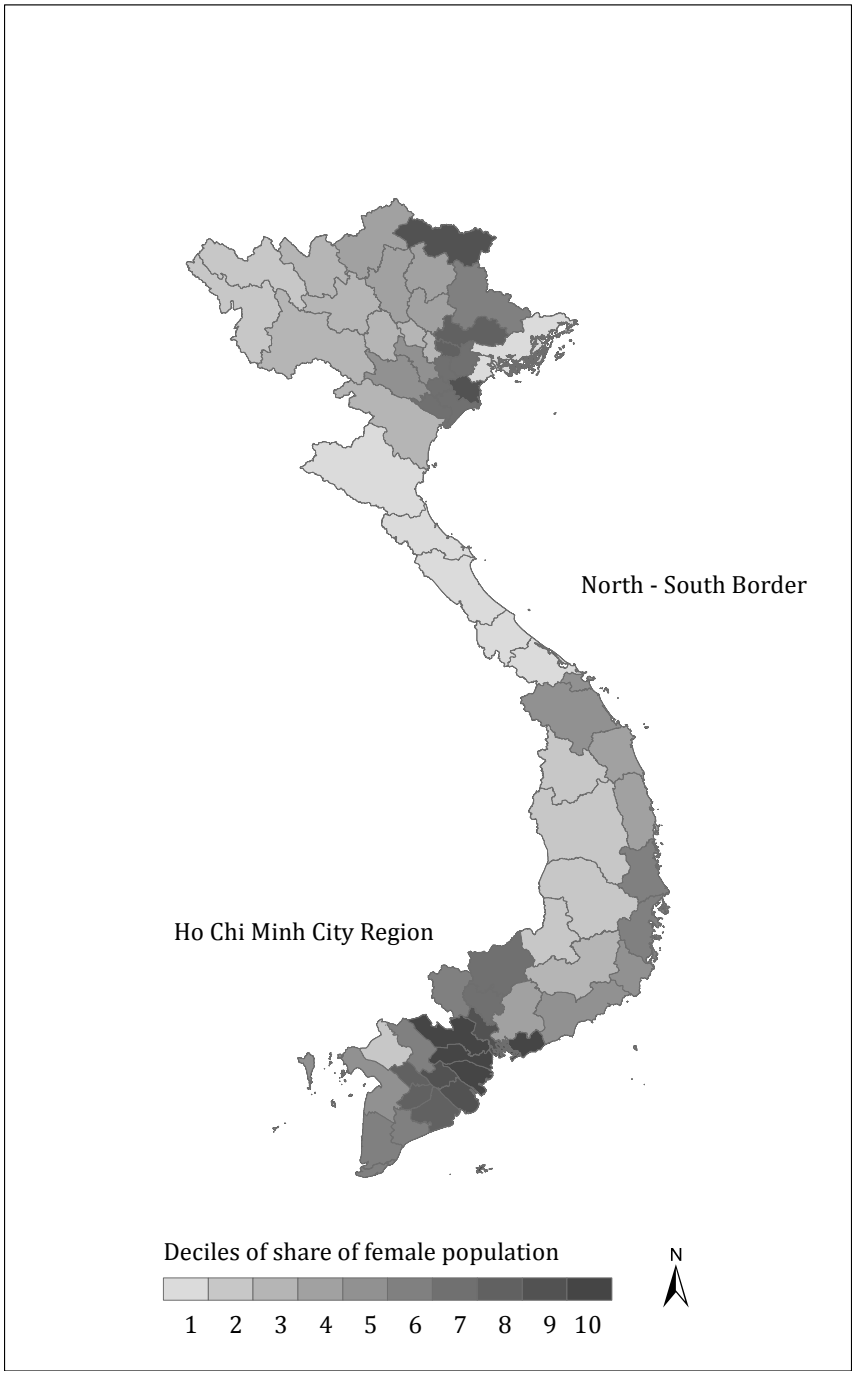

Figure 1: Share of female population by province, 1979

A considerable concern regarding our main variable of interest are spill-overs, e.g., through migration. While we carry out a robustness check averaging our conflict intensity indicator across three provinces (see section 5.4 below), we also include the proportion of the population born in the current village (province averages for the year 1997/ 8), the change in population density over the course of the 1990s (both taken from Miguel and Roland 2011) as well as the individual level variable whether the household migrated in the last five years to address this issue. Staying in the framework of cultural change, the issue of people moving to a region after the end of war should not dissolve the effect of conflict as long as the migrants form a minority that is too small to affect values. Should there be a bias from migration left, it would be downward rendering our estimates the be lower bound effects.

In order to control for other (non-cultural) channels for the long-run effect of war intensity on FLFP, for example through increased reconstruction or industrialisation efforts, we include a number of further covariates at the province level. Namely, we use the average consumption expenditures per capita, the province literacy rate, the proportion of households with access to electricity, and the proportion of land cultivated as a proxy for the importance of the agricultural sector, which employs the majority of women (all time invariant, measured in the 1990s and taken from Miguel and Roland 2011).

Household level indicators following the general FLFP literature are also added to the estimation equation. Specific to our context is the variable 'husband absent', representing a possible transmission channel at the household level. It indicates that a woman has been married but her husband is not currently present in the household, e.g., because he migrated or because she is a widow or divorced. The province level FLFPR is not included in the model but reported here to give an impression of the general likelihood of women taking up work.

5.2 Model and Findings

Following the common specifications in the FLFP literature, we run a number of probit models, each of them with the current work status of the women in the sample as the dependent variable ($W_{i,t}$). We also control for a number of individual, household, and province variables ($X_{i,t}$) as described above in section 5.1 and include region and year fixed effects to control for unobserved heterogeneity (α_r and δ_t, respectively). As the variable of interest, the share of female population in 1979 ($Share\_Female_p$), is measured at the province level, standard errors are clustered at this level, too (ϵ_p). Thus, the estimation equation takes the form:

$$W_{i,t} = \beta_1 Share\_Female_p + \beta_2 X_{i,t} + \alpha_r + \delta_t + \epsilon_p. \tag{9}$$

In a second step, interaction terms of the conflict indicator with the birth cohort will be added in order to see if there is a distinct effect of conflict for different generations.

A reduced model estimation only including the share of female population as an explanatory variable of a woman's likelihood to work as well as region and year fixed effects is presented in Table 2, column 1. Average marginal effects are presented. It can be seen that, on average, a one percentage point increase in the share of female population in 1979 (approximately equivalent to one standard deviation) increases the likelihood of a woman being active in the labour market more than 15 years after the end of the war by around 1.4 percentage points. The effect is statistically significant at the 99.9 per cent level. In column 2, control variables are added, which does not change the finding regarding the share of female population. The covariates included have the expected signs: Age follows and inverted U shape, while own education has a positive and husband's education a negative effect. A larger number of children below the age of five reduces a woman's propensity to work. Regarding the huge presence of women in the agricultural sector, the negative effect of living in urban centres is also not surprising and in line with the positive effect of the proportion of land cultivated.

In a second step, interaction effects of the share of female population with binary variables for birth cohorts are included in order to see if the effect differs from one generation to the next. One cohort represents women being born in the same decade between the 1920s and 1980s. As marginal effects in non-linear models are not straightforward to interpret (Ai and Norton 2003), they are not presented in a table but rather plotted in Figure 2.[10] It can be seen that the marginal effect is positive and statistically significant for all cohorts except for those born the 1920s, but that there is a decrease for younger age groups. The women born in the 1920s were already approaching the end of their working life (at least 45 years old) when the war started, thus it is possible that it did not affect them as much. Furthermore, their husbands were probably too old to be drafted to fight. When testing whether the change from one group to the next is statistically significant, only the marginal effect for those born in the 1950s and in the 1960s is different from the one for those born in the 1940s and 1950s, respectively. Thus, there are two groups: Women who were directly affected by the conflict during their working age react more strongly than women entering the labour force afterwards. This is in line with the anecdotal evidence presented in section 4.[11]

Another explanation for the decreasing effects across cohorts, following for example Fogli and Veldkamp (2011), might be the diffusion of values and knowledge regarding working women rather than the levelling off of the impact of war. The idea is that, while at first women take their regional context to derive

[10]Results displaying coefficients for the interaction terms rather than marginal effects are presented in appendix A2. Stata does not produce tables of average marginal effects for interaction terms as they cannot be interpreted.

[11]The 1950s cohort forms their own group as they were partly affected and partly too young during the conflict.

Table 2: Determinants of women's choice to work, probit models, 1989-2009

	(1)	(2)	(3)
Percent female population in 1979	0.0144***	0.0127***	0.00914***
	(0.00399)	(0.00193)	(0.00277)
Age		0.0239***	0.0237***
		(0.00119)	(0.00130)
Age squared		-0.000351***	-0.000348***
		(0.0000179)	(0.0000195)
Primary completed		0.00571	0.00966*
		(0.00352)	(0.00378)
Secondary completed		0.00581	0.0101
		(0.00637)	(0.00682)
University completed		0.120***	0.126***
		(0.0146)	(0.0153)
Husband primary completed		-0.00485	-0.00231
		(0.00312)	(0.00346)
Husband secondary completed		-0.0122**	-0.00974*
		(0.00408)	(0.00460)
Husband university completed		-0.0409***	-0.0385***
		(0.00469)	(0.00527)
Husband absent		0.00775	0.00676
		(0.0164)	(0.0167)
No. of children under 5		-0.0342***	-0.0335***
		(0.00209)	(0.00234)
Household migrated in past 5 years		-0.00411	-0.00271
		(0.0125)	(0.0122)
Urban		-0.114***	-0.115***
		(0.00687)	(0.00688)
Change in population density, 1990-2001		-0.0000276	0.0000433
		(0.0000622)	(0.0000524)
Consumption expenditures p.c., 1992/3 (in 1998 Dong)		-0.0000162	-0.0000445*
		(0.0000202)	(0.0000209)
Proportion born in current village, 1997/8		0.0654*	0.0317
		(0.0312)	(0.0450)
Province literacy rate, 1999		-0.0190	-0.163
		(0.0937)	(0.141)
Proportion of HH with access to electricity, 1999		0.0469	0.106
		(0.0407)	(0.0630)
Proportion of land cultivated, 1999		0.00178*	0.00275***
		(0.000894)	(0.000499)
Year = 1999	-0.0478***	-0.0475***	-0.0464***
	(0.00717)	(0.00683)	(0.00738)
Year = 2009	0.0399***	0.0191**	0.0198**
	(0.00807)	(0.00697)	(0.00699)
Southern province			-0.112***
			(0.0289)
Observations	3,701,971	3,154,587	3,154,587
Mean Work	0.85	0.85	0.85
Pseudo R Squared	0.0754	0.1648	0.1560

Marginal effects are presented. Region fixed effects are included in columns 1 and 2.
Standard errors are clustered at the province level and shown in parentheses.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

information and make a decision, leading to a divergence of FLFPR across provinces, at some point the learning effect will cross borders inducing a catching-up. This would mean that the effect of the conflict is not reduced from one generation to the other but it is less geographically bound and, consequently, no longer identifiable by statistical means.

Figure 2: Marginal effects across cohorts, including 95% confidence intervals

5.3 The North-South Divide

As was described in section 4, Vietnam is an interesting case for two reasons: FLFP was influenced by the war and the lack of male labour caused by it as shown above. Additionally, whether a woman lived and lives in the North or South of Vietnam matters as the timing of the introduction of communism differs which impacted the perception of working women in society. In terms of the model in section 3 this means that we expect E_t to be larger (and thus the stigma to be smaller) for a longer period of time, even after the impact of violence has ceased. In the North, political considerations and reconstruction efforts drew women into the work force even after the end of the war.

In column 3 of Table 2, this is represented by the large and highly significant negative marginal effect of living in a Southern province. Just this geographical difference makes it 11.2 percentage points less likely that a woman will enter the labour force. Another descriptive argument in favour of this expectation is the observation that the average probability of a woman working across all three census waves is 91 per cent in the North and 78 per cent in the South, the average province FLFPR are 91 per cent and 77 per cent, respectively. Both these differences are statistically significant at the 99 per cent level. Additionally, region fixed effects provide valuable information in this regard as they capture all the differences in FLFP that cannot be explained by any of the variables included in the models or over-time

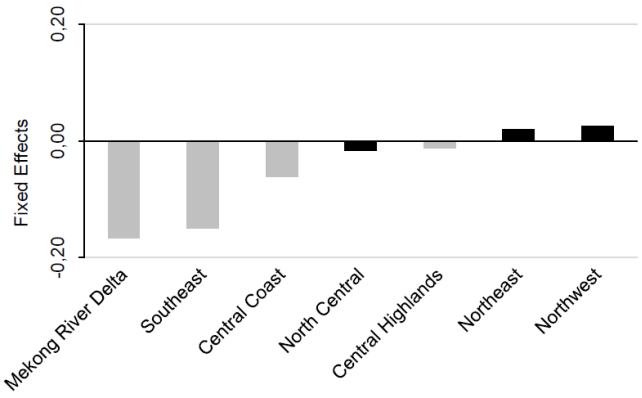

Figure 3: Region fixed effects (North = black)

changes.[12] Figure 3 shows the marginal effects of the region fixed effects from the main specification, the left out category being the Red River Delta which has the lowest mean FLFPR of all Northern regions. In contrast to the simple summary statistics, these are now conditional on all the factors controlled for in the specification. While the relationship is not perfect, it is striking that the positive fixed effects are all for Northern provinces, while with one close exception the negative ones are all of Southern regions. Especially for the South, the fixed effects are larger than the effect of 'missing men', underlining the longer-lasting impact of socialism on the Vietnamese society's attitude towards working women and, consequently, female labour force outcomes.

Summarising, we find a positive and lasting effect of conflict intensity measured by the share of females in the province population on women's labour market decisions. However, the impact is smaller for generations entering the labour market after the conflict ended as compared with those ones directly affected by the war. Having lived under a socialist system for longer, proxied by regions situated in the Northern part of the country, has played an even larger and more lasting role in shaping women's choice to enter the labour force.

5.4 Robustness Checks

This section puts the findings above to several robustness tests. As described in section 5.1, a large number of Vietnamese migrated both within the country and abroad, voluntarily and involuntarily, both during and after the war. This could be one cause of spill-overs between provinces. We therefore take the average share of female population of the province itself and two neighbouring areas as the explanatory variable.[13] This is done in a way that we keep the same degree of variation with 47 values in our variable

[12]Gaddis and Klasen (2014) use a similar approach in their country-level regression.
[13]Results are presented in the appendix A3 and A1.

of interest, making sure to take varying combinations of neighbours. The results are very similar to the main findings: We estimate an overall positive effect of a higher share of females among the post-war population on women's likelihood to be part of the workforce. The marginal effect is now 0.0178 and thus of a similar size as above. Also the three groups, comprising of the women born in the 1920s to '40s, the 1950s cohort, and the women born during the 1960s to '80s are confirmed. However, now the interaction effects for the post-war generations (1960s onwards) are no longer statistically significantly different from zero.

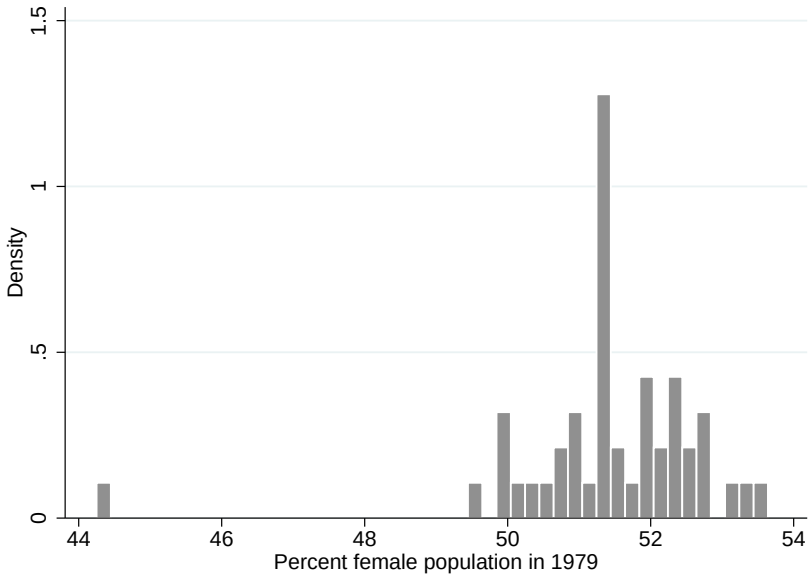

Figure 4: Distribution of conflict intensity

As the histogram of the conflict intensity variable in Figure 4 shows, there is one province which is a clear outlier in terms of female population, Quang Ninh. As a second robustness check, we thus drop observations from this province which again gives very similar results.[14] The overall effect is positive and significant at the 99 per cent level (with a marginal effect of 0.014) and we find the three groups. Just as when averaging across neighbours, the 1960s to 1980s cohorts are no longer significantly affected by the war.

Overall, the robustness checks leave our results qualitatively unchanged although rather than displaying a small but significant effect of 'missing men' on generations entering working age after the war, we now find the effect to be confined to those women directly affected by the conflict.

[14]Results without Quang Ninh province are presented in appendix A3 and A2.

6 Conclusion

This paper analyses political and economic factors determining the decision of a woman to enter the labour market, namely the impact of 'missing men' due to mobilisation and an increased death toll during war and of living under a socialist regime. For the case of Vietnam, we find that conflict measured by the share of female population shortly after the end of the Vietnam War has a positive effect on the cohorts directly affected by it, i.e., those of working age during 1965 and '75. For younger generations, the effect is still positive but smaller and less robust. This indicates that while the absence of men in the household and in the labour force both pushed and pulled the women into market work, it only produced a muted long-term cultural change in perceptions regarding gender roles.

From our theoretical model in section 3, which is motivated by the Vietnamese case but in principle valid more widely, it would also have been possible for the economic necessities of war to 'fast forward' cultural change. Yet it appears that norms need a more prolonged influence rather than just a short-term shock to change and otherwise have the tendency to fall back to the pre-crisis equilibrium (Ridd and Callaway 1987). In this case, the emergency lasted for ten years, stressing the extremely slow pace at which social norms evolve.

In Vietnam, the Northern half of the country has been under a socialist regime since the mid-1950s while this has only applies to the South since reunification in 1976. As socialist ideology has been significantly muted with the Doi Moi reforms in the course of the 1980s, its influence in the South is likely to be much more limited than in the North. Indeed, in our analysis we find that living in the North as such substantially increases the likelihood of a woman working. Thus, while the government actively supported women to enter the labour market in the Democratic Republic of Vietnam, twenty years also appear to be a time period more prone to have a lasting effect than the decade of war.

Of course, a mere regional binary variable is a rather crude measure for the exposure to socialism so that more research is needed in this direction. The division of the country offers an interesting natural experiment to exploit. Furthermore, although there is a growing literature on the effect of war on women, most of these conflicts are relatively recent so that it will be interesting to observe if the outcome of more women working in conflict-affected countries will still be visible in ten years or so (see for example Menon and van der Meulen Rodgers 2013 on Nepal).

While we suggest two channels for the relationship between conflict and FLFP in our theoretical model, this paper cannot say anything about their empirical validity – there is no information on whether or not the husband of a woman was involved in the conflict and the variable whether or not the mother of a woman in our sample worked has only very few observations. This would also be an interesting area of

further research.

From a policy point of view, we conclude that shocks such as conflicts can catapult the society from one equilibrium to the next, represented by the increased labour force participation of women directly affected by the war. Well-formulated and well-timed reforms can stabilise the desired aspects of this new status quo as is visible in Northern Vietnam where a combination of economic dire straits and political ideology pulled and kept women in the workforce.

7 Appendix

Table A1: Descriptive statistics by year

	1989					1999					2009				
	Min.	Max.	Mean	SD	N	Min.	Max.	Mean	SD	N	Min.	Max.	Mean	SD	N
Working	0	1	0.78	0.41	408877	0	1	0.77	0.42	416727	0	1	0.86	0.34	2876367
Percent female population in 1979	44	54	51.40	1.49	408877	44	54	51.44	1.33	416727	44	54	51.38	1.31	2876367
Total U.S. bombs, missiles, and rockets per km2	0	335	24.72	36.93	408877	0	335	26.72	47.47	416727	0	335	24.99	41.01	2876367
Age	15	60	37.47	10.79	408877	15	60	38.13	9.86	416727	15	60	39.94	10.30	2876367
Less than primary completed	0	1	0.53	0.50	407669	0	1	0.35	0.48	415672	0	1	0.36	0.48	2876221
Primary completed	0	1	0.36	0.48	407669	0	1	0.46	0.50	415672	0	1	0.50	0.50	2876221
Secondary completed	0	1	0.09	0.29	407669	0	1	0.16	0.37	415672	0	1	0.09	0.29	2876221
University completed	0	1	0.02	0.15	407669	0	1	0.02	0.15	415672	0	1	0.05	0.22	2876221
Husband working	0	1	0.69	0.46	408561	0	1	0.78	0.42	416690	0	1	0.82	0.38	2873158
Husband less than primary completed	0	1	0.38	0.49	330548	0	1	0.27	0.44	359123	0	1	0.30	0.46	2529984
Husband primary completed	0	1	0.45	0.50	330548	0	1	0.51	0.50	359123	0	1	0.54	0.50	2529984
Husband secondary completed	0	1	0.12	0.32	330548	0	1	0.18	0.38	359123	0	1	0.10	0.30	2529984
Husband university completed	0	1	0.04	0.21	330548	0	1	0.05	0.22	359123	0	1	0.05	0.23	2529984
Husband absent	0	1	0.10	0.30	408877	0	1	0.08	0.27	416727	0	1	0.08	0.27	2876367
No. of children under 5	0	6	0.68	0.82	408877	0	5	0.39	0.62	416727	0	6	0.30	0.55	2876367
Household migrated in past 5 years	0	1	0.03	0.18	408839	0	1	0.03	0.16	416652	0	1	0.02	0.15	2874596
Urban	0	1	0.38	0.49	408877	0	1	0.50	0.50	416727	0	1	0.25	0.44	2876367
Province FLFPR	0	1	0.76	0.13	408877	0	1	0.76	0.12	416727	1	1	0.86	0.10	2876367
Consumption expenditures p.c., 1992/3 (in 1998 Dong)	1407	5454	2606.58	763.60	408877	1407	5454	2504.06	687.04	416727	1407	5454	2596.15	808.45	2876367
Proportion born in current village, 1997/8	0	1	0.71	0.23	400047	0	1	0.74	0.21	410230	0	1	0.72	0.22	2821570
Province literacy rate, 1999	1	1	0.88	0.08	408877	1	1	0.88	0.08	416727	1	1	0.89	0.08	2876367
Proportion of HH with access to electricity, 1999	0	1	0.74	0.20	408877	0	1	0.72	0.20	416727	0	1	0.73	0.20	2876367
Proportion of land cultivated, 1999	0	55	11.13	12.96	408877	0	55	11.13	12.18	416727	0	55	11.35	12.45	2876367
Southern province	0	1	0.49	0.50	408877	0	1	0.46	0.50	416727	0	1	0.47	0.50	2876367

Table A2: Determinants of women's choice to work, probit model, 1989-2009, including cohort interaction effects

	(1)
Percent female population in 1979	0.0660
	(0.0417)
1930s Birth cohort	-0.482
	(1.203)
1940s Birth cohort	-1.310
	(1.302)
1950s Birth cohort	-0.901
	(1.581)
1960s Birth cohort	1.380
	(2.312)
1970s Birth cohort	1.006
	(2.600)
1980s Birth cohort	0.871
	(2.357)
Interaction 1930s cohort	0.0109
	(0.0234)
Interaction 1940s cohort	0.0292
	(0.0254)
Interaction 1950s cohort	0.0248
	(0.0309)
Interaction 1960s cohort	-0.0181
	(0.0450)
Interaction 1970s cohort	-0.0125
	(0.0505)
Interaction 1980s cohort	-0.0114
	(0.0458)
Year = 1999	-0.282***
	(0.0317)
Year = 2009	0.0195
	(0.0350)
Observations	3144828
Pseudo R Squared	0.167

Coefficients are presented. Region fixed effects and control variables are included. Standard errors are clustered at the province level and shown in parentheses.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A3: Determinants of women's choice to work: Robustness checks probit models, 1989-2009

	(1)	(2)
Percent female population in 1979	0.0178**	0.0140**
	(0.00669)	(0.00511)
Age	0.0239***	0.0238***
	(0.00120)	(0.00121)
Age squared	-0.000351***	-0.000349***
	(0.0000181)	(0.0000183)
Primary completed	0.00630	0.00632
	(0.00353)	(0.00353)
Secondary completed	0.00631	0.00705
	(0.00629)	(0.00645)
University completed	0.120***	0.120***
	(0.0145)	(0.0150)
Husband primary completed	-0.00462	-0.00406
	(0.00311)	(0.00308)
Husband secondary completed	-0.0114**	-0.0121**
	(0.00408)	(0.00409)
Husband university completed	-0.0406***	-0.0411***
	(0.00465)	(0.00472)
Husband absent	0.00842	0.00714
	(0.0163)	(0.0167)
No. of children under 5	-0.0342***	-0.0343***
	(0.00211)	(0.00213)
Household migrated in past 5 years	-0.00372	-0.00314
	(0.0124)	(0.0126)
Urban	-0.114***	-0.113***
	(0.00710)	(0.00680)
Change in population density, 1990-2001	-0.0000558	-0.0000230
	(0.0000681)	(0.0000697)
Consumption expenditures p.c., 1992/3 (in 1998 Dong)	-0.0000158	-0.0000177
	(0.0000213)	(0.0000219)
Proportion born in current village, 1997/8	0.0621*	0.0634*
	(0.0304)	(0.0314)
Province literacy rate, 1999	-0.0439	-0.0232
	(0.0915)	(0.0934)
Proportion of HH with access to electricity, 1999	0.0459	0.0449
	(0.0391)	(0.0400)
Proportion of land cultivated, 1999	0.00174*	0.00179*
	(0.000879)	(0.000898)
Year = 1999	-0.0468***	-0.0463***
	(0.00692)	(0.00692)
Year = 2009	0.0199**	0.0209**
	(0.00690)	(0.00692)
Observations	3,154,587	3,090,756
Pseudo R Squared	0.1637	0.1652

In column 1, the female share of population is averaged over three provinces.
In column 2, the outlier Quang Ninh province is dropped.
Marginal effects are presented. Region fixed effects are included.
Standard errors are clustered at the province level and presented in parentheses.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

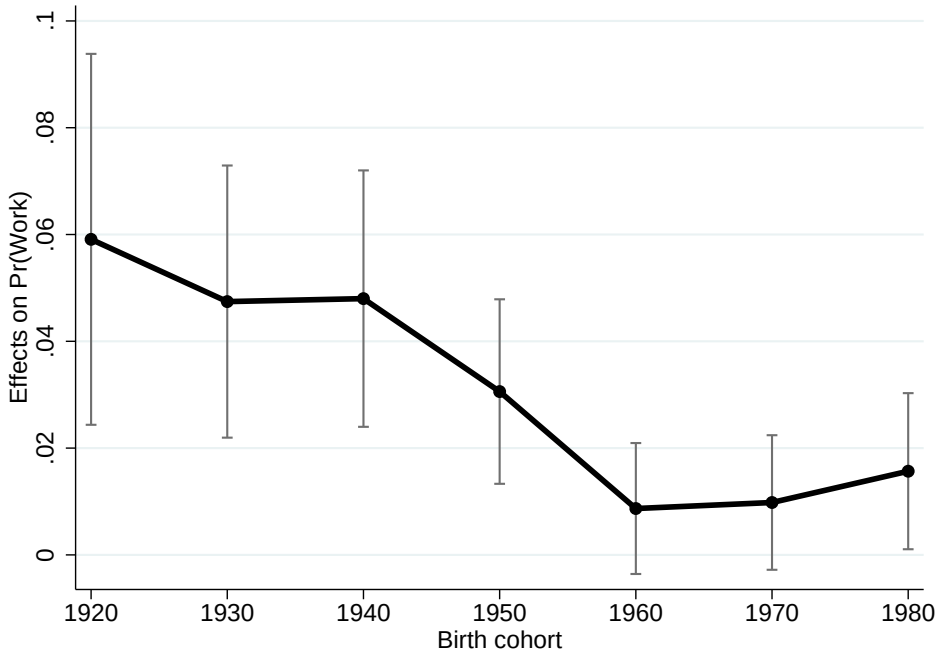

Figure A1: Marginal effects across cohorts, averaging over three provinces, including 95% confidence intervals

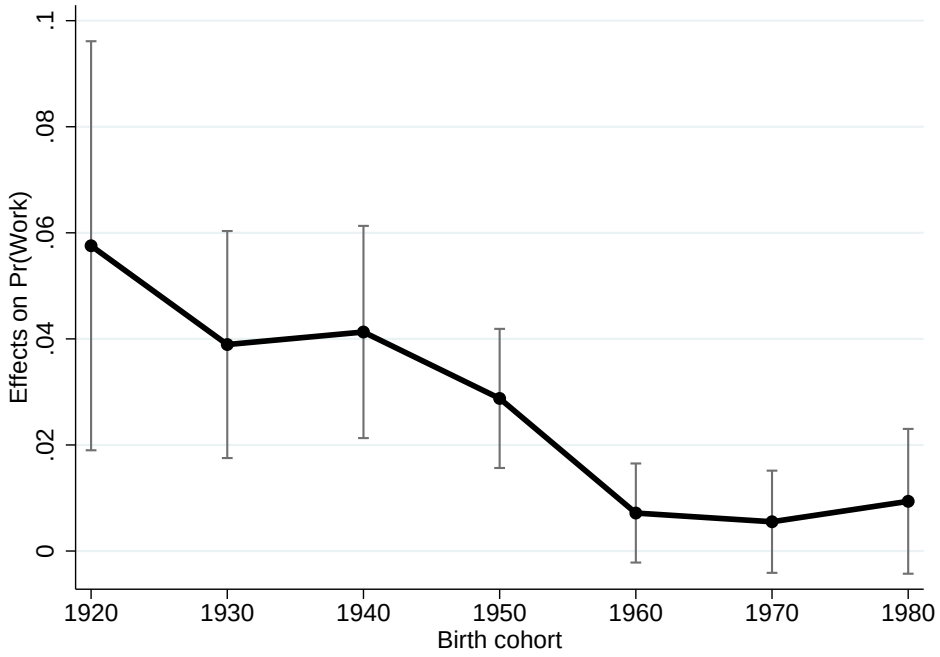

Figure A2: Marginal effects across cohorts, dropping Quang Ninh province, including 95% confidence intervals

References

Acemoglu, D., Autor, D. H., and Lyle, D. (2004). Women, War, and Wages: The Effect of Female Labor Supply on the Wage Structure at Midcentury. *Journal of Political Economy*, 112(3):497–551.

Ai, C. and Norton, E. C. (2003). Interaction Terms in Logit and Probit Models. *Economics Letters*, 80:123–129.

Akbulut-Yuksel, M., Khamis, M., and Yuksel, M. (2011). Rubble Women: The Long-Term Effects of Postwar Reconstruction on Female Labor Market Outcomes. *IZA DP No. 6148*.

Alesina, A., Giuliano, P., and Nunn, N. (2011a). Fertility and the Plough. *American Economic Review*, 101(3):499–503.

Alesina, A., Giuliano, P., and Nunn, N. (2013). On the Origins of Gender Roles: Women and the Plough. *The Quarterly Journal of Economics*, 128(2):469–530.

Alesina, A., Ichino, A., and Karabarbounis, L. (2011b). Gender-Based Taxation and the Division of Family Chores. *American Economic Journal: Economic Policy*, 40:1–40.

Amin, S. and Alam, I. (2008). Women's Employment Decisions in Malaysia: Does Religion Matter? *The Journal of Socio-Economics*, 37(6):2368–2379.

Antecol, H. (2000). An Examination of Cross- Country Differences in the Gender Gap in Labor Force Participation Rates. *Labour Economics*, 7(4):409–426.

Ashenfelter, O. (1980). Unemployment as Disequilibrium in a Model of Aggregate Labor Supply. *Econometrica*, 48(3):547–564.

Beresford, M. (2008). Doi Moi in Review: The Challenges of Building Market Socialism in Vietnam. *Journal of Contemporary Asia*, 38(2):221–243.

Bhalotra, S. and Umaña-Aponte, M. (2010). The Dynamics of Women's Labour Supply in Developing Countries. *IZA Discussion Paper Series 4879*.

Boserup, E. (1970). *Women's Role in Economic Development*. St. Martin, New York.

Brück, T. and Schindler, K. (2009). The Impact of Violent Conflicts on Households: What Do We Know and What Should We Know about War Widows? *Oxford Development Studies*, 37(3):289–309.

Brück, T. and Schindler, K. (2011). The Effects of Conflict on Fertility in Rwanda. *German Institute for Economic Research Discussion paper No. 1143*.

Bunck, J. M. (1997). Women and Post-Cold War Socialism: The Cases of Cuba and Vietnam. In *Cuba in Transition: Volume 7*, pages 21–31, Miami, Florida.

Cagatay, N. and Özler, S. (1995). Feminization of the Labor Force: The Effects of Long- Term Development and Structural Adjustment. *World Development*, 23(11):1883–1894.

Clark, K. and Summers, L. (1982). Labour Force Participation: Timing and Persistence. *Review of Economic Studies*, 49(5):825–844.

Clark, R., Ramsbey, T. W., and Stier Adler, E. (1991). Culture, Gender, and Labor Force Participation: A Cross-National Study. *Gender and Society*, 5(1):47–66.

Corfield, J. (2008). *The History of Vietnam*. The Greenwood Histories of Modern Nations. Greenwood Press, Westport, Connecticut.

Einhorn, B. (1995). Introduction. In Einhorn, B. and Yeo, E. J., editors, *Women and Market Societies: Crisis and Opportunity*, pages 1–8. Edward Elgar Pub, Aldershot.

Farré, L. and Vella, F. (2013). The Intergenerational Transmission of Gender Role Attitudes and its Implications for Female Labour Force Participation. *Economica*, 80(318):219–247.

Feldmann, H. (2007). Protestantism, Labor Force Participation, and Employment Across Countries. *American Journal of Economics and Sociology*, 66(4):795–816.

Fernàndez, R. (2007). Women, Work, and Culture. *Journal of the European Economic Association*, 5(2-3):305–332.

Fernàndez, R. (2013). Cultural Change as Learning: The Evolution of Female Labor Force Participation over a Century. *American Economic Review*, 103(1):472–500.

Fernàndez, R. and Fogli, A. (2009). Culture: An Empirical Investigation of Beliefs, Work, and Fertility. *American Economic Journal: Macroeconomics*, 1(1):146–177.

Fernàndez, R., Fogli, A., and Olivetti, C. (2004). Mothers and Sons: Preference Formation and Female Labor Force Dynamics. *The Quarterly Journal of Economics*, 119(4):1249–1299.

Fogli, A. and Veldkamp, L. (2011). Nature or Nurture? Learning and the Geography of Female Labor Force Participation. *Econometrica*, 79(4):1103–1138.

Fortin, N. M. (2005). Gender Role Attitudes and the Labour-market Outcomes of Women across OECD Countries. *Oxford Review of Economic Policy*, 21(3):416–438.

Gaddis, I. and Klasen, S. (2014). Economic Development, Structural Change, and Womens Labor Force Participation: A Reexamination of the Feminization U Hypothesis. *Journal of Population Economics*, 27:639–681.

Goldin, C. (1991). The Role of World War II in the Rise of Women's Employment. *The American Economic Review*, 81(4).

Goldin, C. (1994). The U-Shaped Female Labor Force Function in Economic Development and Economic History. *NBER Working Paper 4707*.

Goodkind, D. (1995). Rising Gender Inequality in Vietnam Since Reunification. *Pacific Affairs*, 68(3):342–359.

Guiso, L., Sapienza, P., and Zingales, L. (2003). People's Opium? Religion and Economic Attitudes. *Journal of Monetary Economics*, 50(1):225–282.

Gustafsson, S. (1992). Separate Taxation and Married Women's Labor Supply: A Comparison of West Germany and Sweden. *Journal of Population Economics*, 5:61–85.

Gustafsson, S., Wetzels, C. M., Vlasbom, J. D., and Dex, S. (1996). Women's Labor Force Transitions in Connection with Childbirth: A Panel Data Comparison between Germany, Sweden and Great Britain. *Journal of Population Economics*, 9:223–246.

Hazan, M. and Maoz, Y. D. (2002). Women's Labor Force Participation and the Dynamics of Tradition. *Economics Letters*, 75:193–198.

Hirschman, C., Preston, S., and Vu, M. L. (1995). Vietnamese Casualties During the American War: A New Estimate. *Population and Development Review*, 21(4):783–812.

Ibàñez, A. (2001). El Salvador: War and Untold Stories - Women Guerillas. In Moser, C. and Clark, F., editors, *Victims, perpetrators or actors? Gender, armed conflict and political violence*, pages 117–130. Zed Books, London.

Jaeger, U. (2010). Working or Stay-at-Home Mum? The Influence of Family Benefits and Religiosity. *Ifo Working Paper No. 84*.

Kevane, M. and Wydick, B. (2001). Social Norms and the Time Allocation of Women's Labor in Burkina Faso. *Review of Development Economics*, 5(1):119–129.

Klasen, S. (1994). Human Development and Women's Lives in a Restructured Eastern Bloc: Lessons from the Developing World. In Schipke, A. and Taylor, A. M., editors, *The Economics of Transformation: Theory and Practice in the New Market Economies*. Springer, Berlin, Heidelberg.

Klasen, S. and Lamanna, F. (2009). The Impact of Gender Inequality in Education and Employment on Economic Growth: New Evidence for a Panel of Countries. *Feminist Economics*, 15(3):91–132.

Klasen, S. and Pieters, J. (2015). What Explains the Stagnation of Female Labor Force Participation in Urban India. *The World Bank Economic Review*, forthcoming.

Kornai, J. (1992). *The Socialist System : The Political Economy of Communism*. Princeton University Press, Princeton, NJ.

Lehrer, E. L. (1995). The Effects of Religion on the Labor Supply of Married Women. *Social Science Research*, 24:281–301.

Lundberg, S. (1985). The Added Worker Effect. *Journal of Labor Economics*, 3(1):11–37.

Mammen, K. and Paxson, C. (2000). Women's Work and Economic Development. *The Journal of Economic Perspectives*, 14(4):141–164.

McKenzie, D. J. (2004). Aggregate Shocks and Urban Labor Market Responses: Evidence from Argentina's Financial Crisis. *Economic Development and Cultural Change*, 52(4):719–758.

Menon, N. and van der Meulen Rodgers, Y. (2013). War and Women's Work: Evidence from the Conflict in Nepal. *Journal of Conflict Resolution*, 59(1):51–73.

Miguel, E. and Roland, G. (2011). The Long-Run Impact of Bombing Vietnam. *Journal of Development Economics*, 96:1–15.

Mincer, J. (1962). Labor Force Participation of Married Women: A Study of Labor Supply. In Groves, H. M., editor, *Aspects of Labor Economics*, pages 63–106. Princeton University Press.

Parker, S. W. and Skoufias, E. (2004). The Added Worker Effect over the Business Cycle: Evidence from Urban Mexico. *Applied Economics Letters*, 11(10):625–630.

Priebe, J. (2010). Child Costs and the Causal Effect of Fertility on Female Labor Supply: An investigation for Indonesia 1993-2008. *Courant Research Centre: Poverty, Equity and Growth - Discussion Papers, No. 45*.

Prieto-Rodrìguez, J. and Rodrìguez-Gutiérrez, C. (2003). Participation of Married Women in the European Labor Markets and the 'Added Worker Effect'. *The Journal of Socio-Economics*, 32(4):429–446.

Ridd, R. and Callaway (1987). *Women and Political Conflict: Portraits of Struggle in Times of Crisis*. New York University Press, New York.

Ross, M. L. (2008). Oil, Islam, and Women. *American Political Science Review*, 102(01).

Schindler, K. (2010). Who Does What in a Household after Genocide? Evidence from Rwanda. *German Institute for Economic Research Discussion paper No. 1072*.

Seguino, S. (2000). Accounting for Asian Economic Growth: Adding Gender to the Equation. *Feminist Economics*, 6(3):27–58.

Shemyakina, O. N. (2015). Exploring the Impact of Conflict Exposure during Formative Years on Labor Market Outcomes in Tajikistan. *Journal of Development Studies*, forthcoming.

Stewart, F. (1993). War and Underdevelopment: Can Economic Analysis Help Reduce the Costs? *Journal of International Development*, 5(4):357–380.

Tam, H. (2011). U-Shaped Female Labor Participation with Economic Development: Some Panel Data Evidence. *Economics Letters*, 110:140–142.

Turley, W. S. (1972). Women in the Communist Revolution in Vietnam. *Asian Survey*, 12(9):793–805.

Tuyen, N. N. (1999). Transitional Economy, Technological Change and Women's Employment: The Case of Vietnam. *Gender, Technology and Development*, 3(1):43–64.

Vietnamese General Statistics Office (1982). Report on the 1979 Population and Housing Census.

Vietnamese General Statistics Office (1989). Population and Housing Census.

Vietnamese General Statistics Office (1999). Population and Housing Census.

Vietnamese General Statistics Office (2009). Population and Housing Census.

Weber, M. (1905). *The Protestant Ethic andThe Spirit of Capitalism*. George Allen & Unwin Ltd., London.

Werner, J. (1981). Women, Socialism, and the Economy of Wartime North Vietnam, 1960 - 1975. *Studies in Comparative Communism*, 14(2-3):165–190.

Wood, E. J. (2008). The Social Processes of Civil War: The Wartime Transformation of Social Networks. *Annual Review of Political Science*, 11(1):539–561.

World Bank (2011). *2012 World Development Report on Gender Equality and Development*. Washington DC.

World Values Survey Association (2001). World Values Survey (Wave 4).