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DISCUSSION PAPER SERIES

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ABSTRACT

Intergenerational Power Shift and the Rise of Non-arranged Marriages among Refugees*

The experience of war and refugee status can alter intra-family dynamics and therefore have implications for family formation, including marriage. This study investigates marriage patterns among Syrian refugees in Turkey. Utilizing the nationally representative 2018 Turkey Demographic Health Survey (TDHS), we conduct a duration analysis of marriage outcomes among Syrian refugees in Turkey—tracking women throughout their residence in prewar Syria, postwar Syria, and Turkey. We find that early marriage is more prominent among refugees who were unmarried at the time of migration than those married before migration; the mean marriage age drops from 19.6 in prewar Syria to 19.1 in postwar Syria and 18.1 in Turkey. Using the TDHS and prewar Syrian surveys, we show that this finding aligns with the observed declines in household income and young women's opportunity cost of marriage. Our duration analysis also reveals a notable shift from traditional arranged marriages to more modern forms among refugees in Turkey. An intergenerational power shift may drive the shift toward non-arranged marriages. After arrival in Turkey, parental wealth and employment decline. In contrast, Syrian youth have higher age-adjusted employment rates than in prewar Syria. Moreover, for demographic groups with stronger intergenerational power shifts, non-arranged marriages increase more.

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1 Introduction

In 2018, an estimated 70.8 million people worldwide were forcibly displaced due to persecution, conflict, violence, or human rights violations. Of these, 25.9 million were refugees, according to the UNHCR (*Global Trends*, 2019). The Syrian war has been the largest driver of recent refugee flows, with millions forced to flee their homes since 2011. Over 6 million Syrians are now displaced within Syria, while another 6.7 million have sought refuge in neighboring countries like Turkey, Jordan, and Lebanon. Turkey currently hosts the largest population of Syrian refugees, with almost 3.6 million. As with all refugee populations, Syrians who have fled the civil war and resettled in Turkey have experienced significant changes in their living conditions. While previous research has examined the effects of displacement on refugees' working conditions, health, and education, little attention has been paid to how forced migration affects marriage outcomes despite the fact that teenage marriage among Syrian migrant women is frequent.[1] This paper seeks to fill this gap by exploring the impact of the Syrian civil war and resulting refugee status on marriage practices among Syrians living in Turkey.

We also explore the shift in marriage practices among Syrian refugees from arranged marriages to more modern forms of marriage, such as "love" marriages. The type of marriage in the form of arranged versus non-arranged is important because a strong association has been found between non-arranged marriage and women's empowerment indicators, such as asset ownership, decision-making power, physical violence, and division of household labor (see, e.g., Fox (1975) for Turkey, Banerji & Deshpande (2021) and Jejeebhoy et al. (2013) for India). A positive association of non-arranged marriage is also reported with marital stability and quality of spousal relationship (see, e.g., Hamid et al. (2011) for Pakistan, Heaton et al. (2001) for Indonesia, Olcay Imamoğlu et al. (2019) for Turkey, Pimentel (2000) and Xiaohe and Whyte (1990) for China) and with women's depression (Zhang and Axinn, 2021). Consistent with other literature on the subject, our examination of Syrians in Syria during the prewar period, Syrian refugees in Turkey, and the

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[1] Kırdar et al. (2021) report that almost 40% of Syrian refugee women were ever married at the age of 17 in their study about refugee children's school integration.

native population in Turkey show that women in non-arranged marriages have better outcomes in these areas for all three populations.[2]

To the best of our knowledge, our study is the first to analyze the effects of war and forced displacement on arranged vs. non-arranged marriages among refugees. We draw on data from the 2018 wave of the Turkey Demographic Health Survey (TDHS), which includes a representative sample of Syrian refugees in Turkey for the first time. This survey covers rich information on women's marriage and migration histories and their origins in Syria. Using the retrospective event histories for marriage, we carry out a discrete-time duration analysis. In this structure, different spells of a given woman's life come from different periods in prewar Syria, postwar Syria, and Turkey. Using this data structure, we investigate how refugees' marriage hazard rates (and the hazard rates of different marriage types) are impacted by two critical junctures in their life: (i) the civil war in Syria and (ii) refugee status in Turkey.

Our estimation results show that war and forced migration increase the marriage hazard rate among Syrian women. The marriage hazard rate, on average over ages, is 3.4 percentage points (pp) higher in postwar Syria and 6.6 pp higher in Turkey than prewar Syria. The civil war and refugee status increase both arranged and non-arranged marriage hazard rates; however, the rise in non-arranged marriages is higher in percentage points and percent terms. The rise in arranged marriages after arrival in Turkey is highly duration dependent; the evidence for the increase vanishes after a few years in Turkey. In contrast, the rise in non-arranged marriages persists throughout the residence in Turkey.

Age-specific hazard rates are higher in Turkey than prewar Syria for all ages between 17 and 24. While the rise in arranged marriages contributes to this increase only in the teenage years, the increase in non-arranged marriage hazard rates contributes both in the late teenage years and early twenties. Among refugees, the impact of the civil war is more evident at higher ages for non-arranged marriages than for arranged marriages. Using the predicted age-specific hazard rates in

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[2] For instance, for all three groups, women in non-arranged marriages are about twice as likely to have money to spend by themselves than women in arranged marriages (Online Appendix Table A1). In addition, women in non-arranged marriages marry, on average, at a later age (more than 2 years for Syrian refugees and the native population in Turkey) and are more likely to be employed (three times more likely among Syrian refugees).

prewar Syria, postwar Syria, and Turkey, we calculate that the mean age at marriage drops from 19.6 in prewar Syria to 19.1 in postwar Syria and 18.1 in Turkey.

Using both prewar Syria data and the TDHS, we show that likely channels for the rise in marriage hazard rates are the deterioration in household economic conditions after forced migration that results from the loss of asset holdings and falling employment rates and the fall in the opportunity cost of marriage due to lower school enrollment and employment rates of young refugee women in Turkey.

A key finding of this study is that, conditional on marriage, Syrian women are more likely to form non-arranged marriages under refugee status. Examining the potential channels for this finding, we find a significant intergenerational power shift occurs after forced migration, in which the older generation effectively loses influence within the family. First, the older generation has lower asset holdings after migration that they could transfer to the younger generation. Second, they have much lower employment rates in Turkey, whereas the employment rates of younger people do not change much after migration. Consistent with this interpretation, we also find that less-educated refugee parents (parents with rural origin) lose more in the labor market than more-educated parents (parents with urban origin) after migration and that the likelihood of non-arranged marriages rises more among the children of less-educated parents (parents with rural origin) than those of more-educated parents (parents with urban origin).

Examining other potential explanations for the larger increase in non-arranged marriages, we observe that refugees are more likely to migrate inter-provincially in Turkey than in prewar Syria. This finding suggests that another reason for the larger rise in non-arranged marriages may be higher returns to mobility due to better labor market opportunities in other regions. Arranged marriages require parental familiarity access to effective social networks with knowledge about possible partners and are thus likely to inhibit the migration of young adults.

This study offers novel contributions to the existing literature in two main ways. First, it investigates the changes in marital outcomes for the largest refugee group in a single country, thereby addressing a significant knowledge gap regarding the effects of conflict and displacement on marriage outcomes. Second, recent work has emphasized the role of economic and social transition in changing marriage-market processes. In particular, Corno et al. (2020), Corno and Voena (2023), and Hoogeveen et al. (2011) explore the effect of income shocks on marriage timing

in developing countries and how this effect might change by the social norms.[3] Baird et al. (2019), Buchmann et al. (2021), and Corno and Voena (2023) also examine how cash transfers alter marriage timing. Our study provides additional insight into this issue of marital transition by focusing on a dramatic and temporally defined large-magnitude shock.

The existing literature suggests that conflict and displacement increase early marriage rates, particularly among women.[4] Previous research has also highlighted the vulnerability of refugee children to risks such as child marriage in Turkey, where the largest number of registered refugees reside (Sahin et al., 2021; Wringe et al., 2019). Some studies find an increase in teenage marriages among Syrian refugees, particularly in Lebanon and Jordan (Baird et al., 2022; Bartels et al., 2021; DeJong et al., 2017; Save the Children, 2014; Sieverding et al., 2018).[5] Our findings about the elevated risk of marriage in Syria during the civil war and in Turkey after migration support the previous findings—in the context of the largest refugee group worldwide and using a nationally representative dataset.

Our study also examines the potential channels that could lead to a higher probability of women's marriage during the civil war and in refugee status. The literature points to three primary factors in the rise in marriage rates in conflict and displacement settings (Bartels et al., 2021; Elnakib et al., 2021). Firstly, conflicts can lead to a decrease in the economic power of households, resulting from the destruction of assets and limited access to employment and earnings. In such cases, families may choose to marry off their daughters at a young age as a means of coping with financial difficulties. Secondly, the disruption of education during conflict and displacement can

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[3] Corno et al. (2020) find that negative income shocks (resulting from adverse rainfall shocks) increase marriage in Africa but decrease it in Asia. The difference results from social norms on marriage payments (brideprice in Africa vs. dowry in Asia). Hoogeveen et al. (2011) examine how livestock holdings and rainfall impact marriage among Zimbabwean farmers. Corno and Voena (2023) estimate the elasticity of marriage with respect to exogenous rainfall shocks in Tanzania.

[4] For instance, some papers report that women's marriage hazard rate increases during and after armed conflicts, such as those in Palestine (Knox, 2017), Yemen (*HRW*, 2011), and Iraq (UNFPA, 2018). Displacement due to conflict can also result in higher marriage rates among women, as demonstrated by the study of Lu et al. (2021) on the forced displacement of women between India and Pakistan.

[5] Baird et al. (2022) also report higher marriage rates among Rohingya refugees in Bangladesh. In contrast, Elnakib et al. (2021) find that displacement can also lead to marriage postponement, as it contributes to the erosion of social norms that favor child marriage.

lower the opportunity cost of marriage for young girls, making it a more attractive option. Finally, conflict and displacement can pose safety concerns for girls, particularly in terms of increased risks of sexual violence and harassment. In such cases, families may perceive marriage as a way to protect their daughters. Our analysis—using datasets both for the prewar Syria period and during residence in Turkey—suggests that declining economic power and falling opportunity costs of marriage are among the key drivers of rising marriage rates among young Syrian women.

Despite the prevalence of arranged marriages in various parts of the world, only a limited number of studies have focused on parental involvement in decision-making and the type of marriage in this context (Edlund & Lagerlöf, 2006; Fafchamps & Quisumbing, 2007; Kedir & Oterová, 2017; Mathur, 2007; Rosenzweig & Stark, 1989; Rubio, 2014). However, little evidence exists about how and why arranged marriages are changing in developing countries, and no studies exist on how conflict and forced migration affect these dynamics. Mathur (2007) argues that the choice between arranged and non-arranged marriage results from bargaining between parents and children with different preferences for spouse attributes. The study finds that stronger financial and kinship ties between parents and sons increase the likelihood of an arranged marriage. Fafchamps and Quisumbing (2007) examine determinants of marriage in developing countries, emphasizing the role of insurance, savings, capital accumulation, and parental involvement. Their findings suggest that parental involvement in children's mate searches increases when assets are transferred to children during marriage. While these studies highlight the importance of financial ties between parents and sons and transfers to children during marriage in influencing arranged marriages, our study points to an intergenerational power shift in economic resources—resulting from loss of financial wealth and differential change in employment outcomes by age—as a key channel.

To date, Koç and Saraç (2021) is the sole quantitative study that has examined the relationship between conflict and marriage outcomes among Syrian refugees in Turkey. Comparing the marriages realized before and after migration to Turkey among Syrian refugee women in the 2018 TDHS, they find a significant decrease in traditional marriage practices among

women who married post-migration.[6] However, as they note, their approach compares very different groups: women who chose to marry early in Syria vs. those who chose to marry late in Turkey. In contrast, our study tracks each woman from an early age until marriage—during prewar Syria, postwar Syria, and refugee status—and estimates the effects of war and refugee status on marriage outcomes. In fact, our findings are quite different. We find that both the war and the refugee status raise traditional marriage hazard rates. However, conditional on marriage, we find a drop in traditional marriage outcomes. In addition, Koç and Saraç (2021) do not delve into the underlying mechanisms behind their findings, highlighting a need for research exploring the causes behind these changes.

2 Background Information

After the anti-government protests in Syria in March 2011 spiraled out of control and eventually turned into a nationwide civil war, Syrians began seeking refuge in neighboring countries. Since 2011, more than 14 million Syrians have fled their homes for security. Over 6.8 million Syrians are still displaced within their own country. Neighboring countries, particularly Turkey, Lebanon, and Jordan, host more than 80% of Syrian refugees. Turkey shares the longest border (911 km) with Syria, and the first mass movement of people from Syria to Turkey occurred on April 29, 2011. The influx of Syrian refugees into Turkey continued to be intense until 2017. According to the Turkey Presidency of Migration Management (TPMM), the total number of individuals from Syria under temporary protection stood at 3,644,342 as of February 2019, when the 2018 Turkish Demographic and Health Survey (TDHS) interviews were concluded. This figure represents more than 4% of the 85 million in Turkey's total population. Turkey has hosted the highest number of refugees globally since 2014 (UNHCR, 2023). As of the end of 2019, only 1.7% of Syrians in Turkey lived in temporary accommodation centers or camps, indicating that most Syrian refugees in Turkey have settled as urban refugees.

Based on the official statistics released by TPMM (2019), Syrian refugees in Turkey are on average younger than the overall population of Turkey. The average age of Syrian refugees was

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[6] These traditional marriage practices include child marriage, arranged marriage, marriage with bride money, first-cousin marriage, and polygamous marriage.

22.5 compared to 31.7 for natives in 2018. The youth population rate (aged 15–24) among Syrian refugees, at 22.55%, was higher than Turkey's youth population rate of 15.8%. When broken down by gender, the proportion of males was higher among Syrian refugees (54%).

Due to the absence of official statistics, we rely on surveys to obtain insights into the education level and employment status of Syrian refugees in Turkey. The 2018-TDHS reveals that Syrian refugees possess lower education levels than the national average in Turkey. For individuals aged 18-65, the proportion of Turkish males and females without formal education stands at 0.02 and 0.13, respectively. In contrast, the respective figures for Syrian males and females are 0.11 and 0.20. Conversely, the proportion of Turkish males and females with an education level of high school or above stands at 0.25 and 0.22, respectively, while the corresponding figures for Syrian males and females are 0.09 and 0.07.

A significant fraction of Syrian refugees is employed. Based on the 2018-TDHS, Demirci and Kırdar (2023) report that 61.8% of 18–59-year-old Syrian refugee men have a paid job compared to 68.9% of native men in the same age group. In contrast, the paid employment rate of 18–59-year-old Syrian women (6.0%) is much lower than that of natives (22.2%). Similarly, Dayıoğlu et al. (2023) report high paid employment rates among youth; 48.0% of 15–17-year-old boys are in paid employment.

3 Data and Estimation

The data come from the Syrian Migrant Sample of the 2018 Turkey Demographic and Health Survey (TDHS-S), conducted by the Hacettepe University Institute of Population Studies (HUIPS). TDHS-S provides the first-ever nationally representative household-level demographic and health indicators of the Syrian refugees living in Turkey. The data is collected from November 2018 to February 2019 (HUIPS, 2019). A multi-stage stratified sampling is used in the selection of sample households. Among the households available for interview, 1,826 (95%) were successfully interviewed. All women aged 15-49 in the selected households were eligible for the Woman's Questionnaire, regardless of marital status. Interviews were completed with 2,216 of these women (93%). The Woman's Questionnaire covers rich information on women's demographic and socioeconomic characteristics, including marriage history and marriage characteristics, and husband's background characteristics. The TDHS-S also covers a detailed

migration history of all women, including the year of arrival to Turkey. In addition, we use two complementary data sets: the 2009 Syria Family Health Survey (SFHS) and the 2006 Syria Multiple Indicators Survey (SMICS) to provide background information on Syrian women before they arrived in Turkey (PARFAM, 2009; *SMICS.*, 2006).

The outcome variables we examine in the TDHS-S are as follows: (i) "Married" refers to the marital status of the women, (ii) "Arranged marriage" refers to traditional, family-framed encounters, (iii) "Non-arranged marriage" pertains to cases where the couple has arranged the marriage without the intervention of their parents, (iv) "Husband paid brides-money" indicates cases where the groom or his family paid the brides-money in cash/gold or kind, (v) "Only religious ceremony" pertains to cases where the couple didn't have a civil marriage ceremony, (vi) "Husband has other wives" refers to polygamous marriages, (vii) "The woman is related to her husband" pertains to first-cousin marriages. The control variables include age and a set of individual characteristics that are not affected by marriage. These characteristics comprise the year of birth, mother's and father's education levels, mother tongue, type of place of birth (province center, district center, subdistrict/village), and province of birth (covering 14 Syrian provinces).

Using the TDHS-S, we construct retrospective event histories for marriage outcomes. In particular, we put the data into a discrete-time duration analysis format, in which each period is one age and marriage constitutes the event of interest. The event history starts at age 10 for all women, which is the youngest age of marriage in the data. The event history continues until the age of the first marriage for ever-married women and until the age of the survey year, 2018, for never-married women. For ever-married women, the outcome variable takes the value of one at the age of marriage and zero at all other ages. For never-married women, the outcome variable is right-censored and takes the value of zero at all age values. When the data are put into the person-age structure, there are 21,572 observations for 2,212 women. We aim to measure the impact of two critical junctures in refugee women's life cycle: (i) the onset of the Syrian civil war and (ii) arrival in Turkey and the beginning of life as a refugee. For this purpose, we generate a location indicator variable that takes three values: (i) prewar Syrian period, (ii) postwar Syrian period, and (iii) period in Turkey as a refugee. Online Appendix Table A2 provides an illustration of the data structure.

Using this data structure, we estimate the following specification.

$$m_{it} = \beta_0 + \beta_1(postwar\ Syria)_{it} + \beta_2(in\ Turkey)_{it} + \sum_{j=11}^{49} \gamma_j I(age_{it} = j) + X_i\Gamma + u_i.\ (1)$$

In equation (1), m_{it} takes the value of one if woman i (who is never-married) gets married at time t and zero otherwise, $(postwar\ Syria)_{it}$ takes the value of one for woman i after 2011 but before her arrival in Turkey and zero otherwise, and $(in\ Turkey)_{it}$ takes the value one for woman i after her arrival in Turkey and zero otherwise. We control for age in the form of a dummy variable for each age. Finally, X stands for the set of control variables discussed in the Data Section. The key coefficients of interest are β_1 and β_2, showing the difference between the marriage probabilities in postwar Syria and prewar Syria and the difference between the marriage probabilities in Turkey and prewar Syria, respectively. We estimate equation (1) using a linear probability model (LPM) but also check the robustness of the estimates using a logit regression.

3.1 Descriptive Statistics

Online Appendix Table A3 presents the mean values of the nine marriage and birth outcomes listed above, as well as of age. While the first column presents the values for the total sample, the second, third, and fourth columns give the values for the three phases experienced by Syrian refugees, i.e., prewar Syria, postwar Syria, and Turkey, respectively. Analysis of the temporal variation of dependent variables reveals a rise in the frequency of total marriages, arranged marriages, and non-arranged marriages in Turkey in contrast to Syria. However, this increase is largely attributable to the older age of refugee women in Turkey, which is accounted for in the estimation through the inclusion of age effects.

According to Table A3, of all the woman-age observations in the sample, marriage is observed in 8.6% of the observations. Arranged marriages are more common than non-arranged marriages; while an arranged marriage occurs in 6.8% of the observations, a non-arranged marriage takes place in 1.8% of the observations. The payment of a bride-price and marriage among first cousins are also frequently observed, occurring in 6.3% and 4.0% of the observations, respectively. Online Appendix Table A4 presents the descriptive statistics of the individual control variables employed in the analysis.

Figure 1 illustrates the marriage hazard rates for three periods: prewar Syria, postwar Syria, and Turkey. Panel (A) gives the rate for all types of marriage, whereas panel (B) and panel (C)

provide them for arranged and non-arranged marriages, respectively. Three observations may be made by comparing these panels. First, most of the marriages are arranged marriages in all three periods. Second, for all types of marriage, the hazard rates during the postwar Syria period and in Turkey are higher than those during the prewar Syria period. Moreover, overall, the hazard rates in Turkey are somewhat higher than those in postwar Syria. Third, the proportional increase in the hazard rates during the postwar Syria period and in Turkey compared to those in the prewar Syria period is particularly large for non-arranged marriages.

4 Results

4.1 Main Results

Table 1 presents the results of estimating equation (1) by an LPM. The analysis primarily concentrates on the influence of two variables: "in Turkey" and "postwar Syria" dummies, where the omitted category is prewar Syria. We also present the difference between the two key variables of interest to understand the change in Turkey relative to postwar Syria.

First, we explore the changes in marriage patterns with the onset of the war. The marriage hazard rate increases by 3.4 pp with the war. A larger fraction of this rise comes from the increase in the hazard rate of non-arranged marriages, although the estimates also indicate a statistically significant rise in arranged marriages. We also observe increases in the hazard rates of marriages in which the husband pays brides-money and the woman is related to her husband at a level that is comparable to the rise in arranged marriages. In addition, we observe a significant increase in the hazard rate of marriages with only a religious ceremony, which is higher than the rise in total marriages, suggesting a shift to only religious ceremonies from both civil and religious ones.

Next, we turn to the comparison between the marriage patterns in prewar Syria and Turkey. The marriage hazard rate is 6.6 pp higher in Turkey than prewar Syria. The difference between the two key variables indicates that the marriage hazard rate also significantly increases (by 3.2 pp) after Syrians arrive in Turkey from postwar Syria. Focusing on the type of marriages, we observe that the hazard rate of arranged marriage in Turkey is 3.0 pp higher and the hazard rate of non-arranged marriage in Turkey is 3.6 pp higher than the corresponding levels in prewar Syria. However, considering the baseline values given at the bottom of the table (the marriage hazard

rates averaged across all ages), the percentage increase in the non-arranged marriage hazard rate is significantly higher than that in the arranged marriage, as further discussed in the subsequent section. Furthermore, both the arranged and non-arranged marriage hazard rates rise as refugees arrive in Turkey from postwar Syria.

Table 1 also shows that the hazard rate of a marriage involving brides-money is 2.6 pp higher in Turkey than in prewar Syria, which can be attributed to the rise of arranged marriages (by 3.0 pp). This traditional practice is prevalent in marriages arranged by families. In addition, column (5) indicates that the hazard rate of marriages conducted solely through a religious ceremony is higher in Turkey than in prewar and postwar Syria. The rise in Turkey might be surprising at first, as civil marriage is technically mandatory. However, religious marriages occur among the native population in Turkey, and sole religious marriages are likely at early-age marriages (particularly before the mandated minimum age of marriage). More importantly, civil and religious marriages take place at separate places in Turkey, whereas they can be done at once in Syria. Finally, in terms of first-cousin marriage hazard rates, we find higher levels in Turkey than in prewar or postwar Syria—parallel to the rise in arranged marriages. However, the magnitude of this increase (1.8 pp) is smaller than the rise in arranged marriages (3.0 pp).

In an alternative specification, we extend equation (1) by interacting the "in Turkey" dummy with the years of residence in Turkey to examine how the change in the marriage hazard rate in Turkey varies over time. The results in Online Appendix Table A5 show that the arranged marriage hazard rate is 5.0 pp higher in Turkey than prewar Syria during the first year. However, the rise in this hazard rate diminishes over time in Turkey; in fact, almost no difference exists between the hazard rates in prewar Syria and Turkey after four years in Turkey. In contrast, the difference between the non-arranged marriage hazard rate in Turkey and prewar Syria does not decrease over time; in fact, the estimated coefficient of the interaction term is virtually zero.

We also conduct certain robustness checks of our main results in Table 1. First, we estimate equation (1) using a logit regression instead of an LPM. The results in Online Appendix Table A6 show that all findings persist except that the impacts of postwar Syria and Turkey dummies on arranged marriage become marginally statistically insignificant. Second, we use alternative samples by restricting the sample to observations in which (i) women are below 40 years old and (ii) women are below 30 years old. Online Appendix Tables A7 and A8 demonstrate that the results

change only trivially, which is expected as age is below 30 in most of the woman-age observations in our sample.

4.2 Effects on Age-Specific Hazard Rates

The preceding section presented findings obtained from aggregating data across all age groups. In contrast, this section examines the effects of being in Turkey or postwar Syria on the marriage hazard rate by age. Specifically, the first column of Figure 2 compares Turkey with prewar Syria, and the second column compares postwar and prewar Syria. Panel (1-a) of Figure 2 indicates statistical evidence that the marriage hazard rate in Turkey is higher than that in prewar Syria for ages 17 to 24. At these ages, the marriage hazard rate in Turkey is almost 10 pp higher. Examining panel (1-b) on arranged marriages, we observe that statistical evidence of a higher hazard rate in Turkey than in prewar Syria exists only for age 17, and the gaps are marginally statistically insignificant for ages 18 and 19. In contrast, panel (1-c) on non-arranged marriages indicates statistical evidence of a gap at ages 18 to 22; moreover, the gaps at ages 23 and 24 are marginally statistically insignificant. The timing of the effects on arranged and non-arranged marriages is consistent with Figure 1, which illustrates that the arranged marriage hazard rate reaches its peak at age 17. In contrast, the peak of non-arranged marriages occurs in the early 20s. Finally, using the age-specific baseline hazard rates given in Figure 1, we calculate the percent change in the hazard rates that the estimates coefficients in panels (b) and (c) imply. We find that, for ages 15 to 25 in refugee status, the percent increase in non-arranged marriage hazard rate is around 100%, whereas the percent increase in arranged marriages is less than 50%.

Panel (1-b) demonstrates how the age-specific marriage hazard rates change in Syria after the war. The figure provides statistical evidence, at least at the 10% level, that the war increases hazard rates during the late teenage years (ages 17 to 19).[7] The patterns for arranged marriages in panel (2-b) are similar to those in panel (1-b); however, the increase in hazard rates during the late teenage years is overall less precisely estimated. Panel (II-c), however, suggests that the hazard rates of non-arranged marriages are higher in the late teenage years and the early 20s. As in the

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[7] The increase at age 16 is marginally statistically insignificant.

impact of refugee status in panel (A), the impact of the civil war is realized on average at higher ages for non-arranged marriages than arranged marriages.

Finally, using the predicted age-specific hazard rates in prewar Syria, postwar Syria, and Turkey, we calculate the predicted mean age at marriage in each period. We find that the mean age at marriage is 19.6 in pre-war Syria, but it drops to 19.1 in postwar Syria and 18.1 in Turkey.

4.3 Understanding the Rise in Marriage Rates

This section aims to explore the factors driving the observed rise in marriage hazard rates, including the impact of increasing poverty among refugee families and the role of the opportunity cost of marriage for young women in terms of schooling and employment rates. Poverty can drive increased marriage rates in the context of armed conflict and forced displacement. Such situations are often marked by a loss of employment and economic opportunities, leading to financial distress for many families, which might lead parents to marry their daughters earlier to reduce the household's consumption needs. To investigate whether deteriorating economic conditions could be a driving force behind the observed trends, we compare both the employment outcomes of male Syrian refugees and asset holdings of Syrian households in Turkey with those in prewar Syria. Here, the prewar Syria data on employment outcomes come from 2009-SFHS, and the prewar Syria data for asset holdings come from the 2009-SFHS and 2006-SMICS. Since Syrian refugees are more likely to originate from the northern part of the country and regional differences are important in Syria, we weight the province-specific averages by the fraction of Syrian refugees in the 2018-TDHS originating from each province.

Table 2 compares Turkey and prewar Syria in employment outcomes in panel (A) and asset holdings in panel (B). While we know both employment and wage employment in the 2009-SFHS, employment is elicited only for wage workers in the 2018-TDHS. However, in the 2018-TDHS, both employment and wage employment are available for married men and women (because more detailed questions are elicited about partners from the target female population). We impute the

employment rates in Turkey using men's wage-employment rates in Turkey and both employment and wage-employment rates of married men in Turkey.[8]

Panel (A) shows that men's employment rate is much lower in Turkey than prewar Syria (67.1% in Turkey vs. 93.2% in Syria for married men and 69.9% in Turkey vs. 81.8% in Syria for all men). The wage employment rate of married men and all men in Turkey are similar, and the wage employment rate of all men is somewhat higher in Turkey than prewar Syria (61.8% vs. 52.2%) because refugee men's non-wage employment rate is much lower (Demirci and Kırdar, 2023). Among women, both employment and wage employment rates are lower in Turkey than in prewar Syria. In fact, the employment rate in Turkey is about half of that in prewar Syria. These patterns suggest that refugees' household labor income is significantly lower in Turkey than prewar Syria.

Panel (B) of Table 2 shows that ownership of specific assets is much lower for Syrians in Turkey than in prewar Syria. For instance, among Syrian refugee households in Turkey, 0.5% own a house, and 2.9% own a car, whereas 77.9% of households in Syria own a house and 16.0% own a car. In addition, the ownership rate of housing items, such as washing machines, dishwashers, and computers, is lower in Turkey and prewar Syria. Therefore, considering the decrease in employment rates and asset holdings, poverty may be a valid explanation for the increased marriage rates among Syrian refugees.

To better understand Syrian refugees' wealth status, we generate a wealth index and compare the native and refugee populations regarding this index. In constructing the wealth index, we take household assets into account, and each item owned by a household contributes one point to the wealth index.[9] Online Appendix Figure A1 highlights a stark contrast between natives and Syrian refugees regarding wealth distribution. Regarding wealth deciles, the graph reveals that approximately 44.7% of Syrian households are clustered in the lowest decile, followed by 35.2%

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[8] We first calculate the fraction of wage earners among employed married men. Then, assuming that this fraction is the same for married men and all men, we impute the fraction of employed men for the total male sample.

[9] The household assets considered for the wealth index include TV, truck, deep freezer, oven, microwave oven, dishwasher, garbage disposer, washing machine, dryer, iron, vacuum cleaner, home theatre, coffee/tea maker, electric kettle, blender, cable TV, satellite, internet connection, air conditioner, and commercial vehicle.

in the second lowest decile and 15.4% in the third lowest decile. In contrast, only 1.8% of Turkish households are in the lowest decile, 5.8% in the second lowest decile, and 11.7% in the third lowest decile. In other words, the total percentage of households in the bottom three deciles is below 20% for natives but about 95% for Syrian refugees. In essence, the figure shows significantly lower levels of wealth for Syrian households compared to their Turkish counterparts.[10]

Another reason for the rise in the marriage hazard rates could be a fall in the opportunity cost of marriage, which is the value of school enrollment and employment. Hence, in Table 3, we investigate how young women's school enrollment and employment rates compare in prewar Syria and Turkey among refugees. As shown in panel (A) of Table 3, female enrollment rates are much lower in Turkey, and the difference is particularly striking for the 15–19 age group. The enrollment rate is 40.0% in prewar Syria compared to 15.1% in Turkey for the 15–19 age group, and 14.3% in prewar Syria compared to only 3.5% in Turkey for the 20–24 age group. Similarly, employment rates are also lower in Turkey than prewar Syria for young women, although the gap in wage employment rates is lower. Among women aged 20–24, 14% are employed in prewar Syria compared to 6% in Turkey; and, among women aged 25–29, 17.8% are employed in prewar Syria compared to 8.5% in Turkey.

The evidence provided in this section reveals that the observed rise in marriage hazard rates can be attributed to two primary factors: an increase in poverty among refugee families, as evidenced by declining employment rates of family members and a decrease in family assets, and a decrease in the opportunity cost of marriage for young women in terms of their education and employment opportunities.

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[10] These findings are consistent with the earlier findings in the literature regarding Syrian refugees' earnings. Pinedo-Caro (2020) reports that although most Syrian men work long hours (76% of Syrians worked more than 45 hours per week), they earned 1,300 TL per month on average in 2017, which is 7% below the minimum wage of 1,400 TL. A survey conducted by IOM (2018) in four southeastern provinces with dense refugee populations documents even lower wage levels. This study indicates that refugees earned 908 TL per month on average in 2017 and that 70% of households had to borrow to meet their basic needs.

4.4 Understanding the Larger Increase in Non-arranged Marriages

This section considers the significant rise in non-arranged marriages within Turkey's Syrian refugee community. The first potential explanation for this change is an intergenerational power shift, where younger generations gain greater economic independence, becoming less dependent on their parents for mate selection and marriage expenses. A second potential factor is the higher returns to mobility in Turkey, allowing refugees to have greater access to higher-paying jobs elsewhere by making more independent decisions about their marriages.

4.4.1   Intergenerational Power Shift

One potential explanation explored in the literature for choosing between arranged and non-arranged marriages is bargaining between parents and children. Arranged marriages are characterized by a higher degree of parental control over the selection of spouses and are more likely when financial ties between parents and sons are stronger (Mathur, 2007). Parents tend to be more involved in their children's mate search when assets are transferred to children during the marriage (Fafchamps and Quisumbing, 2008) and when parents have more power than their children (Edlund and Lagerlof, 2004). However, as younger generations gain greater economic independence and employment opportunities, they become less dependent on their parents for mate selection and marriage expenses, which may lead to a transition towards non-arranged marriages. Therefore, an intergenerational power shift from parents to children may play a role in shaping the prevalence of non-arranged marriages.[11]

As discussed earlier in Table 2, households' asset holdings are significantly lower in Turkey than in prewar Syria, suggesting a lower bargaining power for parents in their children's marriage decisions. Another potential source of an intergenerational power shift is an age-specific difference in refugees' employment outcomes in Turkey and prewar Syria. Table 4 displays men's

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[11] The presumption is that the parents and children have different views on arranged marriage or whom to marry. In fact, reviewing 543 ethnographies to examine the frequency of parent–offspring disagreement over partner choice, Agey et al. (2021) find that parents and offspring overwhelmingly choose different partners and disagree about several traits of the potential spouse. In addition, Buchmann et al. (2021) report that parents' adherence to traditional gender norms of behavior is not a strong predictor of their daughters' beliefs in Bangladesh.

age-specific employment and wage-employment rates in prewar Syria and Turkey.[12] We find that while younger male workers (15–24-year-olds) are more likely to be employed in Turkey, the employment rate is higher in prewar Syria for all other age groups. The gap becomes substantial (35 pp or more) after age 45. The primary reason for this difference by age is that most employed Syrian refugees in Turkey are wage workers in the informal sector. Since most of these jobs require physical power, age is a critical determinant of refugees' employment status (Demirci and Kirdar, 2023). The gap in wage employment between prewar Syria and Turkey, as shown in Table 4, is less acute because of the higher likelihood of wage employment among employed men in Turkey.[13] Nonetheless, even for wage employment, the fraction is significantly higher in prewar Syria for ages above 45.

Essentially, comparing employment rates among different age groups indicates that older males experience significant losses in terms of employment opportunities after migrating to Turkey, whereas younger males are comparatively better off. This shift in employment opportunities suggests a potential intergenerational power shift, with younger generations gaining more control over their economic prospects.

To further assess the role of intergenerational power shift, we exploit the differences across demographic groups in age-specific changes in economic opportunities. We expect that groups experiencing a greater shift in power will exhibit a more pronounced increase in non-arranged marriages. To test this hypothesis, we divide the male sample into two groups based on their educational attainment and compare their employment rates. Panel (A) of Table 5 compares employment rates, with the first group comprising individuals with less than a high school education and the second group comprising those with at least a high school education. We focus on the older age groups to examine potential fathers. For the 45-49 and 50-54 age groups, while

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[12] Although the employment data in the TDHS include only wage employment for the total male sample, both employment and wage employment data exist for married men (partners of the target 15- to 49-year-old female sample). We first calculate the fraction of wage earners among employed married men for each age group. Then, assuming that this fraction by age group is the same for married men and all men, we impute the fraction of employed men by age group for the total male sample.

[13] Demirci and Kirdar (2023) report that among 18- to 59-year-old married men, 73.1% of the employed native individuals are wage workers compared to 88.3% of the employed refugees.

the salaried employment rates for low-educated men in Syria were 0.53 and 0.43, respectively, they are 0.39 and 0.20 in Turkey. Thus, less educated Syrian men experience significant employment losses in Turkey. Conversely, high-educated men aged 45-49 and 50-54 exhibit similar salaried employment rates in Syria and Turkey, with rates of 0.60 and 0.61, respectively, in Syria, and 0.60 and 0.67, respectively, in Turkey. This indicates that more educated Syrian men experience no employment losses. Thus, the intergenerational power shift is more significant for the less educated among older men (who are likely to be fathers).

Suppose the rise in non-arranged marriages results from an intergenerational power transfer. In that case, non-arranged marriages will increase more among children of men with lower educational attainment, who experience a stronger shift in power. To investigate this hypothesis, we divide our sample based on the educational attainment level of the father and examine the effect on marriage outcomes. The estimation results in panel (B) of Table 5 show that the increase in non-arranged marriages is high and precisely estimated for women with low-educated fathers. In contrast, the effect on non-arranged marriages is small and statistically insignificant for women with high-educated fathers. This indicates that the rise in non-arranged marriages is more pronounced for the group with a stronger intergenerational power shift, namely, the low-educated group.

Like the analysis in Table 5 by fathers' educational attainment, Table 6 examines the differences between refugees with rural and urban backgrounds in age-specific changes in economic opportunities and marriage patterns. Almost all Syrian refugees in Turkey live in urban areas. However, before the war, only 62% of Syrian refugees in our sample lived in urban areas of Syria (in provinces or district centers). Panel (A) of Table 6 shows that among potential fathers (men aged 30 and above), the fall in employment rates after arrival in Turkey is higher for those with rural backgrounds. This holds for all age groups, and the gap is large for the age groups most likely to include the fathers of marriage-age women. For instance, the drops for urban men and rural men are 7% and 20% in the 40-44 age group, 33% and 41% in the 45-49 age group, and 50% and 69% in the 50-54 age group. The changes in wage employment rates are also more adverse for men of rural origin, regardless of the age group. In addition, using the 2009 SFHS, we calculate that the house ownership rates were 72.4% for rural households and 82.7% for urban households. This points to a larger wealth loss in terms of housing for rural households, as the house ownership

rate is below 1% for rural or urban-origin refugees. Therefore, panel (A) suggests a stronger intergenerational power shift in households of rural origin.

The finding in panel (A) implies a larger increase in non-arranged marriages in rural areas. Panel (B) of Table 6 shows that the marriage hazard rate is 6.6 pp higher in Turkey than in prewar Syria for women with rural and urban origins in Syria. When we examine the impacts by the marriage type, we observe that both arranged and non-arranged marriage hazard rates are 3.3 pp higher in Turkey than in prewar Syria for women with urban childhood residence. In contrast, for women with a rural childhood residence, the rise in the non-arranged marriage hazard rate in Turkey (4.1 pp) is higher than the rise in arranged marriage hazard rate (2.5 pp). Since the baseline level of non-arranged marriages is lower for women of rural origin, the rise in non-arranged marriages is higher both in percentage-point (4.1 vs. 3.3 pp) and percentage terms for them. Hence, as expected, the rise in non-arranged marriages is higher for the group—with rural background— for whom the intergenerational shift is stronger.[14]

4.4.2   Higher Returns to Migration

An alternative explanation for the larger increase in non-arranged marriages among Syrian refugees is that the returns to geographical mobility are higher in Turkey than in Syria. When the returns from moving to a different geographical location and finding a partner with higher earnings potential are higher, the probability of an arranged marriage decreases, at least to the extent that arranged marriage requires local knowledge of alternative spouses. To examine this potential channel, we check whether refugees are more mobile in Turkey than Syria. For this purpose, we construct retrospective event histories of mobility using their migration history since age 10 in the TDHS. Specifically, we put the data into a person-age structure from age 10 to women's current age at the survey time. The dependent variable (migration) takes the value of one if the woman changes the province of residence at that age and zero otherwise. Note that this differs from the data structure for marriage because migration can occur several times for the same woman (within

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[14] Several earlier works also suggest that a decline in agriculture and a rise in urbanization are associated with lower rates of arranged marriage (Kim, 1987; Liu & Mu, 2022; Mitchell, 1971; Rubio, 2014).

Syria or within Turkey). The move from Syria to Turkey is excluded because we are interested in the change in mobility after refugees arrive in Turkey. The resulting sample includes 2,212 women in 42,652 woman-age observations, and the probability of migration at a given age is 2.1%. We estimate the impact of civil war and refugee status on the likelihood of migrating to another province using an OLS regression of equation (1).

The estimation results in Online Appendix Table A9 show that the probability of migration to another province at a given age is 3.1 pp higher in postwar Syria than prewar Syria and 3.6 pp higher in Turkey than prewar Syria. (Both coefficients are statistically significant at the 1% level.) The higher propensity to migrate within Syria after the war is presumably expected as locals flee the conflict areas. The elevated likelihood to migrate within Turkey after arrival suggests that refugees are more likely to seek new labor market opportunities by moving to other cities in Turkey. However, arranged marriage may force them to stay in one place and forego potential returns. Thus, the higher returns to mobility in Turkey may be another reason for the larger increase in non-arranged marriages among Syrian refugees.

5 Conclusion

In this paper, using nationally representative microdata of Syrian refugees in Turkey (2018-TDHS), we examine how two critical junctions in refugees' life-cycle—the onset of the civil war and the arrival in Turkey—impact women's marriage outcomes. We find that both the Syrian civil war and the resulting refugee status increase women's marriage hazard rate. The marriage hazard rate is 3.4 pp higher in postwar Syria and 6.6 pp higher in Turkey than in prewar Syria. Using the 2018-THDS and nationally representative prewar Syrian surveys, we show that the increase in the marriage rate in Turkey is consistent with the decline in parental wealth—measured by household asset ownership—and labor income after arriving in Turkey. The rise of marriages is also consistent with the falling opportunity cost of getting married for women in the form of lower schooling and employment levels.

Regarding the type of marriages, we observe that the hazard rates of both arranged and non-arranged marriages rise in Turkey. Along with the increase in the hazard rate of arranged marriages, the hazard rates of marriages with bride money, marriages with only a religious ceremony, and first-cousin marriages also increase in Turkey compared to prewar Syria.

Additionally, our examination of the effects on age-specific hazard rates reveals that marriage hazard rates increase for ages 17 to 24. The rise in arranged marriages contributes to this increase only in the teenage years. In contrast, non-arranged marriage hazard rates are higher in the late teenage years and early twenties.

The study's key finding is that there has been a disproportionately larger increase in non-arranged marriages compared to arranged marriages. Investigating the factors contributing to this difference, we show that this result is consistent with a shift of bargaining power from parents to children after arrival in Turkey due to: (i) lower parental wealth and (ii) an improvement in employment rates for Syrian youth but a decline in employment rates of Syrian parents. In addition, we uncover evidence that non-arranged marriages rise more for the groups (rural households and households with a less-educated father) for which this intergenerational power shift is stronger. At the same time, we also find evidence for an elevated propensity to migrate to a different province in Turkey than in prewar Syria, suggesting higher returns to mobility. This finding is also consistent with the disproportionately higher increase in non-arranged marriages because arranged marriages typically constrain movement.

This study significantly contributes to the existing literature on refugee communities by comprehensively analyzing the changes in marriage practices among Syrian refugees in Turkey, the largest refugee group in a single country. Our approach has unveiled the underlying reasons for the observed shifts in marriage patterns, such as the rise in marriage rates and the intergenerational power transitions that influence the prevalence of non-arranged marriages. These findings offer valuable insights for future research as they shed light on the complex interactions between forced migration, sociocultural transformations, and demographic outcomes. By building upon our findings, researchers can further explore the long-term consequences of war and displacement on various aspects of refugee lives, such as family dynamics, gender roles, and social integration. This deeper understanding will help inform evidence-based policies and interventions aimed at addressing the multifaceted challenges faced by displaced populations and promoting their long-term well-being and integration into host societies.

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Tables and Figures

Figure 1: Hazard rates of total, arranged, and not arranged marriages by age
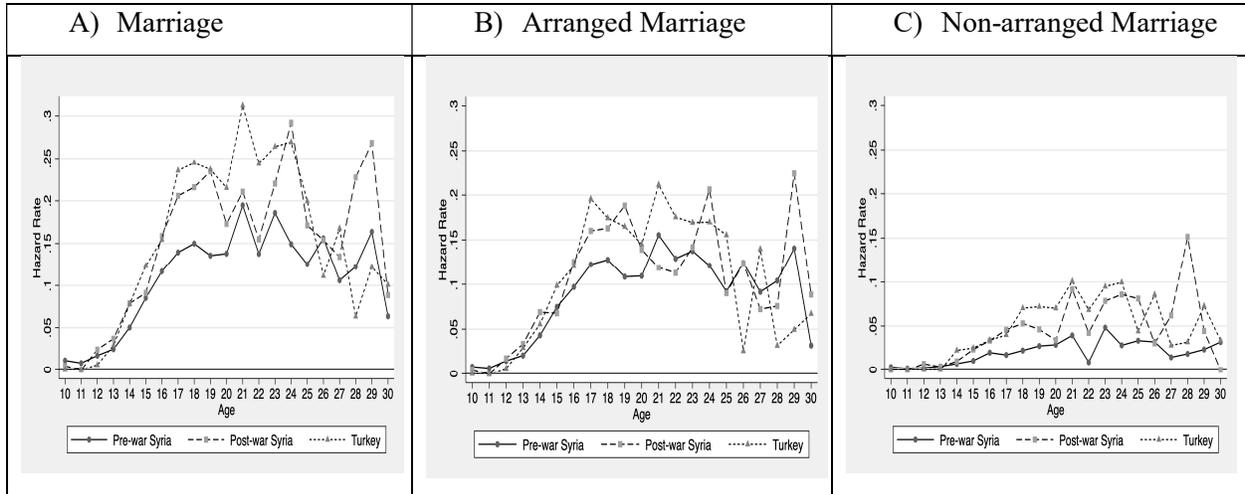
A) Marriage	B) Arranged Marriage	C) Non-arranged Marriage

Notes: a) The data come from the 2018 Turkish Demographic and Health Survey - Syrian Sample. The sample includes all 15- to 49-year-old women. The sample is put into a discrete-time duration analysis structure, in which each period is one age and failure is marriage. The event history starts at age 10 for all women, which is the youngest age of marriage in the data. The event history continues until the age of the first marriage for ever-married women and until the age of the survey year, 2018, for never-married women. For ever-married women, the outcome variable takes the value of one at the age of marriage and zero at all other ages. For never-married women, the outcome variable is right-censored and takes the value of zero at all age values. b) Figures illustrate the marriage hazard rates for three periods: prewar Syria, postwar Syria, and Turkey. Panel (A) gives the rate for all types of marriage, whereas panel (B) and panel (C) provide them for arranged and non-arranged marriages, respectively. Sampling weights are used.

Figure 2: Differences in predicted total, arranged, and non-arranged marriages by age

I) Turkey vs. Prewar Syria	II) Postwar Syria vs. Prewar Syria

A) Marriage

B) Arranged Marriage

C) Non-arranged Marriage
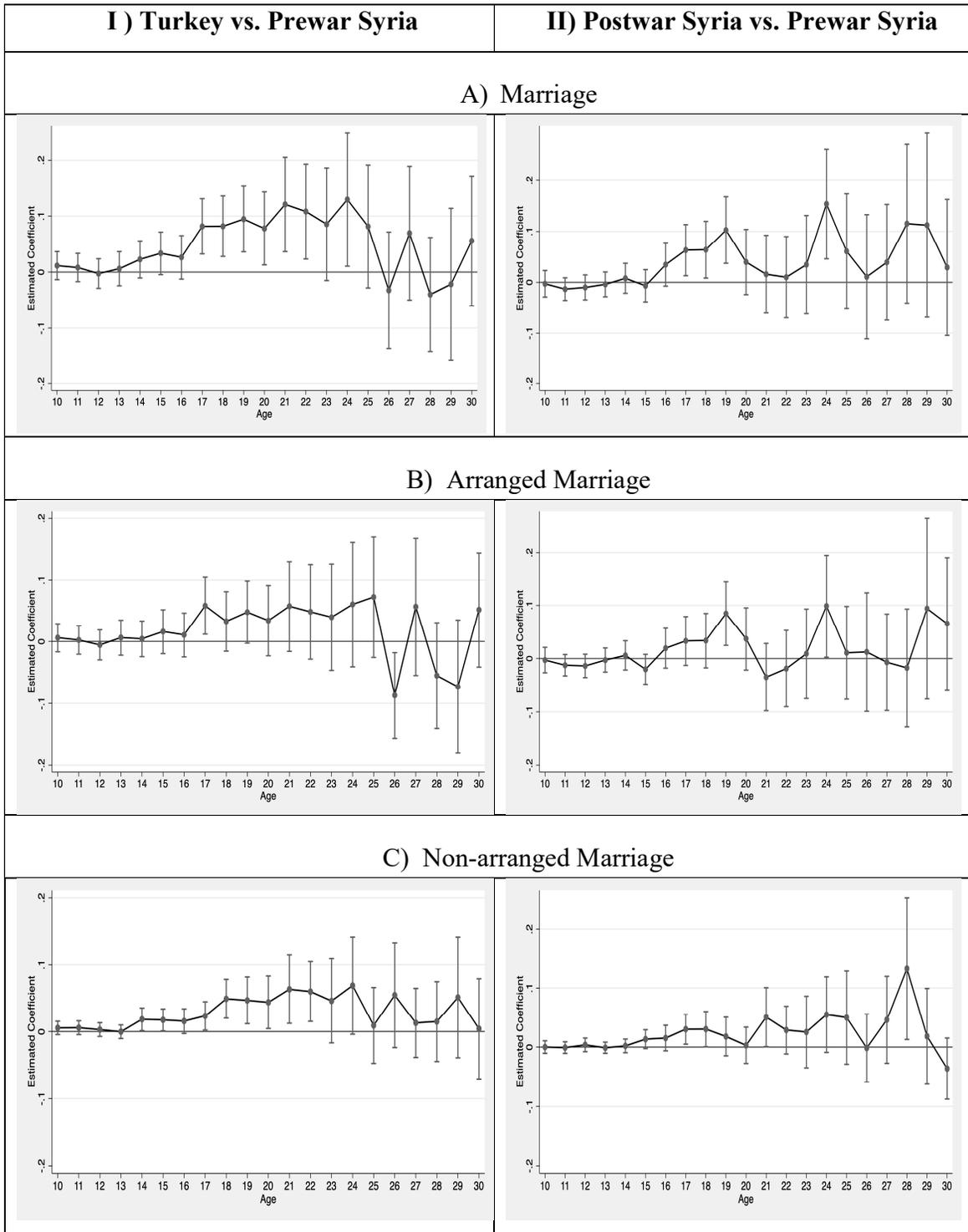
Notes: The data structure is the same as that in Figure 1 and in Table 1. In each panel, the left-hand side panel presents the coefficients of the interactions of the "in Turkey" dummy variable with age dummies and the right-hand side panel shows the coefficients of the interactions of the "postwar Syria" dummy variable with age dummies (where the baseline control is "prewar Syria") in an OLS regression of the dependent variable in the panel heading. The other control variables are the same as those in Table 1. The 90% confidence intervals are also provided.

Table 1: The Effect of Armed Conflict and Forced Displacement on Marriage Outcomes

	(1) Married	(2) Marriage arranged by families	(3) Marriage **not** arranged by families	(4) Husband paid brides money	(5) Only religious ceremony	(6) Husband has other wives	(7) The woman is related to her husband
Turkey	0.066***	0.030***	0.036***	0.026***	0.125***	-0.004	0.018***
	(0.011)	(0.009)	(0.005)	(0.009)	(0.009)	(0.003)	(0.007)
Post-war Syria	0.034***	0.015**	0.020***	0.018***	0.058***	-0.000	0.012**
	(0.008)	(0.007)	(0.004)	(0.007)	(0.005)	(0.003)	(0.005)
Turkey - Post-war Syria	0.032***	0.016*	0.016***	0.008	0.067***	-0.004	0.007
	(0.010)	(0.009)	(0.005)	(0.008)	(0.009)	(0.003)	(0.006)
Mean	0,086	0,068	0,018	0,062	0,033	0,010	0,040
Observations	21,572	21,572	21,572	20,954	21,572	21,572	21,572
R-squared	0.074	0.057	0.026	0.053	0.083	0.017	0.032

Notes: a) The data come from the 2018 Turkish Demographic and Health Survey - Syrian Sample. The sample includes all 15- to 49-year-old women. The sample is put into a discrete-time duration analysis format, in which each period is one age and failure is marriage. The event history starts at age 10 for all women, which is the youngest age of marriage in the data. The event history continues until the age of the first marriage for ever-married women and until the age of the survey year, 2018, for never-married women. For ever-married women, the outcome variable takes the value of one at the age of marriage and zero at all other ages. For never-married women, the outcome variable is right-censored and takes the value of zero at all age values.

b) Each column comes from a separate OLS regression of the dependent variable given in the column title. The estimates for the two key variables of interest (Turkey, post-war Syria) and for their difference (Turkey - Postwar Syria) are provided. The baseline category is pre-war Syria. The regressions include the following control variables: age dummies, year of birth dummies, mother's and father's education ([i] no education, [ii] primary school incomplete, [iii] primary school complete, [iv] secondary school complete, [v] high school or above), mother tongue ([i] Turkmen, [ii] Arabic, [iii] Kurdish, [iv] other), province of birth (14 Syrian provinces), type of place of birth ([i] province center, [ii] district center, [iii] subdistrict/village). The standard errors are clustered at the household level and survey weights are used. * indicates significance at 10%, ** significance at 5%; and *** significance at 1%.

Table 2: Employment Outcomes and Asset Holdings in Prewar Syria and Turkey

	Pre-war Syria		Turkey	
A) Employment Outcomes				
	Employed	Wage Worker	Employed	Wage Worker
Men (aged 18-59)	0,818	0,522	*0,699*	0,618
Married Men (aged 18-59)	0,932	0,581	0,671	0,593
Women (aged 18-49)	0,163	0,110	0,082	0,069
B) Asset Holdings				
Own a House	0,779		0,005	
Has a Car	0,160		0,029	
Has a Washing Machine	0,950		0,845	
Has a Dishwasher	0,038		0,014	
Has a Computer	0,138		0,063	

Notes: a) The pre-war Syria data on employment outcomes comes from 2009-SFHS. The pre-war Syria data for house and car ownership comes from 2009-SFHS, whereas the data on pre-war washing machine, dishwasher and computer ownership come from 2006-SMICS. The pre-war Syria data is weighted by the fraction of Syrians in Turkey who originated from each of 14 provinces in Syria.

b) The data for Turkey comes from 2018 TDHS-Syrian Sample. We impute the fraction employed for total men sample. The employment data in this sample include only wage employment for the total male sample. However, for married men (partners of the target 15- to 49-year-old female sample), both employment and wage employment data exist. We first calculate the fraction of wage earners among employed married men. Then, assuming that this fraction is the same for married men and all men, we impute the fraction of employed men for the total male sample. Sample weights are used.

Table 3: Opportunity Cost of Marriage for Young Women

| | A) School Enrollment | | B) Employment Outcomes | | | |
| | | | Employed | | Wage Worker | |
Age Group	Pre-war Syria	Turkey	Pre-war Syria	Turkey	Pre-war Syria	Turkey
10-14	0.799	0.705	--	--	--	--
15-19	0.400	0.151	0.081	0.074	0.046	0.069
20-24	0.143	0.035	0.140	0.060	0.090	0.055
25-29	0.012	0.000	0.178	0.085	0.119	0.080

Notes: The pre-war Syria data comes from 2009-SFHS, and Turkey data comes from 2018 TDHS-Syrian Sample. Sample weights are used. The pre-war Syria data is weighted by the fraction of Syrians in Turkey who originated from each of 14 provinces in Syria.

Table 4: Men's Employment Outcomes by Age in Prewar Syria and Turkey

Age Group	Pre-war Syria		Turkey	
	Employed	Wage Worker	*Employed*	Wage Worker
15-19	0.436	0.298	*0.630*	0.513
20-24	0.656	0.462	*0.832*	0.717
25-29	0.879	0.600	*0.818*	0.691
30-34	0.945	0.631	*0.829*	0.683
35-39	0.966	0.625	*0.922*	0.687
40-44	0.965	0.585	*0.839*	0.610
45-49	0.938	0.570	*0.588*	0.408
50-54	0.822	0.516	*0.340*	0.228
55-59	0.778	0.457	*0.168*	0.099
60-69	0.520	0.234	*0.147*	0.077

Notes: The pre-war Syria data on employment outcomes comes from the 2009-SFHS. In the pre-war Syria data, province-specific averages are weighted by the fraction of Syrians in Turkey who originated from each of the 14 provinces in Syria. The data for Turkey comes from 2018 TDHS-Syrian Sample. We impute the data regarding the fraction employed for this sample. The employment data in this sample include only wage employment for the total male sample. However, for married men (partners of the target 15- to 49-year-old female sample), both employment and wage employment data exist. We first calculate the fraction of wage earners among employed married men for each age group. Then, assuming that this fraction by age group is the same for married men and all men, we impute the fraction of employed men by age group for the total male sample.

Table 5: The Effect on Marriage Outcomes by Father's Educational Attainment

A) Father's Employment Outcomes by Educational Attainment

| | Less than High School | | | | | | High School and Above | | | | | |
| | Wage Worker | | | Employed | | | Wage Worker | | | Employed | | |
Age	Pre-war Syria	Turkey	Change	Pre-war Syria	Turkey	Change	Pre-war Syria	Turkey	Change	Pre-war Syria	Turkey	Change
25-29	0.62	0.67	8%	0.93	*0.79*	*-14%*	0.50	0.72	45%	0.73	*0.85*	17%
30-34	0.61	0.69	14%	0.95	*0.84*	*-11%*	0.67	0.64	-4%	0.93	*0.78*	-16%
35-39	0.59	0.68	15%	0.96	*0.91*	*-6%*	0.72	0.75	5%	0.98	*1.01*	4%
40-44	0.53	0.60	12%	0.96	*0.82*	*-15%*	0.66	0.75	13%	0.98	*1.03*	5%
45-49	0.53	0.37	-31%	0.93	*0.53*	*-43%*	0.60	0.59	-2%	0.95	*0.84*	-11%
50-54	0.43	0.18	-58%	0.79	*0.27*	*-66%*	0.61	0.41	-33%	0.94	*0.61*	-35%
55-59	0.38	0.11	-72%	0.76	*0.18*	*-77%*	0.53	0.08	-85%	0.80	*0.14*	-83%
60-65	0.23	0.05	-77%	0.58	*0.10*	*-83%*	0.22	0.19	-14%	0.45	*0.36*	-20%

B) Estimation Results by Father's Educational Attainment

| | Less than Highschool | | | Highscool or Above | | |
	Married	Marriage arranged by families	Marriage not arranged by families	Married	Marriage arranged by families	Marriage not arranged by families
Turkey	0.063***	0.027***	0.037***	0.069**	0.055*	0.014
	(0.012)	(0.010)	(0.006)	(0.035)	(0.030)	(0.016)
Post-war Syria	0.036***	0.012	0.023***	0.030	0.029	0.001
	(0.009)	(0.008)	(0.005)	(0.021)	(0.019)	(0.011)
Mean	0.084	0.067	0.017	0.085	0.065	0.020
Observations	18,061	18,061	18,061	2,357	2,357	2,357
Number of Women	1,830	1,830	1,830	250	250	250
R-squared	0.072	0.055	0.027	0.109	0.091	0.048

Notes: In panel (A), the pre-war Syria data on employment outcomes come from the 2009 SFHS. In the pre-war Syria data, province-specific averages are weighted by the fraction of Syrians in Turkey who originated from each of the 14 provinces in Syria. The data for Turkey comes from the 2018 TDHS-Syrian Sample.

In panel (B), the data come from the Syrian sample of the 2018 TDHS. The sample is put into a discrete-time duration analysis format, in which each period is one age and failure is marriage. The event history starts at age 10 for all women, which is the youngest age of marriage in the data. The event history continues until the age of the first marriage for ever-married women and until the age of the survey year, 2018, for never-married women. Each column represents the results of a separate OLS regression for the dependent variable given in the column title. The control variables include age dummies, year of birth dummies, mother and father education ([i] no education, [ii] primary school incomplete, [iii] primary school complete, [iv] secondary school complete, [v] high school or above), mother tongue ([i] Turkmen, [ii] Arabic, [iii] Kurdish, [iv] other), province of birth (14 Syrian provinces), type of place of birth ([i] province center, [ii] district center, [iii] subdistrict/village). The standard errors are clustered at the household level and survey weights are used. * indicates significance at 10%, ** significance at 5%; and *** significance at 1%.

Table 6: The Effect on Marriage Outcomes by Type of Women's Childhood Residence

A) Men's Employment Outcomes by Urban and Rural Childhood Residence

	Urban Childhood Residence						Rural Childhood Residence					
	Wage Worker			Employed			Wage Worker			Employed		
	Pre-war			Pre-war			Pre-war			Pre-war		
Age	Syria	Turkey	Change	Syria	Turkey	Change	Syria	Turkey	Change	Syria	Turkey	Change
30-34	0.63	0.71	13%	0.94	*0.86*	*-8%*	0.60	0.64	7%	0.91	*0.77*	*-15%*
35-39	0.61	0.71	17%	0.97	*0.95*	*-2%*	0.61	0.65	6%	0.92	*0.87*	*-5%*
40-44	0.58	0.66	14%	0.97	*0.90*	*-7%*	0.57	0.53	-5%	0.91	*0.73*	*-20%*
45-49	0.56	0.44	-21%	0.95	*0.64*	*-33%*	0.55	0.36	-35%	0.88	*0.52*	*-41%*
50-54	0.54	0.28	-48%	0.85	*0.42*	*-50%*	0.47	0.16	-66%	0.76	*0.24*	*-69%*
55-59	0.46	0.11	-76%	0.80	*0.19*	*-76%*	0.43	0.08	-82%	0.73	*0.13*	*-81%*
60-69	0.25	0.08	-68%	0.48	*0.15*	*-69%*	0.21	0.06	-73%	0.53	*0.11*	*-79%*

| | Urban Childhood Residence | | | Rural Childhood Residence | | |
	Married	Marriage arranged by families	Marriage not arranged by families	Married	Marriage arranged by families	Marriage not arranged by families
Turkey	0.066***	0.033***	0.033***	0.066***	0.025*	0.041***
	(0.014)	(0.012)	(0.007)	(0.016)	(0.014)	(0.009)
Post-war Syria	0.034***	0.013	0.021***	0.033***	0.014	0.019***
	(0.010)	(0.009)	(0.006)	(0.011)	(0.011)	(0.006)
Mean	0.088	0.069	0.019	0.082	0.066	0.016
Observations	13,147	13,147	13,147	8,345	8,345	8,345
Number of Women	1,376	1,376	1,376	827	827	827
R-squared	0.077	0.058	0.032	0.082	0.068	0.033

Notes: In panel (A), the pre-war Syria data on employment outcomes come from the 2009 SFHS. In the pre-war Syria data, province-specific averages are weighted by the fraction of Syrians in Turkey who originated from each of the 14 provinces in Syria. The data for Turkey comes from the 2018 TDHS-Syrian Sample.

In panel (B), the data come from the Syrian sample of the 2018 TDHS. The sample is put into a discrete-time duration analysis form, in which each period is one age and failure is marriage. The event history starts at age 10 for all women, which is the youngest age of marriage in the data. The event history continues until the age of the first marriage for ever-married women and until the age of the survey year, 2018, for never-married women. For ever-married women, the outcome variable takes the value of one at the age of marriage and zero at all other ages. For never-married women, the outcome variable is right-censored and takes the value of zero at all age values. The sample is divided into two according to the type of childhood place of residence until age 12. Urban residence covers provinces or district centers, and rural residence covers subdistricts or villages. Each column represents the results of an OLS regression for the dependent variable given in the column title. In addition to the key variable of interest, the specification includes age dummies, year of birth dummies, mother's and father's education ([i] no education, [ii] primary school incomplete, [iii] primary school complete, [iv] secondary school complete, [v] high school or above), mother tongue ([i] Turkmen, [ii] Arabic, [iii] Kurdish, [iv] other), province of birth (14 Syrian provinces), type of place of birth ([i] province center, [ii] district center, [iii] subdistrict/village). The standard errors are clustered at the household level and survey weights are used. * indicates significance at 10%, ** significance at 5%; and *** significance at 1%.

Online Appendix

Figure A1: Wealth Comparison of Turkish Citizens and Syrian Refugees in 2018
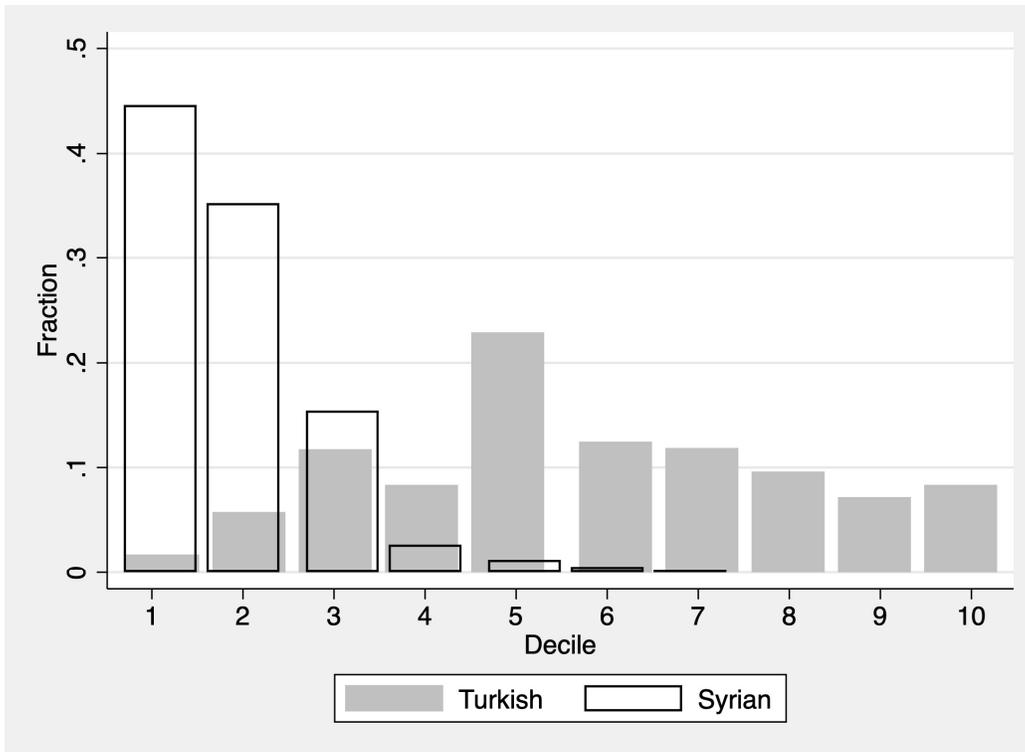
Notes: a) The data for Turkish natives come from the 2018 Turkish Demographic and Health Survey - Turkish Sample, and the data for Syrians come from the 2018 Turkish Demographic and Health Survey - Syrian Sample. b) This figure depicts the wealth distribution of Turkish vs. Syrian households. In constructing the wealth index, household assets are considered, and each item owned by a household contributes one point to the wealth index. The household assets considered for the wealth index include TV, truck, deep freezer, oven, microwave oven, dishwasher, garbage disposer, washing machine, dryer, iron, vacuum cleaner, home theatre, coffee/tea maker, electric kettle, blender, cable TV, satellite, internet connection, air conditioner, and commercial vehicle. Sampling weights are used.

Table A1: Mean Values of the Selected Outcomes by Marriage Type of the Women

	Syrians			Syrians Married in Turkey			Turkish		
	Mean Value for Non-arranged Marriages	Mean Value for Arranged Marriages	p-value of t-test	Mean Value for Non-arranged Marriages	Mean Value for Arranged Marriages	p-value of t-test	Mean Value for Non-arranged Marriages	Mean Value for Arranged Marriages	p-value of t-test
Employed	0,10	0,06	0,01	0,09	0,03	0,01	0,33	0,24	0,00
Marriage Age	19,44	18,16	0,00	20,55	18,55	0,00	21,00	19,00	0,00
Education (4 categories)	1,62	1,33	0,00	1,65	1,52	0,10	2,00	1,00	0,00
Age difference betw spouses	5,39	5,64	0,35	5,17	5,17	0,99	4,00	5,00	0,00
Educ difference betw spouses	0,00	0,09	0,07	-0,10	0,02	0,21	0,16	0,40	0,00
Asset Ownership									
Owns a house	0,04	0,03	0,37	0,02	0,01	0,52	0,24	0,23	0,40
Owns land	0,03	0,02	0,16	0,02	0,01	0,52	0,11	0,12	0,07
Owns car	0,02	0,01	0,27	0,02	0,01	0,52	0,19	0,14	0,00
Have money to spend by herself	0,10	0,05	0,00	0,12	0,07	0,08	0,32	0,16	0,00
Questions on daily life: "Do you do the following?"									
Do exercise regularly	0,19	0,14	0,01	0,13	0,12	0,72	0,50	0,36	0,00
Go on holiday	0,09	0,05	0,00	0,12	0,07	0,08	0,51	0,26	0,00
Go outside for a meal	0,31	0,16	0,00	0,36	0,21	0,00	0,75	0,49	0,00
Organize home meetings	0,56	0,49	0,02	0,54	0,44	0,04	0,45	0,38	0,00
Use internet	0,65	0,57	0,00	0,72	0,65	0,14	0,77	0,48	0,00
Smoke	0,11	0,08	0,19	0,08	0,04	0,05	0,29	0,20	0,00
Drive car	0,01	0,00	0,01	0,03	0,00	0,00	0,27	0,09	0,00
Go to cinema/theatre	0,01	0,00	0,02	0,02	0,00	0,03	0,48	0,17	0,00
Opinion on Some Issues (0 Disagree, 1 Agree)									
Family decisions should be made only by men	0,36	0,38	0,40	0,37	0,42	0,32	0,09	0,19	0,00
Men should also do the homework	0,88	0,92	0,01	0,85	0,93	0,01	0,61	0,76	0,00
It is better to educate a son than a daughter	0,05	0,12	0,00	0,07	0,16	0,02	0,06	0,12	0,00
Women should not work	0,65	0,72	0,02	0,67	0,72	0,27	0,40	0,53	0,00
Women should be more involved in politics	0,61	0,50	0,00	0,57	0,47	0,07	0,80	0,77	0,01
Women should be virgin at wedding	0,82	0,91	0,00	0,87	0,93	0,02	0,64	0,82	0,00
Mariage should not end	0,57	0,52	0,11	0,54	0,53	0,75	0,87	0,78	0,00
Divorce is better than unhappy marriage	0,87	0,80	0,00	0,88	0,80	0,05	0,92	0,88	0,00
Justifying Physical Violence Under Some Situations (0 Not Justified, 1 Justified)									
If wife goes out without telling husband	0,04	0,04	0,98	0,05	0,03	0,46	0,03	0,06	0,00
If wife neglects the children	0,05	0,05	0,74	0,06	0,04	0,53	0,05	0,12	0,00
If wife argues with husband	0,04	0,03	0,27	0,05	0,03	0,36	0,03	0,08	0,00
If wife refuses to have sex with husband	0,02	0,01	0,18	0,02	0,01	0,36	0,01	0,03	0,00
If wife burns the food	0,02	0,01	0,21	0,02	0,01	0,10	0,01	0,02	0,00
Who does this task in your household? (1 if always herself, 0 otherwise)									
Cooking	0,61	0,58	0,34	0,45	0,44	0,94	0,59	0,70	0,00
Dining table	0,56	0,52	0,15	0,45	0,42	0,67	0,42	0,51	0,00
Wiping/sweeping	0,56	0,52	0,18	0,43	0,44	0,82	0,58	0,64	0,00
Washing dishes	0,56	0,52	0,11	0,44	0,45	0,81	0,59	0,65	0,00
Washing clothes	0,57	0,54	0,32	0,44	0,45	0,77	0,66	0,71	0,00
Ironing	0,31	0,23	0,00	0,20	0,19	0,98	0,63	0,65	0,05
Shopping	0,17	0,18	0,71	0,10	0,09	0,58	0,16	0,20	0,00
Budget	0,05	0,06	0,87	0,03	0,01	0,25	0,09	0,08	0,93
Official business	0,06	0,06	0,94	0,04	0,00	0,00	0,09	0,09	0,88
Child caring	0,25	0,27	0,38	0,25	0,26	0,80	0,32	0,39	0,00
Spending time with children at home	0,20	0,19	0,71	0,20	0,15	0,17	0,17	0,23	0,00
Spending time with children outside	0,13	0,09	0,02	0,13	0,04	0,00	0,11	0,15	0,00
Helping children with homework	0,08	0,05	0,04	0,01	0,00	0,47	0,15	0,16	0,21
Number of Observations	397	1,489		128	340		3,238	2,240	

Notes: The data for Syrians come from 2018 Turkish Demographic and Health Survey - Syrian Sample, Women Module (IR) and the data for Turkish women comes from 2018 Turkish Demographic and Health Survey - Turkish Sample, Women Module (IR). Two samples t-test p-values are reported.

Table A2: An Illustration of the Data Structure

Person ID	Survey Age	Marriage Age	Arrival Year	Age	Year	Married	Postwar Syria	In Turkey
111111	20	18	2015	10	2008	0	0	0
111111	20	18	2015	11	2009	0	0	0
111111	20	18	2015	12	2010	0	0	0
111111	20	18	2015	13	2011	0	1	0
111111	20	18	2015	14	2012	0	1	0
111111	20	18	2015	15	2013	0	1	0
111111	20	18	2015	16	2014	0	1	0
111111	20	18	2015	17	2015	0	0	1
111111	20	18	2015	18	2016	1	0	1
222222	20	14	2015	10	2008	0	0	0
222222	20	14	2015	11	2009	0	0	0
222222	20	14	2015	12	2010	0	0	0
222222	20	14	2015	13	2011	0	1	0
222222	20	14	2015	14	2012	1	1	0

Notes: The table provides two examples of women in our sample. Both women are born in 1998 and arrive in Turkey in 2015. However, the first woman is married at age 18 (in 2016), after she arrives in Turkey; whereas the second woman gets married at age 15, in postwar Syria, in 2012.

Table A3: Descriptive Statistics

Variables	All	Pre-war Syria	Post-war Syria	In Turkey
Age	15.590	14.881	16.393	18.128
	(5.065)	(4.451)	(5.446)	(6.308)
Married	0.086	0.068	0.110	0.144
	(0.280)	(0.252)	(0.313)	(0.351)
Marriage arranged by families	0.068	0.057	0.083	0.105
	(0.251)	(0.231)	(0.276)	(0.306)
Marriage **not** arranged by families	0.018	0.011	0.028	0.040
	(0.133)	(0.106)	(0.164)	(0.195)
Husband paid brides money	0.062	0.053	0.079	0.091
	(0.242)	(0.223)	(0.270)	(0.288)
Only religious ceremony	0.033	0.009	0.065	0.118
	(0.180)	(0.092)	(0.247)	(0.323)
Husband has other wives	0.010	0.010	0.011	0.009
	(0.098)	(0.097)	(0.104)	(0.095)
Bride is related to her husband	0.040	0.034	0.048	0.057
	(0.195)	(0.181)	(0.214)	(0.232)
Number of Observations	21,606	15,430	3,061	3,081

Notes: The data come from the survival mode of the 2018 Turkish Demographic and Health Survey - Syrian Sample, Women Module (IR). Minimum age is 10 and maximum age is 49. Standard errors are given in paranthesis. Survey weights are used. The number of observations for the variable "Husband paid brides money" for all, pre-war Syria, post-war Syria and in Turkey are 20988, 14917, 2996 and 3041, respectively.

Table A4: Descriptive Statistics - II

Control Variables	Mean (%)	Control Variables	Mean (%)
Educational Attainment of Father		*Birth Province*	
No education	34,2	Dera	0,4
Primary incomplete	13,4	Deyrizor	5,0
Primary complete	23,5	Halep	60,1
Secondary complete	16,5	Hama	5,8
High school or above	12,4	Haseki	3,0
		Humus	4,9
Educational Attainment of Mother		Idlib	8,4
No education	61,7	Kuneytire	0,1
Primary incomplete	9,8	Lazkiye	2,8
Primary complete	17,7	Rakka	3,9
Secondary complete	7,5	Rif Sam	0,9
High school or above	3,3	Suveyde	0,1
		Sam	4,5
Mother Tongue		Tartus	0,1
Turkish	4,2		
Kurdish	8,4	*Type of the Birth Place*	
Arabic	86,0	Province center	46,5
Other	1,3	District center	15,3
		Subdistrict/village	38,3

Notes: The data come from the 2018 Turkish Demographic and Health Survey - Syrian Sample. This table includes the frequencies of the control variables used in regressions. Number of observations is 2216. Sampling weights are used.

Table A5: Alternative Specification

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Married	Marriage arranged by families	Marriage **not** arranged by families	Husband paid brides money	Only religious ceremony	Husband has other wives	The woman is related to her husband
A) OLS - Pooled Results: Baseline Specification							
Turkey	0.066***	0.030***	0.036***	0.026***	0.125***	-0.004	0.018***
	(0.011)	(0.009)	(0.005)	(0.009)	(0.009)	(0.003)	(0.007)
Post-war Syria	0.034***	0.015**	0.020***	0.018***	0.058***	-0.000	0.012**
	(0.008)	(0.007)	(0.004)	(0.007)	(0.005)	(0.003)	(0.005)
Mean	0.086	0.068	0.018	0.062	0.033	0.010	0.040
Observations	21,572	21,572	21,572	20,954	21,572	21,572	21,572
R-squared	0.074	0.057	0.026	0.053	0.083	0.017	0.032
B) OLS - Pooled Results: Effect of Years in Turkey							
Turkey	0.086***	0.050***	0.036***	0.042***	0.133***	-0.004	0.028***
	(0.012)	(0.011)	(0.006)	(0.010)	(0.010)	(0.003)	(0.008)
Turkey # Years in Turkey	-0.012***	-0.012***	-0.000	-0.010***	-0.005	-0.000	-0.006**
	(0.004)	(0.003)	(0.002)	(0.003)	(0.003)	(0.001)	(0.002)
Post-war Syria	0.032***	0.012*	0.020***	0.017**	0.057***	-0.001	0.011*
	(0.008)	(0.007)	(0.004)	(0.007)	(0.005)	(0.003)	(0.005)
Mean	0.086	0.068	0.018	0.062	0.033	0.010	0.040
Observations	21.572	21.572	21.572	20.954	21.572	21.572	21.572
R-squared	0.075	0.058	0.026	0.053	0.084	0.017	0.033

Notes: The data come from the Syrian sample of the 2018 TDHS. The sample is put into a discrete-time duration analysis form, in which each period is one age and failure is marriage. The event history starts at age 10 for all women, which is the youngest age of marriage in the data. The event history continues until the age of the first marriage for ever-married women and until the age of the survey year, 2018, for never-married women. For ever-married women, the outcome variable takes the value of one at the age of marriage and zero at all other ages. For never-married women, the outcome variable is right-censored and takes the value of zero at all age values. Each column represents the results of an OLS regression for the dependent variable given in the column title. In addition to the key variables of interest, the specification includes age dummies, year of birth dummies, mother's and father's education ([i] no education, [ii] primary school incomplete, [iii] primary school complete, [iv] secondary school complete, [v] high school or above), mother tongue ([i] Turkmen, [ii] Arabic, [iii] Kurdish, [iv] other), province of birth (14 Syrian provinces), type of place of birth ([i] province center, [ii] district center, [iii] subdistrict/village). The standard errors are clustered at the household level and survey weights are used. * indicates significance at 10%, ** significance at 5%; and *** significance at 1%.

Table A6: Robustness Check with Logit Regressions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Married	Marriage arranged by families	Marriage **not** arranged by families	Husband paid brides money	Only religious ceremony	Husband has other wives	The woman is related to her husband
A) OLS - Pooled Results							
Turkey	0.066***	0.030***	0.036***	0.026***	0.125***	-0.004	0.018***
	(0.011)	(0.009)	(0.005)	(0.009)	(0.009)	(0.003)	(0.007)
Post-war Syria	0.034***	0.015**	0.020***	0.018***	0.058***	-0.000	0.012**
	(0.008)	(0.007)	(0.004)	(0.007)	(0.005)	(0.003)	(0.005)
Mean	0,086	0,068	0,018	0,062	0,033	0,010	0,040
Observations	21,572	21,572	21,572	20,954	21,572	21,572	21,572
R-squared	0.074	0.057	0.026	0.053	0.083	0.017	0.032
B) Logit - Pooled Results							
Turkey	0.412***	0.139	0.953***	0.179	1.088***	0.068	0.385**
	(0.118)	(0.134)	(0.231)	(0.142)	(0.214)	(0.335)	(0.174)
Post-war Syria	0.292***	0.125	0.642***	0.217*	0.890***	0.278	0.357**
	(0.095)	(0.109)	(0.203)	(0.113)	(0.183)	(0.269)	(0.147)
margins Turkey	0.032***	0.008	0.021***	0.010	0.037***	0.001	0.016**
	(0.010)	(0.008)	(0.006)	(0.009)	(0.009)	(0.003)	(0.008)
margins Post-war Syria	0.023***	0.008	0.013***	0.012*	0.031***	0.003	0.015**
	(0.008)	(0.007)	(0.005)	(0.007)	(0.007)	(0.003)	(0.007)
Mean	0,086	0,068	0,018	0,062	0,034	0,010	0,040
Observations	21,572	21,572	21,572	20,954	21,123	21,572	21,459

Notes: The data come from the 2018 Turkish Demographic and Health Survey - Syrian Sample. The sample includes all 15- to 49-year-old women. The sample is put into discrete time duration analysis format, in which each period is one age and failure is marriage. The event history starts at age 10 for all women, which is the youngest age of marriage in the data. The event history continues until the age of the first marriage for ever-married woman and until the age at the survey year, 2018, for never-married woman. For ever-married woman, the outcome variable takes the value of one at the age of marriage and zero at all other ages. For never-married woman, the outcome variable is right-censored and takes the value of zero at all age values. Each column represents the results of a separate regression for the dependent variable given in the column title. Panel A represents the results of pooled OLS regressions and Panel B gives the results of pooled Logit regressions. All regressions in include the following control variables: age dummies, year of birth dummies, mother's and father's education ([i] no education, [ii] primary school incomplete, [iii] primary school complete, [iv] secondary school complete, [v] high school or above), mother tongue ([i] Turkmen, [ii] Arabic, [iii] Kurdish, [iv] other), province of birth (14 Syrian provinces), type of place of birth ([i] province center, [ii] district center, [iii] subdistrict/village). The standard errors are clustered at the household level and survey weights are used. * indicates significance at 10%, ** significance at 5%; and *** significance at 1%.

Table A7: Robustness Check – Age Values Restricted to Less Than 40

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Married	Marriage arranged by families	Marriage **not** arranged by families	Husband paid brides money	Only religious ceremony	Husband has other wives	The woman is related to her husband
A)		**OLS - Pooled Results**					
Turkey	0.067***	0.031***	0.036***	0.027***	0.125***	-0.004	0.018***
	(0.011)	(0.010)	(0.006)	(0.009)	(0.009)	(0.003)	(0.007)
Post-war Syria	0.034***	0.014**	0.020***	0.018***	0.058***	-0.001	0.012**
	(0.008)	(0.007)	(0.004)	(0.007)	(0.005)	(0.003)	(0.005)
Mean	0,086	0,068	0,018	0,063	0,034	0,010	0,040
Observations	21,496	21,496	21,496	20,878	21,496	21,496	21,496
R-squared	0.074	0.057	0.026	0.052	0.083	0.017	0.032
B)		**Logit - Pooled Results**					
Turkey	0.417***	0.144	0.957***	0.186	1.091***	0.100	0.386**
	(0.119)	(0.134)	(0.231)	(0.142)	(0.214)	(0.336)	(0.174)
Post-war Syria	0.289***	0.121	0.643***	0.215*	0.890***	0.269	0.357**
	(0.095)	(0.109)	(0.203)	(0.113)	(0.184)	(0.271)	(0.147)
margins Turkey	0.033***	0.009	0.021***	0.011	0.037***	0.001	0.016**
	(0.010)	(0.009)	(0.007)	(0.009)	(0.009)	(0.003)	(0.008)
margins Post-war Syria	0.022***	0.007	0.014***	0.013*	0.031***	0.003	0.015**
	(0.008)	(0.007)	(0.005)	(0.007)	(0.007)	(0.003)	(0.007)
Mean	0,086	0,068	0,018	0,063	0,034	0,010	0,040
Observations	21,496	21,496	21,290	20,878	21,110	21,496	21,443

Notes: The data come from the 2018 Turkish Demographic and Health Survey - Syrian Sample. The sample includes all 15- to 49-year-old women. The sample is put into discrete time duration analysis format, in which each period is one age and failure is marriage. The event history starts at age 10 for all women, which is the youngest age of marriage in the data. The event history continues until the age of the first marriage for ever-married woman and until the age at the survey year, 2018, for never-married woman. The data in woman-age format are restricted to age values below 40. For ever-married woman, the outcome variable takes the value of one at the age of marriage and zero at all other ages. For never-married woman, the outcome variable is right-censored and takes the value of zero at all age values. Each column represents the results of a separate regression for the dependent variable given in the column title. Panel A represents the results of pooled OLS regressions and Panel B represents the results of pooled Logit regressions. All regressions include the following control variables: age dummies, year of birth dummies, mother's and father's education ([i] no education, [ii] primary school incomplete, [iii] primary school complete, [iv] secondary school complete, [v] high school or above), mother tongue ([i] Turkmen, [ii] Arabic, [iii] Kurdish, [iv] other), province of birth (14 Syrian provinces), type of place of birth ([i] province center, [ii] district center, [iii] subdistrict/village). The standard errors are clustered at the household level and survey weights are used. * indicates significance at 10%, ** significance at 5%; and *** significance at 1%.

Table A8: Robustness Check – Age Values Restricted to Less Than 30

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Married	Marriage arranged by families	Marriage **not** arranged by families	Husband paid brides money	Only religious ceremony	Husband has other wives	The woman is related to her husband
			A)	**OLS - Pooled Results**			
Turkey	0.068***	0.031***	0.036***	0.026***	0.131***	-0.006*	0.019**
	(0.012)	(0.010)	(0.006)	(0.010)	(0.010)	(0.003)	(0.007)
Post-war Syria	0.034***	0.013*	0.021***	0.017**	0.060***	-0.001	0.012**
	(0.008)	(0.007)	(0.004)	(0.007)	(0.006)	(0.003)	(0.006)
Mean	0,086	0,069	0,018	0,063	0,034	0,009	0,040
Observations	21,063	21,063	21,063	20,447	21,063	21,063	21,063
R-squared	0.075	0.057	0.026	0.053	0.085	0.016	0.032
			B)	**Logit - Pooled Results**			
Turkey	0.381***	0.120	0.937***	0.138	1.025***	-0.044	0.374**
	(0.122)	(0.137)	(0.237)	(0.146)	(0.217)	(0.364)	(0.177)
Post-war Syria	0.263***	0.094	0.647***	0.179	0.834***	0.273	0.354**
	(0.097)	(0.110)	(0.208)	(0.114)	(0.185)	(0.278)	(0.149)
margins Turkey	0.030***	0.007	0.021***	0.008	0.034***	-0.000	0.015**
	(0.010)	(0.009)	(0.007)	(0.009)	(0.009)	(0.003)	(0.008)
margins Post-war Syria	0.020***	0.006	0.013***	0.010	0.028***	0.008	0.015**
	(0.008)	(0.007)	(0.005)	(0.007)	(0.007)	(0.003)	(0.007)
Mean	0,086	0,069	0,018	0,063	0,034	0,009	0,040
Observations	21,063	21,063	20,877	20,447	20,758	21,063	21,063

Notes: The data come from the 2018 Turkish Demographic and Health Survey - Syrian Sample. The sample includes all 15- to 49-year-old women. The sample is put into discrete time duration analysis format, in which each period is one age and failure is marriage. The event history starts at age 10 for all women, which is the youngest age of marriage in the data. The event history continues until the age of the first marriage for ever-married woman and until the age at the survey year, 2018, for never-married woman. The data in woman-age format are restricted to age values below 30. For ever-married woman, the outcome variable takes the value of one at the age of marriage and zero at all other ages. For never-married woman, the outcome variable is right-censored and takes the value of zero at all age values. Each column represents the results of a separate regression for the dependent variable given in the column title. Panel A represents the results of pooled OLS regressions and Panel B represents the results of pooled Logit regressions. All regressions include the following control variables: age dummies, year of birth dummies, mother's and father's education ([i] no education, [ii] primary school incomplete, [iii] primary school complete, [iv] secondary school complete, [v] high school or above), mother tongue ([i] Turkmen, [ii] Arabic, [iii] Kurdish, [iv] other), province of birth (14 Syrian provinces), type of place of birth ([i] province center, [ii] district center, [iii] subdistrict/village). The standard errors are clustered at the household level and survey weights are used. * indicates significance at 10%, ** significance at 5%; and *** significance at 1%.

Table A9: The Effect of Armed Conflict and Forced Displacement on the Mobility of Syrians

	Moved
Turkey	0.036***
	(0.003)
Post-war Syria	0.031***
	(0.003)
Mean	0.021
Observations	42,652
Number of personID	2,212
R-squared	0.019

Notes: The data come from the Syrian sample of the 2018 TDHS. We put the data into a woman-age structure from age 12 to women's current age at the survey time. The dependent variable (migration) takes the value of one if the woman changes the province of residence at that age and zero otherwise. Migration can take place several times for the same women (within Syria or within Turkey). The move from Syria to Turkey is excluded. Estimates come from OLS regressions. In addition to the key variable of interest, the specification includes age dummies, year of birth dummies, mother's and father's education ([i] no education, [ii] primary school incomplete, [iii] primary school complete, [iv] secondary school complete, [v] high school or above), mother tongue ([i] Turkmen, [ii] Arabic, [iii] Kurdish, [iv] other), province of birth (14 Syrian provinces), type of place of birth ([i] province center, [ii] district center, [iii] subdistrict/village). The standard errors are clustered at the household level and survey weights are used. * indicates significance at 10 %, ** significance at 5 %; and *** significance at 1 %.