Effects of Forced Migration on Women's Educational Attainment: Evidence from Turkey

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Abstract

Over the last 35 years, Turkey has been fighting with an outlawed Kurdistan Workers' Party (PKK) in East and Southeast Anatolia. The increasingly fierce struggle from the mid-80s to the late 90s led to thousands of internally displaced people. Using Turkey Demographic Health Survey, we investigate the long-term impact of forced migration on the educational attainment of displaced women. Our results show that internal displacement decreases years of schooling of displaced women by at least half a year, and the detrimental effect mainly stems from the reduced level of primary and secondary school completion. We also investigate the mechanisms through which internal displacement might affect educational outcomes. We show that internal displacement increases the probability of working before the age of 15. We also find evidence that internal displacement decreases marriage age and increases the possibility of being in a forced marriage.

Keywords: Conflict, Female Education, Forced Migration, Human Capital Accumulation, Internally Displaced People

1. Introduction

Being uprooted from their homeland is a life-changing and unpleasant experience for many people whom we call forced migrants. According to UNHCR, we can divide forced migrants into two sub-groups in terms of their destination places: refugees and internally displaced persons (IDPs).[1] Refugees are forced migrants who have crossed national borders. On the other hand, internally displaced persons are migrants who have been forced or obliged to flee or leave their homes but have not crossed an internationally recognized state border (OCHA, 1998). By the end of 2021, the total number of internally displaced people due to persecution, conflict, violence, or human rights violations living in internal displacement worldwide has reached an all-time high of 59.1 million people (IDMC, 2022).

Forced migration and forced migrants have always been a great deal in world history, and the history of modern Turkey is not an exception. Since the country's history dates back to the Ottoman, Turkey witnessed many involuntary population movements and became both receiving and sending country. In the late 1910s, after Greco-Turkish War (1919-1922), a bilateral agreement (The Convention Concerning the Exchange of Greek and Turkish Populations) provided the mutual expulsion of Orthodox Christians from Turkey to Greece and of Muslims from Greece to Turkey. Another example is more recent. Since the start of the Syrian Civil War in 2011, Turkey has received a mass refugee influx, hosting over 3.6 million registered people (3RP, 2020).

Besides these international population movements, Turkey has its own IDPs. Founded in 1978, a terrorist group called Kurdistan Workers' Party (PKK) entered the armed conflict with the Turkish security forces for the first time in 1984. The ongoing conflict in the next fifteen years, between 1984-1999, caused many eastern provinces, especially in the Southeast Anatolian region, to become conflict zones. Many villages and hamlets were evacuated during this first wave of the conflict. An estimated 1 million people have moved from rural to urban in the eastern regions and from the eastern regions to the western and southern regions throughout the country (HÜNEE, 2006).

This paper investigates the effects of forced migration due to the conflict between 1984 to 1999 in the Southeast part of Turkey on women's educational outcomes. When IDPs had to migrate from relatively less developed regions to more developed regions, it is reasonable to expect that

[1] We use the term forced migrant and internally displaced person (IDP) interchangably throughout the paper.

there must be a significant change in their lives which may affect their long-term wellbeing. However, this substantial displaced population has received little attention. While there are a few qualitative studies that aim to provide evidence on the short-term consequences of internal displacement in Turkey (Kurban, Yükseker, Ayşe, Ünalan, & Aker, 2007), there is no quantitative analysis in the literature about the long-term effects of forced migration except Gulesci (2018).[2] In this paper, we focus on the impact of forced migration on educational outcomes as it is one of the most crucial determinants of the long-term welfare of an individual.

We use the last three waves, 2008, 2013, and 2018, of the nationwide Turkey Demography and Health Survey (TDHS) conducted by the Hacettepe University Institute of Population Studies to investigate this question. The data provides a rich set of variables related to the many features of women, including their migration history and the reason for migration. Although the data set does not include information on the official displacement status, we use the information on migration reasons to identify the displacement status of an individual. Our most refined analysis defines a woman who migrated from conflict-intensive provinces for security reasons between 1984-1999 as a forced migrant.

Our findings suggest that internally displaced women accumulated less human capital in the long term even if they migrated from less developed regions to more developed ones. They have received about one year fewer schooling due to a significantly lower probability of getting primary and secondary school degrees. Their primary school completion rate was reduced by 10.2 percentage points (ppt), and the secondary school completion rate was reduced by 9.8 ppt on average. Looking at the sample of women born in the eastern provinces only, we find that the forced migration reduced the years of schooling by 0.6 years, and the probability of primary and secondary school completion by 9.8 and 6 ppt, respectively. We also investigate the mechanisms through which internal displacement affects educational outcomes and find that internal displacement increases the probability of working before the age of 15 by 4.6 ppt. We also provide evidence that internal displacement decreases marriage age and increases the possibility of being in a forced marriage.[3]

The following section discusses the literature on forced migration and its effects on different outcomes and groups.

[2] Gulesci (2018) studies the impact of forced migration induced by the conflict in southeastern Turkey on migrant women's attitudes toward domestic violence.
[3] Forced marriage refers to getting married without giving consent.

2. Related Literature

In the migration literature, forced migration studies are relatively scarce compared to voluntary/economic migration (Becker & Ferrara, 2019; Ruiz & Vargas-Silva, 2013). Existing literature explores the consequences of forced migration for different populations: receiving, sending, and migrants themselves.

In the context of receiving populations, one of the first papers about the effects of conflict-induced refugee inflow is Baez (2011). He finds that hosting refugees have adverse effects on local children's health in the short run and decreases schooling and literacy in the long run. On the other hand, Tumen (2018) finds that low-skilled Syrian refugees increased the high school enrolment rate of natives. Tumen (2021) finds that the articulation of Syrian refugee children into the Turkish education system made Turkish adolescents, especially on the margin of dropping out of school, perform better at the PISA exam.[4]

In the context of sending populations, the literature finds the detrimental effects of mass population change. The expulsion of professors and high-skilled Jewish professionals in Nazi Germany has distorted both Ph.D. students' long-term academic outcomes and decreased German children's probability of finishing school (Waldinger, 2010; Akbulut-Yuksel and Yuksel, 2015).

We contribute to the literature by examining the effects of forced migration on the immigrants themselves. Our paper is most closely related to Gulesci (2018) and Lu, Siddiqui, and Bharadwaj (2021). Gulesci (2018) studies the impact of forced migration induced by the conflict in southeastern Turkey on migrant women's attitudes toward domestic violence. His findings indicate that displaced women are more likely to view domestic violence as acceptable, their spouses were more likely to try to control their wives by limiting mobility or social activities, and those women have been subjected to more severe and prolonged violence before opting to seek help through reduced bargaining power in the household. Our results complement

[4] On the labor market side, there are papers providing some evidence on the earnings of people in host cities. These studies have found that wages, especially for the low-skilled workers, are negatively affected by the influx of displaced people creating labor supply shocks through competition over low-skilled jobs (Calderón-Mejía and Ibáñez (2016); Morales, 2018).

the findings of Gulesci (2018) by providing evidence of the mechanisms through which women's bargaining power decreased.

Lu et al. (2021) investigate the effects of forced displacement on women's marriage market outcomes using the case of the partition of India and the formation of Pakistan in 1947. They show that displaced women are more likely to marry early and less likely to continue their education. Although our focus in this paper is on the effects of forced migration on the educational outcomes of women, our results on marriage market outcomes are consistent with the findings of Lu et al. (2021). In terms of the main interest group, our work is also related to Calderón, Gafaro, and Ibáñez (2011). They find that displacement does not increase the bargaining power of displaced women and significantly increases domestic violence within the household while they contribute to household earnings more in Colombia.

Our findings contradict with the findings of Becker et al. (2020) that show that the descendants of uprooted Poles from Eastern Poland after WWII are more educated, are more likely to complete higher education, and give more value to intangible assets. Our paper differs from Becker et al. (2020) in terms of the main interest group, we investigate the impact of displacement on first-generation displaced women.

Our paper also related to the literature focusing on the effects of the direct exposure to the armed conflict on educational outcomes. Shemyakina (2011) finds that the exposure to armed conflict in Tajikistan decreases the prosperity of completing mandatory education for girls and has no effect on boys. On the other hand, Akresh and Walque (2008) find that school-aged boys suffered greater declines in their education compared to girls during the civil war in Rwanda. Verwimp and van Bavel (2014) find that civil conflict in Burundi decreased the probability of completing primary school for boys. León (2012) also shows that exposure to political violence in Peru decreased the years of schooling of those exposed to it. Chamarbagwala and Morán (2011) present a similar result for Guatemala. Overall, the evidence in the literature shows that exposure to conflict has adverse effects on human capital accumulation (see (Buvinić, Das Gupta, & Shemyakina, 2014) for a review).

In the Turkish context, a couple of papers elaborated on the relation between the Turkish-Kurdish conflict and education. Berker (2012) focuses on the effect of the exposure to armed conflict in southeastern Turkey on the educational outcomes of treated cohorts. His findings suggest that while exposure to conflict is positively related to primary school completion, it is adversely related to middle and high school completion rates. Oyvat and Tekgüç (2019) also

show that armed conflict in southeastern Turkey reduces the school enrolment rates at middle and high school levels but increases the primary school enrolment. Kıbrıs (2015) investigates the connection between civil conflict and university entrance exam performance and finds a significant negative relationship between the students from the conflict zone. Different from the existing studies, we investigate the consequences of conflict-induced displacement. There are reasons to expect that the effects of direct exposure to conflict and the effects of conflict-induced displacement differ from each other. On one side, displaced people move from less developed rural areas to more developed urban areas, and they are less exposed to conflict. On the other side, as most of the migration occurs suddenly, it leads to a significant drop in labor income and asset losses.[5] Therefore, the effects of conflict-induced forced migration on migrants are not clear.

In the next section, we provide background information about the internal displacement in Turkey. Section 4 and 5 explain data and empirical strategy, respectively. Estimation results are presented in Section 6, and the results related to potential channels are presented in Section 7. We implement robustness checks in Section 8. Section 9 concludes the paper.

3. Background: Internal Displacement in Turkey

The source of internal displacement is based on the armed conflict between Turkish security forces and Kurdistan Worker's Party (PKK). The PKK is an insurgent group founded in 1978 by Abdullah Öcalan, operating in the rural parts of East and Southeast Anatolia regions in Turkey. They started fighting and launched an armed struggle against the Turkish government in 1984, calling for an independent Kurdish state within Turkey (Brandon, 2006). The conflict reached a peak in the mid-1990s, and an estimated 40,000 people were killed (Mandıracı, 2016). The first period ended with the arrest of Öcalan in 1999, but it resumed in 2004 and continued at a lower intensity until it heightened again in 2015.

Amid the conflict, the Turkish state declared a state of emergency (OHAL) in 11 provinces[6] in 1987 and recruited local people to form a paramilitary group called "village guards" to tackle its struggle against the PKK (Özar, Uçarlar, & Aytar, 2013). Based on the estimated official

[5] Kondylis (2010) finds that after the war in Bosnia and Herzegovina, displaced Bosnian men experienced higher levels of unemployment, while their female counterparts were less likely to participate in the labor force.
[6] When we take into account the two regions that have received later the status of a province, and Agri, where the state of emergency has not been declared but there has been intense forced migration, we use the following 14 provinces as conflict provinces (OHAL provinces) in our estimates: Adiyaman, Agri, Batman, Bingol, Bitlis, Diyarbakir, Elazig, Hakkari, Mardin Mus, Siirt, Sirnak, Tunceli, and Van.

figures, about 3500 villages and hamlets were evicted either completely or partially by security forces and PKK; between 925,000 and 1.2 million people were internally displaced during 1984-99 (HÜNEE, 2006). According to the report by the Turkish Parliament Investigation Commission (1998), there were several political and economic motives why people were obliged to migrate, but the main reasons were stated as the following: i) the collapse of animal husbandry and agriculture; ii) the eviction by the PKK of certain villages and hamlets where the local people accepted to become a village guard, and iii) the eviction by security forces of villages whose inhabitants refused to become village guards since they were considered to cooperate with PKK. As stated in the same report, most of the migrations took place suddenly, against the will of the local people, and within an average of one week. After the villages were evacuated, it is claimed that the villagers were left to their fate and that there was no re-settlement coordination. Most of the IDPs settled in the nearest city centers, usually where their relatives were, and some of them moved to western provinces such as Izmir, Istanbul, Mersin, and Adana. After displacement, IDPs have encountered different obstacles. The most crucial ones were unemployment and poverty. The social aid and some sort of compensation for IDPs' damage provided by the government were late and insufficient to meet their needs (Kurban et al., 2007). The Return to Village and Rehabilitation Project, launched in 1994 to facilitate the return of those who want to return voluntarily, did not provide a sustainable environment. The return rates were far below expectations (IDMC, 2009).

4. Data

We use the data from the 2008, 2013, and 2018 waves of the Turkey Demographic and Health Survey (TDHS) conducted by the Hacettepe University Institute of Population Studies. The surveys aim to provide basic demographic and health indicators, and they have both household and women questionnaires. Our sample contains 22,010 responses from individual women aged 15-49 about their background information, pregnancy, fertility preferences, and their migration, marriage, and work history. In the migration history section, respondents are asked where they have lived for at least six months from the age of 12. The questions ask for information on i) their province of residence, ii) type of the place of residence (villages/districts/province center), iii) how long they lived in, iv) month and year of the migration from there, and v) the main reason for migration.

The reasons for migration in the survey are divided into six subgroups: personal reasons, including marriage, education, and employment; partner-related reasons, family-related

reasons, health-related reasons, security reasons, and other reasons. The dataset has no officially reported "displacement status", but we can partially identify whether a respondent is an internally displaced person by deducing information from their migration reasons. We use security reasons as the most suitable indicator for forced migration. For this purpose, we create a dummy variable, forced migrant, taking one if a woman migrated from conflict provinces for security reasons between 1984-1999. As migration history starts at the age of 12, to identify a forced migrant who migrated before age 12, we use the information on the birth province and childhood province. We define the woman born in the conflict years (1984-99) in a village of a conflict province, but her childhood place/province is different from her birthplace as a displaced person.

Table 1 reports the summary statistics of women born before 2000 in samples according to the birth region and displacement status.[7] Column (1) shows the descriptive statistics of all sample, column (2) reports the means corresponding to the subsample, which includes women whose birth region belongs to East or Southeast Anatolia (simply the whole East), columns (3) and (4) present descriptive statistics for women whose birth region is in the conflict region that consists of 14 provinces out of all Eastern provinces by their displacement status. In our empirical analysis, we extend the forced migrant definition to those who have migrated for security or "other reasons"[8] and also to those who have migrated for any reason other than marriage.

In Panel A of Table 1, we present the descriptive statistics for the individual characteristics and background information of respondent women by their displacement status and origin region. In general, displaced women are younger, with a mean age of 27.8. They are mainly composed of Kurds (82 percent of the forced migrants), the largest minority group in Turkey. In terms of parents' educational outcomes, displaced women are in a disadvantaged position compared to both the average women in Turkey and in the East sample.

Panel B shows the long-term educational outcomes of the respondents. While the average woman in Turkey receives 7.1 years of schooling in total and they are literate with 88 percent probability, displaced women receive only 4.5 years of schooling, and 38 percent of them are illiterate. 84% of the women in the sample have completed at least primary school. The proportion is smaller for women born in Eastern provinces and even smaller for the displaced population: 62% percent of the women from the East have obtained at least a primary school

[7] Table A.1 presents the description of the variables.
[8] We include women who stated that the reason of migration is "other reasons", not related to mariage, education, health etc.

diploma, while only 53% of displaced women have received a primary school degree. For the at least secondary and high school completion, this proportion drops to 45% and 28%, respectively, for the women in the whole sample. However, this figure falls to 31% and 14% for the displaced women, respectively. Higher education corresponds to having at least a bachelor's degree, and only 11% of women in Turkey have received at least an undergraduate diploma in our sample. This share is dramatically lower for displaced women: 3% of them have had a bachelor's degree.

Panel C reports the long-term labor market outcomes of the respondents. 38% of women in the whole sample participate in the labor force and 30% of them report they are employed at the time of the survey. Among displaced women, 21% are in the labor force, and only 11% are currently working.

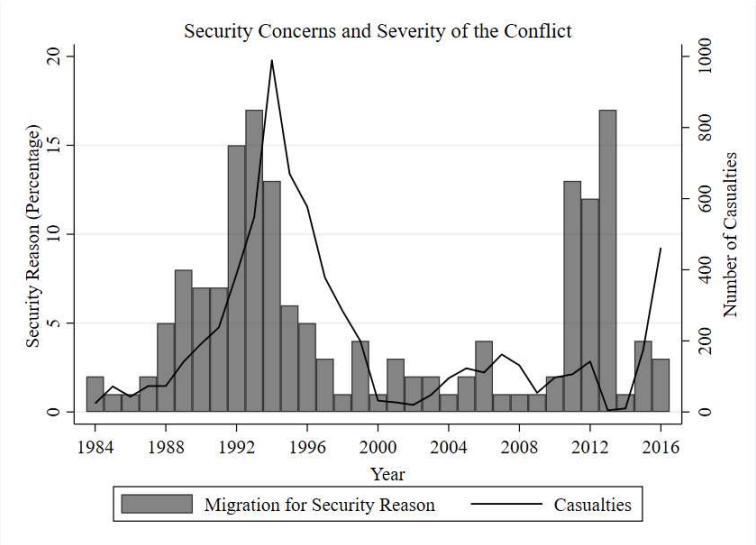
5. Empirical Framework

We identify the effects of forced migration on women's educational attainment by estimating the following model:

$$Education_{ir} = \alpha_0 + \beta ForcedMigrant_i + \delta X_{ir} + \gamma_i + \gamma_r + \epsilon_{ir} \qquad (1)$$

where $Education_{ir}$ is educational outcomes including years of schooling, and every education level from at least primary school to at least university graduation of women *i* residing in region *r*. $ForcedMigrant_i$ is a dummy variable showing displacement status as we defined in the previous section. X_{ir} is the vector of control variables including age, age squared, mother

Figure 1: Migration for security reasons and number of casualties



tongue being Kurdish or not, parents' education level and survey year fixed effects. γ_i is a vector of dummies controlling for childhood province and the type of the childhood place of a respondent and its interaction, γ_r is a current region fixed effect at the NUTS1 level. Standard errors are clustered by childhood province to account for the fact that women from the same childhood provinces might have correlated educational outcomes.

To understand whether our forced migrant definition capture individuals who migrated because of the conflict, we present in Figure 1 the percentage of people who migrated for security reasons in each year and the severity of the conflict proxied by the number of total casualties due to the conflict. For the number of casualties, we use a novel dataset, The Turkish State-PKK Conflict Event Dataset, created by (Kıbrıs, 2020). As it is seen in Figure 1, the percentage of people who migrated for security reasons traces the severity of the conflict closely.[9] Therefore, we argue that our forced migrant definition captures individuals who have migrated because of the conflict.[10]

6. Estimation Results

To analyze the effect of being a forced migrant, we mainly focus on two samples: women born in any province of Turkey and those born in one of the Eastern provinces. Table 2 reports the effect of being forced migrant on educational outcomes of women in Turkey. Column (1) shows the total years of schooling respondents received, and columns (2)-(5) show the effect of displacement on the probability of having at least the respective level of education. In columns (2)-(5), to eliminate the possible effects of displaced women who migrated after the respective school age on educational outcomes, we separate our displaced population into groups according to their age at the time of migration. That is, for example, if a woman migrated after age 11, primary school completion age, her primary school completion is less likely to be affected by forced migration. In this case, when we investigate the effect of forced migration on primary school completion, we define forced migrant status as zero for those who have migrated after age 11. Similarly, we define forced migrant status as zero for those who migrated after age 14 for secondary school completion, age 17 for high school completion, and age 30

[9] We argue that the mismatch between the number of deaths in conflicts and migrations for security reasons in 2011-2013 is due to citizens fleeing their homes following the 2011 Van earthquake for safety concerns.
[10] We cannot use the severity of the conflict as an instrument for forced migration, as our data sets are cross-sectional, we cannot trace individuals over the years, so we can only assign average conflict severity for those who have never migrated which does not create enough variation.

for college graduation. For the outcome of total years of schooling, we define displacement status independent of the age at the time of migration.

We divide the results into three panels in terms of displacement definition varying with the reasons for migration.[11] Panel A reports the results of the most specific and clear definition of forced migration. It takes a respondent who migrated from one of the 14 OHAL provinces for security reasons during 1984-99 as a forced migrant. The results suggest that being a forced migrant leads migrant women to receive 0.92 years less education, decreases the probability of being at least primary school graduate and secondary school graduate by 10.1 and 9.4 ppt, respectively. It has no significant effect on having at least high school and university degree.

Conflict-induced forced migration which had taken place in southeastern provinces of Turkey has a complex structure. First, as we mentioned in the background section, people were either obliged to leave their villages or "felt to be obliged" to flee from their homes. Thus, IDPs consist of both directly and indirectly affected people. Second, there might be a misreporting about the reasons for migration. As indicated in the HÜNEE (2006), people report both primary and secondary reasons for migration, and it is seen that even if a woman reports a spouse-related reason as a primary reason for her mobility, her secondary reason might be security concerns.[12] Therefore, we extend our definition of forced migration to encompass all potential IDPs. In Panel B and Panel C, we define forced migration as migration for security plus "other reasons" and any reason except migration for marriage, respectively. The results show that forced migration affects schooling negatively, but its effects decrease in magnitude gradually as we relax the definition of forced migration.

Table 3 reports the estimation results for the individuals whose birth region is any Eastern provinces of Turkey. On average, internal displacement distorts the total years of schooling of IDPs by 0.61 years and decreases the probability of graduating at least primary school by 9.8 ppt; secondary school by 6 ppt. The reason that the adverse effect of forced migration is weaker in the East rather than the whole sample is that the women from East and Southeast Anatolia Regions are less educated on average. Panel B and Panel C in Table 3 gives similar results compatible with Panel A in general. However, in Panel C, we see that even if it is statistically

[11] The definition of forced migration that we use in this paper is different from the one in Güleşçi (2018) which defines displaced people as those who have born and/or grown up in one of the conflict provinces, migrated for any reason except marriage at least once during the conflict years (1984–99) and whose mother tongue is Kurdish. We show in Table A.5 that our results are consistent with the results of the analysis we made with the exact setup of Güleşci(2018).

[12] In our dataset, we only observe the primary reason for migration.

insignificant, the coefficient is positive in total years of schooling for the IDPs because the results might be driven by the voluntary/economic migrants who migrated during conflict years from the conflict region.

Panel C in Table 2 and Table 3 provides relatively biased results than the other panels due to the broad definition of forced migration, implying that results might be driven by the outcomes of voluntary/economic migrants. However, it gives an idea about the lower bound of the effect of forced migration on education. To make more precise the lower bound of this effect, we estimate the equation (1) varying three types of the origin places ordered by decreasing degree of severity of the conflict: villages/subdistricts, district centers, and province centers. The degree of severity of the conflict in each place is proxied by the density of migrations for security reasons. Figure A.2 shows that 75.25% of the migrations for security reasons were taken place in the villages/subdistricts and only 6.74% of them were from the province centers.[13]

Table 4 provides more precise evidence of the effects of forced migration. Panel A shows that the women who migrated from villages of the conflict provinces for any reason except marriage during the conflict years 1984-99 receive 0.52 fewer years of schooling. The probability of primary school completion for displaced girls under age 12 is persistent and decreased by 10.3 ppt. The probability of secondary school and high school completion for displaced women under age 15 and 18 decrease by 8 and 3.4 ppt, respectively. When we relax our origin of the migration places step by step, we see still negative and persistent effects, especially for the primary school completion.[14]

In the next section, we investigate the potential mechanisms through which the internal displacement affects the educational outcomes.

7. Potential Channels

In this section, we discuss and test the potential channels underlying our results of women's lower educational attainment hindered by internal displacement. There might be many reasons for the lower educational attainment rate of children, particularly girls, who have forcibly migrated at school age.

[13] We reestimate our model by using sample weights and our results are robust.
[14] In Table A.2, we repeat the same analysis for the women born in the Eastern provinces. The results suggest that even if the negative effect on the total years of schooling is insignificant, the effect on primary school is still significant and persistent.

The most crucial one is poverty and the problems it brings. In the literature, household permanent income and poverty are closely pertinent to children's employment and school enrollment (Dayıoğlu, 2006; Tansel, 2002). Due to sudden eviction and prior destruction in the villages, peasants engaging in agriculture and animal husbandry lost their livelihoods, sold off the livestock at a low price, and needed to leave most of their belongings behind (COE, 2002). Since the migrants have generally moved from rural areas, their skills were mismatched in the urban labor market. Therefore, poverty accompanied by unemployment might become a catalyst for the access to education for displaced children in three ways: i) since families cannot afford basic school expenses such as books or school clothing, children have to drop out the school (Human Rights Watch, 2002), ii) displaced families try to minimize the cost by forgoing some of their children's education, those are usually the young girls, and iii) they try to maximize their incomes by making their children work (Kurban et al., 2007).

The second channel making girls drop out of school could be early marriage. Early marriage can be a multifaceted issue as a result of conflict-induced migration. The first underpinning factor is economic. After displacement, families in acute poverty can consider their daughters as an extra burden and can force them to marry (UNICEF, 2001). In addition, as a primitive tradition, the "bride price" paid by the groom can also be an economic incentive for families to marry their female children rather than send them to school. The second factor can be related to morality. When the girls reach puberty, families can use early marriages as a coping mechanism for social stigma accompanied by the displacement: they are scared for girls' safety and tend to force them to marry to protect the family's "honor" (Karasapan & Shah, 2019).

The third channel might be psychological. Displaced women not only experience changing their place of residence but they might also be highly exposed to violence in the conflict environment. According to research on the consequences of internal displacement in Turkey conducted by a group of psychiatrists, traumatic impacts of displacement led migrant people to have depression, post-traumatic stress disorder (PTSD), panic, and somatization disorders (Aker, Ayata, Özeren, Buran, & Bay, 2002). It is likely that women and young girls had to cope with a feeling of despair, social exclusion, and alienation in their destination cities. Given this mental vulnerability, not being able to pursue their education is a predictable upshot for displaced girls.

The last reason is related to feasibility. In the early 1990s, many children were out of school since some rural schools were already closed in the region because of armed conflict (Kurban et al., 2007). When they migrate to district or province centers, especially in the eastern provinces, they might have encountered overcrowded urban schools and teacher shortages

(Norwegian Refugee Council, 2005). The decreased quality of education might have hampered the educational attainment of children. Among those potential channels, due to lack of adequate data, we can only test the effect of forced migration on the probability of being child labor because of destitution, and early marriage outcomes.

7.1 Child Labor

Table 5 reports the effect of forced migration on the probability of being child labor. The results suggest that displaced girls under the age of 15 are more likely to start working at school age: Forced migration increases the probability of being child labor by 4.6 percentage points.

However, it is worth mentioning that while displaced women have started to work in early ages, forced migration has undermined their labor market outcomes in the long term: they are less likely to participate in the labor force and less likely to be employed (see Table A.3 in Appendix).

7.2 Early Marriage

Table 6 reports the effect of forced migration on first marriage outcomes, including the probability of early marriage (before the age of 15), the first marriage age, whether the consent of a woman was taken at her first marriage, and whether the bride price was paid at her first marriage. Our results are statistically insignificant but economically significant. The directions and sizes of coefficients are worth mentioning. We find that being a forced migrant increases the probability of marrying under age 15, decreases the age at her first marriage both in Turkey and East sample. It is also interesting that if the first marriage is arranged by families, forced migration diminishes the probability of taking consent of the women by 3.7 ppt and 8.5 ppt in the Turkey and East sample, respectively.

Considering our results together, they are highly consistent with the findings of Gulesci (2018). He shows that one of the underlying mechanisms that drive the higher incidence of domestic violence is the decline of the bargaining power of women within the household. Given that education is one of the main drivers of the bargaining power (Chiappori, Iyigun, & Weiss, 2009; Duflo, 2012), it would be appropriate to say that the results of the two studies support each other.

8. Robustness Checks

In this section, we test the validity of our estimation results by running several placebo tests and conducting our analysis by using the propensity score matching (PSM) technique.

8.1 Placebo Tests

We define our treatment group based on the migration period and origin region from which migration takes place. We run two placebo tests corresponding to placebo conflict years to abolish the likelihood of a systematic relationship between women from the conflict region and educational outcomes and placebo conflict regions to eliminate the possibility of time trend effects. We, first, keep the regions the same and shift the conflict period to 2000-2014. We exclude 2015 since the conflict upsurged again. There results are reported in Table 7. We see that migration for any reason except marriage between 2000-2014 significantly increases the total years of schooling in general. Therefore, our results are not likely to be driven by regions specific factors that might affect migration and educational outcomes of women. Second, we keep the conflict period same but change the conflict regions to three different regions in Turkey. Table 8 presents the results for three different placebo conflict regions. We exclude the women born or raised in either East or Southeast Anatolia to prevent the treated population affects our results. According to each panel, migrating from designated regions in conflict years (1984-1999) has significantly positive effects on total years of schooling, implying that our main results are not driven by the time trend effect.

8.2 Propensity Score Matching

As an additional robustness check, we conduct our analysis by using PSM. Our objective in this analysis is to construct a control group that is similar to the treatment group in terms of observed characteristics. As Rosenbaum and Rubin (1983) suggested, we use propensity scores to find a control group similar to the treatment group. Therefore, we focus on women from the conflict provinces (born or raised in conflict regions) and born in villages before 2000. To estimate the propensity scores, we run a probit regression of the displacement status of a woman on predetermined variables like birth year, birth provinces, whether she is Kurdish or not, and her parents' educational outcomes.[15]

Table 9 summarizes the results for years of schooling, obtaining at least primary school and at least secondary school degrees. Our findings suggest that, on average, displaced women had

[15] Table A.3 presents the balanced covariates checks.

one year less schooling, and they are 18 percentage points less likely to graduate from primary school compared to the control group. We could not find a significant difference in secondary school completion and beyond. These findings are broadly consistent with our main results.

9. Conclusion

The decades-long battle between the Turkish state and PKK has brought about many dire consequences. As of the early 1980s, the armed conflict in the southeast of Turkey has caused the region to become an economically and socially uninhabitable place and forced migration of at least 1 million people from their villages to urban centers or western provinces due to increasing security problems and pressures by either security forces or PKK. The displaced people have been almost left to their fate: the government has been insufficient to meet their material and mental damages, and they had to struggle with many obstacles, especially chronic poverty and unemployment. This paper particularly focuses on the displaced women and young girls, the most vulnerable group affected by the conflict.

We analyze the long-term effects of internal displacement on the educational attainments of migrant women. Our results suggest that being displaced at school age distorts their long-term educational outcomes. Specifically, displacement decreases total years of schooling by about 1 year and this decline mostly comes from the decrease in the probability of primary and secondary school completion.

When we asked what these girls do rather than go to school, we find that one of the underlying reasons is that they work to contribute to the income of their families, who are struggling with poverty and unemployment. Being displaced before the age of 15 increases the probability of starting to work before the age of 15 by 4.6 percentage points. Alternatively, we test whether being displaced before 15-year-old affects first marriage outcomes as a reason for dropping out of school. We find statistically insignificant but meaningful results: Displaced girls are more likely to become child brides, marry at a younger age, and their families are less likely to take the girls' consent in their first marriage.

Table 1: Summary statistics

			Conflict Region		
	Turkey	East	Displaced	Not Displaced	Diff.
	(1)	(2)	(3)	(4)	(4)-(3)
Panel A. Background					
Age	32.68	31.49	27.77	31.27	3.50***
Kurdish	0.21	0.60	0.82	0.79	-0.04
Village (Childhood)	0.44	0.53	0.28	0.56	0.28***
Mother School Attendance	0.48	0.25	0.19	0.18	0.00
Mother Primary School	0.39	0.18	0.11	0.13	0.01
Mother Secondary School	0.07	0.03	0.00	0.02	0.02***
Father Primary School	0.70	0.53	0.43	0.47	0.04
Father Secondary School	0.19	0.14	0.11	0.14	0.03
Panel B. Educational Outcomes					
Years of Schooling	7.1	5.05	4.56	4.48	-0.08
Literacy	0.88	0.71	0.62	0.63	0.01
Primary School	0.84	0.62	0.53	0.54	0.02
Secondary School	0.45	0.3	0.31	0.26	-0.05
High School	0.28	0.15	0.14	0.13	-0.01
Higher Education	0.11	0.05	0.03	0.05	0.02
Panel C. Labor Market Outcomes					
Labor Force Participation	0.38	0.26	0.21	0.24	0.03
Employed	0.3	0.19	0.11	0.17	0.06**
Ever Worked	0.55	0.39	0.39	0.37	-0.02
Observation	22010	6748	255	3644	3899

Notes: Detailed explanation of the variables can be found in Table A.1 in the Appendix. *, **, *** denote significance levels of 10%, 5% and 1%, respectively.
Source: 2008, 2013, and 2018 Turkey Demographic and Health Survey.

Table 2: Effect of forced migration on educational attainment

VARIABLES	(1) Years of schooling	(2) Primary School	(3) Secondary School	(4) High School	(5) Higher Education
Panel A. Reason: Security only					
Forced migrant	-0.924***	-0.102***	-0.098***	-0.031	-0.019*
	(0.200)	(0.034)	(0.024)	(0.024)	(0.011)
Panel B. Reason: Security + Other					
Forced migrant	-0.788***	-0.102***	-0.094***	-0.031	-0.014
	(0.190)	(0.034)	(0.023)	(0.021)	(0.009)
Panel C. Reason: Any (except marriage)					
Forced migrant	-0.151	-0.103***	-0.067***	-0.012	0.003
	(0.167)	(0.033)	(0.019)	(0.016)	(0.010)
Mean of outcome	7.094	0.835	0.446	0.281	0.107
Observations	21,980	21,982	21,982	21,982	21,982
Controls	Yes	Yes	Yes	Yes	Yes
Current Region FE	Yes	Yes	Yes	Yes	Yes
Child. Province FE	Yes	Yes	Yes	Yes	Yes
Child. Place FE	Yes	Yes	Yes	Yes	Yes
DHS FE	Yes	Yes	Yes	Yes	Yes

Notes: Each column reports the effect of forced migration on respondents' educational outcomes. The sample consists of individuals born before 2000. Column (1) shows the effect on total years of schooling for all displaced women. Column (2) estimates the effect of being displaced under age 12 on primary school completion. Columns (3) – (5) takes displaced women under age 15, 18, and 30, respectively. Each panel differs in terms of reported migration reasons. Panel A corresponds to the individuals who migrated from one of the 14 conflict provinces during 1984-99 for security reasons only. Panel B defines individuals who migrated from one of the 14 conflict provinces during 1984-99 for security and 'other' reasons as a forced migrant and Panel C defines them migrated for any reason except marriage. Estimates of other parameters of the model are reported in Appendix. All regressions control for the following covariates and fixed effects: age, age squared, a dummy for being Kurdish taken 1 if the mother tongue of either the mother or the father of the respondent was Kurdish, dummies for mother ever attend a school, mother's and father's at least primary and secondary school completion, childhood province, childhood place, and their interactions, NUTS1 level current region dummies, and dataset fixed effect. Robust standard errors in paratheses are clustered at the childhood province level. *, **, *** denote significance levels of 10%, 5% and 1%, respectively.

Source: 2008, 2013, and 2018 Turkey Demographic and Health Survey.

Table 3: Effect of forced migration on educational attainment (East)

VARIABLES	(1) Years of schooling	(2) Primary School	(3) Secondary School	(4) High School	(5) Higher Education
Panel A. Reason: Security only					
Forced migrant	-0.607***	-0.098***	-0.060*	-0.013	-0.021
	(0.205)	(0.023)	(0.029)	(0.032)	(0.013)
Panel B. Reason: Security + Other					
Forced migrant	-0.427**	-0.098***	-0.056*	-0.013	-0.013
	(0.184)	(0.023)	(0.027)	(0.027)	(0.010)
Panel C. Reason: Any (except marriage)					
Forced migrant	0.230	-0.102***	-0.034	0.004	0.007
	(0.143)	(0.022)	(0.021)	(0.018)	(0.012)
Mean of outcome	5.032	0.617	0.299	0.151	0.0494
Observations	6,716	6,716	6,716	6,716	6,716
Controls	Yes	Yes	Yes	Yes	Yes
Current Region FE	Yes	Yes	Yes	Yes	Yes
Child. Province FE	Yes	Yes	Yes	Yes	Yes
Child. Place FE	Yes	Yes	Yes	Yes	Yes
DHS FE	Yes	Yes	Yes	Yes	Yes

Notes: Each column reports the effect of forced migration on respondents' educational outcomes. The sample consists of individuals born before 2000 and their birth region belongs to Eastern provinces. Column (1) shows the effect on total years of schooling for all displaced women. Column (2) estimates the effect of being displaced under age 12 on primary school completion. Columns (3) – (5) takes displaced women under age 15, 18, and 30, respectively. Each panel differs in terms of reported migration reasons. Panel A corresponds to the individuals who migrated from one of the 14 conflict provinces during 1984-99 for security reasons only. Panel B defines individuals who migrated from one of the 14 conflict provinces during 1984-99 for security and 'other' reasons as a forced migrant and Panel C defines them migrated for any reason except marriage. All regressions control for the following covariates and fixed effects: age, age squared, a dummy for being Kurdish taken 1 if the mother tongue of either the mother or the father of the respondent was Kurdish, dummies for mother ever attend a school, mother's and father's at least primary and secondary school completion, childhood province, childhood place, and their interactions, NUTS1 level current region dummies, and dataset fixed effect. Robust standard errors in paratheses are clustered at the childhood province level. *, **, *** denote significance levels of 10%, 5% and 1%, respectively.

Source: 2008, 2013, and 2018 Turkey Demographic and Health Survey.

Table 4: Effect of forced migration on educational attainment by origin

VARIABLES	(1) Years of schooling	(2) Primary School	(3) Secondary School	(4) High School	(5) Higher Education
Migrated: Any Reason (except marriage)					
Panel A. Migrated from: Village					
Forced migrant	-0.522***	-0.103***	-0.084***	-0.030*	-0.008
	(0.156)	(0.033)	(0.020)	(0.016)	(0.006)
Panel B. Migrated from: Village + District					
Forced migrant	-0.382**	-0.103***	-0.072***	-0.021	-0.004
	(0.153)	(0.033)	(0.019)	(0.016)	(0.008)
Panel C. Migrated from: Village + District + Province					
Forced migrant	-0.151	-0.103***	-0.067***	-0.012	0.003
	(0.167)	(0.033)	(0.019)	(0.016)	(0.010)
Mean of outcome	7.094	0.835	0.446	0.281	0.107
Observations	21,980	21,982	21,982	21,982	21,982
Controls	Yes	Yes	Yes	Yes	Yes
Current Region FE	Yes	Yes	Yes	Yes	Yes
Child. Province FE	Yes	Yes	Yes	Yes	Yes
Child. Place FE	Yes	Yes	Yes	Yes	Yes
DHS FE	Yes	Yes	Yes	Yes	Yes

Notes: Each column reports the effect of forced migration taken place for any reason other than marriage on respondents' educational outcomes. The sample consists of individuals born before 2000. Column (1) shows the effect on total years of schooling for all displaced women. Column (2) estimates the effect of being displaced under age 12 on primary school completion. Columns (3) – (5) takes displaced women under age 15, 18, and 30, respectively. Each panel differs in terms of the origin of the migration places. Panel A, B, and C correspond to the individuals migrated from one of the 14 conflict provinces' villages/subdistricts; districts or villages/subdistricts; and province centers, districts, or villages/subdistricts during 1984-99. All regressions control for the following covariates and fixed effects: age, age squared, a dummy for being Kurdish taken 1 if the mother tongue of either the mother or the father of the respondent was Kurdish, dummies for mother ever attend a school, mother's and father's at least primary and secondary school completion, childhood province, childhood place, and their interactions, NUTS1 level current region dummies, and dataset fixed effect. Robust standard errors in paratheses are clustered at the childhood province level. *, **, *** denote significance levels of 10%, 5% and 1%, respectively.
Source: 2008, 2013, and 2018 Turkey Demographic and Health Survey.

Table 5: Effect of forced migration on working before the age of 15

	Turkey	**East**
Dep. Var: Child Labor	(1)	(2)
Forced migrant	0.046**	0.032
	(0.021)	(0.021)
Mean of outcome	0.160	0.137
Observations	21,982	6,716
Controls	Yes	Yes
Current Region FE	Yes	Yes
Child. Province FE	Yes	Yes
Child. Place FE	Yes	Yes
DHS FE	Yes	Yes

Notes: Each column reports the effect of forced migration for security reasons on the probability of working before the age of 15. The sample consists of individuals born before 2000. The dependent variable is a dummy variable taken 1 if a woman has started working before 15-year-old, 0 otherwise. Column (1) consists of all sample, and column (2) consists of women born in one of the Eastern provinces. All regressions control for the following covariates and fixed effects: age, age squared, a dummy for being Kurdish taken 1 if the mother tongue of either the mother or the father of the respondent was Kurdish, dummies for mother ever attend a school, mother's and father's at least primary and secondary school completion, childhood province, childhood place, and their interactions, NUTS1 level current region dummies, and dataset fixed effect. Robust standard errors in paratheses are clustered by childhood province. *, **, *** denote significance levels of 10%, 5% and 1%, respectively. Source: 2008, 2013, and 2018 Turkey Demographic and Health Survey.

Table 6: Effect of forced migration on first marriage

VARIABLES	(1) Early Marriage	(2) Marriage Age	(3) Consent	(4) Bride Price
Birth Region: All Sample				
Forced migrant	0.011	-0.111	-0.037	0.020
	(0.018)	(0.208)	(0.063)	(0.028)
Mean of outcome	0.0349	20.51	0.848	0.163
Observations	18,461	18,349	9,142	18,434
Birth Region: East Sample				
Forced migrant	0.020	-0.305	-0.085	-0.007
	(0.025)	(0.221)	(0.074)	(0.036)
Mean of outcome	0.0644	19.67	0.804	0.368
Observations	5,606	5,552	3,472	5,596
Controls	Yes	Yes	Yes	Yes
Current Region FE	Yes	Yes	Yes	Yes
Child. Province FE	Yes	Yes	Yes	Yes
Child. Place FE	Yes	Yes	Yes	Yes
DHS FE	Yes	Yes	Yes	Yes

Notes: Each column reports the effect of forced migration for security reasons on the outcomes of first marriage. The sample consists of individuals born before 2000 and married at least once. Column (1)-(4) shows the probability of marrying before the age of 15, first marriage age, whether the consent of a woman was taken at her first marriage, and whether the bride price was paid at her first marriage, respectively. The first panel includes all ever-married women, and the second panel corresponds to the ever-married women born in one of the Eastern provinces. All regressions control for the following covariates and fixed effects: age, age squared, a dummy for being Kurdish taken 1 if the mother tongue of either the mother or the father of the respondent was Kurdish, dummies for mother ever attend a school, mother's and father's at least primary and secondary school completion, childhood province, childhood place, and their interactions, NUTS1 level current region dummies, and dataset fixed effect. Robust standard errors in paratheses are clustered by childhood province. *, **, *** denote significance levels of 10%, 5% and 1%, respectively. Source: 2008, 2013, and 2018 Turkey Demographic and Health Survey

Table 7: Placebo test for conflict years

VARIABLES	(1) Years of schooling	(2) Primary School	(3) Secondary School	(4) High School	(5) Higher Education
Conflict Years: 2000 - 2014					
Birth Region: All Sample					
Forced migrant	1.099***	0.056	0.054	0.038	0.098***
	(0.184)	(0.114)	(0.034)	(0.035)	(0.022)
Observations	22,748	22,750	22,750	22,750	22,750
Birth Region: East Sample					
Forced migrant	1.065***	-0.094	0.057	0.027	0.103***
	(0.190)	(0.136)	(0.038)	(0.038)	(0.023)
Observations	6,993	6,993	6,993	6,993	6,993
Controls	Yes	Yes	Yes	Yes	Yes
Current Region FE	Yes	Yes	Yes	Yes	Yes
Child. Province FE	Yes	Yes	Yes	Yes	Yes
Child. Place FE	Yes	Yes	Yes	Yes	Yes
DHS FE	Yes	Yes	Yes	Yes	Yes

Notes: Each column reports the effect of forced migration on respondents' educational outcomes for placebo conflict years. The sample consists of individuals born before 2014. Column (1) shows the effect on total years of schooling for all displaced women. Column (2) estimates the effect of being displaced under age 12 on primary school completion. Columns (3) – (5) take displaced women under age 15, 18, and 30, respectively. For the sake of simplicity, only the parameter of interest β is reported. All regressions control for the following covariates and fixed effects: age, age squared, a dummy for being Kurdish taken 1 if the mother tongue of either the mother or the father of the respondent was Kurdish, dummies for mother ever attend a school, mother's and father's at least primary and secondary school completion, childhood province, childhood place, and their interactions, NUTS1 level current region dummies, and dataset fixed effect. Robust standard errors in paratheses are clustered by childhood province. *, **, *** denote significance levels of 10%, 5% and 1%, respectively. Source: 2008, 2013, and 2018 Turkish Demographic and Health Survey.

Table 8: Placebo tests for conflict regions

VARIABLES	(1) Years of schooling	(2) Primary School	(3) Secondary School	(4) High School	(5) Higher Education
PLACEBO CONFLICT REGIONS					
Istanbul - West Marmara - Aegean					
Forced migrant	0.917***	-0.015	-0.040	0.015	0.096***
	(0.230)	(0.030)	(0.025)	(0.038)	(0.019)
East Marmara - West Anatolia - Mediterranean					
Forced migrant	1.167***	-0.043**	-0.044	0.027	0.118***
	(0.216)	(0.021)	(0.035)	(0.037)	(0.021)
Central Anatolia - West Black Sea - East Black Sea					
Forced migrant	0.874***	-0.047*	0.014	0.041*	0.101***
	(0.103)	(0.026)	(0.024)	(0.021)	(0.013)
Observations	14,845	14,847	14,847	14,847	14,847
Controls	Yes	Yes	Yes	Yes	Yes
Current Region FE	Yes	Yes	Yes	Yes	Yes
Child. Province FE	Yes	Yes	Yes	Yes	Yes
Child. Place FE	Yes	Yes	Yes	Yes	Yes
DHS FE	Yes	Yes	Yes	Yes	Yes

Notes: Each column reports the effect of forced migration on respondents' educational outcomes for placebo conflict regions. The sample consists of individuals born before 2000. Women born or raised in one of the Eastern provinces are excluded. Column (1) shows the effect on total years of schooling for all displaced women. Column (2) estimates the effect of being displaced under age 12 on primary school completion. Columns (3) – (5) take displaced women under age 15, 18, and 30, respectively. Each panel differs in terms of placebo conflict regions. For the sake of simplicity, only the parameter of interest β is reported. All regressions control for the following covariates and fixed effects: age, age squared, a dummy for being Kurdish taken 1 if the mother tongue of either the mother or the father of the respondent was Kurdish, dummies for mother ever attend a school, mother's and father's at least primary and secondary school completion, childhood province, childhood place, and their interactions, NUTS1 level current region dummies, and dataset fixed effect. Robust standard errors in paratheses are clustered by childhood province. *, **, *** denote significance levels of 10%, 5% and 1%, respectively. Source: 2008, 2013, and 2018 Turkish Demographic and Health Survey

Table 9. Results of Propensity Score Matching Method

Variable	Sample	Treated (Displaced)	Controls (Not displaced)	Difference	Std. Error	t-stat
Years of schooling	Matched	1.018	2.055	-1.036	0.483	-2.15
Primary school	Matched	0.164	0.345	-0.182	0.088	-2.08
Secondary school	Matched	0	0.036	-0.036	0.03	-1.22
Observation	104	55	49			

Note: We run probit estimation for displacement status on the following covariates: respondent's birth year, respondent's birth province, a dummy variable =1 if a respondent is Kurdish, a dummy variable =1 if the respondent's mother ever attended school; a dummy variable=1 if the respondent's mother completed primary school, a dummy variable =1 if the respondent's father completed primary school; a dummy variable =1 if the respondent's father completed secondary school or above. T-stat > 1.96 implies p-value < 0.05.

References

3RP (2020). *Regional Refugee and Resilience Plan Annual Report.*

Akbulut-Yuksel, M., & Yuksel, M. (2015). The Long-Term Direct and External Effects of Jewish Expulsions in Nazi Germany. *American Economic Journal: Economic Policy*, *7*(3), 58–85. https://doi.org/10.1257/pol.20130223

Aker, T., Ayata, B., Özeren, M., Buran, B., & Bay, A. (2002). Zorunlu iç göç: Ruhsal ve toplumsal sonuçları. *Anadolu Psikiyatri Dergisi*. Retrieved from https://alpha-psychiatry.com/Content/files/sayilar/160/97-103.pdf

Akresh, R., & Walque, D. de (2008). Armed Conflict and Schooling: Evidence from the 1994 Rwandan Genocide. *SSRN Electronic Journal.* Advance online publication. https://doi.org/10.2139/ssrn.1139906

Baez, J. E. (2011). Civil wars beyond their borders: The human capital and health consequences of hosting refugees. *Journal of Development Economics*, *96*(2), 391–408. https://doi.org/10.1016/j.jdeveco.2010.08.011

Becker, S. O., & Ferrara, A. (2019). Consequences of forced migration: A survey of recent findings. *Labour Economics*, *59*, 1–16. https://doi.org/10.1016/j.labeco.2019.02.007

Becker, S. O., Grosfeld, I., Grosjean, P., Voigtländer, N., & Zhuravskaya, E. (2020). Forced Migration and Human Capital: Evidence from Post-WWII Population Transfers. *American Economic Review*, *110*(5), 1430–1463. https://doi.org/10.1257/aer.20181518

Berker, A. (2012). Türkiye'deki silahlı çatışmanın eğitimsel erişime etkileri: Kuşak Analizi. *ODTÜ Gelişme Dergisi*, *39*. Retrieved from https://open.metu.edu.tr/bitstream/handle/11511/58349/4.PDF

Brandon, J. (2006, October 17). The Kurdistan Freedom Falcons Emerges as a Rival to the PKK. Retrieved from https://jamestown.org/program/the-kurdistan-freedom-falcons-emerges-as-a-rival-to-the-pkk/

Buvinić, M., Das Gupta, M., & Shemyakina, O. N. (2014). Armed Conflict, Gender, and Schooling. *1564-698X*, *28*(2), 311–319. https://doi.org/10.1093/wber/lht032

Calderón, V., Gafaro, M., & Ibáñez, A. M. [Ana M.] (2011). Forced Migration, Female Labor Force Participation, and Intra-Household Bargaining: Does Conflict Empower Women? *SSRN Electronic Journal.* Advance online publication. https://doi.org/10.2139/ssrn.1917615

Calderón-Mejía, V., & Ibáñez, A. M. [Ana María] (2016). Labour market effects of migration-related supply shocks: evidence from internal refugees in Colombia. *Journal of Economic Geography*, *16*(3), 695–713. https://doi.org/10.1093/jeg/lbv030

Chamarbagwala, R., & Morán, H. E. (2011). The human capital consequences of civil war: Evidence from Guatemala. *Journal of Development Economics*, *94*(1), 41–61. https://doi.org/10.1016/j.jdeveco.2010.01.005

Chiappori, P.-A., Iyigun, M., & Weiss, Y. (2009). Investment in Schooling and the Marriage Market. *The American Economic Review*, *99*(5), 1689–1713. Retrieved from http://www.jstor.org/stable/25592533

COE (2002, March 22). *Humanitarian situation of the displaced Kurdish population in Turkey*. Retrieved from Council of Europe website: https://assembly.coe.int/nw/xml/XRef/X2H-Xref-ViewHTML.asp?FileID=9670&lang=EN

Duflo, E. (2012). Women Empowerment and Economic Development. *Journal of Economic Literature*, *50*(4), 1051–1079. https://doi.org/10.1257/jel.50.4.1051

Gulesci, S. (2018). *Forced migration and attitudes towards domestic violence: Evidence from Turkey* (Vol. 1). Oxford University Press. https://doi.org/10.1093/oso/9780198829591.003.0005

Human Rights Watch (2002). *Displaced and Disregarded: Turkey's Failing Village Return Program.*

HÜNEE (2006). *Türkiye Göç ve Yerinden Olmuş Nüfus Araştırması*. Ankara: Hacettepe Üniversitesi Nüfus Etütleri Enstitüsü.

IDMC (2009). *Turkey: Need for continued improvement in response to protracted displacement: A profile of the internal displacement situation.*

IDMC (2022). *GRID 2022: Children and youth in internal displacement.*

Karasapan, O., & Shah, S. (2019). Forced displacement and child marriage: A growing challenge in MENA. Retrieved from https://www.brookings.edu/blog/future-development/2019/06/19/forced-displacement-and-child-marriage-a-growing-challenge-in-mena/

Kıbrıs, A. (2015). The Conflict Trap Revisited: Civil Conflictand Educational Achievement. *Journal of Conflict Resolution*, *59*(4), 645–670. https://doi.org/10.1177/0022002713516845

Kıbrıs, A. (2020). TPCONED: The Turkish State-PKK Conflict Event Dataset. Retrieved from https://wrap.warwick.ac.uk/138227/

Kondylis, F. (2010). Conflict displacement and labor market outcomes in post-war Bosnia and Herzegovina. *Journal of Development Economics*, *93*(2), 235–248. https://doi.org/10.1016/j.jdeveco.2009.10.004

Kurban, D., Yükseker, D., Ayşe, Ç. B., Ünalan, T., & Aker, T. (2007). *Coming to terms with forced migration: Post-displacement restitution of citizenship rights in Turkey*. Karaköy: TESEV Publications.

León, G. (2012). Civil Conflict and Human Capital Accumulation: The Long-term Effects of Political Violence in Perú. *The Journal of Human Resources*, *47*(4), 991–1022. Retrieved from http://www.jstor.org/stable/23798524

Mandıracı, B. (2016, July 20). Turkey's PKK Conflict: The Death Toll. Retrieved from https://www.crisisgroup.org/europe-central-asia/western-europemediterranean/turkey/turkey-s-pkk-conflict-death-toll

Morales, J. S. (2018). The impact of internal displacement on destination communities: Evidence from the Colombian conflict. *Journal of Development Economics*, *131*, 132–150. https://doi.org/10.1016/j.jdeveco.2017.10.003

Norwegian Refugee Council (2005). *Profile of Internal Displacement: Turkey*. Retrieved from Norwegian Refugee Council/Internal Displacement Monitoring Centre (NRC/IDMC) website: https://www.refworld.org/docid/3bd98d600.html

OCHA (1998). *Guiding Principles on Internal Displacement.*

Oyvat, C., & Tekgüç, H. (2019). Ethnic fractionalization, conflict and educational development in Turkey. *International Journal of Educational Development*, *67*, 41–52. https://doi.org/10.1016/j.ijedudev.2019.03.005

Özar, Ş., Uçarlar, N., & Aytar, O. (2013). *From past to present: A paramilitary organization in Turkey : Village guard system* (First edition). Diyarbakır: DİSA Publications.

Ruiz, I., & Vargas-Silva, C. (2013). The Economics of Forced Migration. *The Journal of Development Studies*, *49*(6), 772–784. https://doi.org/10.1080/00220388.2013.777707

Shemyakina, O. (2011). The effect of armed conflict on accumulation of schooling: Results from Tajikistan. *Journal of Development Economics*, *95*(2), 186–200. https://doi.org/10.1016/j.jdeveco.2010.05.002

Tumen, S. (2018). *The Impact of Low-Skill Refugees on Youth Education.* https://doi.org/10.2139/ssrn.3273708

Tumen, S. (2021). The effect of refugees on native adolescents' test scores: Quasi-experimental evidence from PISA. *Journal of Development Economics*, *150*, 102633. https://doi.org/10.1016/j.jdeveco.2021.102633

Turkish Parliament Investigation Commission (1998). *Doğu ve Güneydoğu Anadolu'da Boşaltılan Yerleşim Birimleri Nedeniyle Göç Eden Yurttaşlarımızın Sorunlarının Araştırılarak Alınması Gereken Tedbirlerin Tespit Edilmesi Amacıyla Kurulan Meclis Araştırması Komisyonu Raporu (10/25)*. TBMM.

UNICEF (March 2001). *Early Marriage: Child Spouses*. Retrieved from https://www.unicef-irc.org/publications/pdf/digest7e.pdf

Verwimp, P., & van Bavel, J. (2014). Schooling, Violent Conflict, and Gender in Burundi. *The World Bank Economic Review*, *28*(2), 384–411. https://doi.org/10.1093/wber/lht010

Waldinger, F. (2010). Quality Matters: The Expulsion of Professors and the Consequences for PhD Student Outcomes in Nazi Germany. *Journal of Political Economy*, *118*(4), 787–831. https://doi.org/10.1086/655976

APPENDIX

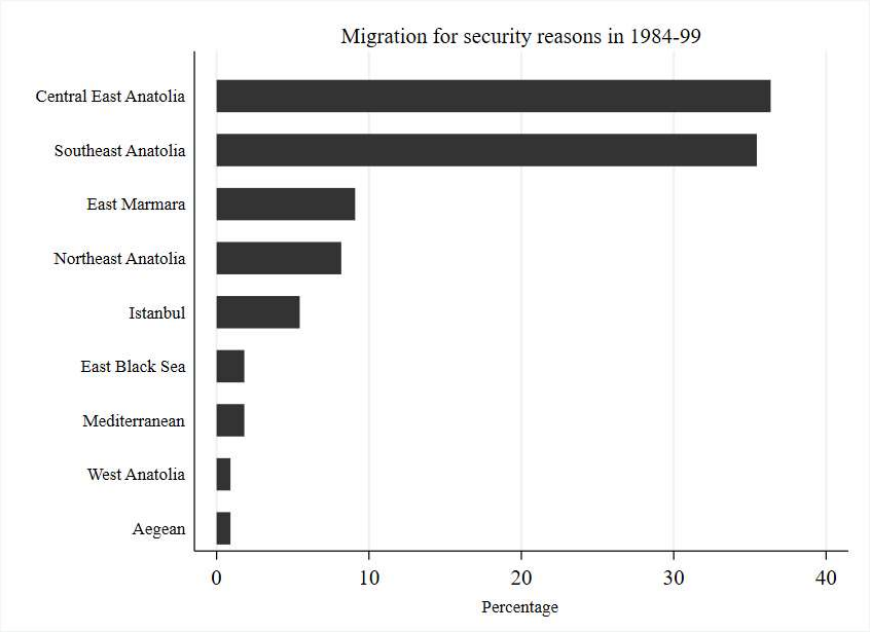


Figure A.1: Migration for security reasons from NUTS1 regions between 1984-99

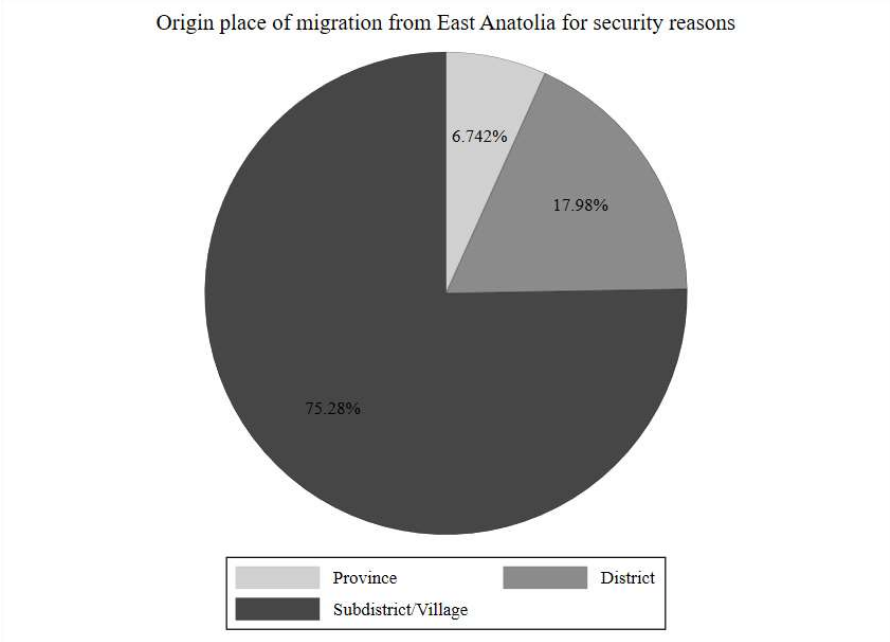


Figure A.2: Place of migration for security reasons between 1984-99 from East and Southeast Anatolia

Table A.1: Variable definitions

VARIABLES	DEFINITION
Age	The respondent's current age at the time of the survey
Kurdish	A dummy variable that takes the value 1 if the respondent's mother tongue is Kurdish; 0, otherwise
Village (Childhood)	A dummy variable that takes the value 1 if the respondent's childhood place is a village/subdistrict; 0, otherwise
Mother - School Attendance	A dummy variable that takes the value 1 if the respondent's mother has ever attended a school; 0, otherwise
Mother - Primary School	A dummy variable that takes the value 1 if the respondent's mother completed at least primary school; 0, otherwise
Mother - Secondary School	A dummy variable that takes the value 1 if the respondent's mother completed at least secondary school; 0, otherwise
Father - Primary School	A dummy variable that takes the value 1 if the respondent's father completed at least primary school; 0, otherwise
Father - Secondary School	A dummy variable that takes the value 1 if the respondent's father completed at least secondary school; 0, otherwise
Years of Schooling	Total years of schooling the respondent has received
Literacy	A dummy variable that takes the value 1 if the respondent has ever attended school (a proxy for being literate)
Primary School	A dummy variable that takes the value 1 if the respondent has completed at least primary school; 0, otherwise
Secondary School	A dummy variable that takes the value 1 if the respondent has completed at least secondary school; 0, otherwise
High School	A dummy variable that takes the value 1 if the respondent has completed at least high school; 0, otherwise
Higher Education	A dummy variable that takes the value 1 if the respondent has completed at least university; 0, otherwise

Table A.1 (cont'd)

Labor Force Participation	A dummy variable that takes the value 1 if the respondent is either employed or looking for a job; 0, otherwise
Employed	A dummy variable that takes the value 1 if the respondent is employed; 0, otherwise
Ever Worked	A dummy variable that takes the value 1 if the respondent has worked at least once; 0, otherwise

Table A.2: Effect of forced migration on educational attainment by origin (East)

VARIABLES	(1) Years of schooling	(2) Primary School	(3) Secondary School	(4) High School	(5) Higher Education
Migrated: Any Reason (except marriage)					
Panel A. Migrated from: Village					
Forced migrant	-0.177	-0.102***	-0.049**	-0.018	-0.008
	(0.129)	(0.022)	(0.021)	(0.017)	(0.007)
Panel B. Migrated from: Village + District					
From migrant	-0.023	-0.102***	-0.038*	-0.007	-0.001
	(0.131)	(0.022)	(0.020)	(0.017)	(0.008)
Panel C. Migrated from: Village + District + Province					
From migrant	0.230	-0.102***	-0.034	0.004	0.007
	(0.143)	(0.022)	(0.021)	(0.018)	(0.012)
Mean of outcome	5.032	0.617	0.299	0.151	0.0494
Observations	6,716	6,716	6,716	6,716	6,716
Controls	Yes	Yes	Yes	Yes	Yes
Current Region FE	Yes	Yes	Yes	Yes	Yes
Child. Province FE	Yes	Yes	Yes	Yes	Yes
Child. Place FE	Yes	Yes	Yes	Yes	Yes
DHS FE	Yes	Yes	Yes	Yes	Yes

Notes: Each column reports the effect of forced migration taken place for any reason other than marriage on respondents' educational outcomes. The sample consists of individuals born before 2000 and their birth region belongs to Eastern provinces. Column (1) shows the effect on total years of schooling for all displaced women. Column (2) estimates the effect of being displaced under age 12 on primary school completion. Columns (3) – (5) takes displaced women under age 15, 18, and 30, respectively. Each panel differs in terms of the origin of the migration places. Panel A, B, and C correspond to the individuals migrated from one of the 14 conflict provinces' villages/subdistricts; districts or villages/subdistricts; and province centers, districts, or villages/subdistricts during 1984-99. For the sake of simplicity, only the parameter of interest β is reported. All regressions control for the following covariates and fixed effects: age, age squared, a dummy for being Kurdish taken 1 if the mother tongue of either the mother or the father of the respondent was Kurdish, dummies for mother ever attend a school, mother's and father's at least primary and secondary school completion, childhood province, childhood place, and their interactions, NUTS1 level current region dummies, and dataset fixed effect. Robust standard errors in paratheses are clustered by childhood province. *, **, *** denote significance levels of 10%, 5% and 1%, respectively. Source: 2008, 2013, and 2018 Turkey Demographic and Health Survey.

Table A.3: Effect of forced migration on labor market outcomes

	TURKEY			EAST		
	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	In Labor Force	Currently Employed	Ever Worked	In Labor Force	Currently Employed	Ever Worked
Panel A. Reason: Security only						
All						
Forced migrant	-0.036*	-0.050***	0.013	-0.036	-0.059***	0.042
	(0.021)	(0.019)	(0.024)	(0.027)	(0.021)	(0.025)
Migration Age < 12						
Forced migrant	-0.018	-0.029	0.004	-0.018	-0.041	0.031
	(0.026)	(0.024)	(0.028)	(0.039)	(0.030)	(0.032)
Migration Age < 15						
Forced migrant	-0.020	-0.032	0.017	-0.018	-0.040	0.049*
	(0.026)	(0.021)	(0.025)	(0.037)	(0.024)	(0.024)
Migration Age < 18						
Forced migrant	-0.020	-0.038*	0.023	-0.017	-0.048**	0.056*
	(0.025)	(0.020)	(0.027)	(0.035)	(0.023)	(0.028)
Migration Age < 30						
Forced migrant	-0.036*	-0.051***	0.014	-0.036	-0.061***	0.043*
	(0.020)	(0.019)	(0.024)	(0.026)	(0.021)	(0.024)
Panel B. Reason: Any (except marriage)						
All						
Forced migrant	-0.022*	-0.040***	-0.013	-0.002	-0.027	0.011
	(0.013)	(0.014)	(0.017)	(0.014)	(0.016)	(0.018)
Migration Age < 12						
Forced migrant	-0.021	-0.030	0.012	-0.021	-0.042	0.041
	(0.026)	(0.023)	(0.029)	(0.038)	(0.029)	(0.033)
Migration Age < 15						
Forced migrant	0.013	-0.006	0.020	0.035	0.006	0.053*
	(0.021)	(0.019)	(0.026)	(0.026)	(0.022)	(0.030)
Migration Age < 18						
Forced migrant	0.016	-0.007	0.017	0.040	0.007	0.047*
	(0.024)	(0.019)	(0.024)	(0.029)	(0.021)	(0.025)
Migration Age < 30						
Forced migrant	-0.014	-0.034**	-0.008	0.007	-0.020	0.017
	(0.013)	(0.015)	(0.018)	(0.015)	(0.017)	(0.019)
Mean of outcome	0.379	0.299	0.549	0.257	0.192	0.392
Observations	21,982	21,980	21,980	6,716	6,716	6,716
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Current Region FE	Yes	Yes	Yes	Yes	Yes	Yes
Child. Place FE	Yes	Yes	Yes	Yes	Yes	Yes
Child. Province FE	Yes	Yes	Yes	Yes	Yes	Yes
DHS FE	Yes	Yes	Yes	Yes	Yes	Yes

Table A.4: Balancing Test for Treatment and Matched Control Group

		Mean			T-test	
Variable	**Unmatched Matched**	**Treated**	**Control**	**% bias reduction**	**t**	**p>t**
Age	Unmatched	45.26	42.49		2.93	0.00
	Matched	45.26	45.82	79.60	-0.47	0.64
Kurdish	Unmatched	0.93	0.89		0.79	0.43
	Matched	0.93	0.98	-63.60	-1.37	0.17
Mother - School Attendance	Unmatched	0.05	0.04		0.45	0.65
	Matched	0.05	0.04	-43.70	0.45	0.65
Mother - Primary School	Unmatched	0.00	0.00		.	.
	Matched	0.00	0.00		.	.
Father - Primary School	Unmatched	0.13	0.31		-2.89	0.00
	Matched	0.13	0.13	100.00	0.00	1.00
Father - Secondary School	Unmatched	0.02	0.03		-0.49	0.63
	Matched	0.02	0.02	100.00	0.00	1.00

Note: There are 55 treated individuals. Since some control respondents are the closest matched for more than one respondent there are 49 control-matched individuals.

Table A.5. Replication of Analysis in Güleşçi (2018)

	TURKEY					EAST				
VARIABLES	(1) Years of schooling	(2) Primary School	(3) Secondary School	(4) High School	(5) Higher Education	(6) Years of schooling	(7) Primary School	(8) Secondary School	(9) High School	(10) Higher Education
Panel A. Sample (Migrants above the age of 12)										
From conflict region x Migrated during conflict x Kurdish	-0.317	-0.070	-0.018	-0.012	0.009	0.102	-0.064	0.068	0.054	-0.022
	(0.453)	(0.047)	(0.047)	(0.048)	(0.041)	(0.409)	(0.048)	(0.044)	(0.064)	(0.045)
Observations	22,719	22,719	22,719	22,719	22,719	7,049	7,049	7,049	7,049	7,049
Mean of outcome	7.175	0.840	0.462	0.277	0.103	5.218	0.633	0.323	0.155	0.0478
Panel B. Extended Sample (Migrated before the age of 12 included)										
From conflict region x Migrated during conflict x Kurdish	-0.412	-0.048	-0.038	-0.009	0.013	-0.250	-0.060*	0.021	0.045	-0.051
	(0.337)	(0.038)	(0.039)	(0.031)	(0.027)	(0.367)	(0.036)	(0.050)	(0.049)	(0.038)
Observations	22,719	22,719	22,719	22,719	22,719	7,049	7,049	7,049	7,049	7,049
Mean of outcome	7.175	0.840	0.462	0.277	0.103	5.218	0.633	0.323	0.155	0.0478
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Birth Province FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DHS FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Each column reports the effect of forced migration on respondents' educational outcomes. Column (1)-(5) shows the outcomes for the Turkey as a control group and column (6)-(10) shows the same outcomes for the East region (women born in either of Northeast, Central East or Southeast Anatolia) as the control group. Panel A corresponds to the individuals who migrated above the age of 12 during 1984-99. Panel B extends the migrant sample including migrants under the age of 12. 'From conflict region' is a dummy variable taking 1 if the respondent was born and/or grew up in one of the conflict provinces. 'Migrated during conflict' is a dummy variable taking 1 if the respondent migrated for any reason except marriage at least once during the conflict years (1984–99). 'Kurdish' is a dummy variable taking 1 if the first language of either the mother or the father of the respondent was Kurdish. 'From conflict region x Migrated during conflict x Kurdish' is the triple-interaction term that identifies the effect of being forced to migrate due to the conflict. All regressions control for the following covariates: a dummy variable =1 if the respondent's mother ever attended to school; a dummy variable =1 if the respondent's father completed primary school; a dummy variable =1 if the respondent's father completed secondary school or above; a dummy variable =1 if the respondent's parents were related; province of birth and DHS wave fixed effects. Robust standard errors in paratheses are clustered at the birth province level. *, **, *** denote significance levels of 10%, 5% and 1%, respectively.

Source: 2008, 2013, and 2018 Turkey Demographic and Health Survey