The Violent Legacy of Conflict: Evidence on Asylum Seekers, Crimes and Public Policy in Switzerland *

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Abstract

Political violence and wars are often recurrent, and case studies suggest that war exposure makes people more violence-prone in the aftermath. It is however very hard to distinguish between the impact of contextual factors, sample selection and war exposure, and to identify a causal impact of war exposure on future violence. In this empirical paper we exploit a unique quasi-natural experiment on the spatial allocation of asylum seekers in Switzerland, using a novel and exhaustive dataset on crimes by nationalities at the individual-level over the period 2009-2012. Our identification strategy relies on the fact that asylum seekers are exogenously allocated across Swiss cantons (i.e. districts) and that public policies are designed at the canton-level. We first document that immigrants originating from countries with civil war history are more crime prone. Using a precise measure of individual war victimization, we find that the effect remains strong and significant, even when controlling for a large battery of fixed effects. Exploiting dyadic information on the origins of both perpetrators and victims, we document the extent of intra-national hostility among asylum seekers. Further, external validity is investigated by replicating our findings on the full sample of economic immigrants, which account for more than a fifth of Swiss population. Finally, we also evaluate the efficiency of various public policies aiming at fostering integration for coping with this imported violence. We conclude that the right public integration policies are able to strongly mitigate the effect of war background on immigrants' crime rates.

Keywords: Crime, Persistence of violence, War exposure, Civil War, Conflict, Migration, Refugees, Immigrants.

JEL Classification: D74, F22, K42, Z18.

PRELIMINARY
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1 Introduction

Violence breeds violence. Political violence is often persistent and wars tend to recur.[1] And there is much anecdotal evidence that exposure to a conflict context makes people more violence prone.[2] Various mechanisms explain why people tend to reproduce violence when they are haunted by the fact of either having perpetrated or witnessed violence in the past – psychological trauma, a collapse of trust and moral values, or economic deprivation, to name a few. Beyond case studies and anecdotes, it turns out that the identification of a causal impact of past exposure to conflict on future proneness to violence and unlawful behavior is challenging. The reason is simple: In most cases people remain in the same environment that made war break out in the first place, which makes it hard to isolate the individual effects of war exposure from the impact of the surroundings (e.g. weak institutions, natural resource abundance or ethnic cleavages). This lack of systematic evidence is worrying, as the persistence of violence and crime, and the vicious cycles leading to war recurrence are key issues in the development economics literature, and are of foremost importance for post-conflict reconstruction.

In this paper we analyze empirically whether the past exposure to conflict in their country of origin makes migrants more crime prone in their host country, focusing on asylum seekers in Switzerland. Studying crimes committed by migrants is of course subject to methodological challenges, as a higher crime propensity of migrants with past conflict exposure could be driven by various confounding factors. First, the context of the destination country (here, Switzerland) could bias the results due to spatial sorting of crime prone individuals who tend to self-select into crime-facilitating environments (e.g. deprived areas with a restricted social network and low labor market opportunities). Second, one has to deal with the issue of the selection into migration of particular population groups (e.g. over-representation of genocide perpetrators among Rwandan migrants after the Tutsi-dominated RPF gained power in 1994). Third, pre-conflict slow moving characteristics of the home country could codetermine crime-proneness and war outbreaks (e.g. poverty, culture of violence, low social capital).

A unique quasi-natural experiment allows us to tackle these methodological issues. We exploit the fact that asylum seekers are exogenously assigned to (and forced to reside in) one of the 26 Swiss administrative regions (i.e. *cantons*) following a distribution key that allocates quotas based on canton population size only and not on migrants' characteristics. We also make use of an original and exhaustive dataset on violent and property crimes in Switzerland over the 2009-2012 period

[1] Civil conflicts are persistent: 68 percent of all war outbreaks took place in countries where multiple conflicts were recorded (Collier and Hoeffler, 2004). DeRouen and Bercovitch (2008) document that more than three quarters of all civil wars stem from enduring rivalries. Many studies find that past wars are strong predictors of future wars (see, e.g., Walter, 2004; Quinn, Mason and Gurses, 2007; Collier, Hoeffler and Rohner, 2009; and Besley and Reynal-Querol, 2013)

[2] In the popular press there are numerous well-publicised cases of people with war experience who after leaving the battlefield are convicted of serious crimes. The amplitude of the phenomenon is such that even the prestigious daily "The New York Times" has recently put together the series "War Torn" which contains "a series of articles and multimedia about veterans of the wars in Iraq and Afghanistan who have committed killings, or been charged with them, after coming home." The series is available under the link: http://topics.nytimes.com/top/news/us/series/war_torn/.

that has the crucial feature of documenting the nationalities of perpetrators. We combine this information with a new and fine-grained dataset on *all* asylum seekers living in Switzerland during the same period to build crime propensities by (nationality × canton of residency × age × sex × year). Controlling for unobserved heterogeneity thanks to a very large battery of fixed effects, our source of identification corresponds to variations in crime-propensities across asylum seekers from the *same nationality and migration wave*, assigned to the same canton, with different exposures to conflict (i.e. with different birth years). To give an example, our strategy consists in comparing the crime propensity of two Rwandese, from two different age cohorts (i.e. born before/after the 1994 genocide), migrating to Switzerland in 2012 and both exogenously located by the federal administration to, say, the canton of Zurich.

Ruling out former soldiers and war perpetrators from the sample is equally important. To go back to our example of Hutu extremists fleeing Rwanda after 1994, if we were to observe that asylum seekers from Rwanda were particularly crime-prone in Switzerland, this could just reflect the initial violent personality traits of this specific group: Their participation to the genocide and their future crime propensity are both caused by pre-conflict individual characteristics. Our data allows us to isolate two groups that were *not* on the perpetrators' side: individuals who were children (below 12) in wartime and women. Beyond causal identification, focusing on direct or indirect victims also sheds light on an overlooked but potentially important phenomenon, namely how *passive exposure* to conflict contributes to the reproduction of violence in a post war context. With this respect our estimates are likely to be conservative; if we were to take into account the conflict impact on perpetrators as well, the magnitude of the impact of past conflict exposure on current criminality would be larger.

Our baseline result is that individuals exposed to civil war or mass killing during their childhood are on average 20 percent more prone to violent crimes than their co-nationals born after the conflict. Women exposed to wartime rape are on average 19.5% more prone to violent crimes than their female co-nationals born after. Making use of information on the nationalities of both perpetrators *and* victims, we also build bilateral crime propensities documenting the propensity of perpetrators to target victims of a specific nationality. We find that the likelihood that perpetrators and victims are co-national is larger among asylum seekers who come from countries with a history of civil war. We see this evidence of persistence in intra-national hostility as consistent with theories of war recurrence that stress the role of grievances and low trust. Finally we test the external validity of our results by estimating the effect of exposure to conflict on crime for the *full sample of economic migrants*, who represent roughly 20 percent of Swiss population. The effect of war exposure remains strong and statistically significant; its magnitude is similar: Coming from a country with a war background increases the crime propensity by 21 percent, even for economic migrants.

Exploiting the fact that Switzerland is a federal state with large variations in institutions and public policies across the 26 cantons, we also study the heterogeneous effects of past exposure to conflict on criminality of asylum seekers depending on the institutional and policy context in their host canton. Our question of interest is whether the "right" design of integration policies can

partly or fully alleviate the risk of increased criminality for exposed individuals. Notice that due to the absence of a randomization scheme in the implementation of policies at the canton-level, our exercise of policy evaluation can barely go beyond correlations. Though limited, this preliminary evidence is, to our best knowledge, new to the literature and fills a gap by documenting how public policies can tackle the recurrence of violence in the aftermath of conflict.

Besides being of academic interest, the question of what factors could make immigrants crime prone is also of big societal importance, ranking top in many opinion polls of "the most important problem facing this country today" (cf. below). This topic fuels heated and politically loaded debates, triggering the rise of extreme right-wing parties in various European countries. With this respect one policy relevant conclusion of the current paper is that the crime risk of asylum seekers with war background can be very strongly reduced by putting in place public policies that offer opportunities, and at the same time get the incentives right for law-abiding behavior. Hence, developed Western countries may be better off to be inclusive with an incentive-compatible asylum system rather than keeping the borders closed.

The remainder of the paper is organized as follows. Section 2 contains the review of the related literature, section 3 presents the data. Section 4 explains our identification strategy, discusses the context of the asylum system in Switzerland, and displays our baseline results. Section 5 analyzes the role of public policies and Section 6 exposes various robustness checks, the main one relating to the criminality of economic migrants. Finally, section 7 concludes.

2 Literature Review

Since the pioneering work of Becker (1968) the literature on the economics of crime has studied a variety of salient covariates of criminal behavior[3], but the nexus between migration and crime has only received limited attention. Notable exceptions are the papers by Bianchi, Buonanno and Pinotti (2012) who study the relationship between immigration and crime across Italian provinces, by Bell, Fasani and Machin (2013) who study the impact of two waves of immigrants to the UK, and by Butcher and Piehl (1998) who study whether the proportion of immigrants who choose to move to particular US cities affects crime rates. However, in these countries migrants are able to self-select their location, and the available data is much less fine-grained than in Switzerland.

Also the literature on the effect of war experience has grown in recent years. On the theoretical front, Rohner, Thoenig and Zilibotti (2013) build a model of vicious cycles of war experience leading to low inter-group trust and hence less inter-group interactions, which in turns results in a higher likelihood of future violence. There is also a growing empirical literature focusing on the

[3]Prominent topics in this literature include the role of policy activity (Levitt, 1997; Kelly, 2000; Di Tella and Schargrodsky, 2004; Draca, Machin and Witt, 2011), the impact of poverty and inequality (Kelly, 2000; Fajnzylber, Lederman and Loayza, 2002), the effects of unemployment and recessions (Öster and Agell, 2007; Fajnzylber, Lederman and Loayza, 2002; Fougère, Kramarz, and Pouget, 2009), the impact of mineral discoveries (Couttenier, Grosjean and Sangnier, 2014) and the role of illegal drugs (Grogger and Willis, 2000) and urbanization (Glaeser and Sacerdote, 1999).

effects of war experience on education, health, collective action and trust.[4] Particularly relevant for our current paper is the literature on the persistence of violence. In particular, Miguel, Saiegh and Satyanath (2011) find a strong positive relationship between the extent of civil conflict in a player's home country and his propensity to behave violently on the soccer field, as measured by yellow and red cards. These findings are consistent with either a violent legacy of war experience, or alternatively with the existence of unobserved country-level characteristics such as for example cultural norms that jointly affect the war risk and individual violence proneness. Related to this, Grosjean (2013) argues that the "culture of honor" (enforcing violent vendetta) that was widespread in the Scottish and Scottish-Irish communities in the highlands was "imported" into the US by migrants from these regions in the 18th century. She shows that this violent culture has only persisted until today in the South of the US where institutions were weak at the time of migration.

There is also a thin literature that focuses on the impact of exposure to events (other than conflict) during "impressionable years". Giuliano and Spilimbergo (2013) find a persistent effect of having experienced a recession when young on individual beliefs that success in life depends more on luck than effort, support of more government redistribution, and tendency to vote for left-wing parties. In contrast, Gould, Lavy and Paserman (2011) exploit random variation in the living conditions of Yemenite children who arrived in Israel in 1950 to identify a beneficial impact of a "modern environment" during early childhood (0-5 years of age) on various socio-economic outcomes later in life. Using a quasi-random assignment of refugees in Denmark, Damm, Dustmann (2014) find that the share of young criminals in a given neighborhood in a given assignment year increases the probability of a young man to commit a crime later in life and that this effect is especially strong for those from the same ethnic group.

Finally, our paper is also related to the literature on the economics of immigration (cf. e.g. Borjas, 1994, 2003; Card, 1990, 2001; and Dustmann and Kirchkamp, 2002) and the strain of work exploiting exogenous allocation of migrants on labor market outcomes (Edin et al, 2003, Glitz, 2012) and schooling (Gould, Lavy, Paserman, 2004).

Our paper is novel with respect to various dimensions: First, it is the first paper that studies the effect of war experience on crime later in life. Second, we can draw on extremely fine-grained data from a quasi-natural experiment with exogenous allocation of asylum seekers. Third, the federalist organization and institutional heterogeneity of Switzerland allows us to study the impact of public policies on the persistence of violence.

[4] In particular, there are recent papers studying the effect of war exposure on eduction attainment (see Akresh and de Walque 2010, Blattman and Annan 2010, Leon 2012, Shemyakina 2011, and Swee 2008), on mental health, and in particular on post-traumatic stress or anxiety (see Barenbaum, Ruchkin and Schwab-Stone 2004, Dyregrov *et al.* 2000, and Derluyn *et al.* 2004), as well as on political participation and local collective action (see, e.g., Bellows and Miguel 2009, Blattman 2009, and Humphreys and Weinstein 2007), and on trust and social capital (Rohner, Thoenig and Zilibotti, 2013b; Besley and Reynal-Querol, 2013; Fearon, Humphreys, and Weinstein, 2009; Gilligan, Pasquale and Samii, 2010; Voors *et al.,* 2012; Whitt and Wilson, 2007; and Cassar, Grosjean and Whitt, 2013).

3 Data and Descriptive Statistics

Switzerland is a federal state with 26 cantons (i.e. the main sub-national entities) and a population of about 8 million people, and a strong humanitarian tradition. According to the Swiss Federal Statistical Office in 2012 about 23.3% of the population were foreign nationals. The number of asylum seekers – which are defined as individuals who have applied and are waiting for being approved the refugee status – is considerably smaller: Over the 2008-2012 period the yearly average of asylum seekers was around 30'000 individuals, corresponding to about 0.4% of the Swiss population. Most of these individuals originate from countries experiencing wars, genocides, political instability, and autocracy. The Swiss federal administration sets stringent conditions for the delivery of political asylum. In particular, individuals must demonstrate that a return to their home country would endanger their lives, and economic deprivation cannot be the official reason for requesting asylum to the Swiss administration. As a result, on average only 10 percent of asylum seekers obtain the asylum. The average processing time of the procedure of asylum request is around 300-400 days.

Our baseline sample consists of only asylum seekers, which entails the advantage of studying a relatively homogenous population with similar incentives and (un-)observed characteristics. Note that we deliberately avoid to compare native/permanent residents with asylum seekers, as this comparison could be biased by unobserved heterogeneity, various omitted variables and different crime detection probabilities. In fact, the identifying variation that we use is the comparison between asylum seekers with past exposure to conflict versus those without conflict exposure.

3.1 Crime Data

The Federal Statistical Office (FSO) provides us with non-publicly available exhaustive data on all crimes detected by the Police in Switzerland between 2009 and 2012. This data has been collected by local police services and covers all cases when somebody was charged with infractions to the (federal) Penal Code. Following the empirical literature on crime we pool crimes in two broad categories: violent crime (murders, injuries, threats, sexual assault...) and property crime (thefts, burglaries, robberies, scams...). Remarkably, this individual level data contains precise information on the nationalities and residency status of victims and perpetrators of any detected crime, as well as the on the place, time and type of the crime. For the sake of confidentiality we are forced by the FSO to re-aggregate this data, and compute the number of crimes at the *canton* $\times$ *year* $\times$ *nationality* $\times$ *gender* $\times$ *age group* cell level.

Note that exhaustive data of such high quality is only available in Switzerland for detection data of charges for crime, and not for data on final convictions by a court[5]. While of course the number of charges for crime are highly correlated with the number of convictions, there may be discrepancies if for example in some cantons and years the police authorities are more active

[5]Due to the differences across cantons regarding the judicial procedures and duration of trials, the harmonization of individual conviction data is very hard and does not currently exist. Moreover, a meaningful harmonization of conviction data for asylum seekers would be even harder, as in many cases asylum seekers may get expelled before the end of the lengthy trial

and successful than in others. Such differences in detection probabilities of a crime are however accounted for by the systematic inclusion of canton × year fixed effects in all specifications. There could also be a wedge between crime rates of nationals and foreigners if for example some police forces were to predominantly control foreign-looking individuals. This however would not bias our estimation as we restrict ourselves to within-asylum seeker comparisons and do not compare asylum seeker crime rates with crime rates of Swiss citizens. Moreover, as mentioned, the canton × year fixed effects take care of any reporting bias between cantons and over time.

3.2 The population of asylum seekers in Switzerland

The Federal Office for Migration (FOM) provides us with non-publicly available administrative individual-level data for the universe of asylum seekers and economic migrants arriving in Switzerland from 1992 onwards. For every person we know the beginning and end of stay, the location, the nationality, and the residence status (the permit held) for every point in time. Again, we are neither allowed to run regressions at the individual level nor to perform an individual-level merge with the crime data. Hence, we also re-aggregate this data at the same level than the one for the crime data. Together with the data on the number of crimes, we are able to compute our main dependent variable, the *crime propensity* for a cohort of asylum seekers living in canton (c), in year (t), from nationality (n), of gender (g) and of age group (a).

Data on various forms of past exposure to conflict are used to construct the main independent variables. To build our variables on *civil war exposure* we retrieve information from UCDP/PRIO's "Armed Conflict Dataset" (UCDP/PRIO, v4-2013), which is by far the most widely used data on civil conflict. For *mass killings exposure* we rely on the most widely used dataset on mass killings, collected by the "Political Instability Task Force" (PITF) under the direction of Barbara Harff (Political Instability Task Force, 2013). They define mass killings as events that "involve the promotion, execution, and/or implied consent of sustained policies by governing elites or their agents – or in the case of civil war, either of the contending authorities – that result in the deaths of a substantial portion of a communal group or politicized non-communal group." By this definition, killing episodes have in the last 50 years taken place in 28 different countries, and include all of the most notorious historical instances of large-scale massacres like, for example, the ones in Sudan, Rwanda, Bosnia or Cambodia. We further build variables on *wartime rape exposure*, using the data of Cohen (2013). In particular, we construct a dummy variable taking a value of 1 if systematic rape is used in a given conflict-year.

Our sample consists of a total number of around 67,000 asylum seekers from 134 nationalities over the 2009-2012 period. Once aggregated by gender, age group, nationality and canton of residency, this represents a sample of (on average) 7,000 cohorts by year.[6]

The following tables below show the main descriptive summary statistics of our data. Note first that 64 percent of asylum seekers are male and most originate from war-torn countries. As

[6]The different age groups are 16-17, 18-20, 21-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, $>$ 80 years old.

shown in Table 1 70 percent of asylum seekers are nationals of a country which has experienced at least one civil war since 1946, while 52 percent come from a country with at least one mass killings episode since 1946. Further, 62 percent of asylum seekers are from a country where rapes were systematically used in at least one civil war during this period.

While these numbers provide valuable information, it is important to note that not all of the people leaving these violence-torn countries were victims. In fact, some may have been perpetrators or others may have been born after the conflict. Hence, we shall in Table 2 the more specific shares of asylum seekers in our sample who have been actually (directly or indirectly) victimized in conflict. Over two thirds (67 percent) of all asylum seekers have been living in a war-torn country during childhood, while nearly half (46 percent) have grown up in a period when their country was exposed to mass killings. Similarly, 65 percent of women have at some point in their lives experienced civil war, while 46 percent have been exposed to mass killings. Finally, nearly two thirds (65 percent) of women have lived in an environment where rapes were systematically used as wartime strategy.

Table 3 further provides the typical age profile of our sample. It turns out that more than half of the asylum seekers in Switzerland are aged between 18 and 29, and less than a tenth of people are aged above 45. Finally, Table 4 lists the top ten countries of origin of the asylum seekers in our sample. We can see that almost a third of individuals originate from either Eritrea, Sri Lanka or Nigeria.

Table 1: Past exposure to conflict of Asylum seekers

	Share of AS exposed to
Civil War	0.70
Mass Killing	0.52
Wartime Rape	0.62

Table 2: Past victimization in conflict of Asylum seekers

	Share of AS victimized from
Kid [0-12] CW	0.67
Kid [0-12] MK	0.46
Women CW	0.65
Women MK	0.46
Women WR	0.65

Table 3: Share of Asylum seekers in Switzerland by age

Age Class	Share of AS	Age Class	Share of AS
[16-17]	3.11	[45-49]	2.94
[18-20]	10.89	[50-54]	1.61
[21-24]	19.73	[55-59]	0.92
[25-29]	24.78	[60-64]	0.57
[30-34]	18.22	[65-69]	0.27
[35-39]	10.70	[70-79]	0.25
[40-44]	6.00	[80 and more]	0.03

Table 4: Share of Asylum seekers in Switzerland: Top Ten Countries

Country	Share (%)	Country	Share (%)
Eritrea	13.01	Tunisia	4.78
Sri Lanka	9.09	Serbia	4.33
Nigeria	8.57	Turkey	4.26
Afghanistan	5.33	Iraq	4.15
Somalia	5.10	Syria	3.92

4 Empirical Analysis of the Legacy of Violence

4.1 Identification Strategy

Our empirical strategy aims to identify whether the past *exposure* to conflict in their country of origin makes asylum seekers more crime-prone in Switzerland. Various potential mechanisms contribute to the causal impact of violence exposure on future crime propensity, the main ones being the psychological trauma of victimization, the effects of economic deprivation during war on human capital acquisition and preferences or societal factors such as the collapse of social capital and altered moral norms. The first step of our analysis documents the causal impact; then we make some progress towards trying to distinguish between different potential mechanisms at work.

The decision to perpetrate a crime or not is taken at the individual level. Hence, the ideal specification would have the individual as unit of observation and would run a random-utility discrete-choice model (such as e.g. logit) where the individual-level outcome is 1 for crime (0 otherwise). As mentioned above, we are obliged by the Federal Statistical Office and the Federal Office for Migration to re-aggregate the data. Hence, our unit of observation is a cell (c, t, n, g, a) at the *canton* $\times$ *year* $\times$ *nationality* $\times$ *gender* $\times$ *age group* level. With this level of aggregation, the logit model translates into a standard OLS crime regression where the dependent variable becomes the log of the odds ratio of the crime propensity:

$$\ln\left(\frac{\mathrm{CP}_{c,t,n,g,a}}{1-\mathrm{CP}_{c,t,n,g,a}}\right) = \alpha \times \textsc{Exposure}_{n,a} + \mathbf{FE}_{c,t} + \mathbf{FE}_{n,t} + \mathbf{FE}_{g} + \mathbf{FE}_{a} + \varepsilon_{c,t,n,g,a}, \qquad (1)$$

where $\mathrm{CP}_{c,t,n,g,a}$ stands for the cell-level crime propensity defined as the ratio of criminal asylum

seekers over the cohort size of asylum seekers in canton(c) × year(t) × nationality(n) × gender(g)× age group(a). $\text{EXPOSURE}_{n,a}$ is our main variable of interest that corresponds to one of our three measures of exposure to violence: For a given age cohort (a) of nationality (n) it is a binary variable coding for the fact that the cohort has experienced conflict. The richness of our dataset makes possible the inclusion of a vast array of fixed effects **FE** that are crucial for our empirical strategy:

Spatial sorting in Switzerland – A main challenge relates to the fact that crime-prone individuals tend to self-select into crime-facilitating environment (e.g. drug dealers are located in urban areas). Our identification strategy is able to rule out self-selection by restricting our core estimates to asylum seekers, a subsample of migrants who are exogenously allocated across Switzerland (see Section 4.2). Further, we also include in all our specifications (canton×year) fixed effects, $\mathbf{FE}_{c,t}$, in order to filter out time-varying contextual factors at the canton-level.

Pre-conflict characteristics of origin countries – We intend to capture the *consequences* of war exposure on future crime propensity: We consequently filter out slow-moving country of origin characteristics that correlate with frequent war outbreaks and crime-promoting characteristics (weak institutions, low social capital and inter-ethnic trust, etc.). Henceforth we include (nationality×year) fixed effects, $\mathbf{FE}_{c,t}$ and our identification is based on the within-nationality comparison between war-exposed and non-exposed individuals.

Perpetrators and victims – Related to the previous point, it could be that pre-conflict individual characteristics explain crime propensity. Some war exposed asylum seekers may have indeed been perpetrators of the violence in their home country. Hence, their high crime proneness in Switzerland may not only be due to their participation to the war, but to their personal psychological disposition. If after a conflict predominantly many perpetrators were to leave their home country, then war experience could confound psychological disposition. Consider for example the case of the Rwandan genocide of 1994, where predominantly many Hutu perpetrators fled the country after the Tutsi-led Rwandan Patriotic Front (RPF) took power and stopped the genocide. When comparing the Rwandan asylum seekers with war experience versus the Rwandan asylum seekers without war experience, differences in crime propensity could arise from the fact that many war-exposed individuals may be ex-perpetrators with potentially very different personality traits than the average Rwandans. To alleviate this concern we exclude the potential perpetrators by focusing on the subsample of victims exclusively, i.e. i/ individuals who were children during the war compared to those born afterwards; ii/women born before the war compared to those born afterwards.

Selection into migration – The push and pull factors determining migration decisions are likely to be affected by conflicts. Presumably, peacetime is associated to economic migration while humanitarian migrants are overrepresented in post-conflict periods. In turn, this

could affect post-migration crime incentives in the destination country. The inclusion of gender and age group fixed effects, $\mathbf{FE}_g$ and $\mathbf{FE}_a$, aims to control for the main socio-demographic co-determinants of violent behaviors and the decision to emigrate – e.g. as documented in Section 3 young males are over-represented among asylum seekers and criminals and this feature could be exacerbated in countries that have experienced war. Further, at least as important is the inclusion of the (nationality×year) fixed effects which absorb time-series variations in origin-specific push/pull factors.

All in all, we deal with a demanding empirical strategy: Our source of identification corresponds to intra-canton, intra-year variations in crime-propensities across asylum seekers from the *same nationality and migration wave* with different exposure to conflict (i.e. born before/after the war). To give an example, our strategy consists of comparing the crime propensity of two Rwandese, from two different age cohorts (i.e. born before/after the 1994 mass killings), migrating to Switzerland in 2012 and both exogenously allocated by the federal administration to the canton of Zurich. Throughout the paper robust standard errors are two-way clustered at (canton×year) and (nationality×year) levels.

Going beyond signs and statistical significance, we also aim to quantify the impact of past exposure to conflict on crime propensity. This quantification of the marginal effect cannot be extracted in a simple way from the point estimates of Exposure because the dependent variable is the (log-) odds ratio, a non linear transformation of the crime propensity (CP). We proceed as follows: In equation (1) the coefficient of interest α corresponds to the percentage change in $\mathrm{CP}/(1-\mathrm{CP})$ when the binary variable Exposure switches from 0 to 1. Differentiating the odds-ratio and rearranging the terms we get the *cell-specific* percentage change in crime propensity. It is given by

$$\left(\frac{\partial \mathrm{CP}}{\mathrm{CP}}\right)_{c,t,n,g,a} = \frac{\hat{\alpha}}{1+\frac{\mathrm{CP}_{c,t,n,g,a}}{1-\mathrm{CP}_{c,t,n,g,a}}} \tag{2}$$

Averaging across observations we obtain the average marginal effect of past conflict exposure on crime propensity.

4.2 Exogenous spatial allocation of asylum seekers in Switzerland

We start by providing a short overview of the actual process of allocation of asylum seekers across Swiss cantons (details on the institutional and legal aspects are provided in Appendix A).

Most asylum seekers enter Switzerland illegally (especially crossing the Italian border) and apply for asylum in one of the four national reception and procedure centers (RPC). In the RPC, asylum seekers go through interviews, where they are asked to provide identity proofs, fingerprints, and their application reasons. During the lengthy assessment process the asylum seekers are granted a temporary N permit by the Swiss authorities. Given the difficulty in assessing the threat of persecution in the home country and the large number of applicants (around 25 000 per year over

the 2008-2010 period), the asylum process naturally takes substantial time. Between 2008-2010, the average duration of the process was 300-400 days, with complex cases taking several years.

Crucially, during this period holders of the N-permit are exogenously allocated to cantons and are not allowed to change canton. The allocation of new N-permit holders to the 26 Swiss cantons is determined by a random allocation key based on the cantonal population. Once an asylum seeker has been allocated to a given canton, the canton in charge organizes the accommodation in cantonal centers or flats and takes care of the interviews and of financial matters. This allocation rule was introduced in the amendment to the Aliens Law in 1988, presumably to minimize self-segregation and ghetto effects and avoid social tensions between natives and asylum seekers.

The allocation is made by the Federal Office for Migration in Bern and its decision cannot be appealed unless under certain precise conditions (family unity reasons like minors being allocated to a different canton than their parents or if the asylum seeker or a third person are under serious threat) and the change of the canton is possible only if the two cantons approve it. According to Hofmann et al. (2008), it is extremely rare that asylum seekers change canton or cantons refuse asylum seekers.[7]

Figure 2 in the Appendix shows the time series of asylum seeker stocks across the 26 cantons between 1994-2010. First, we can notice that the main peak is in 1999 due to the end of the Kosovo war. Second, we observe the same trend of asylum seeker stocks across cantons which gives a first visual account of the exogenous allocation of the migrants across cantons.

We now provide more formal statistical tests for the exogenous spatial allocation of asylum seekers across cantons. The purpose of this is to tackle the question of whether there is indeed an exogenous allocation of asylum seekers following the official population-based distribution key –as we claim– or if there may be some selection on relevant dimensions. For example, such selective allocation would occur if, say, the canton of Zurich were to host all young males fleeing a conflict zone and the canton of Lucerne were to host all elderly females originating from peaceful countries. To test whether such selection is taking place, we first put together a set of relevant dimensions, and then regress each of these observables on a battery of canton fixed effects. In particular, the exogenous allocation test consists of performing a standard F-test on the null hypothesis that the fixed effects are jointly not statistically different from zero.

We run three different specifications with the following dependent variables at the canton level: i) the share of asylum seekers as percentage of the total population; ii) the share of males as percentage of asylum seekers; iii) the proportion of young asylum seekers as percentage of the total number of asylum seekers; iv) the percentage of asylum seekers exposed to violence (civil war, mass killing or wartime rape, respectively) over the number of asylum seekers; v) the proportion of asylum seekers exposed to violence during their childhood and vi) the proportion of female asylum seekers exposed to violence.

If asylum seekers were able to endogenously self-sort into different cantons, or if the federal

[7]The only exception we can document, after discussions with representatives of Amnesty International, is that there have been registered cases where canton of Uri, one of the most conservative Swiss canton, rejected black asylum seekers.

allocation key was to be biased in any particular way, the canton fixed effects should be statistically significantly correlated with the dependent variables, and the F-tests would be rejected. Table 5 provides the results. First, we pool all years of our sample (2009-2012) and compute the average share of all the dependent variables: Column (1) shows that for most cases we cannot reject the null hypothesis that canton fixed effects are jointly significant at the 10 percent level for explaining the number (*stock*) of asylum seekers. This is not surprising given that the allocation is based on the cantonal population size and bigger cantons are expected to offer, for example, more housing facilities. Note that this is not worrying, as the levels of asylum seeker stocks are accounted for by canton fixed effects. In contrast, it is important for our identification strategy that the flows of new asylum seekers arriving are distributed exogenously to all cantons without compositional bias.

Hence, second, we pool all years of our sample and compute the variation of each dependent variable from one year to another. Column (2) of the same table shows that, in all cases, we reject the joint significance of canton fixed effects in explaining the *flows* of asylum seekers, which is reassuring.

Finally, for each year, we take the variation of each dependent variable and compute the average across cantons. Then, we compare this average with the observed value of the dependent variable. Column (3) shows that flows of asylum seekers by cantons do not significantly differ across cantons for all three years in our database. Hence, in a nutshell, the results in columns (2) and (3) confirm that the inflows of asylum seekers are independent of canton characteristics, enabling us to indeed to take as given the exogenous allocation of asylum seekers.

Table 5: Exogenous Allocation Tests

Variable	$F(25,76)$ $(Prob > F)$	$F(25,50)$ $(Prob > F)$	nb years cannot reject $H_0(3)$
	(1)	(2)	(3)
adult AS/adult pop	1.63 (0.0537)	0.74 (0.7919)	3/3
male AS/adult AS	10.44 (0.0000)	0.51 (0.9658)	3/3
young (16-24) AS/adult AS	1.74 (0.0340)	0.10 (1.0000)	3/3
young (16-34) AS/adult AS	3.26 (0.0000)	0.62 (0.9008)	3/3
% AS from countries with CW=1	6.92 (0.0000)	0.18 (1.0000)	3/3
% AS from countries with MK=1	6.68 (0.0000)	0.55 (0.9453)	3/3
% AS from countries with RW=1	1.63 (0.0536)	0.30 (0.9990)	3/3
Exposed AS (CW=1)	1.99 (0.0117)	0.25 (0.9998)	3/3
Exposed AS (MK=1)	2.12 (0.0065)	0.96 (0.5352)	3/3
Exposed AS (RW=1)	1.27 (0.2099)	0.32 (0.9986)	3/3
Exposed AS when kid[0-12] (CW=1)	9.26 (0.0000)	0.17 (1.0000)	3/3
Exposed AS when kid[0-12] (MK=1)	3.00 (0.0001)	0.91 (0.5856)	3/3
Exposed Women AS (CW=1)	1.15 (0.3118)	0.64 (0.8899)	3/3
Exposed Women AS (MK=1)	4.13 (0.0000)	0.63 (0.8924)	3/3
Exposed Women AS (RW=1)	1.37 (0.1475)	0.53 (0.9551)	3/3

The table reports statistics for the exogenous allocation tests for different measures of shares of asylum seekers stocks we employ in our regression analysis. Column (1) shows pooled F-test statistics and p-values for the pooled F-test: $variable_{ct} = \alpha + \beta_c FE_c + \varepsilon_{ct}$, $H_0(1)$: $\beta_c = 0, \forall c$. Column (2) shows pooled F-test statistics and p-values for the pooled F-test: $\Delta variable_{ct} = \alpha + \beta_c FE_c + \varepsilon_{ct}$, $H_0(2)$: $\beta_c = 0, \forall c$. Column (3) reports the number of year for which we cannot reject $H_0(3)$: $\Delta variable_{ct} = \Delta \overline{variable_t}, \forall t$ in the by-year t-tests.

4.3 Baseline results

In Table 6 we provide some preliminary estimates based on cross-nationality variations only, meaning that the (nationality×year) fixed effects are not included in equation 1 (but all other fixed effects are included, in particular the canton × year fixed effects). Our three variables of exposure to violence are taken at the country-level and we consequently compare the violent crime propensity of asylum seekers from countries having experienced different forms of violence in the period 1946-2012 with respect to the benchmark of asylum seekers from countries without violence during this same period. In particular, we find in column 1 that nationals from countries with a civil war history have a significantly higher crime propensity. In columns 2 and 3 the corresponding variables for mass killings and wartime rape have the expected sign but are not statistically significant at conventional levels.

Table 6: Benchmark regression comparing crime propensities across nationalities

	(1)	(2)	(3)
Dep. Var.	Propensity of Violent Crime		
Civil War	0.291*		
	(0.173)		
Mass Killing		0.048	
		(0.153)	
Wartime Rape			0.088
			(0.159)
Gender FE	Yes	Yes	Yes
Age Group FE	Yes	Yes	Yes
Canton × Year FE	Yes	Yes	Yes
Observations	28,446	28,446	28,446
R-squared	0.038	0.037	0.037

Note: The dependent variable is the $ln(\frac{CP}{1-CP})$ where CP is the percentage of criminal asylum seekers in the total number of asylum seekers by observation cell (canton × year × nationality × gender × age group). The explanatory variable is a dummy equal to one if there has been a war (civil war, mass killing episode, wartime rape episode) in the country of origin between 1945 and 2010. All specifications include gender, age group and canton × year fixed effects. Robust standard errors are two-way clustered at canton × year and country × year levels. *** p<0.01, ** p<0.05,* p<0.1.

The correlations of Table 6 are potentially driven by confounding factors such as unobserved social norms, civil values, cultures of violence and vendetta, or low social capital that could affect both the civil war risk in the home country of asylum seekers and the general crime propensity of its citizens. In order to address such concerns we consider from now on within-nationality variations, with the inclusion in all specifications of nationality× year fixed effects. As explained in details in Section 4.1 this additional battery of fixed effects does not only account for *time-invariant country characteristics*, but also controls for different time-varying country-level shocks faced by different cohorts of asylum seekers from a given country. This filters out variation due to *selection into migration* and hence different composition of migration flows over time. Focusing on within-

nationality variations, our variables of exposure to violence are now cohort-specific and code for the fact of i/ being child during wartime; ii/being a woman born before war.

4.3.1 Exposure to conflict during childhood

We first consider individuals who where exposed to violence during their childhood. Our sample consists in all asylum seekers from countries of origin that weres involved at least one year in a civil war (or mass killing) since 1945. We estimate a version of equation 1 where the variable of exposure to conflict corresponds to $\text{KID}[0-12]_{n,a}$, a binary variable coded 1 if individuals from the cohort (n, a) were exposed to violence at least one year between the birth and the age of 12. Note that we also include the full set of alternative dummies coding for cohorts that were exposed to violence at other ages (i.e. the alternative age brackets being [13-17], [18-25], [26-33],[34+]). Hence the cohort of reference corresponds to individuals born after the last year of violence.

The results are displayed in Table 7. The first column shows that being exposed to civil war during childhood (0-12 years) significantly increases the propensity of violent crime. Given that our fixed effects filter out all unobserved determinants of crime related to nationality, migration wave, canton characteristics, as well as gender and age group, our identifying variation is the difference between individuals from the same country of origin in the same year and living in a the same canton, but having been exposed to violence during childhood and individual born after the last year of violence. To illustrate consider the example of two people from the same country and being allocated to the same canton, but one of them was born some years earlier, which made her still experience war during childhood, while the other individual was born right after the war. It is this type of variation driving our results. While we observe the same positive coefficient of similar magnitude for property crime in column (2), it is not statistically significant. In columns (3) and (4) we run analogous regressions for the exposure to mass killings, and detect a highly significant positive effect of mass killing exposure during childhood on the propensity for violent and property crime later in life.

In term of magnitude we find that the effect of exposure to conflict is sizeable. Using the methodology described in Section 4.1 we find that individuals exposed to civil war during their childhood are on average 20.5% more prone to violent crime than their co-nationals born after the war.[8] For property crimes this figure amounts to 16.8%. Regarding exposure to Mass Killing in childhood the corresponding average marginal effects are 19.4% for violent crimes and 16.1% for property crimes.

[8]Note that the point estimates in Table 7 and their corresponding average marginal effects are relatively close because the sample mean of crime propensities is small (0.014)

Table 7: Within-nationality regressions: The effect of war experience during childhood on crime propensities

	(1)	(2)	(3)	(4)
Dep. Var.	Crime Propensity			
	Violent	Property	Violent	Property
Exposure to	Civil War		Mass Killing	
KID$[0-12]$	0.208**	0.178	0.197***	0.168**
	(0.093)	(0.115)	(0.069)	(0.072)
Gender FE	Yes	Yes	Yes	Yes
Age Group FE	Yes	Yes	Yes	Yes
Canton × Year FE	Yes	Yes	Yes	Yes
Country × Year FE	Yes	Yes	Yes	Yes
Observations	19,806	19,806	14,863	14,863
R-squared	0.001	0.000	0.001	0.001

Note: The dependent variable is the $ln(\frac{CP}{1-CP})$ where CP is the percentage of criminal asylum seekers in the total number of asylum seekers by observation cell (canton × year × nationality × gender × age group). The explanatory variable is a dummy equal to one if at least one individual in the observation cell has experienced war (civil war or mass killing episode) at the age of [0-12]. The group of reference is people born after the last year of war (civil war or mass killing episode). Sample is restricted to asylum seekers from a country that was in war (civil war or mass killing episode) at least one year since 1945. All specifications include gender, age group, canton × year and country × year fixed effects. Moreover, all specifications include dummies for whether at least one individual in the cell experienced war at the ages of [13-17], [18-25], [26-33] and [34 +]. Robust standard errors are two-way clustered at canton × year and country × year levels. *** p<0.01, ** p<0.05,* p<0.1

4.3.2 Exposure to conflict of women

We focus now on another population group that is often victimized in political violence, namely women. Our sample is restricted to female asylum seekers from all countries of origins that were involved at least one year in a civil war (or mass killing) since 1945. We estimate a version of equation 1 where the variable of exposure to violence corresponds to $\text{WOMEN}[0,+]_{n,a}$, a binary variable coded 1 if women from cohort (n,a) have experienced conflict (between birth and entry in Switzerland) and 0 otherwise. Our identification here is consequently based on the comparison between women born before the last year of civil war (mass killing or wartime rape, respectively) and women from the same origin country, born after the last year of civil war (mass killing or wartime rape, respectively), living in the same canton and coming from the same wave of migration.

Results are shown in Table 8. Columns (1) and (2) display the effect for women of civil war exposure on the future crime propensity. There is no statistically significant effect, which could be explained by the fact that in conventional battle field fighting without civilian massacres most of the soldiers sided are men, and hence women could indeed be less affected. We however expect the exposure of women to be very different in "messy" wars with a lot of massacres of civilians, where the most vulnerable members of society are hit hardest. This is exactly in line with the strong effects we find in columns (3) and (4) of mass killings exposure of women on their future crime propensity. Both the effect of mass killings exposure on violent as well as on property crime have the expected sign and are highly significant. Wartime rape is a particularly cruel form of violence in conflict, which is specifically targeted at women. Hence, we investigate its impact in columns (5) and (6). While we find a highly significant positive effect of exposure to war time rape on violent crime, we do not detect an effect on property crime. For women we also find a sizeable magnitude of past exposure to conflict. Women exposed to mass killing are on average 16.7% more prone to violent crime than their female co-nationals born after the conflict. If they have been exposed to wartime rape, the increase in crime propensity is equal to 19.5%.

4.4 Bilateral crime propensities and persistence in intra-national hostility

In this Section we exploit an unique feature of our dataset on criminality in Switzerland, namely information on the nationalities of both perpetrators *and* victims. We use this source of information to build bilateral crime propensities documenting the propensity of perpetrators to target victims of a specific nationality. Our main result is that, everything else equal, the likelihood that perpetrators and victims are co-national is larger among asylum seekers that come from countries of origins with a history of civil war. We interpret this evidence of a persistence in intra-national hostility at the light of the grievance-based theories of war recurrence.

In the literature on civil wars it has been found that wars tend to persist and to re-occur, which has inspired recent theoretical work on the persistence of hatred and vicious cycles of low inter-group trust and conflict (cf. Rohner, Thoenig and Zilibotti, 2013; Acemoglu and Wolitzki, 2014). In particular, Rohner, Thoenig and Zilibotti (2013) argue that war leads to a collapse of trust and social capital which in turn sows the seeds of more ethnic inter-group conflict in the future.

Table 8: Within-nationality regressions: The effect of war experience on women's crime propensity

Dep. Var.	(1)	(2)	(3)	(4)	(5)	(6)
	Women Crime Propensity					
	Violent	Property	Violent	Property	Violent	Property
Exposure to	Civil War		Mass Killing		Wartime Rape	
$\text{WOMEN}[0,+]_{n,a}$	-0.040	-0.243	0.171*	0.239***	0.198**	0.085
	(0.100)	(0.323)	(0.091)	(0.060)	(0.089)	(0.157)
Gender FE	Yes	Yes	Yes	Yes	Yes	Yes
Age Group FE	Yes	Yes	Yes	Yes	Yes	Yes
Canton × Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country × Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	7,645	7,645	6,103	6,103	6,812	6,812
R-squared	0.000	0.000	0.001	0.001	0.000	0.000

Note: The dependent variable is the $ln(\frac{CP}{1-CP})$ where CP is the percentage of criminal asylum seekers in the total number of asylum seekers by observation cell (canton × year × nationality × gender × age group). The explanatory variable is a dummy equal to one if at least one individual in the observation cell was exposed to war (civil war, mass killing episode or wartime rape episode). The sample is restricted only to women and the group of reference is people born after the last year of war (civil war, mass killing episode or wartime rape episode). The sample is restricted to asylum seekers from a country that was in war (civil war or mass killing episode) at least one year since 1945. All specifications include age group, canton × year and country × year fixed effects. Robust standard errors are two-way clustered at canton × year and country × year levels. *** p<0.01, ** p<0.05,* p<0.1

Taking this theory literally, one would not only expect a general tendency for committing more crime after war exposure, but, on top of this, war victims should be expected to be particularly frequently involved in committing crimes that target co-nationals of them. For example for the diaspora of migrants from Sri-Lanka living in Switzerland many incidents of "imported conflicts" between different ethnic political movements have been documented, in which groups that fought against each other in their homeland still have conflicted interactions many years later when living in Switzerland (Moret, Efionayi and Stants, 2007). If conflicts do not only affect *individual* psychology, preferences and perspectives, but have an effect also on *ethnic identities* and *inter-ethnic trust*, as predicted by Rohner, Thoenig and Zilibotti (2013), we should be able to detect this in our data.

In the following we take into account information on the nationalities of both perpetrators and victims of crimes. For the perpetrators we focus on asylum seekers only, while for potential victims we take into account the total number of citizens of a given country (i.e. asylum seekers, migrants and natives).[9] We now define cells at the bilateral level (perpetrator nationality×victim nationality) for all possible combinations observed in Switzerland. Hence, our unit of observation is a canton(c) × year(t) × nationality perpetrator(p) × nationality victim(v) × perpetrator gender(g) × perpetrator age group(a). We estimate the following bilateral version of our crime equation:

[9]The results are robust if we only consider the number of asylum seekers for both the population of potential perpetrators and the population of potential victims.

$$\ln[\frac{\text{CP}_{c,t,g,a,p,v}}{1-\text{CP}_{c,t,n,g,a}}] = \alpha \times \textsc{Exposure}_{p,v} + \beta \times \mathbb{I}_{p=v} + \gamma \times (\textsc{Exposure}_{p,v} \times \mathbb{I}_{p=v}) + \mathbf{FE}_{c,t} + \mathbf{FE}_{p,t} + \mathbf{FE}_{v,t} + \mathbf{FE}_{g} + \mathbf{FE}_{a} + \varepsilon_{c,t,g,a,p,v} \quad (3)$$

where $\text{CP}_{c,t,g,a,p,v}$ corresponds to the bilateral crime propensity.[10] In addition to the battery of fixed effects already present in our benchmark crime regression (1), this bilateral specification includes fixed effects both in the (nationality of victim × year) dimension and (nationality of perpetrator × year) dimension. Standard errors are clustered at country of perpetrator ×year. Our explanatory variables are $\mathbb{I}_{p=v}$ if perpetrator and victim are conational and $\textsc{Exposure}_{p,v}$, a binary variable coded 1 when *both* perpetrator and victim have been exposed to conflict in their origin countries (not necessarily the same). The coefficient α captures the overall propensity of individuals with war background to be involved in a crime (either as perpetrator or victim) and the coefficient β reflects the fact that crimes tend to be more frequent among the social network of conationals. Finally we consider the interaction term $\text{WAR}_{p,v} \times \mathbb{I}_{p=v}$ as our main variable of interest. Its coefficient, γ, measures whether the likelihood that perpetrators and victims are conational is larger among asylum seekers that originate from countries with a history of civil war.

The estimates of (3) are shown in Table 9. In column (1) the variable of exposure to violence is $\text{WAR}_{p,v}$ that corresponds to the fact that both perpetrator and victim originate from countries that have experienced civil war since 1945. We see that the coefficient of this variable has the expected positive sign and is highly significant. This finding means that bilateral crime propensity is larger for dyads where both victims and perpetrator originate from a country in war. This, however, does so far not imply yet that the victim and perpetrator have experienced the *same* war. This finding would so far be consistent with a situation where dyads with two people from disadvantaged background have a particularly high crime risk. To go beyond this, in column (2) we include the variable $\mathbb{I}_{p=v}$, as well as its interaction with $\text{WAR}_{p,v}$. Both variables have a positive and significant coefficient. In particular, this confirms that the bilateral crime propensity is larger when perpetrator and victim have experienced the *same* civil conflict in the past. As discussed above this is in line with the view that the geography of violence is imported from the origin country because of the persistence in war-related grievances. In Columns (3) and (4) we replicate the previous specification after replacing $\text{WAR}_{p,v}$ by the binary variable $\textsc{Kid}[0-12]_{p,v}$ that is equal to 1 when both perpetrators and victims were exposed to violence (civil war in Columns 3 and 4; mass killing in Columns 5 and 6) between 0 to 12 years old. We see that our coefficient of interest (i.e. interaction term) keeps on being positive and highly significant. Columns (5)-(7) report the results for the subsample of female victims and female perpetrators and the three alternative measures of exposure to conflict for women (i.e. civil war, mass killings and wartime rape; see Section 4.3) that are now coded in a bilateral way, namely as a binary variable $\textsc{Women}[0,+]_{p,v}$ equal to one when

[10] For most of which the bilateral dyadic crime propensity, $CP_{c,t,g,a,p,v}$ is zero

both perpetrators and victims have been exposed to violence in their origin country. Here again the coefficient of the interaction term is positive and significant. Table 14 in Appendix replicates the same set of specifications for property crimes. While the results are qualitatively similar,the magnitude and the statistical significance of the interaction term are lower.

Table 9: Bilateral crime regressions

Dep. Var.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Violent Crime Propensity						
			Civ. War	Mass Kill.	Civ. War	Mass Kill.	Wartime rape
$\text{WAR}_{p,v}$	0.003***	0.001**					
	(0.001)	(0.000)					
$\mathbb{I}_{p=v}$		0.063**	0.073***	0.087***	0.019**	0.016**	0.016*
		(0.024)	(0.015)	(0.013)	(0.010)	(0.007)	(0.009)
$\text{WAR}_{p,v} \times \mathbb{I}_{p=v}$		0.056**					
		(0.028)					
$\text{KID}[0,12]_{p,v}$			-0.000	-0.001*			
			(0.000)	(0.000)			
$\text{KID}[0,12]_{p,v} \times (\mathbb{I}_{p=v})$			0.073***	0.116***			
			(0.021)	(0.032)			
$\text{WOMEN}[0,+]_{p,v}$					-0.000	-0.000	0.000
					(0.000)	(0.000)	(0.000)
$\text{WOMEN}[0,+]_{p,v} \times (\mathbb{I}_{p=v})$					0.025	0.042***	0.030**
					(0.016)	(0.016)	(0.015)
Observations	4,173,653	4,173,653	4,173,653	4,173,653	1,525,191	1,525,191	1,525,191
R-squared	0.001	0.005	0.005	0.005	0.002	0.002	0.002

Note: The dependent variable is the $ln(\frac{CP}{1-CP})$ where CP is the percentage of criminal asylum seekers in the total number of asylum seekers by observation cell (canton × year × gender × age group × perpetrator's nationality × victim's nationality). All specifications include gender, age group, canton, year, country of victim × year and country of perpetrator × year fixed effects, as well as the population sizes of the victim and perpetrator countries. Robust standard errors are two-way clustered at country × year levels. *** p<0.01, ** p<0.05,* p<0.1

5 Combating the Legacy of Conflict: The Role of Policies

In this section we study the heterogeneous effects of past exposure to conflict on criminality of asylum seekers depending on the institutional and policy context in their host country (Switzerland). Our question of interest is whether the "right" design of institutions and policies can partly or fully alleviate the risk of increased criminality for exposed individuals.

We proceed by including in equation 1 an interaction term between exposure to conflict and various observables of cantonal policies (their linear term being absorbed by canton×year fixed effects). Simultaneously, it is important to control for cantonal characteristics (e.g. lagged cantonal economic activity, labor market immigrants' segregation, % mixed marriages) that could co-determine the design of policies and the crime propensity of Asylum seekers. The inclusion of canton×year fixed effects partially alleviates this concern, but it is important to also include in addition as controls the interactions of these variables with our variable of violence exposure.[11] Notice that due to the absence of a randomization scheme in the implementation of policies at the canton-level, our exercise of policy evaluation can barely go beyond correlations. Though limited, this preliminary evidence is, to our knowledge, new to the literature and fills a gap by documenting how public policies can tackle the recurrence of violence in the aftermath of conflict.

In Table 10 we consider (log odds ratio of) crime propensity of violent crime as dependent variable. Each column displays the coefficients of $\text{KID}[0,12]_{n,a}$, our baseline variable of exposure to civil war during childhood, and of its interaction term with various observables. Before looking at policies, we study the impact of *cantonal context*– a feature that is not manipulable by the public authorities. The variable % PROAS_c measures, for a given canton c, the average percentage of votes casted in favor of a more welcoming asylum policy (as opposed to tightening asylum conditions and cutting benefits) during the federal votes on these issues taking place between 1945 and 2006. Focusing on this measure tells us whether the crime propensity of asylum seekers may be affected by such a pro-asylum context. However, due to its multidimensional aspect, this variable must be interpreted with caution as it can covary with a bundle of pro-asylum policies or various canton characteristics such as a more heterogeneous population, historical experiences shaping a cosmopolitan mentality or more integrative administrative rules toward Foreigners in general. In column 1 we see that the coefficient of the interaction term is negative and significant at the 1 percent level. Hence, the impact of war exposure during childhood is alleviated when the asylum seeker is allocated to a canton with a pro-immigration tradition.

We next turn to the analysis of specific *cantonal integration policies*. In all the following specifications we include % PROAS_c and its interaction term in order to control for all unobserved pro-asylum characteristics at the canton-level that could codetermine criminality and the adoption of the considered policies. In Column 2 we consider $\text{ASSISTANCE}_{c,t}$ that corresponds to the log of total money attributed per asylum seeker per month in a given canton c and year t. The coefficient of the interaction term is negative and statistically significant suggesting that a more generous and

[11] For the definition and details of all variable used here, see appendix B.

better funded asylum seeker system to curb the higher crime propensity after violence exposure. We next consider CONTRACTS_c, coding for the so-called *"Integration Contracts"*, an integration policy that has received some attention in Switzerland. Those contracts stipulate duties like learning the language or following a migration course. When the contract is not respected, there are sanctions like expulsion. Making use of a variety of official cantonal documentation and personal communication with cantonal administrations, we have been able to code a dummy variable taking a value of 1 for all cantons and years where asylum seekers with "integration problems" have to sign a mandatory "integration contract". Given that the integration contract raises the expected cost after criminal behavior we expect it to lower the crime promoting effect of war exposure. The results from Column 3 show that the interaction term has the expected negative sign but is statistically not significant. However alternative specifications yield a negative and significant coefficient (see Appendix B.2).

Another important aspect of integration policies relates to the outcome of the demand for political asylum: Presumably asylum seekers with a serious chance of obtaining political asylum have higher incentives to abide the law in order to maximize their asylum chances as compared to asylum seekers whose asylum demand is chanceless. In Column 4 we consider the variable ACCEPTANCE_n that corresponds to the percentage of recognized refugees (residence B permit) among asylum seekers demands, by nationality n: Its interaction term has the expected negative sign and is statistically significant. Related to the outcome of the demand for political asylum is the existence, for a subset of nationalities, of bilateral readmission agreement between Switzerland and the country of origin. We consequently code the binary variable READMISSION_n that is equal to 1 if there exists such a bilateral readmission agreement for nationality n. We find in columns 5 that the existence of a readmission agreement magnifies the impact of violence exposure. In columns 6 we include all variables mentioned above at the same time in the regressions. This does not affect the previous results.

Additional results are displayed in Appendix B.2. From Table 15 Table 23 we replicate the analysis with the alternative measures of past exposure to conflict (mass killing / wartime rape) ; for the subsample of women; and for property crime. The results are qualitatively similar.

6 Economic migrants

For the purpose of causal identification our analysis has focused so far on Asylum seekers because they are allocated in an exogenous way across the Swiss territory. It could be argued that this population has peculiar (un)observed characteristics – in term of migration incentives and background – and this could cast some doubt on the external validity of our analysis. To check if our results may apply to broader contexts as well, we run exactly the same benchmark regressions as before, but now focusing on economic migrants (i.e. with B/C Permits) instead of asylum seekers. The group of B/C permit holders is much more sizeable (i.e. 1.788 million people out of 8.039 million people,

Table 10: Heterogenous Effects of Policies: Violent Crimes

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.	(log-) odds ratio of Violent Crime Propensity					
Exposed to	Civil War					
KID$[0-12]$	3.240***	10.821***	3.464***	3.480***	3.075***	10.651***
	(0.694)	(2.973)	(0.752)	(0.719)	(0.684)	(2.853)
$\times$% PROAS$_c$	-4.956***	-4.659***	-5.361***	-4.948***	-4.979***	-4.930***
	(1.121)	(1.107)	(1.233)	(1.126)	(1.129)	(1.261)
$\times$ASSISTANCE$_{c,t}$		-1.149**				-1.097**
		(0.447)				(0.444)
$\times$CONTRACTS$_c$			-0.147			-0.088
			(0.180)			(0.181)
$\times$ACCEPTANCE$_n$				-1.845**		-1.415**
				(0.730)		(0.651)
$\times$READMISSION$_n$					0.483***	0.415**
					(0.182)	(0.167)
Observations	19,807	19,807	19,807	19,807	19,807	19,807
R-squared	0.001	0.002	0.001	0.002	0.002	0.003

Note: The dependent variable is the $ln(\frac{CP}{1-CP})$ where CP is the percentage of criminal asylum seekers in the total number of asylum seekers by observation cell (canton $\times$ year $\times$ nationality $\times$ gender $\times$ age group). The explanatory variable is a dummy equal to one if at least one individual in the observation cell has experienced war (civil war or mass killing episode) at the age of [0-12]. The group of reference is people born after the last year of war (civil war or mass killing episode). Sample is restricted to asylum seekers from a country that was in war (civil war or mass killing episode) at least one year since 1945. All specifications include gender, age group, canton $\times$ year and country $\times$ year fixed effects. Moreover, all specifications include dummies for whether at least one individual in the cell experienced war at the ages of [13-17], [18-25], [26-33] and [34 +]. We also control for the interaction of the main variable with lagged GDP per capita per canton, labor market segregation of immigrants and percentage of mixed marriages. Robust standard errors are two-way clustered at canton $\times$ year and country $\times$ year levels. *** p<0.01, ** p<0.05,* p<0.1

the total Swiss population (22.2%) in 2012 [12]), which makes this a particularly powerful external validity check. The only caveat to bear in mind is that B/C permit holders are completely free to settle wherever they want in Switzerland, which of course leads to a less tight causal identification than in the case of asylum seekers before. Note however that the sample size of economic migrants being much larger, we gain in term of statistical precision.

In Table 11 we replicate the cross-nationality evidence of Table 6, but now for B/C permit holders. We find that civil war and mass killings exposure and wartime rape all have a statistically significant magnifying effect on the crime propensity (). Making use of our individual-level dataset on B/C migrants, we are able to observe whether individuals were exposed during their childhood. Replicating Table 7 for B/C permit holders we find in Table 12 that exposure during childhood to civil war or mass killings both increases the propensity of violent and property crime. Finally, Table 13 focuses on women that are B/C permit holders (replicating Table 8). We find that civil war exposures for women increases the propensity for property crime (while it has no effect on violent

[12]Source: FSO - Foreign Resident Population Statistics (PETRA) and Population and Households Statistics (STATPOP).

crime). Mass killings exposure of women increases both the propensity of violent and property crime, while the coefficient of wartime rape is not statistically significant. Overall these three external validity tables suggest that indeed the main findings of the current paper may generalize to a broader context than just that of the relatively small group of asylum seekers in Switzerland.

Table 11: External validity with B/C permit holders (cross-country)

	(1)	(2)	(3)
Dep. Var.	Crime Propensity		
Civil War	0.215***		
	(0.080)		
Mass Killing		0.284***	
		(0.094)	
Wartime Rape			0.270***
			(0.084)
Gender FE	Yes	Yes	Yes
Age Group FE	Yes	Yes	Yes
Canton × Year FE	Yes	Yes	Yes
Observations	250,990	250,990	250,990
R-squared	0.031	0.031	0.031

Note: The dependent variable is the $ln(\frac{CP}{1-CP})$ where CP is the percentage of criminal asylum seekers in the total number of asylum seekers by observation cell (canton × year × nationality × gender × age group). The explanatory variable is a dummy equal to one if there has been a war (civil war, mass killing episode, wartime rape episode) in the country of origin between 1945 and 2010. All specifications include gender, age group and canton × year fixed effects. Robust standard errors are two-way clustered at canton × year and country × year levels. *** p<0.01, ** p<0.05,* p<0.1.

Table 12: External validity with B/C permit holders: The effect of war experience during childhood

	(1)	(2)	(3)	(4)
Dep. Var.	Crime Propensity			
	Violent	Property	Violent	Property
Exposure to	Civil War		Mass Killing	
Kid [0-12]	0.212***	0.188***	0.168***	0.123**
	(0.042)	(0.039)	(0.047)	(0.050)
Gender FE	Yes	Yes	Yes	Yes
Age Group FE	Yes	Yes	Yes	Yes
Canton × Year FE	Yes	Yes	Yes	Yes
Country × Year FE	Yes	Yes	Yes	Yes
Observations	97,462	97,462	57,985	57,985
R-squared	0.001	0.001	0.002	0.001

Note: The dependent variable is the $ln(\frac{CP}{1-CP})$ where CP is the percentage of criminal asylum seekers in the total number of asylum seekers by observation cell (canton × year × nationality × gender × age group). The explanatory variable is a dummy equal to one if at least one individual in the observation cell has experienced war (civil war or mass killing episode) at the age of [0-12]. The group of reference is people born after the last year of war (civil war or mass killing episode). Sample is restricted to asylum seekers from a country that was in war (civil war or mass killing episode) at least one year since 1945. All specifications include gender, age group, canton × year and country × year fixed effects. Moreover, all specifications include dummies for whether at least one individual in the cell experienced war at the ages of [13-17], [18-25], [26-33] and [34 +]. Robust standard errors are two-way clustered at canton × year and country × year levels. *** p<0.01, ** p<0.05,* p<0.1

Table 13: External validity with B/C permit holders: The effect of war experience on women

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.	Crime Propensity					
	Violent	Property	Violent	Property	Violent	Property
Exposure to	Civil War		Mass Killing		Wartime Rape	
Women	0.059	0.132**	0.215***	0.211***	0.010	0.025
	(0.054)	(0.065)	(0.056)	(0.066)	(0.082)	(0.153)
Gender FE	Yes	Yes	Yes	Yes	Yes	Yes
Age Group FE	Yes	Yes	Yes	Yes	Yes	Yes
Canton × Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country × Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	48,415	48,415	28,964	28,964	40,222	40,222
R-squared	0.000	0.000	0.001	0.001	0.000	0.000

Note: The dependent variable is the $ln(\frac{CP}{1-CP})$ where CP is the percentage of criminal asylum seekers in the total number of asylum seekers by observation cell (canton × year × nationality × gender × age group). The explanatory variable is a dummy equal to one if at least one individual in the observation cell was exposed to war (civil war, mass killing episode or wartime rape episode). The sample is restricted only to women and the group of reference is people born after the last year of war (civil war, mass killing episode or wartime rape episode). The sample is restricted to asylum seekers from a country that was in war (civil war or mass killing episode) at least one year since 1945. All specifications include age group, canton × year and country × year fixed effects. Robust standard errors are two-way clustered at canton × year and country × year levels. *** p<0.01, ** p<0.05,* p<0.1

7 Conclusion

In this paper we have studied the effect of violence victimization on the crime propensity later in life. To do so, we have exploited a unique quasi-natural experiment of exogenous allocation of asylum seekers to different Swiss cantons over the 2009 to 2012 period. While the exogenous allocation addresses concerns of self-selection into crime-prone environments, the inclusion of canton $\times$ year fixed effects filters out shocks on the canton and year level. Further, by including country of origin $\times$ year fixed effects, the bias from unobserved country-specific characteristics and selection-into-migration-wave bias can be addressed. Finally, be focusing on typical victim groups (children, women) we are able to rule out that joint selection into violence and migration could drive our results.

We find that, indeed, exposure to civil war, mass killings and wartime rape has a robust, strong and persistent magnifying effect on the propensity for violent and property crime later in life. Contrary to previous case studies of post-conflict reconstruction, our identification strategy allows to show that this effect is not due to persistently bad institutions in post-conflict states, but that it continues to hold even when people live in an environment with fully functional institutions (Switzerland) and when institutional quality and shocks are accounted for (by controlling for canton $\times$ year fixed effects). Interestingly, this effect is particularly strong when two people meet who have been exposed to the *same* conflict. Indeed, as shown in the dyadic regressions, two people originating from the same country that was in war have a particularly high risk of being in a crime relationship, even when controlling for common origin, war experience and the usual battery of fixed effects. This finding is in line with recent theories of persistent conflict being fuelled by permanent distrust.

Further, we have shown that the crime increasing effect of war background can be alleviated in cantons with a traditionally pro-immigration stand and with the help of policies that get the incentives right. Individuals have indeed been found to react favorably when the payoffs of abiding the law are big (such as in a well-funded asylum system, when having high chances of being granted asylum, and when the GDP difference between the home country and Switzerland is large). Also the threat of sanctions (through "integration contracts") has been found to curb the crime inducing impact of past war exposure. Finally, it has been found that very similar results are also found when focusing on the much bigger group of economic migrants (with B/C Permits).

Do these results advocate a more restrictive immigration policy? Not by any means. The crucial humanitarian values of granting shelter to persecuted individuals is a central pillar of humanity and helping the persecuted should continue to be a key priority of any well-run state. Still, the very legitimate need for protection of refugees needs to be traded-off against the legitimate demand for domestic security. Hence, while a humanistic policy of generously granting asylum should in our view be maintained, our results suggest that it is equally crucial to accompany well those welcomed in the host country. By installing a well-funded asylum system that offers free language courses and provides future perspectives and opportunities for integration, the risk of an increase in crime perpetrated by migrants with war background can be well contained. Hence, rather than

closing their borders, Western host countries should be generous in admissions but invest money and energy into putting in place the right policies that provide opportunities and incentives for integration rather than for crime.

A Appendix on Political Asylum in Switzerland

A.1 The Demand for Asylum in Switzerland

Switzerland is a federal state with 26 cantons (i.e. the main sub-national entities) and a population of about 8 million people. This country has a strong humanitarian tradition (starting in the 16th century with providing large-scale refuge to the Huguenots fleeing France) and has traditionally hosted many foreigners. While according to the Swiss Federal Statistical Office in 2012 about 23.3% of the population are foreign nationals, the number of asylum seekers –which are defined as individuals who have applied and are waiting for being approved the refugee status is considerably smaller. In particular, in our data in 2012 there were slightly above 32'000 asylum seekers (with the N permit), corresponding to about 0.4% of the Swiss population. The biggest cohorts came from Eritrea, Somalia, Afghanistan, Sri Lanka, Serbia, Syria, Iraq, China, Turkey and Angola.

According to the United Nations Convention Relating to the Status of Refugees adopted in 1951 and signed by Switzerland, a refugee is a person who "owing to well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country; or who,not having a nationality and being outside the country of his former habitual residence as a result of such events, is unable or, owing to such fear, is unwilling to return to it" (Article 1, A2). Thus, while of course many migrants are motivated by the (legitimate) goal of escaping extreme poverty, to obtain refugee status a person needs to be able to demonstrate persecution for political reasons.

A.2 The Procedure of Assessing Asylum Requests

Most asylum seekers enter Switzerland illegally (especially crossing the Italian border) and apply for asylum in one of the four national reception and procedure centers (RPC) [13]. Only few arrive by plane in one of the two airport centers (Geneva and Zurich) or through asylum applications filed at Swiss embassies abroad.[14]

In the RPC, asylum seekers go through a first interview, where they are asked to provide identity proofs, fingerprints, and their application reasons. If there persist doubts about the identity and the application reasons, language tests or lie detection techniques are used. After on average 100-120 days since the demand was made in the RPC [15], authorities declare "non-credible" ("non-entrée en

[13]There are four reception centers close to the Swiss borders: Basel, Chiasso, Kreuzlingen, and Vallorbe.

[14]On 28 September 2012, the Swiss Parliament abolished the possibility of applying for asylum from abroad. However, the possibility to file a visa request with a Swiss diplomatic representation is still open.

[15]The asylum process duration measures follow the estimations for 2008-2010 published in *Rapport sur des mesures d'accélération dans le domaine d'asile, 2011,* Département fédéral de justice et police (DFJP), Confédération Suisse.

matière" - NEM) around 50% of the 20000-25000 yearly treated demands, according to the Federal Office of Migrations Statistics (2009-2012). Typical examples of demands judged "non-credible" are from nationals who either originate from safe countries, or who do not collaborate with the authorities, who apply for asylum a second time after having already been rejected earlier or whose demand has to be treated by another state according to the Dublin Agreement [16]. When a demand is judged "non-credible" and, thus, rejected, the asylum seeker either voluntary leaves the country or is detained and expelled by force.

The other half of asylum seekers whose demands are judged credible receive the N permit [17] [18] (i.e. a temporary "green card" for being allowed to stay in Switzerland during the duration of the in-depth assessment of their asylum request). Given that assessing the threat of persecution in the home country is hard, the asylum process naturally takes substantial time. Between 2008-2010, the average duration of the process for credible asylum seekers (from the moment the demand was made in one of the RPC until the first decision), was 300-400 days, with complex cases taking several years.

Crucially, during this period holders of the N-permit are exogenously allocated to cantons and are not allowed to change canton. The allocation of new N-permit holders to the 26 Swiss cantons are determined precisely by a random allocation key based on the cantonal population. This exogenous and random allocation of N-permit holders is crucial for the identification strategy of our current paper, as it rules out self-selection of particular types of asylum seekers to particular cantonal environments. Once an asylum seeker has been allocated to a given canton, the canton in charge organizes the accommodation in cantonal centers or flats and takes care of the interviews and of financial matters.[19].

The accommodation procedure for asylum seekers takes place in two steps within the canton. (Efionayi-Mäder, 2011). In a first step, they are hosted in collective centers where their basic needs are taken care off. In a second step, they are offered either private apartments or collective accommodation in special centers. In half of the cantons, families with children are offered private accommodation. The diversity of accommodation possibilities across cantons is explained by the housing availabilities, size of the canton, responsible organizations etc. We acknowledge that while the exogenous allocation holds across cantons it doesn't hold inside cantons due to housing avail-

[16]The Dublin Association Agreement of 2008 between Switzerland and the EU ensures that a request for asylum submitted by an asylum-seeker is only examined by one state within the Schengen/Dublin Area (which includes most EU member states in continental Europe, plus Switzerland, Norway and Iceland). The Dublin criteria establish which country is responsible for dealing with a given asylum application, and aims to prevent asylum seekers from being referred from one country to another. If the asylum demand was rejected by this responsible state, then the asylum seeker cannot apply for asylum in another member state.

[17]It might still be possible that non-credible asylum seekers are allocated to cantons if the decision takes more than 90 days (the maximum duration of stay in the RPCs according to Efionayi-Maeder (2011)). However, these are rare cases, given that half of the demands are declared non-credible in 100-120 days.

[18]In the individual crimes database, asylum seekers are reported with N-permit and non-credible asylum seekers are reported with NE. We only consider those with N-permit thus the more credible ones.

[19]Cantons decide on the funds offered for social assistance and the Confederation supplies the funds needed. According to Efionayi-Mäder, 2011, the Confederation allocated, on average, 55,64 CHF per day per asylum seeker, which, from other sources, is equivalent to 20-50% lower than for Swiss citizens or recognized refugees (Hofmann et al, 2008).

abilities. In other words, collective accommodation centers are placed in remote neighborhoods.

Asylum seekers usually are not allowed to work for the first three months, but their is substantial heterogeneity between cantons. For example, about half of the cantons authorize paid work by asylum seekers only in some sectors (hotels, restaurants, agriculture, etc.). Moreover, in some cases, "workfare" programmes are implemented which allow asylum seekers to increase their allowance. There is also a great variety in the extent to which different cantons offer (or make compulsory) language and integration courses.

A.3 The Chances of Being Granted Refugee Status

At the end of the assessment period and during which the asylum seeker has permit-N status, 15% of the treated demands receive a positive answer which consists in being awarded permanent refugee status (B-permit). This allows refugees to stay in Switzerland in the long-run and have the same rights as a usual registered immigrant (like e.g. migrants from EU countries), including the freedom to change the residence canton, social assistance and full working rights. The acceptance rates vary with the influx of asylum seekers which depends on circumstances in the countries of origin [20].

In addition, around 20% of treated demands are awarded temporary protection (F-permit). Provisionally admitted foreign nationals are persons who have been ordered to return from Switzerland to their native countries but in whose cases the enforcement of this order has proved inadmissible (violation of international law), unreasonable (concrete endangerment of the foreign national) or impossible (for technical reasons of enforcement, such as missing bilateral treaties organizing the expulsion with the home country). F-permit holders cannot change canton and are allowed for family reunification only after 3 years. They benefit from the same social assistance as N-permit holders (for up to 7 years), even if some cantons offer them more generous social assistance. [21]

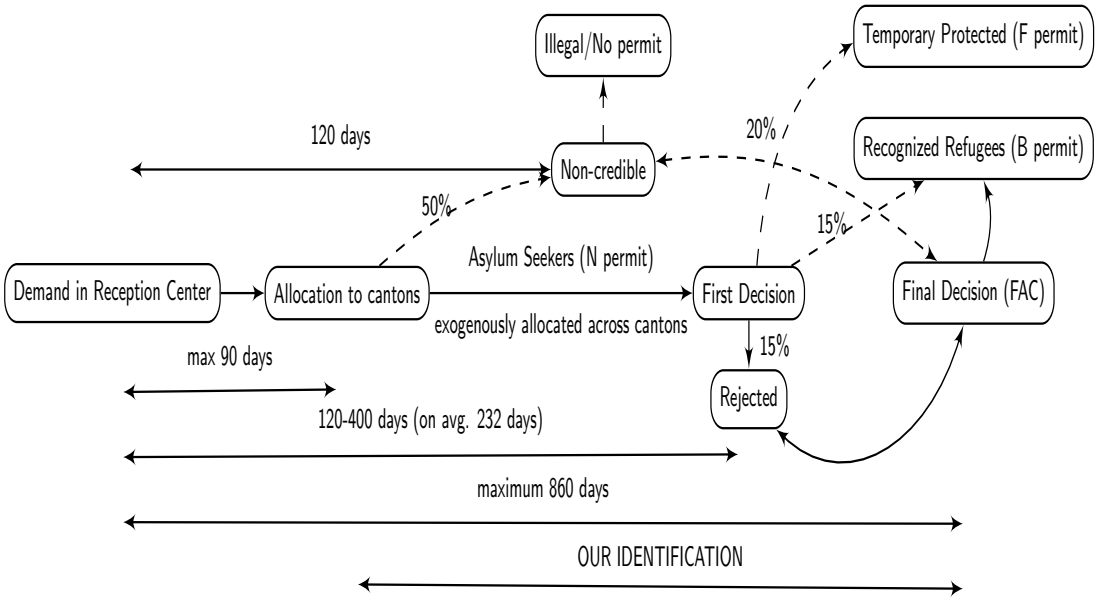
The remaining 15% of treated demands are rejected and can be appealed at the Federal Administrative Court which makes the final decision. In this case the process might take on average another 560 days during which the asylum seeker sees his N-permit prolonged. If the final decision is negative, some proportion leaves voluntarily, while there are also a small number of forced expulsions, and a part of rejected asylum seekers who go into hiding and become illegal immigrants. The timeline and outcomes of the asylum process is summarized in Figure 1 below.

There are various factors that affect the chances of an asylum seeker to obtain a B-permit. First of all, the acceptance rates vary widely depending on the country of origin. While residents from home countries with ongoing civil wars and large-scale political persecution have very high chances of their demand being successful, people from countries that are poor but without systematic

[20] During the Cold War, the acceptance rate for refugees in Switzerland was very high for those running from the communist regimes. Then, in the 1980s, the high influx of asylum seekers escaping autocratic regimes (DR of Congo - Mobutu Sese Seko regime, Chile - Pinochet regime, etc.) raised doubts about the credibility of the demands and made the acceptation rate to drop to 10%.

[21] Since 2008 the Confederation has decided that integration programmes for temporary protected persons are compulsory. Moreover, since 2006, F permit holders have the same working rights as the other Swiss residents. If they prove their integration into the Swiss society or for hardship reasons they can apply for a B permit.

Figure 1: Timeline and outcomes of the asylum process



Notes: The timeline follows the Swiss Asylum Law (LAsi) firstly adopted on 26 june 1998 and lastly modified on 1 July 2013. The estimations for the different asylum process duration measures are for 2008-2010 and follow the Report on accelerating measures in the asylum process, Federal Department for Justice and Police (2011). The refusal and acceptance rates are taken from the Swiss Federal Office of Migrations Statistics Reports for 2009-2012. Overall, the information is sustained by discussions with professionals in the asylum process.

human rights abuse have much smaller chances [22]. For example, residents from Eritrea have a 41.3% chance of being offerred the B-permit, whereas residents from Algeria have only a chance of 3.6%.

While the chances of obtaining a B-permit mostly depend on the current political situation in the home country, the chances for an F-permit also depend on whether Switzerland has been able to conclude a treaty of readmission with the home country of an asylum seeker. If such a treaty does not exist, it is nearly impossible for Swiss authorities to force an individual to leave the country.

Last, but not least, there are also incentives to behave in a low-abiding way, as criminal behavior can trigger rejection of the asylum request. In particular, a new constitution article introduced in 2010 (Art. 121, al. 3à 6) stipulates that asylum seekers who are convicted of serious crimes like for example murder, rape, robbery, drug dealing, fraudulent abuse of social aid and assistance see their asylum demands automatically rejected and are expelled.

Successful integration efforts can also be rewarded through another channel. In special cases (such as an asylum procedure lasting longer than 5 years or for several personal hardship reasons), cantonal authorities can grant a residence (B) permit to asylum seekers under the condition of good integration into the Swiss society[23]. The most important integration criteria refers to the respect of laws: no police record, and no acts of default of goods and prosecution. The second important criteria is the proof of financial independence (no need for social assistance). First, such a special hardship demand needs to be accepted by the canton and then it has to be approved at the federal level. While the cantonal decision cannot usually be repealed, the federal decision can be repealed.

B Appendix on Integration policies

In Section 5 of the paper, we use also several measures of integration policies and observables at the canton-level. We describe hereafter how we build those variables:

Pro-asylum electoral outcomes – The variable % PROAS$_c$ makes use of the fact that Switzerland is a direct democracy, and captures the share of cantonal votes during the period 1945-2006 in favor of more generous asylum policies during popular votes on migration-related topics.[24] Our source for the data are voting outcomes in Swiss cantons on each bill from Federal Statistics Office (FSO) - `http://www.bfs.admin.ch/bfs/portal/fr/index/themen/17/03.html`. The variable % PROAS$_c$ proxies the general attitude in a canton towards migrants and may impact on the ease to integrate in a particular canton. We use 2006 as end

[22] Moreover, as we have seen before the decision process for non-credible asylum seekers is much shorter than for non-credible demands in order to discourage a high influx of non-credible asylum seekers. Another reason for the long decision process of credible asylum seekers is the fact that authorities want to discourage potential recognized refugees to choose to come to Switzerland

[23] According to the Ordonnance for the Integration of Foreigners (2008), integration criteria are defined as follows: respect of federal values, public order and security, will for having an economic activity and acquire formation, knowledge of at least one Swiss language and Swiss living style. Duration of stay, family and health conditions, possibility of reintegration into the country of origin are also taken into account.

[24] Our results are robust to the use of alternative time span.

year to construct this variable in order to make sure that we capture the pre-existing attitudes before the arrival of the asylum seekers included in our dataset for the main regressions that spans from 2009 to 2012. Data on exact voting outcomes in the Swiss canton on each bill comes FSO.

Social assistance – The variable $\text{ASSISTANCE}_{c,t}$ comes from FSO Asylum Social Aid Statistics (eAsyl) and corresponds to the log of the total money attributed per asylum seeker per month in a given canton and year. *Source:* FSO-Asylum Social Aid Statistics (eAsyl).

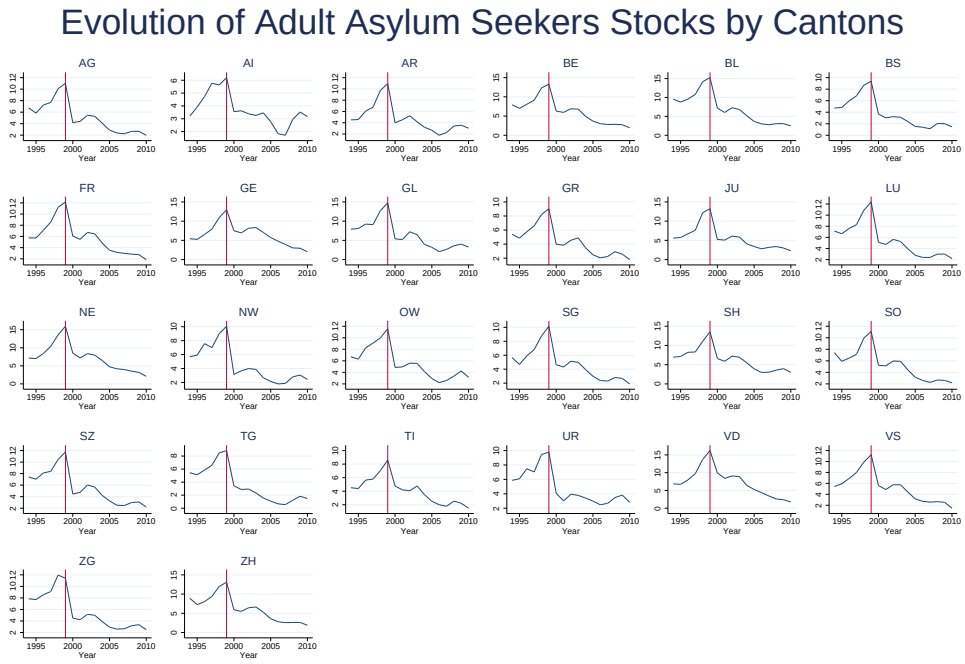
Integration contracts – We have contacted all cantons to ask them whether they use so-called "Integration Contracts", which are contracts concluded between the canton and asylum seekers, stipulating rights and duties, and penalties when the duties are not respected. Typically, duties include following language and integration courses and not committing any crime. When the integration contracts are violated, severe sanctions are pronounced ranging up to expulsion. The variable CONTRACTS_c is a dummy variable taking a value of 1 if the canton implements integration contracts for asylum seekers with integration problems, defined as "convention d'intgration" under the Federal Law for Foreigners from 2005 updated in 2013 (art.54) (`http://www.admin.ch/opc/fr/classified-compilation/20020232/201307010000/142.20.pdf`). *Source:* our own data compilation after receving individual answers from all cantons (except from Aargau, Glarus, Thurgau).

Acceptance Rate – The variable ACCEPTANCE_n stands for the percentage of recognized refugees (residence B permit) among asylum seekers demands, by nationality. *Source:* our own calculations based on the raw data on all migrants received from the Federal Office of Migrations (FOM).

Readmission Agreement – The binary variable READMISSION_n takes a value of 1 if there exists a bilateral readmission agreement between Switzerland and the country of origin n. *Source:* coded using the official list of readmission treaties from the FOM - `www.bfm.admin.ch/content/bfm/fr/home/themen/internationales/internationale_vertraege/ref_rueckuebernahme.html`.

Canton characteristics – We use some additional cantonal controls obtained from FSO. The canton-level Economic Performance is measured by GDP per capita per canton at current prices (in CHF) *Source:* Federal Statistics Office - `http://www.bfs.admin.ch/bfs/portal/en/index/themen/04/02/05/key/01.html`. Labor Market segregation towards migrants is defined as the difference between the employment rate of natives and the employment rate of second generation immigrants. *Source:* Swiss Survey on Active Population Database. Finally we measure social segregation toward migrants as the percentage of Swiss born Swiss people in the cantons who live in a mixed marriage (cross national marriage). *Source:* `http://www.bfs.admin.ch//bfs/portal/fr/index/themen/01/07/blank/ind43.indicator.43027.430105.html`

Figure 2: Evolution of Adult Asylum Seekers Stocks by Cantons



Notes:

B.1 Figures

B.2 Tables

Table 14: Bilateral crime regressions: Property crimes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dep. Var.	Property Crime Propensity						
					Only Women		
$WAR_{p,v}$	-0.000	-0.001*					
	(0.000)	(0.000)					
$\mathbb{I}_{p=v}$		0.006	0.006*	0.008***	0.012	0.003	0.012
		(0.005)	(0.003)	(0.002)	(0.007)	(0.002)	(0.007)
$WAR_{p,v} \times \mathbb{I}_{p=v}$		0.005					
		(0.006)					
CW: $\text{KID}[0-12]_{p,v}$			-0.000				
			(0.000)				
CW: $\text{KID}[0-12]_{p,v} \times (\mathbb{I}_{p=v})$			0.010**				
			(0.005)				
MK: $\text{KID}[0-12]_{p,v}$				-0.001**			
				(0.000)			
MK: $\text{KID}[0-12]_{p,v} \times (\mathbb{I}_{p=v})$				0.012*			
				(0.008)			
$WOMEN_{p,v}$					-0.000	0.000	0.000
					(0.000)	(0.000)	(0.000
$WOMEN_{p,v} \times (\mathbb{I}_{p=v})$					-0.009	0.006	-0.009
					(0.007)	(0.006)	(0.007)
Observations	4,173,653	4,173,653	4,173,653	4,173,653	1,525,191	1,525,191	1,525,191
R-squared	0.003	0.003	0.002	0.002	0.001	0.001	0.001

Note: The dependent variable is the $ln(\frac{CP}{1-CP})$ where CP is the percentage of criminal asylum seekers in the total number of asylum seekers by observation cell (canton × year × gender × age group × perpetrator's nationality × victim's nationality). All specifications include gender, age group, canton, year, country of victim × year and country of perpetrator × year fixed effects, as well as the population sizes of the victim and perpetrator countries. Robust standard errors are two-way clustered at country × year levels. *** p<0.01, ** p<0.05,* p<0.1

Table 15: Heterogenous Effects of Policies: Violent Crimes

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.	Violent Crime Propensity					
Exposed to	Mass Killing					
KID$[0-12]$	2.667**	10.337**	3.247***	2.553**	2.620**	10.030**
	(1.159)	(4.840)	(1.226)	(1.168)	(1.164)	(4.880)
$\times$% PROAS$_c$	-4.091**	-3.778**	-5.139***	-4.108**	-4.093**	-4.805**
	(1.776)	(1.723)	(1.927)	(1.775)	(1.784)	(1.895)
$\times$ASSISTANCE$_{c,t}$		-1.164*				-1.060
		(0.704)				(0.707)
$\times$CONTRACTS$_c$			-0.386**			-0.361**
			(0.159)			(0.158)
$\times$ACCEPTANCE$_n$				0.711		0.736
				(0.626)		(0.613)
$\times$READMISSION$_n$					0.163	0.157
					(0.144)	(0.151)
Observations	14,864	14,864	14,864	14,864	14,864	14,864
R-squared	0.002	0.002	0.002	0.002	0.002	0.002

Note: The dependent variable is the $ln(\frac{CP}{1-CP})$ where CP is the percentage of criminal asylum seekers in the total number of asylum seekers by observation cell (canton $\times$ year $\times$ nationality $\times$ gender $\times$ age group). The explanatory variable is a dummy equal to one if at least one individual in the observation cell has experienced war (civil war or mass killing episode) at the age of [0-12]. The group of reference is people born after the last year of war (civil war or mass killing episode). Sample is restricted to asylum seekers from a country that was in war (civil war or mass killing episode) at least one year since 1945. All specifications include gender, age group, canton $\times$ year and country $\times$ year fixed effects. Moreover, all specifications include dummies for whether at least one individual in the cell experienced war at the ages of [13-17], [18-25], [26-33] and [34 +]. We also control for the interaction of the main variable with lagged GDP per capita per canton, labor market segregation of immigrants and percentage of mixed marriages. Robust standard errors are two-way clustered at canton $\times$ year and country $\times$ year levels. *** p<0.01, ** p<0.05,* p<0.1

Table 16: Heterogenous Effects of Policies: Property Crimes

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.	Property Crime Propensity					
Exposed to	Civil War					
KID$[0-12]$	3.923***	8.878	4.409***	4.459***	3.585***	8.514
	(1.201)	(5.728)	(1.273)	(1.192)	(1.180)	(5.547)
$\times$% PROAS$_c$	-6.370***	-6.177***	-7.249***	-6.353***	-6.418***	-6.927***
	(1.959)	(2.000)	(2.091)	(1.957)	(1.929)	(2.122)
$\times$ASSISTANCE$_{c,t}$		-0.751				-0.617
		(0.870)				(0.839)
$\times$CONTRACTS$_c$			-0.318			-0.250
			(0.274)			(0.273)
$\times$ACCEPTANCE$_n$				-4.127***		-3.269***
				(1.019)		(0.875)
$\times$READMISSION$_n$					0.989***	0.835***
					(0.247)	(0.216)
Observations	19,807	19,807	19,807	19,807	19,807	19,807
R-squared	0.001	0.001	0.001	0.003	0.003	0.004

Note: The dependent variable is the $ln(\frac{CP}{1-CP})$ where CP is the percentage of criminal asylum seekers in the total number of asylum seekers by observation cell (canton $\times$ year $\times$ nationality $\times$ gender $\times$ age group). The explanatory variable is a dummy equal to one if at least one individual in the observation cell has experienced war (civil war or mass killing episode) at the age of [0-12]. The group of reference is people born after the last year of war (civil war or mass killing episode). Sample is restricted to asylum seekers from a country that was in war (civil war or mass killing episode) at least one year since 1945. All specifications include gender, age group, canton $\times$ year and country $\times$ year fixed effects. Moreover, all specifications include dummies for whether at least one individual in the cell experienced war at the ages of [13-17], [18-25], [26-33] and [34 +]. We also control for the interaction of the main variable with lagged GDP per capita per canton, labor market segregation of immigrants and percentage of mixed marriages. Robust standard errors are two-way clustered at canton $\times$ year and country $\times$ year levels. *** p<0.01, ** p<0.05,* p<0.1

Table 17: Heterogenous Effects of Policies: Property Crimes

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.	Property Crime Propensity					
Exposed to	Mass Killing					
KID$[0-12]$	2.767*	15.011***	3.883***	2.724*	2.742*	14.503**
	(1.473)	(5.617)	(1.380)	(1.465)	(1.486)	(5.654)
$\times$% PROAS$_c$	-3.816*	-3.316	-5.830***	-3.822*	-3.817*	-5.261***
	(2.210)	(2.132)	(2.052)	(2.213)	(2.211)	(1.946)
$\times$ASSISTANCE$_{c,t}$		-1.858**				-1.636**
		(0.778)				(0.760)
$\times$CONTRACTS$_c$			-0.743**			-0.692**
			(0.338)			(0.335)
$\times$ACCEPTANCE$_n$				0.265		0.370
				(0.630)		(0.681)
$\times$READMISSION$_n$					0.085	0.085
					(0.201)	(0.208)
Observations	14,864	14,864	14,864	14,864	14,864	14,864
R-squared	0.001	0.002	0.002	0.001	0.001	0.002

Note: The dependent variable is the $ln(\frac{CP}{1-CP})$ where CP is the percentage of criminal asylum seekers in the total number of asylum seekers by observation cell (canton $\times$ year $\times$ nationality $\times$ gender $\times$ age group). The explanatory variable is a dummy equal to one if at least one individual in the observation cell has experienced war (civil war or mass killing episode) at the age of [0-12]. The group of reference is people born after the last year of war (civil war or mass killing episode). Sample is restricted to asylum seekers from a country that was in war (civil war or mass killing episode) at least one year since 1945. All specifications include gender, age group, canton $\times$ year and country $\times$ year fixed effects. Moreover, all specifications include dummies for whether at least one individual in the cell experienced war at the ages of [13-17], [18-25], [26-33] and [34 +]. We also control for the interaction of the main variable with lagged GDP per capita per canton, labor market segregation of immigrants and percentage of mixed marriages. Robust standard errors are two-way clustered at canton $\times$ year and country $\times$ year levels. *** p<0.01, ** p<0.05,* p<0.1

Table 18: Heterogenous Effects of Policies: Women Violent Crimes

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.	Violent Crime Propensity					
Exposed to	Civil War					
$\text{Women}[0,+]_{p,v}$	0.915	11.516**	2.000*	0.657	0.901	10.564*
	(0.941)	(5.714)	(1.149)	(0.972)	(0.934)	(5.623)
$\times\%$ ProAS_c	-0.454	-0.155	-2.363	-0.627	-0.454	-2.127
	(1.560)	(1.427)	(1.848)	(1.577)	(1.550)	(1.659)
$\times\text{Assistance}_{c,t}$		-1.597*				-1.352*
		(0.815)				(0.773)
$\times\text{Contracts}_c$			-0.614**			-0.558*
			(0.293)			(0.292)
$\times\text{Acceptance}_n$				2.347***		2.629***
				(0.896)		(0.911)
$\times\text{Readmission}_n$					0.353**	0.550***
					(0.166)	(0.160)
Observations	7,646	7,646	7,646	7,646	7,646	7,646
R-squared	0.002	0.003	0.003	0.003	0.002	0.004

Note: The dependent variable is the $ln(\frac{CP}{1-CP})$ where CP is the percentage of criminal asylum seekers in the total number of asylum seekers by observation cell (canton $\times$ year $\times$ nationality $\times$ gender $\times$ age group). The explanatory variable is a dummy equal to one if at least one individual in the observation cell has experienced war (civil war or mass killing episode) at the age of [0-12]. The group of reference is people born after the last year of war (civil war or mass killing episode). Sample is restricted to asylum seekers from a country that was in war (civil war or mass killing episode) at least one year since 1945. All specifications include gender, age group, canton $\times$ year and country $\times$ year fixed effects. Moreover, all specifications include dummies for whether at least one individual in the cell experienced war at the ages of [13-17], [18-25], [26-33] and [34 +]. We also control for the interaction of the main variable with lagged GDP per capita per canton, labor market segregation of immigrants and percentage of mixed marriages. Robust standard errors are two-way clustered at canton $\times$ year and country $\times$ year levels. *** p<0.01, ** p<0.05,* p<0.1

Table 19: Heterogenous Effects of Policies: Women Violent Crimes

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.	Violent Crime Propensity					
Exposed to	Mass Killing					
$\text{Women}[0,+]_{p,v}$	1.218*	6.506*	1.886**	1.107	1.221*	6.069
	(0.696)	(3.948)	(0.775)	(0.687)	(0.698)	(3.892)
$\times\%$ ProAS_c	-1.829	-1.641	-3.023**	-1.835	-1.829	-2.810**
	(1.135)	(1.063)	(1.283)	(1.134)	(1.136)	(1.235)
$\times\text{Assistance}_{c,t}$		-0.801				-0.661
		(0.591)				(0.583)
$\times\text{Contracts}_c$			-0.399**			-0.377**
			(0.158)			(0.160)
$\times\text{Acceptance}_n$				0.705		0.982*
				(0.529)		(0.565)
$\times\text{Readmission}_n$					-0.050	-0.171*
					(0.102)	(0.099)
Observations	7,646	7,646	7,646	7,646	7,646	7,646
R-squared	0.001	0.001	0.001	0.001	0.001	0.002

Note: The dependent variable is the $ln(\frac{CP}{1-CP})$ where CP is the percentage of criminal asylum seekers in the total number of asylum seekers by observation cell (canton $\times$ year $\times$ nationality $\times$ gender $\times$ age group). The explanatory variable is a dummy equal to one if at least one individual in the observation cell has experienced war (civil war or mass killing episode) at the age of [0-12]. The group of reference is people born after the last year of war (civil war or mass killing episode). Sample is restricted to asylum seekers from a country that was in war (civil war or mass killing episode) at least one year since 1945. All specifications include gender, age group, canton $\times$ year and country $\times$ year fixed effects. Moreover, all specifications include dummies for whether at least one individual in the cell experienced war at the ages of [13-17], [18-25], [26-33] and [34 +]. We also control for the interaction of the main variable with lagged GDP per capita per canton, labor market segregation of immigrants and percentage of mixed marriages. Robust standard errors are two-way clustered at canton $\times$ year and country $\times$ year levels. *** p<0.01, ** p<0.05,* p<0.1

Table 20: Heterogenous Effects of Policies: Women Violent Crimes

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.	Violent Crime Propensity					
Exposed to	War Time Rape					
$\text{Women}[0,+]_{p,v}$	0.152	0.146	0.165*	0.142	0.152	0.148
	(0.096)	(0.098)	(0.096)	(0.096)	(0.096)	(0.098)
$\times\%\ \text{ProAS}_c$	0.690	0.163	0.525	-0.193	0.683	-1.371
	(0.600)	(1.281)	(0.587)	(0.616)	(0.602)	(1.473)
$\times\text{Assistance}_{c,t}$		0.052				0.080
		(0.133)				(0.141)
$\times\text{Contracts}_c$			-0.391*			-0.451*
			(0.214)			(0.231)
$\times\text{Acceptance}_n$				3.568*		4.156***
				(1.842)		(1.308)
$\times\text{Readmission}_n$					0.093	0.441***
					(0.200)	(0.077)
Observations	7,646	7,646	7,646	7,646	7,646	7,646
R-squared	0.001	0.001	0.002	0.001	0.001	0.002

Note: The dependent variable is the $ln(\frac{CP}{1-CP})$ where CP is the percentage of criminal asylum seekers in the total number of asylum seekers by observation cell (canton × year × nationality × gender × age group). The explanatory variable is a dummy equal to one if at least one individual in the observation cell has experienced war (civil war or mass killing episode) at the age of [0-12]. The group of reference is people born after the last year of war (civil war or mass killing episode). Sample is restricted to asylum seekers from a country that was in war (civil war or mass killing episode) at least one year since 1945. All specifications include gender, age group, canton × year and country × year fixed effects. Moreover, all specifications include dummies for whether at least one individual in the cell experienced war at the ages of [13-17], [18-25], [26-33] and [34 +]. We also control for the interaction of the main variable with lagged GDP per capita per canton, labor market segregation of immigrants and percentage of mixed marriages. Robust standard errors are two-way clustered at canton × year and country × year levels. *** p<0.01, ** p<0.05,* p<0.1

Table 21: Heterogenous Effects of Integration Policies: Women Property Crimes

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.	Property Crime Propensity					
Exposed to	Civil War					
$\text{Women}[0,+]_{p,v}$	-1.004	4.457	-1.600	-1.418	-1.094	3.744
	(2.417)	(6.559)	(2.734)	(2.396)	(2.397)	(6.163)
$\times\%$ ProAS_c	2.191	2.345	3.240	1.913	2.191	3.219
	(3.899)	(3.885)	(4.389)	(3.935)	(3.855)	(4.279)
$\times\text{Assistance}_{c,t}$		-0.823				-0.917
		(0.901)				(0.837)
$\times\text{Contracts}_c$			0.338			0.391
			(0.370)			(0.368)
$\times\text{Acceptance}_n$				3.765		4.860*
				(2.573)		(2.646)
$\times\text{Readmission}_n$					2.180***	2.681***
					(0.607)	(0.749)
Observations	7,646	7,646	7,646	7,646	7,646	7,646
R-squared	0.001	0.001	0.001	0.001	0.001	0.002

Note: The dependent variable is the $ln(\frac{CP}{1-CP})$ where CP is the percentage of criminal asylum seekers in the total number of asylum seekers by observation cell (canton $\times$ year $\times$ nationality $\times$ gender $\times$ age group). The explanatory variable is a dummy equal to one if at least one individual in the observation cell has experienced war (civil war or mass killing episode) at the age of [0-12]. The group of reference is people born after the last year of war (civil war or mass killing episode). Sample is restricted to asylum seekers from a country that was in war (civil war or mass killing episode) at least one year since 1945. All specifications include gender, age group, canton $\times$ year and country $\times$ year fixed effects. Moreover, all specifications include dummies for whether at least one individual in the cell experienced war at the ages of [13-17], [18-25], [26-33] and [34 +]. We also control for the interaction of the main variable with lagged GDP per capita per canton, labor market segregation of immigrants and percentage of mixed marriages. Robust standard errors are two-way clustered at canton $\times$ year and country $\times$ year levels. *** p<0.01, ** p<0.05,* p<0.1

Table 22: Heterogenous Effects of Policies: Women Property Crimes

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.	Property Crime Propensity					
Exposed to	Mass Killing					
$\text{Women}[0,+]_{p,v}$	3.109*	11.445***	2.858	3.047*	3.068*	11.717***
	(1.649)	(4.188)	(1.770)	(1.655)	(1.653)	(4.139)
$\times$% ProAS_c	-5.048*	-4.751*	-4.599	-5.051*	-5.050*	-4.154
	(2.695)	(2.657)	(2.921)	(2.696)	(2.693)	(2.904)
$\times\text{Assistance}_{c,t}$		-1.262*				-1.345*
		(0.688)				(0.694)
$\times\text{Contracts}_c$			0.150			0.192
			(0.149)			(0.158)
$\times\text{Acceptance}_n$				0.388		-0.588
				(0.673)		(1.413)
$\times\text{Readmission}_n$					0.755	0.837
					(0.630)	(0.783)
Observations	7,646	7,646	7,646	7,646	7,646	7,646
R-squared	0.002	0.002	0.002	0.002	0.002	0.002

Note: The dependent variable is the $ln(\frac{CP}{1-CP})$ where CP is the percentage of criminal asylum seekers in the total number of asylum seekers by observation cell (canton $\times$ year $\times$ nationality $\times$ gender $\times$ age group). The explanatory variable is a dummy equal to one if at least one individual in the observation cell has experienced war (civil war or mass killing episode) at the age of [0-12]. The group of reference is people born after the last year of war (civil war or mass killing episode). Sample is restricted to asylum seekers from a country that was in war (civil war or mass killing episode) at least one year since 1945. All specifications include gender, age group, canton $\times$ year and country $\times$ year fixed effects. Moreover, all specifications include dummies for whether at least one individual in the cell experienced war at the ages of [13-17], [18-25], [26-33] and [34 +]. We also control for the interaction of the main variable with lagged GDP per capita per canton, labor market segregation of immigrants and percentage of mixed marriages. Robust standard errors are two-way clustered at canton $\times$ year and country $\times$ year levels. *** p<0.01, ** p<0.05,* p<0.1

Table 23: Heterogenous Effects of Policies: Women Property Crimes

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.	Property Crime Propensity					
Exposed to	Wartime Rape					
$\text{Women}[0,+]_{p,v}$	0.123	0.127	0.117	0.122	0.126	0.131
	(0.244)	(0.249)	(0.244)	(0.244)	(0.244)	(0.248)
$\times$% ProAS_c	0.655	1.017	0.725	0.530	0.523	1.551
	(0.646)	(2.646)	(0.653)	(1.214)	(0.639)	(2.941)
$\times\text{Assistance}_{c,t}$		-0.036				-0.189
		(0.236)				(0.243)
$\times\text{Contracts}_c$			0.168			0.226
			(0.231)			(0.264)
$\times\text{Acceptance}_n$				0.506		3.827*
				(3.549)		(2.066)
$\times\text{Readmission}_n$					1.700***	2.064***
					(0.397)	(0.334)
Observations	7,646	7,646	7,646	7,646	7,646	7,646
R-squared	0.000	0.000	0.000	0.000	0.001	0.001

Note: The dependent variable is the $ln(\frac{CP}{1-CP})$ where CP is the percentage of criminal asylum seekers in the total number of asylum seekers by observation cell (canton $\times$ year $\times$ nationality $\times$ gender $\times$ age group). The explanatory variable is a dummy equal to one if at least one individual in the observation cell has experienced war (civil war or mass killing episode) at the age of [0-12]. The group of reference is people born after the last year of war (civil war or mass killing episode). Sample is restricted to asylum seekers from a country that was in war (civil war or mass killing episode) at least one year since 1945. All specifications include gender, age group, canton $\times$ year and country $\times$ year fixed effects. Moreover, all specifications include dummies for whether at least one individual in the cell experienced war at the ages of [13-17], [18-25], [26-33] and [34 +]. We also control for the interaction of the main variable with lagged GDP per capita per canton, labor market segregation of immigrants and percentage of mixed marriages. Robust standard errors are two-way clustered at canton $\times$ year and country $\times$ year levels. *** p<0.01, ** p<0.05,* p<0.1