

Migration, Language, and Employment

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Abstract: Proficiency in the host-country language is widely considered to be an important step towards successful integration of immigrants. Yet, causal evidence of the effect of language proficiency on labor market outcomes is still scarce. Our empirical design identifies the economic benefits of language proficiency for refugees by exploiting their quasi-random placement in Swiss cantons and the existence of a language border dividing German- and French-speaking areas. Using administrative data on African refugees who applied for asylum in Switzerland between 2008 and 2017, we compare French-speaking refugees assigned to French-speaking cantons to French-speaking refugees assigned to German-speaking cantons, and adjust for common regional differences using English-speaking African refugees. Our difference-in-differences estimates show that language proficiency increases immigrants' employment probability by 10.6 percentage points in the first five years after their arrival.

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1 Introduction

Does language proficiency increase employment prospects of migrants? A sizable body of research has documented a positive correlation between language skills and labor market outcomes.¹ Yet, these studies acknowledge that evidence on the causal effect of language proficiency on labor market outcomes is still scarce (Lubotsky 2007; Algan et al. 2010; Dustmann and Görlach 2016).

The main empirical challenge in estimating the effect of language proficiency is that many observed and unobserved characteristics of migrants are likely to determine both language proficiency and labor market success (Chiswick and Miller 2015). Typically, migrants choose their destination country and can control whether they are proficient in the language of their new host country. Several studies have provided evidence that common language has a positive effect on migrants' decision about where to migrate (Clark, Hatton, and Williamson 2007; Pedersen, Pytlikova, and Smith 2008; Grogger and Hanson 2011; Adserà and Pytliková 2015). In addition, migrants with higher levels of education tend to have lower costs of becoming fluent in the local language (Dustmann 1994; Chiswick and Miller 1995; Isphording and Otten 2014). Due to this self-selection, a naive regression of labor market outcomes on language proficiency is unlikely to yield a causal effect.

In this paper, we exploit two intersecting natural experiments to explore the consequences of language proficiency in Switzerland using data on African refugees: (i) a language border dividing German- and French-speaking regions and (ii) the quasi-random placement of refugees across regions. Switzerland is a unique case study to examine the effects of language proficiency. While African refugees who come to Switzerland typically have some discretion to choose their destination country, they usually have no control over their assignment to a particular canton—and thus whether they can speak their mother tongue. The centralized and exogenous assignment of refugees to cantons allows us to isolate the language effect from unobserved factors that typically drive immigrants' location choice and labor market outcomes. The within-country language variation in Switzerland holds constant institutional, macroeconomic, and political factors that are collinear to the treatment in cross-country comparisons. Additionally, adjusting for differences in the labor market outcomes of similar English-speaking African refugees who hold no language advantage in French- or German-speaking cantons allows us to eliminate all unobserved differences between these areas, such as unemployment rates or

1. See Tainer (1988), Chiswick (1991), Chiswick and Miller (1995), 2002, 2003, Dustmann (1994), Leslie and Lindley (2001), Dustmann and Van Soest (2001), 2002, Shields and Wheatley Price (2002), Berman, Lang, and Siniver (2003), Dustmann and Fabbri (2003), Bleakley and Chin (2004), and Isphording and Otten (2014).

attitudes towards immigrant minorities, which affect French- and English-speaking African refugees in the same way. Using this difference-in-differences design, we analyze detailed government registry data covering the population of asylum seekers and refugees for the period 2008–2017 to estimate the effect of language proficiency on a range of economic integration indicators, including the likelihood and the type of employment as well as the length of their first employment.

We find that language proficiency has a substantial effect on employment. French-speaking refugees from Africa who are assigned to reside in the French-speaking part of Switzerland have a 10.6 percentage points higher probability of finding a job in the first five years after arrival than refugees who are assigned to the German-speaking part, after adjusting for a variety of observable and unobservable differences between French- and German-speaking cantons. This corresponds to a relative increase in the employment probability of 171% compared to their counterfactual with no language proficiency. The effect is persistent over the longer term and still about 110% five years after arrival. We conduct several robustness tests in order to allay concerns that the employment differences we observe result from factors other than language. First, sample attrition is very small and cannot explain the differences in employment outcomes. Second, our findings cannot be explained by regional differences in migration networks. Indeed, we find that regional co-ethnic networks increase employment, but this does not alter our estimate of language proficiency. Third, we show the robustness of our estimates to possible negative spillover effects due to increased employment opportunities of French-speaking refugees on the employment prospects of English-speaking refugees. Fourth, we document that excluding more cosmopolitan cantons where English-speaking refugees may have an advantage does not affect our estimates for proficiency in French. Fifth, we explore the robustness of our results using a sample of former Belgian colonies to alleviate concerns that the employment differences are a consequence of cultural similarity, other than language, between the French-speaking part of Switzerland and former French colonies in Africa. Sixth, we show that controlling for covariates at arrival does not alter our findings. Finally, we also test whether possible differences in education can explain our language result, but find no evidence to support this alternative explanation.

We also explore whether the benefits of local language proficiency are heterogeneous in the population of refugees and find larger effects for older refugees and men, compared to younger individuals and women. The heterogeneous impact of language for different age groups is consistent with the notion that younger individuals learn a foreign language more easily. We then test whether the positive effects of language proficiency also extend to asylum seekers, a group with a higher

uncertainty regarding future residence in the country. Our results suggest that asylum seekers who speak the primary language of the assigned canton are also more likely to find employment, yet the size of the effect is lower than for refugees with a more long-term residence permit. Finally, we explore the impact of language proficiency on two complementary labor market outcomes, namely on the length of the first employment and on an indicator whether the job requires high language skills. We find that individuals who are proficient in the canton's language have a substantially longer first employment spell which is consistent with the idea that language proficiency increases the quality of the match between employer and employee. In addition, our estimates suggest that refugees with local language proficiency are more likely to be employed in professions with higher language requirements.

Our findings have implications for the literature on the effects of language on labor market outcomes. We document that language proficiency is an important form of human capital that causally affects employment prospects of migrants. Previous studies have documented the benefits of learning the local language for migrants' labor market outcomes across a large number of countries.² On the one hand, these studies have pointed out that the effect of language might suffer from an upward bias because unobserved characteristics are likely to affect both labor market success and language skills (Chiswick and Miller 1995; Isphording and Otten 2014). On the other hand, measurement error in the language proficiency variable may lead to a downward bias in a standard OLS regression, which may even overcompensate the upward bias through selection (Dustmann and Van Soest 2001; Bleakley and Chin 2004). Our paper can address both biases, the upward bias by using the quasi-random placement of refugees and the downward bias by employing a credible measure of language proficiency. How do our estimates compare to the previous estimates in the literature? Dustmann and Fabbri (2003) study immigrants in the U.K. belonging to ethnic minority groups and combine an instrumental variable estimator that addresses measurement error bias with a matching estimator that should correct for endogenous language acquisition. They find that fluency in English increases employment probabilities by about 22 percent points. Using data on Germany, Aldashev, Gernandt, and Thomsen (2009) document a language proficiency effect of at least 32 percent points for individuals in low-skill occupations. The estimate of our preferred specification is 10.6 percentage points and

2. The positive effect of language on labor market outcomes has been demonstrated in the United States (Carliner 1981; Tainer 1988; Chiswick 1991; Chiswick and Miller 1995; 2003), Canada (Chiswick and Miller 1995), the United Kingdom (Dustmann and Fabbri 2003; Miranda and Zhu 2013; Shields and Wheatley Price 2002), Israel (Berman, Lang, and Siniver 2003; Chiswick and Miller 1995; Chiswick and Repetto 2000), and Germany (Dustmann and Van Soest 2001; Isphording and Otten 2014). Chapter 5.3 in Chiswick and Miller (2015) summarizes the findings on the effects of dominant language proficiency on migrants' earnings.

thus 52%-67% lower compared to these estimates of language proficiency.

Our paper is also related to the growing literature on the importance of geographic allocation for refugees' subsequent integration (Dancygier and Laitin 2014; Dustmann et al. 2017; Bansak et al. 2018; Slotwinski, Stutzer, and Uhlig 2019; Brell, Dustmann, and Preston 2020). Previous studies have found that access to spatially clustered co-ethnic networks increases the wages and employment of refugees by providing information on job opportunities in Sweden (Edin, Fredriksson, and Åslund 2003), Denmark (Damm 2009), and the U.S. (Beaman 2012). A related strand of the literature has explored how the economic and social conditions in the resettlement location at the time of arrival shape refugees' short- and long-term employment, education, and crime outcomes (Åslund and Rooth 2007; Åslund et al. 2011; Damm and Dustmann 2014).

Closest to our study is Auer (2018), who leverages the Swiss asylum allocation system to provide correlational evidence that language proficiency increases labor market participation (but neglects the selection of refugees into favorable language regions).³ Another study that leverages the quasi-random placement of asylum seekers to Swiss cantons is Couttenier et al. (2019), which explores the effect of conflict exposure during childhood on violent crime as adults.

In addition to contributing to our theoretical understanding of the link between language skills and immigrant assimilation, our results are also relevant for policy. The 2015-2017 increase in migration and refugee flows has made the integration of immigrants an important policy challenge in many Western countries. Governments, policy makers, and international organizations have long argued that labor market participation is essential for successful integration, and that the barriers to labor markets must be removed in order to unleash immigrants' full economic potential (OECD 2013). A major skill component that is highly correlated with migrants' economic success is proficiency in the host country language, which facilitates understanding of job tasks and communication with supervisors and peers. Our estimates document the beneficial effects of proficiency in the host country language and provide, at the very least, an upper bound on the potential gains from language courses for immigrants. In particular, large positive returns on language skills could support the case for subsidized and/or mandatory language courses for new arrivals as part of an implicit or explicit integration contract with their host community.

3. Furthermore, the study by Auer (2018) uses data from the unemployment registry which does not cover all asylum seekers and refugees but only a 10% highly selective sample of those who register for unemployment benefits. See Section 2.2 for more details.

2 Institutional Background

2.1 Refugee Placement

Switzerland grants asylum in accordance with the 1951 Geneva Convention Relating to the Status of Refugees. Threatened or persecuted persons can submit an asylum application to the State Secretariat for Migration (SEM).⁴ Figure 1 illustrates the key features of the Swiss asylum process during our study period (the process was restructured in 2019). After entering Switzerland, asylum seekers report their asylum claim to the police or to an immigration office. The asylum seekers are then assigned to one of the five national “reception and processing” centers where they are accommodated during the first weeks of the asylum process. The assignment to a reception center is primarily based on capacity constraints of reception centers but also considers the geographic distance between the location where asylum seekers reported their asylum claim and the reception centers. After arriving at a reception center, individuals are assigned to a canton within 90 days and transferred to a particular municipality in the canton.⁵ The within-canton assignment to municipalities is in the competence of the cantons and thus differs across cantons. The SEM examines each applicant’s asylum request in order to verify and assess the reasons they are seeking refuge. During this procedure, applicants are entitled to reside in Switzerland and hold a temporary residence permit (N-permit).

If the SEM approves a refugee’s asylum claim, she will receive a residence permit (permit B) and be allowed to freely choose where to live within Switzerland.⁶ If the applicant’s claim for asylum is rejected but removal is deemed inadmissible (because it violates international law), unreasonable (if it endangers the individual), or impossible (due to technical reasons such as lack of flights to origin country), she will obtain subsidiary protection and a temporary residence permit that is subject to annual renewal (F-permit). About one third of the total refugee population in Switzerland holds and F-permit during our sample period and their share is particularly large for refugees from countries in Africa.⁷ Refugees with an F-permit are the focus of our study because they are required to reside and work in the canton to which they were initially assigned. This requirement is an important

4. The forms of persecution, specified in the Swiss Asylum Act #3/1, include persecution based on race, religion, citizenship, membership to a certain group, and political opinion.

5. The central allocation mechanism is specified in the Swiss Asylum Act #27/1–3.

6. Ten years after the granting of protection, cantons can provide refugees with a settlement permit C that is not subject to any time restrictions or conditions (Swiss Asylum Act #74/3).

7. For example, male Eritrean refugees of military conscription age typically receive an F-permit, but rarely a B-permit.

institutional feature of our identification strategy because previous research has documented that language proficiency not only affects the choice of the destination country but also the residence choice within a country (Jaeger 2000; Bauer, Epstein, and Gang 2005). Federal employment restrictions allow refugees in our study sample to find work three months after their arrival (Asylum Act, #43/1-1bis).⁸ Appendix Table A.1 provides a complete list of all refugee statuses and their implications for labor market access and freedom of movement as well as details on cantonal employment regulations.

A dedicated unit of the SEM assigns asylum seekers and refugees to cantons. During our study period, these decisions were made manually, solely based on the information available in the Central Migration Information (ZEMIS) system (described in more detail below). There is no personal interaction between the assignment officers and the asylum seeker. By law (Asylum Decree 1, #22/1), asylum seekers and refugees are allocated to cantons in proportion to their population size.⁹ Since July 1998, there is also a requirement to achieve a balanced distribution of asylum seekers' nationalities. Except for cases of family reunification, severe health issues that require treatment in a university hospital, and unaccompanied minors, asylum seekers are, in principle, exogenously allocated to cantons. We explore the validity of the quasi-random placement in Section 2.4.

The SEM's placement decisions are binding and rarely overturned, except in very specific circumstances. Appeals against assignment decisions must be filed in the Swiss Federal Administrative Court. Successful appeals mostly fall into one of two categories: (i) cases of family reunion with a refugee's spouse or registered partner and/or with minor children and (ii) in situations in which both cantons affected by the relocation agree to the move (since 2012).¹⁰ Because asylum seekers have a relatively high risk of becoming dependent on welfare, this second category of cantonal relocation almost never occurs. We surveyed the most important appeal decisions against cantonal assignment. The findings suggest that the Federal Court has been very restrictive in interpreting the rules, and permits relocations only for reasons of family reunification. Notable examples of declined appeals include a woman with a serious mental illness who has a brother living in a different canton, and a physically ill woman who lost her adult son.¹¹ Furthermore, asylum seekers remain in their initially

8. Before 2007, cantons could issue additional employment regulations. This means that cantons could in principle restrict employment permits during economic downturns.

9. Appendix Figure A.1 depicts the cantonal allocation quotas that have been in place since 1999.

10. See Asylum Act, #27/3.

11. See Federal Court Decisions D-3470/2009 and E-6330/2010 in Appendix Figure A.2. The full set of surveyed decisions is available upon request.

allocated canton if they file a new application or re-enter Switzerland after their first application is rejected.¹² In sum, the placement policy leads to a geographical distribution of asylum seekers that reflects the cantonal population size and is fairly stable over the study period, as indicated by Appendix Figure A.1.

2.2 Data and Descriptive Statistics

For our analyses, we leverage the ZEMIS database that the SEM uses to track all asylum seekers and refugees for at least five years after they arrive. The primary purpose of the database is for administrative procedures related to the issuing of residence permits and visas, but also for processing asylum claims including work permits and cantonal placement decisions.

While the ZEMIS database is available from 1994 onwards and the quasi-random allocation procedure has been in place since 1998, we focus our main analyses on refugees that arrived between 2008 and 2017 and obtained subsidiary protection (F permit). This sample has the advantage that we observe refugees' reception center and whether they issued a cantonal placement preference. Our estimation sample includes 15,586 observations on 5,043 working-age refugees who originate from a French-speaking or English-speaking country in Africa and reside in an exclusively French- or German-speaking canton in Switzerland.

For each individual, we gather data on the canton to which they were initially assigned and the canton in which they currently live, as well as various socioeconomic characteristics such as age, family size, gender, marital status, religion, ethnicity, and country of origin. The ZEMIS records the exact day when the asylum seeker entered Switzerland and any change of their status. For our study period, asylum seekers are permitted to work three months after arrival. The employer must contact the corresponding cantonal authority to apply for a work permit for the asylum seeker. This is largely a formality but allows us to measure the exact start of an employment spell in the ZEMIS data. In addition to this employment information, we observe a detailed classification of the job type.¹³ In

12. Note that these rules mainly apply when asylum seekers were sent to a country that has adopted the Dublin Regulation and re-entered Switzerland to file a new application as well as to those asylum seekers who appeal a negative SEM decision. The Dublin Regulation is a regulation of the European Union (EU) and was adopted by Switzerland in 2008. It tries to ensure that only one Dublin member state examines an asylum seeker's asylum application which is usually the state where the asylum seeker first entered the EU or Switzerland.

13. Another potential data source is the unemployment registry. The problem with this data is that only about 10% of asylum seekers register as unemployed, and that the decision to do so is likely endogenous to language proficiency. In contrast, the ZEMIS data covers all employment spells of the entire population of asylum seekers and refugees.

addition, the ZEMIS database also includes information on the reception center to which the refugee was assigned to as well as a free text field that may contain information about potential placement restrictions (e.g., health issues) for the period 2008–2017. This allows us to control for the reception center and to exclude refugees for whom the text field contained placement-relevant information.

Table 1 reports descriptive statistics on our full estimation sample of refugees who hold an F-permit. Panel (A) shows that the average individual in our sample is about 27 years old and has lived in Switzerland for an average of 979 days (2.7 years). About 66% of the refugees are male and 10% are married. Panel (B) reports employment characteristics: relatively few refugees (13%) are employed, but the employment probability increases from 3% in the second year after arrival up to 29% in the fifth year. Panel (C) reports the origin countries; the Democratic Republic of Congo, Ethiopia Eritrea, and Somalia feature most prominently. The employment types for employed refugees are reported in Table 2. The two most frequent employment types are the pub, restaurant, and hotel business as well as the cleaning sector followed by manufacturing and construction.

Figure 2 depicts the number of refugees originating from African (light gray bar) and non-African countries (black bar) during the period 2008–2017. The number of people in the asylum process increased steadily from 36,786 in 2010 to 68,309 in 2016. This trend was mainly caused by asylum seekers who fled the armed conflicts in Afghanistan, Iraq, and Syria. The acceptance rate varies considerably over the years. It was 23.0% in 2008 and fell to 17.7% in 2010. In 2014, the rate increased to 25.6% and remained between 22.7% and 25.8% for the years 2014–2017. For the two largest groups in our sample, Eritreans and Somali, the acceptance rate is considerably larger with an average of 75% for Eritreans and 60% for Somali.¹⁴

2.3 Language Coding

Because we do not directly observe refugees' language over the entire study period¹⁵, we code our binary language indicator $French_i = 1$ if a refugee is a citizen of a country that was either: (i) part of a

14. There is a difference with respect to the refugee status individuals of these nationalities obtain. While 58% of accepted Somali get status B and 42% get status F, only 25% of Somali get status B and 75% get status F. Detailed data on the acceptance rate by nation is available for the years 2015–2017.

15. Starting in 2009, the ZEMIS data reports each refugee's main language. Since this variable is only observed for part of our study period, contains several missing entries, and only reports the main language, but not all languages in which the refugee is proficient, we use country of origin to approximate French- and English-language proficiency. Below, we document the very high correlation between the two measures.

French-speaking colonial empire (i.e., France or Belgium) or (ii) listed French as an official language during the study period. Both of these criteria include the same countries, with the exception of the four Maghreb countries—Algeria, Morocco, Tunisia, and Western Sahara—where French is not an official language but is frequently used in business and administration. Figure 3 depicts French-speaking countries in dark gray and English-speaking countries in light gray. In our econometric approach, we control for canton-specific effects by leveraging a control group of English-speaking African refugees that is similar to our treatment group of French-speaking Africans. We exclude all countries that list both English and French as official languages (Cameroon, Mauritius, Rwanda, and Seychelles) as well as those that are not classified as either French or English speaking (Angola, Libya, and Mozambique).

To explore the accuracy of our language coding, we compare our measure with two alternative language classifications. First, for a subset of observations, we have information on the language used during the official asylum assessment. Among those refugees who spoke either German or French, our language classification is accurate for all available observations. Second, we examine language use information from the 2000 population census.¹⁶ For our target sample, we calculate the share of individuals who report speaking French at home. Table 3 indicates that 78.7% of those we classified as French speakers actually speak French at home, while 71.0% of those classified as English speaking do not speak French at home. Note that this question ignores the fact that some refugees might speak French in the workplace but another language at home. In this case, our estimates of the benefits of language proficiency arguably provide a lower bound (intention-to-treat effect) because we classify some individuals who speak French as English speaking.

As discussed above, refugees in our sample are not allowed to live or work in a canton other than the one the SEM assigned them to. Figure 4 maps the geographic distribution of the official languages in Switzerland. There are four exclusively French-speaking, 17 exclusively German-speaking, three bilingual French–German, and one Italian-speaking canton. We classify an individual i who lives in an exclusively French-speaking canton as $Romandie_i = 1$, and $Romandie_i = 0$ otherwise. We use the term “Romandie” to describe the French-speaking part of Switzerland in order to avoid confusion between the local language of the labor market and the language of refugees, for which we use the term “French-speaking”. Under additional assumptions discussed below, the interaction term between Romandie and French speaking allows us to identify the effect of language proficiency. There are three bilingual cantons—Bern, Fribourg, and Valais—in which both French and German are official

16. For data protection reasons, we are not allowed to link the individual ZEMIS data to the population census.

languages. Since refugees can influence their location within the canton and therefore may self-select into a favorable language region within a canton, we exclude refugees assigned to bilingual cantons from our estimation sample.

Data on the language used in the workplace across Swiss cantons lends support to our language classification (see Appendix Figure A.3). On average, more than 97% of individuals regularly use German in the workplace in German-speaking cantons, with the exception of Graubunden, where the percentage is 90%.¹⁷ Similarly, 97% of workers in French-speaking cantons regularly speak French at work. Language use is more diverse in the bilingual cantons that we exclude from our estimation sample: 94% speak German in Bern, and only 35% regularly speak French; in Fribourg and Valais, 87% and 79% speak French, respectively, and only 40% and 38% regularly use German. The use of French in German-speaking cantons varies considerably. While 31% of workers in Basel-City, which is close to both France and Germany, speak French at work, only 6% do so in Uri, which is in the heart of German-speaking Switzerland.

2.4 Conditionally Exogenous Assignment of Refugees to Cantons

Our empirical identification uses the quasi-random placement of asylum seekers to cantons (see also Couttenier et al. (2019)). We explore the exogeneity of the cantonal assignment for our sample of African refugees with subsidiary protection (F-permit), who are required to reside in their assigned canton. Our data reveals that 52.7% of French-speaking refugees live in the Romandie, while only 30.5% of English-speaking refugees do so. This imbalance raises important concerns about the exogeneity of the cantonal assignment. For example, if some French-speaking refugees can influence the SEM to assign them to the Romandie, we might expect these particularly resourceful refugees to have better labor market prospects independent of being able to use their language skills.

Below, we explore the reasons for this imbalance and explicitly test whether refugees in the Romandie are systematically different from those in German-speaking cantons. Table 4 shows the results of six regressions. In columns (1) to (3), we explore the impact of a refugee's language on the likelihood of being in a reception center in the Romandie. We regress an indicator variable for

17. We classify Graubunden as German speaking even though German, Italian, and Rumantsch are all official cantonal languages. However, German is by far the dominant language and almost the entire Graubunden population speaks German as at least a second language, according to the 2000 census. Our estimates of the language proficiency effect are not sensitive to removing this canton.

being in a reception center in the Romandie on an indicator variable that captures whether the refugee is French-speaking. Column (1) reports the raw differences and documents that English-speaking refugees have a 26.7% likelihood of being in a reception center in the Romandie, while French-speaking refugees have a corresponding likelihood of 74.0%. This 47.3 percentage points higher likelihood for French-speakers slightly decreases to 43.6 percentage points in column (2), where we control for the number of days since arrival, length of stay, and sociodemographic covariates. It decreases to 42.6 percentage points when we additionally control for year of arrival fixed effects. These estimates imply that French-speaking refugees are more likely to self-select into a reception center in the Romandie before they were assigned to a language region by the SEM. How does this imbalance in the reception center translate into the assignment to language regions? Column (4) of Table 4 regresses an indicator variable whether a refugees was assigned to the Romandie on the French-speaking indicator, a dummy for being in a reception center in the Romandie, and an interaction between these variables. In column (5), we introduce controls for length of stay and sociodemographic covariates, and in column (6) we introduce year of arrival fixed effects. All columns document that it is primarily the reception center that determines the assignment to language regions. A refugee who is in a reception center in the Romandie has an around 60 percentage points higher likelihood to be assigned to the Romandie. In contrast, the dummy for French-speaking refugees and its interaction with the reception center variable are very close to zero and not statistically significant.

These figures provide evidence that the placement officers often take the location of the reception center into account, particularly when the asylum process is still ongoing at the time of transfer to the canton. Our interviews with the SEM revealed that before the transfer, the language region of the reception center determines the language of the asylum process, in which all official documents are written. In order to facilitate the administrative asylum process after the transfer, the SEM often places these ongoing cases in a canton in the same language region. This suggests that French-speaking refugees might knowingly self-select into reception centers in the Romandie to increase placement chances in the same language region. Even if they are not aware of this policy, they might be more likely to cross into Switzerland in the Romandie and therefore have a higher chance of being assigned to a reception center in the Romandie, and later to a canton in the same language region. Conditional on the reception center, however, the assignment of refugees to a language region does not depend on the language of the refugee. These findings suggest that assignment to the Romandie is exogenous to the refugee's language if we condition on the reception center.

We can further substantiate the selection on observables assumption because starting in 2008, we have access to all the information that the allocation officer saw when placing asylum seekers and refugees.¹⁸ Since the placement officers do not have direct contact with the asylum seeker, we can observe, and statistically adjust for, all the information about the asylum seeker that was used for assignment decisions. Thus, we believe this is a rare case in which the selection on observable assumption holds by design. We corroborate this assumption in a series of balance tests reported below.

Table 5 reports the balance tests for the following covariates: age, gender (male), married, family size, and an indicator for Christian religion. In Panel (A), the independent variable is a binary indicator that captures whether a person is located in a reception center in the Romandie. In Panel (B), the dependent variable is a binary indicator that captures whether a person is assigned to live in the Romandie, our main placement measure. Panel (A) reports the raw differences as well as the effect when controlling for origin fixed effects. The results indicate that covariates are well balanced except for age and being married. Individuals who reside in a reception center in the Romandie are about one year older and about 2.6 percentage points more likely to be married than those who live in a center in the German-speaking part. All other differences are close to zero and not statistically significant once we control for origin fixed effects. In Panel (B), we control for origin fixed effects in all specifications and show specifications that control for reception center. The results show that both the age and marital status imbalance decrease and become insignificant after adjusting for the reception center. Overall, the results confirm that the placement policy leads to a balanced distribution of refugees between the Romandie and the German-speaking part of Switzerland once we adjust for the reception center.

In addition to the detailed characteristics of the refugee, we also observe whether the caseworker in the reception center instructed the allocation officer to place the refugee in a particular canton. These instructions can take two different forms: the caseworker either directly codes a variable called “preferred canton” or uses an open text field to inform the placement officer about particular constraints that should be taken into account when placing the refugee. We have access to this open text field and use standard natural language processing tools to code the regular expressions in the open text field. We coded the mention of any canton and exclude cases in which the refugee was indeed placed in one of the cantons mentioned in the “preferred canton” variable or the open text field.

18. We have all covariates for the years 1998–2007 but no information on the reception center and regional preferences.

3 Econometric Framework

3.1 Estimation Method

Previous research on the effects of language has compared labor market outcomes across groups with different levels of language proficiency. In the simplest case, language proficiency is measured with a binary indicator $L_i \in \{0, 1\}$, equal to 1 if person i is proficient in the host country language and 0 otherwise. A naive estimator of the effect of language compares the labor market outcomes of individuals with and without language proficiency by computing $E[Y_i|L_i = 1] - E[Y_i|L_i = 0]$, which can be estimated with the following regression:

$$Y_i = \alpha + \tau L_i + \varepsilon_i \quad (1)$$

The estimator for τ yields an unbiased average treatment effect on the treated if the observed outcome of individuals without language proficiency is a valid counterfactual for the unobserved outcome of individuals with $L_i = 1$ in the absence of language proficiency, namely if $E[Y_{i0}|L_i = 1] = E[Y_{i0}|L_i = 0]$ where Y_{i0} is the potential outcome under control. In the regression context, this assumes that the language variable L_i is uncorrelated with unobserved factors in the error term ε_i . However, a number of studies have shown that language proficiency is positively correlated with education, ability and other forms of human capital, which renders the identification assumption above implausible (Chiswick and Miller 1995; Isphording and Otten 2014).

Our exogenous placement allows us to compare similar individuals with and without language proficiency. In the case of Switzerland, let F_i be an indicator coded 1 if person i is French-speaking and 0 otherwise. Similarly, let R_i denote an indicator coded 1 if a person is assigned to live in the French-speaking part of Switzerland, the Romandie. The interaction of those two variables, $L_i = F_i \times R_i$, captures whether a person is proficient in the local language. If placement is indeed exogenous, French-speaking refugees are equal *before* being assigned to a specific language region, i.e.:

$$E[Y_{id}|F_i = 1, R_i = 1] = E[Y_{id}|F_i = 1, R_i = 0] \quad d \in \{0, 1\}$$

where d indexes the potential outcomes. However, once individuals are assigned to a language region,

they have different residence cantons. This complicates the analysis because economic, political, and social conditions vary across Swiss cantons and language regions. For example, cantons in the Romandie tend to be more supportive of redistributive policies (Eugster et al. 2011; Funk and Gathman 2011) and more open to immigration (Hainmueller and Hangartner 2013). Thus, the potential outcomes *after* the assignment to a language region might differ between individuals with and without language proficiency, i.e.:

$$E[Y_{id}|F_i = 1, R_i = 1] \neq E[Y_{id}|F_i = 1, R_i = 0] \quad d \in \{0, 1\},$$

because of differences in observed and unobserved cantonal characteristics.

We adjust for the differences that are caused by regional background characteristics by leveraging the labor market outcomes of a control group that is arguably similar to French-speaking African refugees: English-speaking African refugees. English-speaking refugees from Africa form an excellent control group for at least three reasons. First, English-speaking African refugees typically have a skin tone and other racial/ethnic features similar to French-speaking African refugees from Africa (at least in the eye of the majority of Swiss society). Second, English- and French-speaking African refugees not only share some cultural similarities, but are also affected by the same prejudice and discrimination in the labor market. Third, the linguistic distance between French and English and German and English, respectively, is very similar. For example, using their quantitative index of difficulty of learning a non-English language, Chiswick and Miller (2005) score the distance between English and French at 2.50 and English and German at 2.25 (on a scale from 1.00 to 3.00).

Akin to the parallel trend assumption in temporal difference-in-differences designs, we can leverage this English-speaking control group to estimate the counterfactual outcome (no language proficiency) for French-speaking refugees in the Romandie from the outcome for French-speaking refugees in the German-speaking part of Switzerland adjusted for the difference in the region-specific effect between German- and French-speaking Switzerland:

$$E[Y_{i0}|F_i = 1, R_i = 1] = E[Y_{i0}|F_i = 1, R_i = 0] + \underbrace{\{E[Y_{i0}|F_i = 0, R_i = 1] - E[Y_{i0}|F_i = 0, R_i = 0]\}}_{\text{region-specific effect}} \quad (2)$$

If equation (2) holds, we can identify the causal effect of language proficiency in the following

difference-in-differences design:

$$\begin{aligned}\tau &= E[Y_{i1}|F_i = 1, R_i = 1] - E[Y_{i0}|F_i = 1, R_i = 1] \\ &= E[Y_i|F_i = 1, R_i = 1] - \{E[Y_i|F_i = 1, R_i = 0] + E[Y_i|F_i = 0, R_i = 1] - E[Y_i|F_i = 0, R_i = 0]\}. \quad (3)\end{aligned}$$

Equation (3) yields an unbiased estimate of the effect of language proficiency, τ , if the economic, political, and social differences between the French- and German-speaking cantons affect English-speaking African refugees the same way as French-speaking African refugees who, counterfactually, had no proficiency in French.

To estimate equation (3), we use standard OLS regression methods to analyze difference-in-differences designs. In particular, we estimate the following regression model using our sample of French- and English-speaking African refugees:

$$Y_{ijt} = \delta_t + \alpha_1 French_i + \alpha_2 Romandie_i + \tau French_i \times Romandie_i + \mathbf{x}'_{ijt}\beta + \varepsilon_{ijt} \quad (4)$$

where Y_{ijt} denotes our outcome measure of individual i in canton j and year t . The variable $French_i$ denotes whether an asylum seeker originates from a French-speaking country, $Romandie_i$ indicates whether she lives in the French-speaking region. The interaction between $French_i$ and $Romandie_i$ is our variable of interest: it takes a value of 1 for French speakers in the Romandie. Note that this difference-in-differences model accounts for unobserved differences in French- and German-speaking cantons that affect English- and French-speaking African refugees in the same way as well as unobserved but constant differences between French- and English-speaking African refugees. This allows us to interpret the parameter τ as the average treatment effect for the treated, i.e. the effect of language proficiency for French-speaking refugees in the Romandie, relative to a counterfactual in which the same refugee in the same place only speaks English. We also control for refugees' covariates, \mathbf{x}_{ijt} — age, family size, gender, and marital status. In more demanding specifications, we also hold constant the year of arrival, religion, ethnicity, origin country, and residence canton which does not change our main result that language proficiency positively affects employment. Note that controlling for the residence canton in addition to the language region is only necessary if there are compositional differences in origin countries across cantons. In a standard difference-in-difference set-up, controlling for the language region is sufficient.

4 Results

4.1 Graphical Analysis

We begin the empirical analysis with a descriptive comparison of the employment shares across origin countries and language regions in Switzerland for all African refugees in our estimation sample based on the registers from 2008 to 2017. We group all countries with fewer than 20 observations together for the graphical analysis because the estimates for their employment shares lack sufficient statistical precision. Figure 5 depicts the employment differences between refugees in the Romandie vs. the German-speaking region by origin country and the corresponding 95% confidence intervals. The blue dots denote French-speaking origin countries, and the red dots origin countries in the control group. For example, refugees from French-speaking Ivory Coast have an average employment rate of 34.4% in the Romandie, but only 12.2% in the German-speaking region. The resulting difference of 22.2 percentage points is shown in the seventh line of Figure 5. By contrast, the difference in the employment probability for refugees from Nigeria, an English-speaking country in the control group, is -4.6 percentage points.

Aggregating these differences for all French-speaking origin countries and weighting it by the number of refugees in a country leads to a 7.0-percentage-point higher employment rate for refugees who are assigned to the Romandie over those assigned to the German-speaking part of Switzerland. In stark contrast, refugees from English-speaking countries have a 6.6-percentage-point disadvantage in the Romandie. The resulting difference is 13.6 percentage points for the weighted sample, and 20.2 percentage points when we do not weight the origin countries by their number of observations. In sum, this simple descriptive analysis provides the first evidence that individuals from French-speaking countries are more likely to find a job in the Romandie than if they are assigned to the German-speaking part. Yet, it is important to take into account differences in the composition of refugees across language groups, including year of arrival, age, and religious affiliation, which could be driving the language effect. Another concern is that the allocation to a particular reception center, and therefore to a language region, is partly a function of refugee characteristics, which would confound the effect of language on employment. To account for this possibility, the following section reports the results of our regression analyses.

4.2 Regression Analysis

Having established that French-speaking refugees consistently have a higher employment rate in the Romandie than in German-speaking cantons, we now conduct regression analyses to adjust for a range of confounders. Table 6 reports the results of estimating equation (4) for the period 2008–2017). Column (1) reports the raw estimate for the language coefficient, τ , with no controls except the baselines *French* and *Romandie*. Column (2) controls for the reception center, the length of stay, as well as sociodemographic covariates including age and age squared, family size, gender, and marital status. Columns (3)–(6) add increasingly restrictive fixed effects to the model. Column (3) adds year-of-arrival fixed effects, since the composition of refugees changes over time. Column (4) adds religion and ethnicity fixed effects because the previous literature has shown that these are important determinants of economic performance (Guiso, Sapienza, and Zingales 2003; Campante and Yanagizawa-Drott 2015). Column (5) adds country-of-origin fixed effects and column (6) adds cantonal fixed effects. In model (6), the identification comes from observing refugees in different language regions with the same reception center, an equal length of stay, the same age, family size, gender, marital status, year of arrival, religion, ethnicity, country of origin, and canton. It also holds constant language region-specific differences in the employment of refugees by controlling for the language region. We use two-way clustered standard errors at the canton-year level.

All estimated coefficients of the language effect are positive, significant and large in magnitude. In our most restrictive specification in column (6), proficiency in the local language increases employment by 10.6 percentage points. To interpret this effect in relative terms, we calculate the counterfactual employment rate of a French-speaking refugee in the Romandie who cannot speak the local language, which is the average employment rate of French speakers in the Romandie minus the estimated language proficiency effect. In the specification of column (6), the counterfactual employment rate is 6.2%. Based on these figures, we can express the language effect relative to the counterfactual, yielding an increase of 171%.

An important additional question concerns the persistence of the benefits of language proficiency. Previous research has documented that learning the local language can help refugees catch up to workers who are proficient over a period of five to ten years (Chiswick 1978; Dustmann 1993; Lubotsky 2007). Our research design allows us to explore the language proficiency effect for up to

five years.¹⁹ Panel (A) of Figure 6 shows the absolute effect of language proficiency on employment using a balanced sample of individuals who we observe in all of the first five years after arrival. Panel (B) documents the language effect relative to the counterfactual. The figure shows that over five years, employment levels increase for both French-speaking refugees in the Romandie and their counterfactuals. The positive employment effect of language proficiency increases in absolute terms from 1.9 percentage points in the second year to 13.1 percentage points in the fifth year. The relative effect increases from 26% in year two to 324% in year three and then decreases to 111% in year five. These figures suggest that the language proficiency effect persists up to five years and slightly increases over time when measured in absolute terms.

4.3 Robustness Checks

In this section, we address several alternative explanations that might affect the interpretation of our main coefficient of interest, τ , as the causal effect of language proficiency on employment.

Attrition — A concern regarding the internal validity of our estimates is differential attrition across treatment groups. In our context, this could happen if the difference in the attrition rate between French- and English-speaking refugees in the Romandie differs from the difference in the attrition rate between French- and English-speaking refugees in German-speaking cantons. However, selective attrition is a minor concern in our study. First, most refugees cannot return to their home country, which explains the low average attrition rate of 1.4%. Second, we find no evidence of differences in attrition rates between French- and German-speaking regions ($p > 0.23$), French- and English-speaking refugees ($p > 0.53$), or for the interaction of the Swiss language region and the refugee's language ($p > 0.51$).

Networks — The estimates in Table 6 suggest that French-speaking refugees in the Romandie are more likely to be employed. One possibility is that refugees who are assigned to a favorable language region not only benefit from their language proficiency, but also from a larger co-ethnic network that can facilitate job referrals. Previous studies have demonstrated that spatially clustered co-ethnic networks are important determinants of employment outcomes (Edin, Fredriksson, and Åslund 2003;

19. Note that refugees with an F-permit can apply for a B-permit after five years. Permit B allows individuals to move to another canton and thus possibly to a more favorable language region. Such decisions are typically based on how integrated they are in their originally assigned canton, including their current and previous employment. Because this leads to non-random attrition, we cannot interpret the estimate for τ in equation (4) as the causal effect of language for all individuals who hold an F-permit for all years after year five.

Damm 2009; Beaman 2012; Dustmann et al. 2016). To explore the impact of such networks, we use variation in the share of co-nationals (refugees and other immigrants) at the cantonal and municipal levels. Column (2) of Table 7 reports the results. While the share of co-nationals facilitates labor market integration²⁰, controlling for networks does not change the coefficient for language proficiency.

Violation of the Stable Unit Treatment Value Assumption (SUTVA) — We use English-speaking refugees to control for differences in economic and political conditions across French- and German-speaking cantons. As French-speaking and English-speaking refugees compete for similar jobs, the presence of French-speaking refugees with a language advantage could lead to equilibrium effects through which the employment opportunities of English-speaking refugees in French-speaking cantons are negatively affected. Such negative spillover effects would violate the SUTVA and bias the estimated effect of language proficiency upwards. We perform two robustness tests to assess this concern. First, we define an alternative control group that consists of working-age refugees from non-African countries with status F. This group of refugees differs along important dimensions from French-speaking, African refugees and is less prone to spillover effects. Column (3) of Table 7 reports the results. The estimate for language proficiency is 11.8 percentage points and thus slightly higher but not statistically different from our baseline estimate of 10.6 percentage points in Column (1). Second, we use variation in the timing of newly arrived French-speaking refugees from African countries. We construct a “competition” measure that captures how many French-speaking refugees arrived in a specific canton and year. To analyze if more competition decreases employment chances for English-speaking refugees, we regress the employment indicator on this competition measure along with three lags. The results show that all coefficients for the lagged competition measures are economically small (< 0.0003 in absolute terms) and not statistically different from zero. Together, the two tests lend confidence our estimate of language proficiency is not driven by equilibrium effects on English-speakers.

English-Speaking Refugees — Figure 5 reveals that most of the language effect comes from the difference in French-speaking refugees who are assigned to different language regions in Switzerland, and not from the control group of English-speaking refugees. It might, however, be the case that some refugees who speak English have an advantage in more cosmopolitan cities with many multinational corporations where English is the dominant language in the workplace. Since these cities are primarily, but not exclusively, located in the German-speaking part of Switzerland, the potential English-language

20. An increase in the local network with one standard deviation increases employment by 1.6 percentage points.

advantage in the German-speaking part could lead to upward bias of the French-language effect in the Romandie. To explore the robustness of our main results to this concern, we exclude four cantons with cities that host the majority of multinational corporations and international organizations, namely Basel-Stadt, Geneva, Zug, and Zurich. Column (4) of Table 7 presents the results. The estimate is very similar to those found in the main results in Table 6, which suggests that the differences in English usage are unlikely to explain the benefits we document for French language proficiency.

Culture — Another concern for the interpretation of our estimates as a premium for language proficiency is that differences in cultural similarity also influences refugees' employment outcomes. In particular, refugees from former French colonies could be more familiar with the norms and customs in French-speaking Switzerland than in German-speaking Switzerland. This mechanism could be driven by shared history as parts of today's Romandie were annexed by the French First Republic or by more recent influences due to overlapping media markets. To be clear, to disentangle the effects of language from other dimensions of culture is a difficult endeavor (Kramsch 2011). With this important caveat in mind, there are a couple of reasons why we believe that it is mostly the language component of culture that is driving our results. First, the cultural differences between Switzerland and French- or English-speaking African countries are very large compared to the cultural differences between German- and French-speaking Switzerland. Second, if it is solely the norms and customs associated with French colonies that facilitate labor market integration in the Romandie, we might expect a lower language premium for French-speaking refugees from former Belgian colonies. To test for this, we estimate equation (4) but restrict the French-speaking sample to former Belgian colonies where French continues to be the official language (Burundi, Congo, and Rwanda). Column (5) of Table 7 presents the results. We find that the estimates in Panel (A) are not statistically different from the main results reported in Table 6, and while the estimates in Panel (B) are about 20% smaller, they are still substantial in size and statistically significant.

Covariates at Arrival — Some covariates may be endogenous to the assigned language region and the employment status. One example is marital status. It may be that French-speaking individuals are more likely to find a spouse in the Romandie because of a better social network or increased employment prospects. To address this concern, we re-estimate our main results but control for covariates at arrival. Column (6) of Table 7 documents that the estimates are almost identical to the main results in column (1).

Longer Sample Period — In our main analysis, we focus on refugees who arrived between 2008 and

2017 because our registry data only contains information about the reception center and preferences about the cantonal allocation since 2008. The exogenous allocation of refugees to cantons, however, is in place since 1998. To explore whether our main findings generalize to the full period, we re-estimate equation (4) for the years 1998-2017 in column (7) of Table 7. The language proficiency effect is 11.5 percentage points and thus comparable to our estimate of 10.6 percentage points for the shorter period.

Education — Another concern regarding the interpretation of our main effect may be that language proficiency is correlated with the education level, and that the positive returns on language are simply the consequence of higher levels of education. We investigate this concern using data from the 2000 census that contains information on refugees' educational level and employ the same sample restriction as in our main specification, focusing on working-age refugees with an F-permit.²¹ Column (8) of Table 7 presents the results with a control variable for the years of education. Overall, the size of the language effect is double the effect in our main sample in Table 6 but this could be related to missing covariates in the census sample. Yet including the number of years of education does not change the estimated effect of language proficiency. Note that the coefficient for years of education is 1.6 percentage points and significant at the 5% significance level.

4.4 Additional Results

In this section, we first explore whether the benefits of local language proficiency are heterogeneous in the population of refugees. We then estimate the effect for a group with a considerably higher uncertainty regarding their residence status, namely asylum seekers who are still in the asylum process. In addition, we explore the benefits of French language proficiency in bilingual cantons where individuals can potentially self-select into a favorable language region. Finally, we test whether language proficiency also leads to a better employment match and jobs with higher language requirements.

Heterogeneous effects — Previous research has documented that the returns on language may be heterogeneous. In columns (1) and (2) of Table 8, we split the sample at the median into young and old refugees and document that the effect of language is somehow larger for older individuals. This finding is consistent with the notion learning a foreign language is easier for younger people, which decreases the effect of language proficiency at arrival. In addition, we explore the impact of language

21. Note that there is no information on education level in the ZEMIS data. The reason why we use the 2000 census is that there was no census in 2010.

for men and women separately. The entries in columns (3) and (4) of Table 8 document that the impact of language proficiency is indeed higher for men than for women.

Language effect for asylum seekers — Our sample of refugees is comprised of individuals with status F who are legally allowed to stay in Switzerland until a return to their home country is possible. The vast majority of these refugees stay in Switzerland for good. A different group with similar characteristics who are also granted access to the labor market are asylum seekers. There are theoretical arguments for both higher and lower returns on language proficiency for asylum seekers compared to refugees. On the one hand, employers will be reluctant to hire and invest in the skills of individuals with uncertain prospects of staying in the country. On the other hand, early integration into the local labor market may be a good investment into the skills of asylum seekers, which pays off in the future. To explore the effect of language proficiency on this group, we report the results of estimating our main specification in equation (4) for all asylum seekers with status N. The results in column (5) of Table 8 show that the point estimates are substantially smaller than in our main sample but still significant. Overall, these results suggest that language proficiency also increases employment among individuals with a higher degree of uncertainty regarding their future residence permit—but to a smaller extent than for refugees with a more permanent F-permit.

Language effect in bilingual cantons — The quasi-exogenous assignment of refugees to cantons in different language regions allows us to identify the effect of language proficiency. So far, we have excluded refugees who resettled to bilingual cantons because they have at least some discretion in their residential choice. An interesting question is whether the effect of language proficiency differs in the three bilingual cantons with both German- and French-speaking areas compared to our main sample, which excludes bilingual cantons. We might expect larger estimates for language proficiency if refugees in French-speaking municipalities of bilingual cantons are positively selected. When testing this conjecture, we need to keep two caveats in mind. First, the process guiding intra-cantonal assignment of refugees in the three bilingual cantons is fairly opaque. Second, French-speaking refugees may live in the German-speaking part of a canton but work in the French-speaking part as most of these bilingual cantons are fairly small and commuting times between the French- and German-speaking parts are at most 30 minutes. This would bias our language estimate downwards. Our analysis uses data from the Federal Office of Statistics to code the language used by the majority of residents in a municipality, following Eugster et al. (2011, 2017).²² We then build an interaction

22. Following this coding rule for majority language, the bilingual city Biel/Bienne is coded as German-speaking and

between the dummy for a French-speaking municipality and the indicator for a French-speaking refugee, similar to the interaction between the French-speaking Romandie and a French-speaking refugee in equation (4) of our main analysis.

Column (6) of Table 8 shows that the return to language proficiency estimated from intra-cantonal variation bilingual cantons is close to zero. What accounts for this result? Interestingly, we find only low levels of intra-cantonal mobility across language borders for our refugee sample after initial resettlement. While 65.7% of French-speaking refugees live in a French-speaking municipality in their first two years, the share of English-speaking refugees is 37.1%. Over the following years, we find that these shares remain almost identical. In the fifth year, the share of is 64.3% for French-speakers and 36.7% for English-speakers. One likely reason for these low levels of within-canton migration is that housing is often only provided in the municipality to which the canton initially assigned refugees, rendering moves very costly. Together, this suggests that the absence of returns on local language proficiency in bilingual cantons are due to a combination of geographic proximity — which allows French-speaking refugees to live in a German-speaking municipality, yet work in a French-speaking one — and financial restrictions that prohibit intra-cantonal mobility.

Effect on Length of First Employment — The main estimates show that refugees with language proficiency have a higher probability of getting a job. It is, however, unclear whether language also increases the match quality between employers and employees. One proxy for match quality is the length of employment (in days). In our empirical analysis, we focus on the first employment spell of a refugee because later employment spells might be influenced by the match quality of the first job, via references from former employers, which are an integral part of job applications in Switzerland. Column (7) of Table 8 documents that the length of the first employment increases by around 140 days, or 48% of the counterfactual mean, for refugees with local language proficiency. This is consistent with the idea that language proficiency also increases the match quality.

Effect on Language Requirement — Another question is whether language proficiency allows individuals to get jobs that require higher language skills. To shed light on this, we recoded all available information on the activity type into jobs with high language requirements, e.g., jobs in the education, health, and communications, and jobs with low language requirements, e.g., jobs in the cleaning, construction, and chemical industry. Column (8) of Table 8 reports the results of a regression

the bilingual city Fribourg is coded as French-speaking.

of the language requirement indicator on our language proficiency indicator. The results confirm that language proficiency helps refugees gain employment with higher language requirements.

5 Conclusion

This study provides novel evidence on the causal effect of language proficiency on immigrants' labor market outcomes in a setting in which language proficiency is arguably exogenous to many observed and unobserved immigrant characteristics. Our research design leverages two intersecting natural experiments in Switzerland: the exogenous placement of refugees and the existence of a sharp internal language border. During our study period of 1998–2017, refugees were, conditional on a set of characteristics observed by the researchers, quasi-randomly assigned across cantons and thus to different language regions. Therefore, refugees who spoke French before arriving in Switzerland and were assigned to the French-speaking part of the country were proficient in the language of their local labor market. We construct a control group of English-speaking refugees from the same continent to adjust for unobserved economic and political differences between Swiss regions that affect English- and French-speaking refugees from Africa similarly. Using a difference-in-differences design, we find that French-speaking refugees assigned to French-speaking Swiss cantons are more than 10.6 percentage points more likely to be employed in the first five years after their arrival due to language proficiency. These results are robust to specifications that hold constant the reception center, the length of stay, the year of arrival, the religion and ethnicity, the country of origin, and the residence canton. In additional analyses, we find that language proficiency also increases the match quality between employers and employees and leads to jobs with higher language requirements.

Our findings have implications for both theory and policy. Our study contributes to a growing theoretical literature that documents the importance of placement location for refugees' short- and longer-term integration outcomes. We show that language proficiency—with its large returns compared to, e.g., spatially concentrated ethnic networks (Edin, Fredriksson, and Aslund 2004; Beaman et al. 2012; Damm and Dustmann 2014) or local labor market conditions on arrival (Åslund and Rooth 2007)—is an important factor to consider in future studies that explore the consequences of arrival conditions. Our findings also support extant research that documents a positive relationship between language proficiency and labor market outcomes. While prior studies have provided estimates for the partial association between language proficiency and employment, our effect estimates are 52%-67%

lower than what previous research has found. While our sample of refugees cautions against any direct comparisons to studies that primarily focus on economic migrants, our causal estimates are at least suggestive evidence that a significant part of the positive correlation documented in previous research can, indeed, be interpreted causally.

Our findings have at least two direct policy implications. First, our study substantiates recent approaches that leverage synergies between refugee characteristics and locations to optimize the geographic placement of refugees (Bansak et al. 2018). While the supervised machine-learning algorithms underlying these approaches mostly treat these interactions as a black box, our study is able to identify the causal effect of a key factor, language, on employment outcomes. More generally, our findings highlight the benefits of considering refugees' language skills when deciding on resettlement locations, particularly for bilingual or multilingual countries such as Belgium, Canada, and, increasingly, the United States. Second, while our findings on pre-arrival language skills provide an upper bound on the returns from language courses, they nevertheless underscore the importance of host country language skills for economic integration. Therefore, our results corroborate other studies that document robust returns from language courses (Lochmann, Rapoport, and Speciale 2019).

The two intersecting natural experiments leveraged here can also be used to address additional research questions. One promising avenue for further research is to explore whether the benefits of language proficiency extend beyond economic gains to other dimensions of successful integration such as social connections, institutional trust, and political participation. Another fruitful area of research would be to focus on the downstream effects on the children of refugees with and without language proficiency, as previous research has indicated that school achievement crucially depends on the language spoken at home (Dustmann, Machin, and Schönberg 2010).

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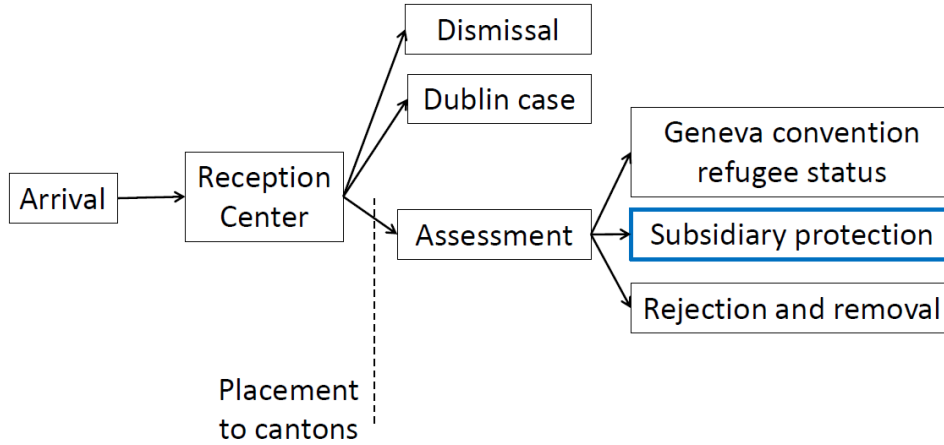
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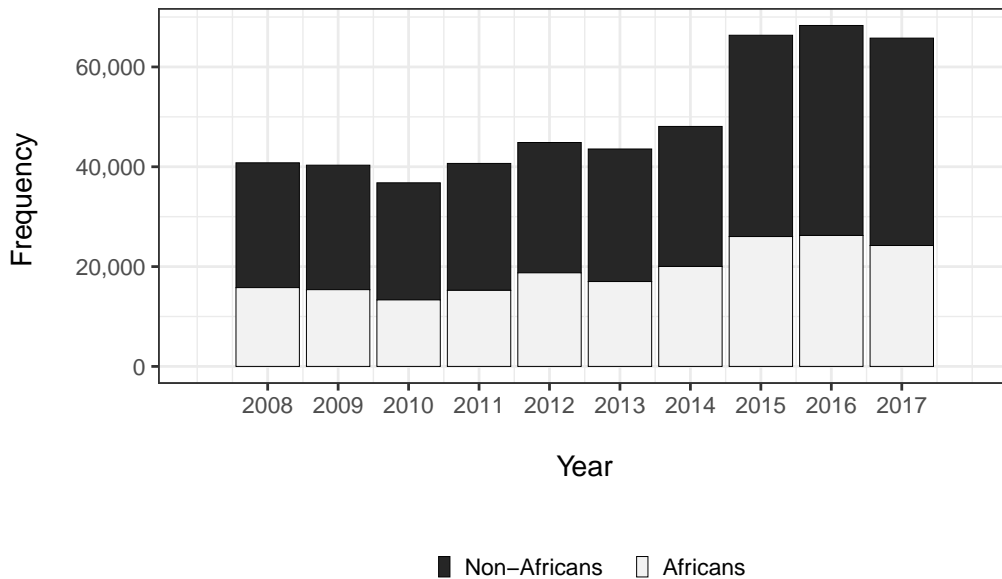
Figures and Tables

Figure 1: Asylum Procedure in Switzerland



Note: This graph provides an overview of the asylum process in Switzerland. Refugees who are granted subsidiary protection (blue rectangle) hold permit F.

Figure 2: Asylum Statistics in Switzerland



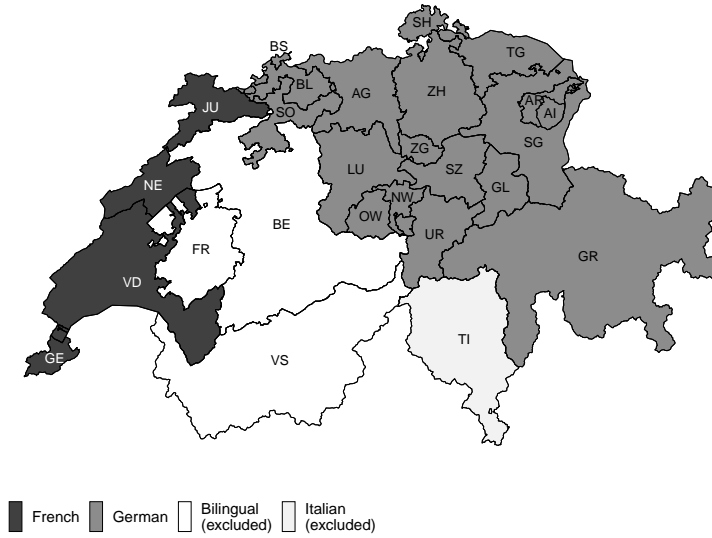
Note: The figure shows the stock for African (light gray bar) and Non-Africans (black bar) refugees in Switzerland from 2008 to 2017 based on official register data (ZEMIS).

Figure 3: Coding of Language Variable



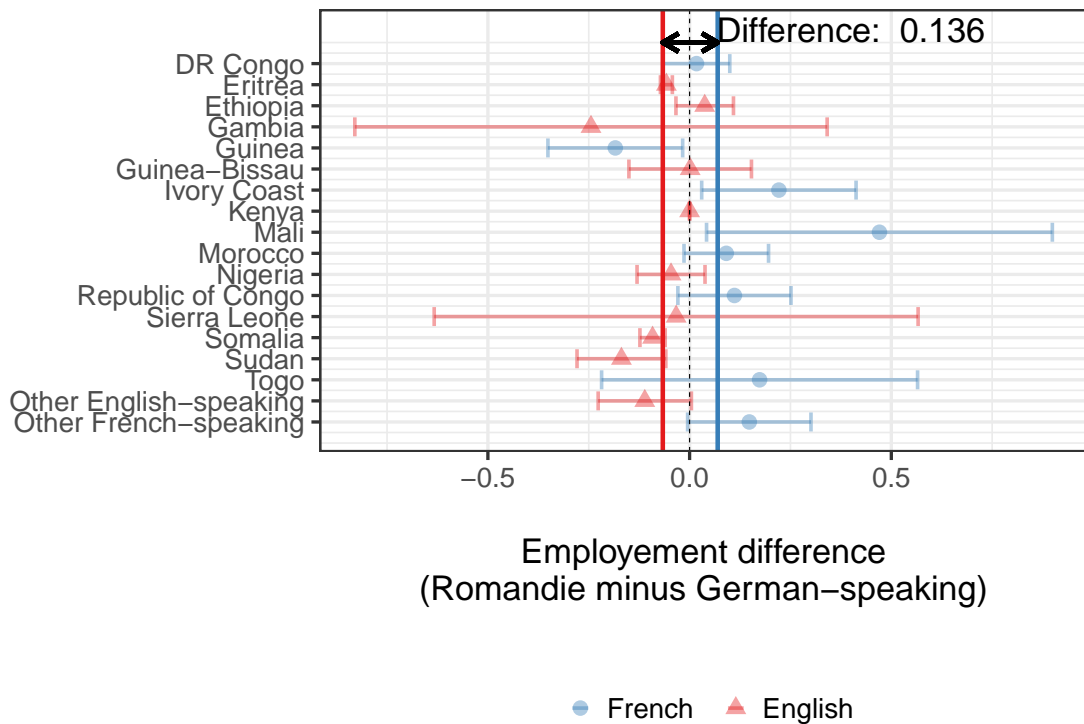
Note: The figure shows the coding scheme of our language variable that indicates whether an individual is classified as French-speaking in our main analysis. We recode all individuals as French-speaking who come from countries that were either a former French colony or list French as an official language: Algeria, Benin, Burkina Faso, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Gabon, Guinea, Ivory Coast, Madagascar, Mali, Mauritania, Morocco, Niger, Republic of Congo, Senegal, Togo, Tunisia, and Western Sahara. Similarly, we recode all individuals as English-speaking if they come from a country that was either part of the British Empire or list English as an official language: Botswana, Egypt, Eritrea, Ethiopia, Gambia, Ghana, Guinea Bissau, Kenya, Lesotho, Liberia, Malawi, Namibia, Nigeria, Sierra Leone, Somalia, Somaliland, South Africa, South Sudan, Sudan, Swaziland, Uganda, United Republic of Tanzania, Zambia, and Zimbabwe. We exclude all individuals from our estimation sample who come from countries that have both French and English as official languages, namely Cameroon, Mauritius, Rwanda, and Seychelles. We also exclude individuals from countries classified as neither English-speaking nor French-speaking, namely Angola, Libya, and Mozambique.

Figure 4: Language Regions in Switzerland



Note: The map depicts the language regions in Switzerland. There are four cantons with French as the single official language (*Amtssprache/langue officielle*): Geneva (GE), Jura (JU), Neuchatel (NE), and Vaud (VD). In 17 Swiss cantons, German is the official language. These cantons are Aargau (AG), Appenzell Innerrhoden (AI), Appenzell Ausserrhoden (AR), Basel-Land (BL), Basel-Stadt (BS), Glarus (GL), Graubünden (GR), Lucerne (LU), Neuenburg (NE), Nidwalden (NW), Obwalden (OW), Schaffhausen (SH), Schwyz (SZ), Solothurn (SO), St. Gallen (SG), Thurgau (TG), Uri (UR), Zug (ZG), and Zurich (ZH). In the cantons of Bern (BE), Fribourg (FR) and Valais (VS), both German and French are official languages. The only canton with Italian as the single official language is Ticino (TI). Note that Graubünden has Italian-speaking and Romansh-speaking minorities and German, Italian, and Romansh are all official languages. We classify Graubünden as German-speaking because German is the dominant language and almost all citizens in Graubünden speak German (see Figure A.3 in the Appendix).

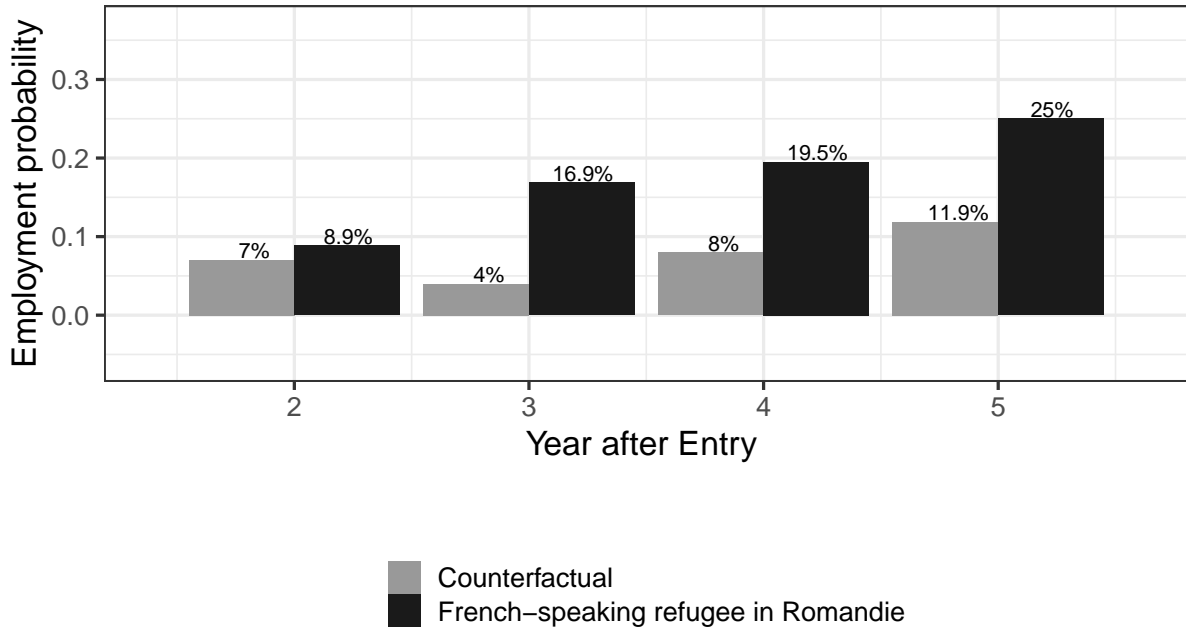
Figure 5: Employment Difference Romandie vs. German-speaking Region by Country of Origin



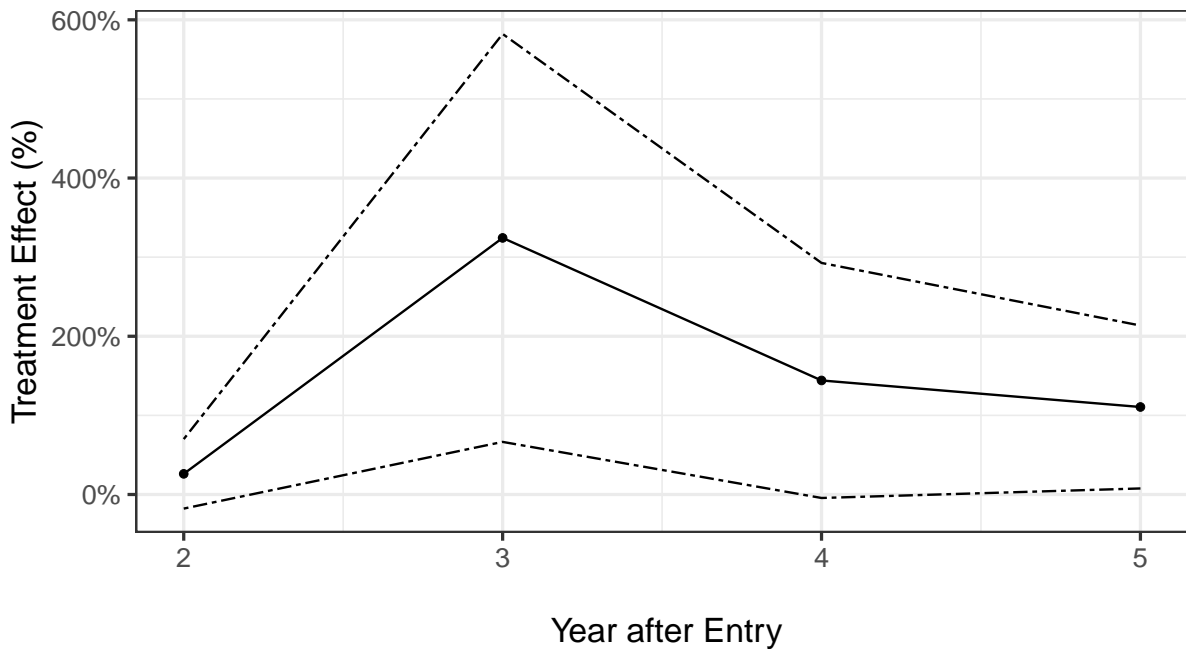
Note: The figure shows the difference in employment levels (blue dots and red triangles on x-axis) for individuals from the same home country (y-axis) for all home countries with more than 20 individuals. All individuals from countries with fewer observations are grouped into “Other English-speaking” countries and “Other French-speaking”. The difference is calculated as the employment mean in the Romandie minus the employment mean in the German-speaking part. The bars indicate the 95% confidence interval of the mean. The blue dots indicate a French-speaking country, the red triangles indicate an English-speaking country. The (unweighted) mean difference is 20.2 percentage points, the mean weighted by the number of observations per country of origin is 13.6 percentage points. The countries with fewer than 20 observations that we group into the categories “Other English-speaking” and “Other French-speaking” are Benin, Burkina Faso, Burundi, Chad, Djibouti, Equatorial Guinea, Ghana, Liberia, Mauritania, Niger, Senegal, South Africa, Tanzania, Tunisia, Uganda, and Western Sahara.

Figure 6: Employment Probability over Time

(A) Employment Probability for French-speakers in Romandie and Counterfactual Group



(B) Treatment effect (in %)



Note: The figure reports the long-term effect of language proficiency on the probability of finding a job. Note that restrict our sample to 2,627 individuals who we observe in all five years after entry and thus the results differ slightly from our main results in Table 6. The estimate when using our preferred specification for this balanced panel is 0.095 (t-statistic: 2.69) compared to 0.106 in our main results. Panel (A) reports the employment levels in our target sample for French-speaking refugees in the Romandie (black bar) and their counterfactual employment probability (gray bar) defined as the employment probability minus the treatment effect for a given year. Panel (B) reports the effect of language proficiency as a percentage of the counterfactual employment outcome (solid line) with the corresponding 90% confidence interval (dot-dashed line).

Table 1: Descriptive Statistics

| | Mean | Std. Dev. | Min. | Max. | N |
|---|-------------|------------------|-------------|-------------|----------|
| <i><u>A: Sociodemographic characteristics</u></i> | | | | | |
| Age | 27.16 | 7.94 | 18 | 65 | 15,586 |
| Men | 0.66 | 0.47 | 0 | 1 | 15,586 |
| Married | 0.1 | 0.31 | 0 | 1 | 15,586 |
| Duration of stay (in days) | 978.58 | 390.26 | 365 | 1796 | 15,586 |
| <i><u>B: Employment characteristics</u></i> | | | | | |
| Employed | 0.13 | 0.34 | 0 | 1 | 15,586 |
| Employed in 2nd year | 0.03 | 0.17 | 0 | 1 | 4,695 |
| Employed in 3rd year | 0.09 | 0.29 | 0 | 1 | 5,004 |
| Employed in 4th year | 0.2 | 0.4 | 0 | 1 | 3,724 |
| Employed in 5th year | 0.29 | 0.46 | 0 | 1 | 2,629 |
| <i><u>C: Country of origin</u></i> | | | | | |
| Eritrea | 0.547 | | 0 | 1 | 8,530 |
| Somalia | 0.327 | | 0 | 1 | 5,099 |
| Ethiopia | 0.039 | | 0 | 1 | 601 |
| Democratic Republic of Congo (DRC) | 0.025 | | 0 | 1 | 392 |
| Nigeria | 0.012 | | 0 | 1 | 188 |
| Ivory Coast | 0.007 | | 0 | 1 | 113 |
| Sudan | 0.007 | | 0 | 1 | 109 |
| Guinea-Bissau | 0.006 | | 0 | 1 | 100 |
| Guinea | 0.005 | | 0 | 1 | 78 |
| Togo | 0.003 | | 0 | 1 | 46 |
| Gambia | 0.003 | | 0 | 1 | 39 |
| Morocco | 0.002 | | 0 | 1 | 38 |
| Mali | 0.002 | | 0 | 1 | 25 |
| Republic of Congo | 0.002 | | 0 | 1 | 24 |
| Sierra Leone | 0.001 | | 0 | 1 | 22 |
| Kenya | 0.001 | | 0 | 1 | 20 |
| Other French-speaking | 0.005 | | 0 | 1 | 85 |
| Other English-speaking | 0.005 | | 0 | 1 | 77 |

Note: The table shows descriptive statistics for our sample (2008–2017). Panel (A) reports sociodemographic characteristics. Panel (B) shows information on employment characteristics. Panel (C) reports the countries of origin.

Table 2: Employment Types in Target Sample

| Sector | Share |
|--------------------------------------|-------|
| Pub, restaurant, hotel business | 19.0% |
| Cleaning | 13.1% |
| Manufacturing and construction | 5.9% |
| Agriculture and forestry sector | 4.6% |
| Service and trade | 3.5% |
| Health sector | 0.4% |
| Other occupations and not classified | 53.4% |

Note: This table shows the employment types in our sample (2008–2017) for all employed individuals.

Table 3: Language Spoken At Home

| | | Our classification: French | |
|---------|---|-------------------------------|-------|
| | | 0 | 1 |
| Census: | 0 | 71.0% | 21.3% |
| | 1 | 29.0% | 78.7% |

Note: This table shows the fraction of individuals who speak French according to our classification scheme in Figure 3 split by whether individuals report to speak French at home. Data comes from the 2000 population census and covers only working-age individuals with status F and excludes bilingual cantons and the Italian-speaking canton of Ticino.

Table 4: Selection of Refugees into the Romandie

| Outcome | Before Assignment | | | After Assignment | | |
|----------------------------------|-------------------|-------------------|-------------------|----------------------|-------------------|-------------------|
| | RC in Romandie | | | Assigned to Romandie | | |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| French-speaking Refugee | 0.473 (0.030) | 0.436 (0.030) | 0.426 (0.030) | -0.062 (0.049) | -0.035 (0.049) | -0.042 (0.049) |
| RC in Romandie | | | | 0.597 (0.013) | 0.610 (0.013) | 0.621 (0.013) |
| French-speaking × RC in Romandie | | | | 0.010 (0.058) | -0.010 (0.058) | -0.029 (0.058) |
| Constant | 0.267 (0.007) | -0.006 (0.026) | -0.131 (0.087) | 0.146 (0.007) | 0.281 (0.022) | -0.080 (0.075) |
| Length of Stay | | ✓ | ✓ | | ✓ | ✓ |
| Sociodemographic Covariates | | ✓ | ✓ | | ✓ | ✓ |
| Year of Arrival FE | | | ✓ | | | ✓ |
| Individuals | | | 5,043 | | | |
| R-squared | 0.049 | 0.072 | 0.091 | 0.334 | 0.339 | 0.359 |

Note: The table shows the selection of refugees into the Romandie, the French-speaking part of Switzerland. The sample includes only individuals with reception center information who do not issue a cantonal placement preference (2008–2017). Columns (1) to (3) present the results of a regression with the indicator variable “Reception center in the Romandie” as dependent variable. This variable is 1 if a refugee was in a reception center in the Romandie and 0 otherwise. Columns (4) to (6) report the results with the indicator variable “Assigned to Romandie” as dependent variable that is 1 if an individual was assigned to the Romandie and 0 otherwise. The variable “Length of Stay” is the number of days since a refugee arrived in Switzerland. The observations are on 5,043 refugees from 4,833 dossiers.

Table 5: Balance Before and After Assignment

| <i>A: Before Assignment</i> | | | | | | | | | | |
|-----------------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|
| Outcome | Age | | Male | | Married | | Family size | | Christian | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| Romandie | 1.192 (0.253) | 0.883 (0.261) | 0.016 (0.015) | 0.012 (0.015) | 0.028 (0.010) | 0.026 (0.010) | 0.031 (0.041) | 0.018 (0.043) | -0.129 (0.016) | 0.011 (0.011) |
| Individuals | 5,043 | | | | | | | | | |
| R-squared | 0.005 | 0.058 | 0.000 | 0.102 | 0.002 | 0.015 | 0.000 | 0.013 | 0.014 | 0.534 |
| Origin FE | | ✓ | | ✓ | | ✓ | | ✓ | | ✓ |
| <i>B: After Assignment</i> | | | | | | | | | | |
| Outcome | Age | | Male | | Married | | Family size | | Christian | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| Romandie | 0.632 (0.246) | 0.167 (0.301) | 0.020 (0.014) | 0.023 (0.017) | 0.024 (0.010) | 0.017 (0.012) | -0.030 (0.040) | -0.067 (0.050) | -0.008 (0.011) | -0.022 (0.013) |
| Individuals | 5,043 | | | | | | | | | |
| R-squared | 0.056 | 0.078 | 0.101 | 0.113 | 0.015 | 0.022 | 0.014 | 0.021 | 0.536 | 0.539 |
| Origin FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Reception Center FE | | ✓ | | ✓ | | ✓ | | ✓ | | ✓ |

Note: This table reports the results of 20 different regressions using five covariates as outcome variable, namely age, male, married, family size, and an indicator that captures whether an individual is classified as Christian. All estimations use the sample from 2008 to 2017 and exclude refugees who issue a cantonal placement preference. Panel (A) reports covariate balance before individuals are assigned to a canton. Panel (B) reports covariate balance after assignment. In Panel (A), Regressions (1), (3), (5), (7), (9), and (11) report the results of a bivariate regression of the respective outcome variables on a dummy that captures whether an individual was registered in a reception center located in the Romandie. Regressions (2), (4), (6), (8), (10), and (12) report the results of the same regression model but controlling for country of origin fixed effects. In Panel (B), Regressions (1), (3), (5), (7), (9), and (11) report the results of a bivariate regression of the outcome variables on a dummy that captures whether a person was placed in the Romandie and country of origin fixed effects. Regressions (2), (4), (6), (8), (10), and (12) report the results of the same regression model but controlling for the reception center. The observations are on 5,043 refugees from 4,833 dossiers.

Table 6: Employment Regression Results

| Outcome | Employment | | | | | |
|-----------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Counterfactual mean | 0.022 | 0.039 | 0.031 | 0.043 | 0.051 | 0.062 |
| Language | 0.146 (0.020) | 0.129 (0.022) | 0.137 (0.022) | 0.125 (0.025) | 0.117 (0.031) | 0.106 (0.030) |
| Reception Center FE | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Length of Stay | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Sociodemographic Covariates | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Year of Arrival FE | | | ✓ | ✓ | ✓ | ✓ |
| Religion and Ethnicity FE | | | | ✓ | ✓ | ✓ |
| Origin FE | | | | | ✓ | ✓ |
| Canton FE | | | | | | ✓ |
| Observations | | | | 15,586 | | |
| Individuals | | | | 5,043 | | |
| Percentage Increase | 664% | 331% | 442% | 291% | 229% | 171% |

Note: This table reports regression coefficients from six regressions with two-way clustered standard errors (canton and year) in parentheses. The sample includes only individuals with reception center information who do not issue a cantonal placement preference (2008–2017). The variable “Length of Stay” is the number of days since a refugee arrived in Switzerland. Sociodemographic covariates include age, age squared, family size, gender, and a fixed effect for marital status. The entries for “Percentage Increase” are the ratio of the estimated effect of language proficiency divided by the counterfactual mean, calculated as the proportion of employed French-speaking African refugees in the Romandie minus the language effect. Individuals in the sample are located in 22 different cantons.

Table 7: Robustness Tests

| Outcome | Employment | | | | | | | |
|-----------------------------|------------------|------------------|------------------|------------------|------------------|-----------------------|------------------|------------------|
| | Baseline | Networks | SUTVA | English-Speakers | Belgian Colonies | Covariates at Arrival | Full Period | Education |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Language | 0.106 (0.030) | 0.110 (0.030) | 0.118 (0.033) | 0.097 (0.030) | 0.081 (0.036) | 0.109 (0.033) | 0.115 (0.022) | 0.212 (0.090) |
| Observations | 15,586 | 15,586 | 18,529 | 10,931 | 15,178 | 15,586 | 23,835 | 879 |
| R-squared | 0.153 | 0.155 | 0.238 | 0.158 | 0.150 | 0.150 | 0.146 | 0.191 |
| Data source | ZEMIS | ZEMIS | ZEMIS | ZEMIS | ZEMIS | ZEMIS | ZEMIS | Census |
| Time Period | 2008-2017 | 2008-2017 | 2008-2017 | 2008-2017 | 2008-2017 | 2008-2017 | 1998-2017 | 2000 |
| Reception Center FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Length of Stay | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Sociodemographic Covariates | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Year of Arrival FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Religion and Ethnicity FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Origin FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

Note: This table reports regression coefficients from eight regressions with clustered standard errors in parentheses. The sample in columns (1) to (6) includes all individuals during the period for which the random allocation mechanism has been in place and for which we have information on the reception center and cantonal allocation preferences (2008–2017). The sample in column (7) includes all individuals during the period of the random allocation mechanism (1998–2017). The sample in column (8) is from the 2000 census. The variable “Length of Stay” is the number of days since a refugee arrived in Switzerland. Sociodemographic covariates include age, age squared, family size, gender, and a fixed effect for marital status. In columns (7) and (8), we do not control for the reception center and do not drop individuals with cantonal allocation preferences because this information is not available for a subset of the sample in column (7) (all refugees who entered in the period 1998–2007) and for the full sample in column (8).

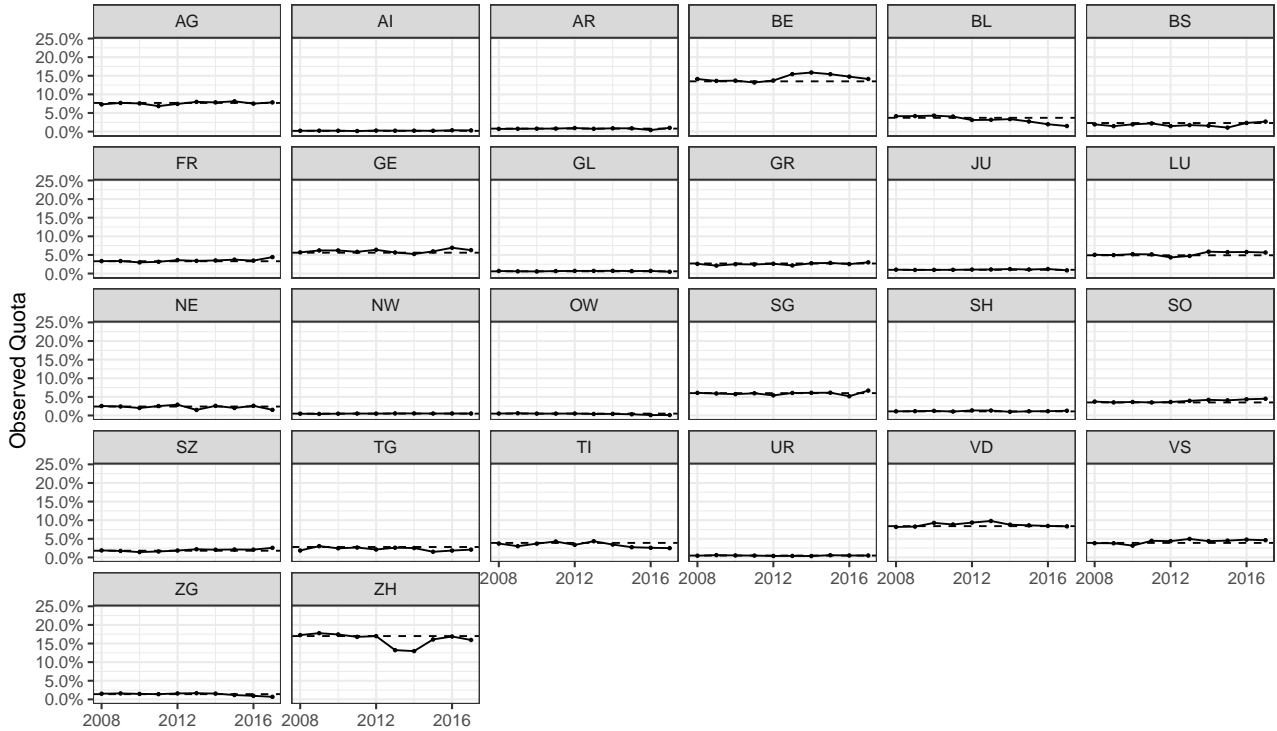
Table 8: Additional Results

| Outcome | Employment | | | | | | Length of First | Language |
|-----------------------------|------------------|------------------|------------------|------------------|------------------|-------------------|---------------------|------------------|
| | Young | Old | Men | Women | Asylum Seekers | Bilingual Cantons | Employment | Requirement |
| Group | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Language | 0.107 (0.032) | 0.125 (0.050) | 0.144 (0.042) | 0.053 (0.042) | 0.016 (0.002) | 0.008 (0.070) | 139.570 (69.790) | 0.432 (0.192) |
| Reception Center FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Length of Stay | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ |
| Sociodemographic Covariates | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Year of Arrival FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Religion and Ethnicity FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Origin FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 13,237 | 2,535 | 10,431 | 5,341 | 113,355 | 5,187 | 1,275 | 960 |
| R-squared | 0.157 | 0.125 | 0.165 | 0.096 | 0.082 | 0.150 | 0.251 | 0.204 |

Note: This table reports regression coefficients from eight regressions with two-way clustered standard errors (canton and year) in parentheses. Columns (1) to (6) report the regression using the employment indicator as dependent variable, column (7) uses the length of the first employment (in days) as dependent variable, column (8) uses an indicator for high language requirement as dependent variable. All samples include individuals during the period for which the random allocation mechanism has been in place and for which we have information on the reception center and cantonal allocation preferences (2008–2017). The variable “Length of Stay” is the number of days since a refugee arrived in Switzerland. Sociodemographic covariates include age, age squared, family size, gender, and a fixed effect for marital status. The subsamples “Old” and “Young” are built based on a split of the variable at the median of French-speaking refugees in the Romandie (34 years). The subsample “Asylum Seekers” includes only individuals with status N. The subsample “Bilingual Cantons” includes only individuals who were assigned to the three bilingual cantons Bern, Fribourg, and Valais. Individuals in the sample are located in 22 different cantons except in column (6) which is based on individuals from the three bilingual cantons. The number of observations in column (8) is smaller than in column (7) because we some employed individuals have the classification “Other Jobs” which does not allow us to classify the language requirement of this profession.

Appendix (For Online Publication)

Figure A.1: Observed Asylum Seeker Quotas in Swiss Cantons



Note: The solid lines in this figure show the observed empirical quota of asylum seekers assigned to a specific canton defined as the share of asylum seekers who are placed in a canton, as a percentage of the total number of asylum seekers arrived per year. The dashed horizontal lines indicate the official cantonal quota of asylum seekers according to the Asylum Decree 1, #21/1 (enacted on January 1, 2008). The quotas have been constant since 1999.

Figure A.2: Federal Court Decisions on Request to Chance Residence Canton (E-3470_2009 and E-6330_2010)

Judgement of 22 June 2009

Single judge Thomas Wespi
with the consent of judge Maurice Brodard;
clerk Regula Frey.

A. _____, born B. _____, Somalia
alias C. _____, born B. _____, Somalia
represented by lic. iur. Anita Biedermann, Bündner advice
center for asylum seekers, D. _____,
appellant,

Issues of the case:

The appellant requested asylum in E. _____ on 4 October 2008. According to her own statements, she left the country together with her son of full age F. _____, born G. _____ (N. _____). After her arrival in Switzerland they had lost sight of each other (cf. A 1/12, p.9). The son requested asylum in H. _____ on 2 October 2008. [...] Following the FOM's allocation decision of 21 October 2008, the appellant was allocated to canton I. _____. On the same day, the son was allocated to canton J. _____. [...] On 23 March 2009, the appellant submitted a request for a change to canton J. _____, to be able to live with her son. [...]

The Federal Administrative Court takes into consideration:

[...] According to Art. 22 para. 2 Asylum Order 1, the FOM only authorizes a change of canton with the consent of both cantons, for those with a right to family unity or in cases of grave danger. The concept of family unity as covered by Art. 27 para. 3 AsylA is informed by the general notion of family applied in asylum law, according to which following Art. 1 lit. e Asylum Order 1 primarily spouses and minor children – in other words: the nuclear family – are considered to be family members, whereby registered partners and people who live in lasting, quasi-marital relationships are considered equal to spouses. [...] The appellant and her barely K. son do not form a nuclear family in accordance with Art. 1 lit. e Asylum Order 1. [...] In view of the above, [the court] states that the allocation of the appellant to the canton does not violate the principle of family unity within the meaning of Art. 27 para. 3 AsylA, that the FOM was right to dismiss the request for a change of canton and that accordingly, the appeal is to be rejected. [...] The appeal is rejected.

Judgement of 1 February 2011

Judge Kurt Gysi (chair),
judge Walter Lang, judge François Badoud,
clerk Christoph Berger.

A. _____, born _____,
Syria,
represented by Dr. iur. Thomas Hiestand,
appellant,
against

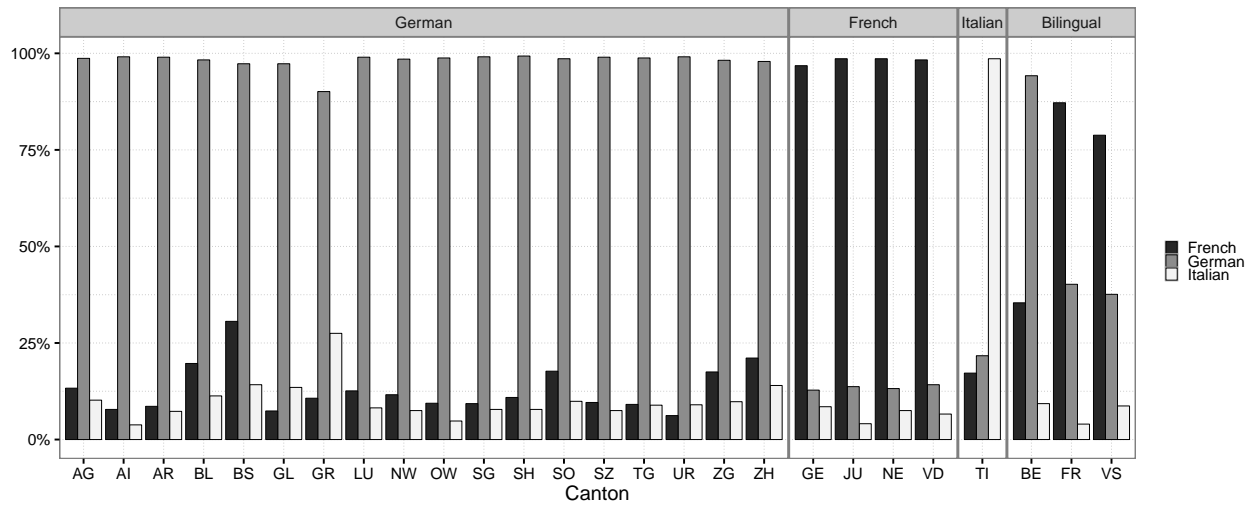
Issues of the case:

The appellant requested asylum in Switzerland on 20 July 2010 and was questioned in the FOM reception and procedure center in Kreuzlingen on 5 August 2010. By letter of her brother to the FOM on 19 August 2010, the appellant requested that she is allocated to the canton (...) on the grounds that her brother lives in (...) and geographical proximity would allow him to take better care of her, because she has mental problems and is in a state of great confusion.

The Federal Administrative Court takes into consideration:

Though the appellant's wish to live with her brother is understandable, a legal entitlement to be allocated to a specific canton cannot be derived from the relevant Art. 27 para. 3 AsylA. The appellant and her brother or his family do not form a nuclear family in accordance with Art. 1 lit. e Asylum Order 1. Furthermore, the appellant cannot appeal to the extended notion of family as laid out in Art. 51 para. 2 AsylA i.c.w. Art. 38 Asylum Order 1. An extraordinarily specific relationship of dependence of the appellant to her brother in the intensity requested by the jurisdiction is not given based on the case file. [...] The appeal is rejected.

Figure A.3: Language Usage in the Workplace



Note: The figure shows the language used in the workplace based on data from the 2000 census. Panel “German” includes all cantons with German as single official language, panel “French” all cantons with French as single official language, panel “Italian” includes the Italian-speaking canton Ticino, and panel “Bilingual” includes all cantons with both French and German as official language. The respondents answered the following question: “What language do you regularly speak in school or at work?”. The presented figures are based on individuals in employment and exclude students. Source: SFS 2005.

Table A.1: Overview of Asylum Seeker and Refugee Statuses in Switzerland

| Legal status | Asylum seeker | Provisionally admitted <i>refugee</i> | Provisionally admitted <i>foreigner</i> | Recognized refugee | Recognized refugee |
|-----------------------------------|---|---|---|--|---|
| Permit | N | F | F | B | C |
| Labor market access | Yes, for the entire study period and all cantons, asylum seekers are allowed to work after three months (Swiss Asylum Act #43/1-1bis). | Yes, irrespective of labor market and general economic conditions, but a new position has to be approved by the competent cantonal authorities which is a pure formality. | Yes, irrespective of labor market and general economic conditions, but a new position has to be approved by the competent cantonal authorities which is a pure formality. | Yes | Yes |
| Change of residence canton | No, exceptions are only granted if one of the following reasons applies: (1.) the principle of family unity is violated, (2.) there is a serious threat to the well-being of the asylum seeker (request has to be approved by both cantons and the SEM), (3.) both cantons approve of the request “voluntarily” | Since a ruling by the Swiss Federal Administrative Court in February 2012: Yes, if approved by both cantons. Before: Generally no (handled as other permit F holders) | No, exceptions are only granted if one of the following reasons applies: (1.) the principle of family unity is violated, (2.) there is a serious threat to the well-being of the asylum seeker (request has to be approved by both cantons and the SEM), (3.) both cantons approve of the request “voluntarily” | Yes, if approved by both competent cantons and conditional of not being unemployed and no other grounds for revocation (e.g., fraudulently obtained asylum or refugee status, refugee has violated or represents a threat to Switzerland’s security) in terms of Swiss Asylum Act #63 (Foreign Nationals Act #37/2). | Yes, conditional that there are no grounds for revocation in terms of Swiss Asylum Act #63 (Foreign Nationals Act #37/3). |