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**Language Roulette –  
The Effect of Random Placement on  
Refugees' Labour Market Integration**

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# **Language Roulette – The Effect of Random Placement on Refugees' Labour Market Integration**

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## Abstract

The labour market integration of refugees represents a key challenge for policy makers and has emerged as one of the most divisive topics in public debate. European countries have been pressured to establish fair and transparent methods of placing asylum seekers among the European states and into different regions within their national borders. In this paper, I highlight the unsurprising yet unintended consequences of following the most neutral placement mechanism: random assignment. The natural experiment of placing refugees randomly across different language regions in Switzerland results in substantially higher probabilities of finding employment when asylum seekers are placed in regions with a lingua franca that matches their individual language skills than when they are placed in regions speaking unfamiliar languages. Additionally, the findings suggest that language course participation can offset the reduced likelihood of employment in cases of a language mismatch. While random placement of refugees may be desirable for political reasons, it is detrimental to the economic integration process of these immigrants. Due to its strong subnational entities and clearly defined borders of language regions, Switzerland can function as a laboratory for European policy. This study also provides new empirical evidence for a positive and significant language proficiency effect.

## Keywords

Language proficiency effect, Asylum, Labour market integration, Random placement

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## 1. Introduction

Migration to European countries has been a hotly debated topic for years. Politicians from different parties resort to “the boat is full” rhetoric with increasing frequency. They stress the increasing pressure on public budgets because asylum seekers draw social assistance benefits and are perceived as a burden for the host society. Moreover, refugees who try to access the host country’s labour market will face the same challenges as immigrants who enter a country for reasons other than persecution and war: discrimination triggered by employers’ statistical assumptions (Arrow, 1973) or by mere dislike (Becker, 1957). They are also likely to face higher hurdles when seeking employment because of a lack of local language proficiency and a lower human capital endowment in general (Ballarino and Panichella, 2015). Research has further shown that the physical and psychological consequences of war and the refugees’ escape journey have devastating effects on a person’s condition, which in turn hampers successful integration (Turner et al., 2003).

In this study, I argue that the many difficulties of entering the labour market are amplified when asylum seekers are assigned to their new homes through a mechanism that neglects a possible match between individuals and local language habits in different regions in Switzerland. While the shares of the overall inflow of refugees are calculated for each Swiss canton based on its permanent resident population, the actual decision of an asylum seeker’s canton placement is random. This approach stands in opposition to many other European countries, which often consider some basic attempts to match local demand with a refugee’s characteristics or – more often – allow refugees to move freely within the country. While there are political reasons to support Switzerland’s random placement mechanism, it obviously fails to consider a refugee’s compatibility with the local labour market.

I make use of the fact that Switzerland consists of different, sharply defined language regions: Two large German- and French-speaking regions, one in which Italian is the spoken language, and a smaller region in which Romansch joins German and Italian as the official language. Consequently, a refugee who enters Switzerland and is “placed” by federal authorities might find herself in a region with a familiar spoken language or in a region in which the local language is completely unfamiliar. Furthermore, rigorous Swiss law prevents asylum seekers and temporarily accepted persons from moving to other regions, oftentimes even after their asylum request has been granted. Based on previous studies of language proficiency effects, I hypothesise that this language match or mismatch affects a person’s likelihood of successful labour-market integration.

The analysis of this natural experiment indicates a significantly higher probability of finding employment when the refugee has proficiency in the local language than when his language proficiency is mismatched. This positive language effect agrees with existing findings (see Chiswick and Miller, 2014),

To improve the likelihood of successful labour market integration for those asylum seekers who have been misplaced and for those who have no Swiss language skills, I further investigate the effect of language training provided by local jobcentres. The results indicate strong positive participation effects. In that sense, language training not only benefits refugees but also appears to offset the negative externalities that are derived from a politically desirable random placement mechanism.

Thus, the paper not only contributes to the general empirical evidence on language proficiency and language training effects; it also provides valuable policy insights regarding issues such as the larger-scale refugee placement mechanism at the European Union level.

The remainder of the text proceeds as follows. In the subsequent section, I present an overview of the legal and practical foundations of the Swiss refugee placement policy. Section 3 briefly discusses previous findings on the effects of immigrants' language proficiency on labour market success. In section 4, I describe the data and the identification strategy. Section 5 presents the results, which are eventually discussed in section 6.

## 2. Allocation policy and language regions

In Switzerland, persons who ask for asylum are registered by federal authorities under the state secretary for migration (SEM). After entering the country, asylum seekers are assigned to one of the 26 cantons (states). They must reside in the assigned canton until they obtain a positive asylum decision and a residence permit as a refugee. The same spatial restriction holds for temporarily accepted persons who have their asylum request rejected but cannot be returned to their country of origin. Hence, asylum seekers and temporarily accepted persons are only free to move across Switzerland when the status of their residence permit changes from asylum seeker to short-term (accepted refugee) or permanent resident (see Schweizerische Flüchtlingshilfe, 2016).<sup>1</sup> However, a spatial restriction very often remains in effect even after refugee status has been officially granted. For instance, the right to move freely across cantons is constrained when a refugee is dependent on social benefits (legal ordinance AuG, Art. 62 and 63), which is the case for nearly all refugees lacking employment.

In short, once asylum seekers and temporarily accepted persons have been assigned to a canton, Swiss law prevents them from moving to another canton or even searching for employment outside their canton of residence (legal ordinance AsylV 1, Art. 22).<sup>2</sup> The number of refugees a canton receives depends on a weighting mechanism that is determined by the size of the canton's permanent resident population. The allocation of all refugees entering within a given period ranges from 0.5% for the canton of Uri to 17% for the canton of Zurich. These shares have been in effect since 2000 (legal ordinance AsylV 1, Art. 21).

Within a specific canton, access to the labour market depends on cantonal regulation and a person's permit status. In general, if cantonal borders are not crossed, asylum seekers usually receive the right to work after a retention period of 3 months (legal ordinance AslyG, Art. 43). Generally, local jobcentres in each canton and federal authorities play an important role in labour market integration. Regardless of unemployment benefits eligibility (legal act AVIG, Art. 59d; Federal Office of Migration, 2007), the local jobcentre supports each jobseeker with a platform for open positions. It also organises and funds training in the form of active labour market policies (ALMPs), and caseworkers make use of their extensive networks with companies in their region. Jobseekers, including asylum seekers<sup>3</sup> (c.f. Lindenmeyer et al., 2008), thus have a strong incentive to register at the local jobcentre. On average, more than 1,500 asylum seekers register as jobseekers with the local jobcentre yearly, which is approximately 8% of all asylum seekers and temporarily accepted persons (c.f. State Secretary for Migration, 2016b).

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<sup>1</sup> For various reasons including the political situation in the country of origin or bureaucratic hurdles, asylum seekers often do not receive a positive decision for years (see Efiionayi-Mäder and Ruedin, 2014).

<sup>2</sup> From a legal perspective, asylum seekers can file a complaint against placement in a specific canton if the unity of the family or the individuals themselves would be threatened. A replacement requires the consent of both cantons involved (legal ordinance AsylG, Art. 27 and AsylV, Art. 22).

<sup>3</sup> For the ease of the reader, I henceforth refer to asylum seekers and temporarily accepted persons only as asylum seekers.

Moreover, the 26 Swiss cantons can be clustered into different language regions, with German and French as the two dominant spoken languages as well as an Italian speaking region and a Romansch language enclave.<sup>4</sup> These regions largely follow political borders at the cantonal level with some bilingual rural areas and only a few bilingual cities, such as Fribourg/Freiburg.

The placement of an asylum seeker into a specific canton is crucially important. The SEM allocates asylum seekers *randomly* to the cantons (State Secretary for Migration, 2015). In practice, employees at the SEM try to ensure an equal distribution (relative to the overall cantonal share) of the largest sending nationalities, unaccompanied minors, and medical cases (State Secretary for Migration, 2016a). Hence, the decision of whether an asylum seeker is placed in canton A or B is made randomly according to relative shares and without considering either individual or cantonal demands. Consequently, placement into one of the language regions is also random, that is, independent of a person's skills, profession, etc. Although individual refugees possess German, Italian, and particularly French language skills, Swiss allocation policy causes each individual to be placed in one of the language regions with a probability  $p$ , independent of his or her language proficiency.

Therefore, I construct two different groups of asylum seekers and temporarily accepted persons:

- (i) *Match*: Individuals who speak German and are placed in a German-speaking canton or individuals who speak French and are placed in a French-speaking canton or individuals who speak Italian and are placed in an Italian-speaking canton
- (ii) *Mismatch*: German-speaking individuals, placed in a non-German-speaking canton or French-speaking individuals, placed in a non-French-speaking canton or Italian-speaking individuals, placed in a non-Italian-speaking canton

As I will explain in the next section, several studies have found positive effects of immigrants' language proficiency on labour market outcomes, such as employment or wages. However, an assessment of such language effects often suffers from selection bias due to identification and measurement issues. Additionally, existing literature usually focuses on a country's general immigrant population. The labour market integration of refugees, although a pressing policy field, remains widely understudied. Hence, I test the following intuitive hypothesis:

*The probability of successful labour market integration increases with an individual's ability to master the local language.*

*Consequently, a language match in the refugee placement process increases an asylum seeker's probability of entering employment.*

In a second step, I focus on asylum seekers without proficiency in a Swiss language. Approximately 15% participated in language training corresponding to the regional language. Evaluating this part of active labour market policy, I formulate the following hypothesis:

*Participation in a language course increases an asylum seeker's probability of entering employment.*

### 3. Previous findings on language effects

Several studies have investigated the effect of language proficiency on labour market outcomes, particularly on immigrants' earnings and on the native-immigrant wage gap. Usually, these studies depart from a broader concept of immigration. As I will argue below, the focus on asylum seekers

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<sup>4</sup> Because of its specificity (<1% of the population; Federal Office of Statistics, 2014), I exclude the Romansch region from the analysis.

allows for a clearer identification of the language effect because of the absence of confounding factors such as self-selection into immigration or residence permits that are bound to (pre-)existing working contracts.

In general, causal inference is complex because of the endogeneity of language proficiency. For example, higher wages might be achieved because of some other skill that correlates with language proficiency (e.g., Bleakley and Chin, 2004). Dustmann & van Soest (2002) stress that unobserved heterogeneity might overestimate language effects, while they could be underestimated due to measurement errors in the language proficiency evaluations, which are often self-assessed language skills or the language spoken at home. For instance, Lindemann and Kogan (2013) find that language knowledge is essential for immigrants' labour market access in Estonia, especially for higher-status jobs. However, they stress that their survey data captures self-reported language skills that could be biased and call for "more objective measures of language skills – like independent language tests" (ibid: 121). Aldashev et al. (2009) argue that relying on language usage in the household as a measure of language proficiency is less prone to measurement errors than self-reported language skills. In their analysis, they provide evidence for a substantial indirect language effect in Germany "at different selection stages" (ibid: 338). Language proficiency increases the likelihood of employment and the probability of working in a white-collar profession. However, after controlling for occupational characteristics, they find no evidence for a direct wage premium based on language proficiency.

Moreover, selection into an occupation (Kossoudji, 1988) and the fact that language proficiency depends on the country of origin (Espenshade and Fu, 1997) is likely to bias estimates. Bleakley and Chin (2003) introduce the age at arrival in the United States as an instrument to capture differences between immigrants from English-speaking and non-English speaking countries, which translates into language effects. They find a significant positive effect of English-language skills on immigrants' wages. A similar identification strategy has been adopted in a recent study in the United Kingdom by Miranda and Zhu (2013). They provide empirical evidence of the native-immigrant wage gap that is imposed by immigrants' English deficiency using the UK Household Longitudinal Survey. Therefore, Dustmann (1994) stresses the importance of considering both spoken language and writing fluency when estimating language effects. In his study using data from the German Socio-Economic Panel, he finds a strong positive effect of spoken language proficiency on earnings after controlling for writing fluency.

In a general overview of the "economics of language", Chiswick (2008) and Chiswick and Miller (2014) draw a relatively unambiguous picture of the positive effects of language proficiency on earnings of between 5 and 30%.

In this context, the present study has several advantages. First and foremost, the setting of the natural experiment with its random placement of asylum seekers is immune to self-selection into a specific language region. A common challenge for migration research is the fact that individuals select themselves into migration and into a target country. Any inference of immigrants' characteristics on outcomes thus must consider that it is no coincidence that this person is observed in that country or region. This is not the case regarding the random placement into different regions within Switzerland.

Second, the examined group of asylum seekers faces major disadvantages on their path to successful labour market integration (e.g., Auer et al., forthcoming; Fuller and Martin, 2012). Consequently, the variation in both the types and skill levels of the jobs that asylum seekers can find (or even look for in the first place) is very limited. In the present sample, approximately 8 out

of 10 asylum seekers were looking for employment in either the agriculture, construction, or tourism sector. Hence, job heterogeneity might play only a subordinate role in this analysis, as asylum seekers are mainly employed in low-skilled and low-paying jobs (c.f. Lindenmeyer et al., 2008; Spadarotto et al., 2014).

Third, language proficiency is not self-reported but assessed by the caseworker at the local jobcentre. When asylum seekers first register at the jobcentre, they have a personal meeting (approximately 45 minutes to 1 hour) with a caseworker who, among other tasks, assesses the person's skills, including that person's language proficiency in speech and writing.<sup>5</sup> This mitigates measurement errors. Additionally, any measurement error that might remain is not correlated with the individual jobseeker.

Fourth, it has been found that language proficiency and its effects on labour market outcomes are not a linear function. In fact, immigration to an alien-language country at childhood allows immigrants to acquire language skills before exposure to competition on the labour market. In addition, language skills increase at a decreasing rate with residence duration (e.g., Chiswick & Miller 2007). The fact that I focus on working-age asylum seekers and the fact that their duration of residence is likely to have been relatively short allows the incidence of language proficiency through schooling in the host country to be ruled out. It also rules out estimates being biased by differences in the length of stay that in turn could have induced non-linear language effects. I provide more details on the identification strategy of this study in the subsequent section.

*Participation in a language course increases an asylum seeker's probability of entering employment.*

## 4. Data and identification

The data stems from the unemployment registry provided by the Swiss state secretary of economic affairs (SECO). From 2000 to 2012, it covers all people who registered as unemployed according to ILO definition, i.e., unemployed persons with and without the right to unemployment benefits who are actively seeking a job through the local jobcentre. Individuals are followed until they exit the registry (into employment or as an exit from the labour force), censored at December 2014. Thus, if no exit from the registry occurs before that point, individual observation periods last for at least two years, which corresponds to the usual maximum benefit duration as well as the maximum monitoring obligation of the jobcentre for non-recipients.

From this entire population of registered jobseekers,<sup>6</sup> I apply several steps of sample selection to allow for a clean identification. First, I restricted the sample according to residence status and retained only asylum seekers (with a request pending, including temporarily accepted persons) aged 16 to 64 for women and 16 to 65 for men. Second, I constrained the sample to asylum seekers without any rights to unemployment benefits. This step eliminates differences in labour market outcomes that may occur due to some people having an earlier employment history in Switzerland.<sup>7</sup> Moreover, it functions as an indicator of recent immigration. Although theoretically possible, it is implausible that someone would enter Switzerland as an asylum seeker and decide to register as a

<sup>5</sup> At least, this is the case for local/official Swiss languages.

<sup>6</sup> Jobcentres have a legal prerequisite to obtain a valid work permit before providing their service. Hence, in this dataset, all individuals, including asylum seekers, are allowed to work in Switzerland. Consequently, asylum seekers made their asylum request at least 3 months prior to registration (see retention period above).

<sup>7</sup> Note that an asylum seeker could have been employed in Switzerland and already exhausted his benefits in an earlier unemployment spell. However, this is only the case for a minority, which is also homogeneously distributed across language regions and match-/mismatch groups.

jobseeker only after years of residence primarily because labour market integration represents one of the essential characteristics for family reunification and the possibility of achieving a permanent residence permit in Switzerland. As a third step, I selected only those asylum seekers who possess language skills that correspond to the three large language regions in Switzerland, that is, those who speak German, French, or Italian. Research (e.g., Beenstock et al., 2001) has shown that the distance between languages varies. An asylum seeker with an Italian language proficiency might face less difficulty in the German-speaking part of Switzerland than a person speaking a dialect completely different from any Swiss language. Hence, restricting the mismatch sample to these three languages ensures greater homogeneity among the groups. In turn, any finding of a language effect should be interpreted as a conservative estimate because regardless of linguistic distances, none of the three languages are completely alien within Switzerland from a societal perspective. The large majority of this sample possesses French language skills, which is not surprising given the dominant language of immigrants' countries of origin in recent years. Unsurprisingly, German- and Italian-speaking asylum seekers are weakly represented. Ultimately, I excluded asylum seekers that have proficiency in more than one of the Swiss languages. Additionally, observations from four cantons that are defined as bi- or multilingual regions were excluded (Bern, Fribourg, Graubünden, and Valais; Federal Office of Statistics, 2016). Apart from these four exceptions, language borders follow cantonal borders, which ensures that estimates are not biased by the possibility of asylum seekers living in one language region and looking for work in another.<sup>8</sup>

I consider asylum seekers to be proficient in one of the three Swiss languages if they either speak it as a mother tongue or if they were assessed to obtain above average non-native language skills by the caseworker at the local jobcentre.<sup>9</sup>

The focus on asylum seekers and temporarily accepted refugees with no rights to unemployment benefits in combination with caseworker-assessed language proficiency rules out the possibility that duration of stay (which I cannot control for) affects the results because refugees have not gained work experience in Switzerland and because the caseworker assesses language proficiency at the beginning of the job search (thereby considering possible previous language training) independently of the person's duration of stay.

**Table 1: summary statistics**

	language proficiency		
	German	French	Italian
mother tongue	226 [0.98]	1123 [0.71]	32 [0.56]
Africa	130 [0.95]	1574 [0.70]	84 [0.10]
Asia	124 [0.98]	34 [1.00]	8 [0.50]
Balkans	346 [0.97]	186 [0.95]	41 [0.39]
Near East	144 [0.97]	51 [0.78]	24 [0.33]
rest of the world	23 [0.87]	19 [0.63]	3 [0.33]
total observations	767 [0.97]	1864 [0.73]	160 [0.23]

*share of language match in brackets*

<sup>8</sup> In the analyses, I control for family who have residence in Switzerland, which captures the possible deviation from random assignment through family reunification to a canton with familiar language under the assumption that asylum seekers will always make use of their right to reunite.

<sup>9</sup> The registry codes non-native language skills in terms of reading and writing skills from 1(best) to 4. I defined language proficiency as assessment grade of 1 for both reading and writing skills. Applying different criteria of language skills did not affect the overall pattern of the results.

*B: covariates*

	language proficiency		$p_{test}^1$
	match	mismatch	
female [0;1]	0.35 (0.48)	0.31 (0.46)	0.039
age [16;64]	28.68 (9.19)	33.32 (9.17)	0.000
years of education [7;21] <sup>2</sup>	10.19 (2.39)	9.96 (2.52)	0.039
family in CH [0;1]	0.28 (0.45)	0.39 (0.48)	0.002
temporarily accepted [0;1] <sup>3</sup>	0.65 (0.47)	0.64 (0.48)	0.472
English proficiency [0;1] <sup>4</sup>	0.05 (0.23)	0.07 (0.25)	0.077
days in ALMP [0;68] <sup>5</sup>	5.65 (10.49)	5.88 (9.77)	0.616
year of registration	2005 (3.79)	2005 (3.79)	0.007
relative UE [0.29;2.53] <sup>6</sup>	1.35 (0.44)	1.25 (0.44)	0.000
$\Delta$ UE [-0.01;0.08] <sup>7</sup>	2.88 (1.27)	3.10 (0.99)	0.000
language training [0;1] <sup>8</sup>	0.10 (0.30)	0.12 (0.33)	0.229
entry into job [0;1] <sup>9</sup>	0.28 (0.45)	0.19 (0.39)	0.000
observations	2144	647	

*SD in parentheses; min/max in brackets; <sup>1</sup> p-value, two-sided t-test; <sup>2</sup> based on Swiss educational system; <sup>3</sup> residence permit F; <sup>4</sup> English reading and writing skills of 1; <sup>5</sup> number of days in active labour market measures in unemployment period; <sup>6</sup> cantonal unemployment rate at the month of registration relative to Swiss average; <sup>7</sup> percentage point difference between cantonal native and foreign unemployment rate at the month of registration; <sup>8</sup> language training corresponding to the cantonal language provided by the jobcentre; <sup>9</sup> within 2 years of job search period.*

Table 1.A presents the geographical origins of the asylum seekers in the sample as well as the distribution of German, French, and Italian language proficiencies. Even with the relaxation of the language proficiency definition, the sample is dominated by asylum seekers who do not possess any of the three language skills.

Interestingly, most German- and French-speaking asylum seekers in the sample were placed in a familiar language region, whereas Italian-speaking asylum seekers usually experienced a language mismatch. However, the idea that federal authorities systematically deviated from the random allocation of asylum seekers can be ruled out (State Secretary of Migration, 2015, 2016a). In addition, I observe both matches and mismatches in all language regions in any given year. Therefore, part of this overrepresentation of matched persons can be explained by the target distribution based on the residence population (71% for German speaking regions, 25% for French speaking regions, 4% for Italian speaking regions; legal ordinance AsylV 1, Art. 21). Accordingly, an asylum seeker proficient in German has a probability of  $p = 0.71$  of being placed in a familiar language region.

The remaining unexplained overrepresentation of language matches in the unemployment registry most likely occurred because of selection into the unemployment registry. It is plausible that asylum seekers who already possess the required language skills are, on average, more optimistic about successfully finding employment, whereas individuals in an alien language environment might postpone their job search until after a positive asylum decision or until they have obtained some basic language skills. Additionally, the matched group might have a higher awareness of

administrative procedures, especially if the mismatched group lacks translation services by NGOs or federal institutions. In general, the channels through which asylum seekers register as jobseekers at the local jobcentre are not clearly defined and depend on cantonal promotion and incentivisation to register (e.g., UNHCR, 2014: 27). However, if language effects are driven by this type of selection bias, the effects would have to differ substantially between the three subgroups of asylum seekers and across regions, which is not the case.

Table 1.B presents the variables used for the covariate adjustment of the estimator. Columns 1 and 2 show the summary statistics for the matched and mismatched sample, column 3 their difference in means, based on a two-sided t-test.

I use standard socioeconomic characteristics that are likely to affect labour market outcomes, that is, gender, age, years of education (as accredited by the Swiss authorities at the time of registration at the jobcentre),<sup>10</sup> family status, whether the person is an asylum seeker or temporarily accepted, English proficiency, and days in a supporting measure, including language training (ALMP). Overall, asylum seekers in the unemployment registry are mostly male, are approximately 30 years old on average and possess only little educational training. The dummy variable for family status captures both, marriage and whether a person has registered any dependants. This is also an important characteristic because family reunification can affect the random placement process. However, as I will show below, family has a negative but small effect on labour market integration. As a trend component, I include both, the year of registration and the unemployment rate of the canton in which a refugee is placed at the month of registration with the jobcentre relative to the national monthly unemployment rate. Thus, I consider the fact that asylum seekers are bound to their canton of residence but labour market participants with other residence permits are not. Hence, since the successful job searches of asylum seekers should be negatively correlated with the number of competing jobseekers, it is important not only to have a measure of local labour market competition but also to consider a canton's possible deviation from the national trend, which in turn might trigger labour migration within Switzerland. Further, I use the foreign-native difference in cantonal unemployment rates at the month of registration as a proxy for asylum seekers' probability of labour market integration at the cantonal level. In the analysis, I will eventually introduce fixed effects of language region, which takes into account unobserved differences in the labour market between regions as well as the general perception towards immigration.

The matched sample (column 1 in table 1) experiences a conspicuously higher rate of transition into employment than their respective control sample who were placed in an alien language region. Given that asylum seekers who register with the jobcentre constitute a group that is likely to be more motivated or confident in finding employment than those who do not register in the first place, an overall employment rate of 20% seems disillusioning. However, the rate corresponds to a recent study by Spadarotto et al. (2014), who found that the employment rate of accepted refugees does not reach 50% even after 10 years of residence in Switzerland. Moreover, this figure can be considered as average compared to recent experiences in Europe (Konle-Seidl and Bolits, 2016).

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<sup>10</sup> For the year 2000, the data lacked information on educational attainment. In the models presented here, I imputed years of education based on the remaining set of covariates. Alternatively, I assumed basic education for this group (i.e. 7 years), replaced missing years of education with zero, or dropped the year 2000 from the analysis with similar results.

## 5. Results

In this section, I reveal whether a match between a refugee's language proficiency and the language spoken in the Swiss region into which that refugee is placed during the asylum process affects labour market integration. I perform linear regressions with language region fixed effects on a dummy variable  $Y$  that is assigned a value of 1 if a job until a given time  $t$  has been found or 0 if otherwise.

$$Y_{it} = \alpha + \beta T + X_i + \varepsilon_{it} \quad (1)$$

The treatment indicator  $T$  captures whether an asylum seeker was placed in a region with a familiar or alien language compared to his/her individual proficiency, while vector  $X$  depicts the set of confounding factors as presented above. To identify possible trends in the effects on employment  $Y$ , I estimated effects stepwise every 3 months up to 2 years after registration at the local jobcentre. Hence, the results show 8 different effects of transition into employment up to a given point in time. In addition, I estimated the within-quarter effects, that is, the change in the probability of finding a job during a specific quarter within 2 years.

Figure 1 presents the effect of a match between spoken language in the region and individual language proficiency relative to an asylum seeker who was placed in an alien language region and who did not participate in language training (solid black line). The effect of a language match is positive and steadily increasing from a 3% higher probability to enter employment within the first 3 months to a 15% higher entry probability within 2 years after registration as a jobseeker. The coefficients are statistically significant throughout, which is demonstrated in the corresponding regression table 2.

From a policy perspective, it is important to emphasise this analysis includes both, asylum seekers with matching mother tongue as well as asylum seekers with matching non-native language skills. This should be considered as an encouraging signal for targeted language training. The language effect of non-native proficiency might be overestimated because language attainment could be associated with some characteristic (e.g. learning skills) that is not captured with the employability variables in the regression. By contrast, self-selection into the unemployment registry as a jobseeker (see above) could lead to an underestimation of the true language proficiency effect. Asylum seekers who register at the local jobcentre might have a higher average expectation of successful labour market integration, which is either induced by the language effect or by a higher level of unobserved self-perceived employability and/or motivation. In this case, the mismatched sample consists of only very motivated or highly employable asylum seekers, while the matched sample includes individuals who rely (implicitly) on their language proficiency. In other words, the language effect would be downward biased by lower unobserved employability of the matched group. However, the results do not change if the two groups of matching non-native language skills and matching mother tongue are analysed separately, which rules out that the coefficients are driven by some unobserved skill of the matched group (results not shown).<sup>11</sup>

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<sup>11</sup> Persons with a matching mother tongue, who obtain arguably better language proficiency than individuals with non-native language skills, also experience higher rates of transition into employment (results not shown).

Compared to asylum seekers in an alien language region and without language training, language course participants show employment probabilities that are almost as high as those of asylum seekers with a language match (dashed line in Figure 1).<sup>12</sup>

There are three main explanations for this result: First, it simply shows that language centres seem to succeed in providing adequate training for their clients. Undoubtedly, employers in most branches value language proficiency as an essential element of a candidate's skills. If language training provided by the jobcentres were ineffective, trained asylum seekers would not be hired at a similar rate to matched individuals. Hence, the results clearly indicate the positive effects of language training on labour market integration.

Second, it is likely that asylum seekers who speak one of the Swiss official languages and learn a second language during a training course obtain some comparative advantage. Despite the cantonal autonomy and regional differences within Switzerland, it is still one country. Hence, languages can also diffuse into other regions, which is beneficial for people who can communicate in more than one official language.

Third, employers might value asylum seekers' language proficiency more highly if their skills are accredited by a Swiss institution. If employers trust these institutions, their certification reduces uncertainty about the asylum seekers' actual language skills. In that sense, language course participation functions as a positive signal for employers and therefore provides an advantage for participating asylum seekers over those who indicate language proficiency but fail to provide a corresponding certificate from a Swiss institution. This explanation is further supported by the positive effect of language training on asylum seekers who are placed in a familiar language region and, partly, even on asylum seekers with a matched mother tongue (results not shown). While asylum seekers, particularly those with non-native language proficiency, may substantively benefit from language course participation in terms of human capital, it seems that the signalling value of a host-country certificate plays an important role when hiring under (aggravated) uncertainty about the candidates' skills (for an assessment of the signalling value of ALMPs, see Liechti et al., forthcoming).

In terms of active labour market policies, this result is encouraging. Independently of the actual drivers of this effect, asylum seekers benefit substantially from jobcentre language training in terms of labour market access. In fact, language course participation might be nearly as helpful as "correct" placement of asylum seekers in terms of language skills.

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<sup>12</sup> Isphording and Otten (2014) have shown that the distance between two languages strongly affects the attainment of a new language. Therefore, to retain the highest possible homogeneity between the groups, I draw the language course participants only from the mismatched group, that is, those asylum seekers who possess potentially fitting language skills but were placed in an alien language region. As an additional piece of evidence, I performed estimations on an extended sample of all registered asylum seekers with similar results. However, comparability might be biased in that case, as possible unobserved advantages might exist for some groups (for instance, Spanish- or Portuguese-speaking asylum seekers might experience easier labour market integration because of existing language networks of traditional immigrant groups).

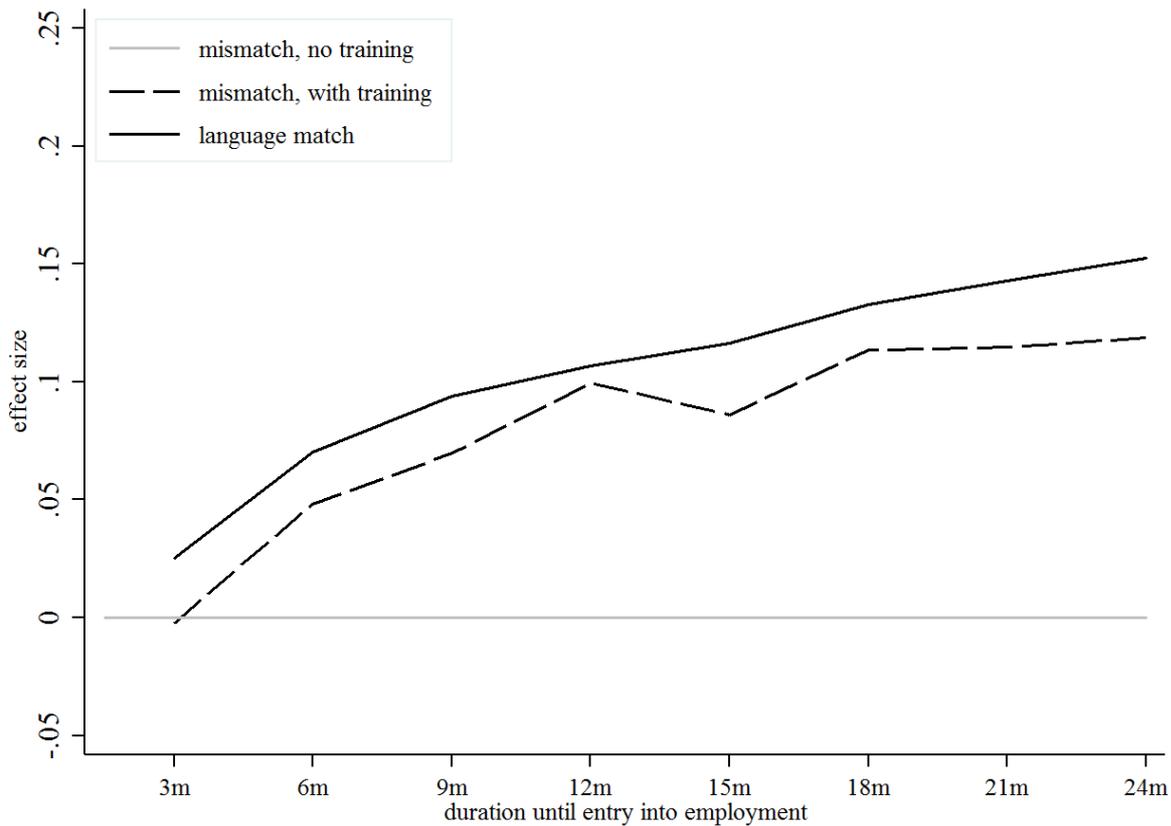


Figure 1: effect of language proficiency on transition into employment, covariate-adjusted

Obtaining the status as a temporarily accepted person strongly increases the probability to enter employment. This is plausible, since the status as an asylum seeker comes with large uncertainty about the future residence possibilities in the host country, while temporarily accepted persons usually reside for an undefined period in Switzerland. This lower uncertainty about sudden changes in the residence permit might also be valued by potential employers when hiring. Interestingly, a larger difference in the unemployment rate between foreign and native inhabitants is associated with a higher probability of transition into employment. One explanation could be that higher immigrant unemployment rates are a result of higher immigrant labour force participation, which in turn means that work-related contact with immigrants is more common, resulting in less prejudice and increasing the potential for the formation of labour force-related networks (c.f. Bonoli and Turtschi, 2015), while it implies relatively lower native unemployment rates and therefore less threat at the same time (c.f. Pettigrew et al., 2010). Longer participation duration in active labour market measures (ALMPs) slightly decreases a person's likelihood of a successful job search. This could be because persons with an immigrant background are more likely to participate in ALMPs with few or even negative effects on labour market outcomes (so-called "parking measures"; c.f. Auer and Fossati, 2016; Gerfin and Lechner, 2002). However, the ALMP coefficient decreases over time and eventually loses its significance, which suggests the existence of lock-in effects in the earlier parts of the job search period.<sup>13</sup>

<sup>13</sup> Note that the effect pattern of confounding factors is similar for models B and C.

**Table 2: effect of language proficiency on transition into employment**

	3 m	6 m	9 m	12 m	15 m	18 m	21 m	24 m
<b>matched language</b>	-0.00	0.05	0.07*	0.10**	0.09*	0.11**	0.11**	0.12**
[ref: mismatch, no training]	(0.02)	(0.03)	(0.04)	(0.04)	(0.05)	(0.05)	(0.05)	(0.05)
<b>language training</b>	0.03**	0.07***	0.09***	0.11***	0.12***	0.13***	0.14***	0.15***
[ref: mismatch, no training]	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
female	0.01*	0.00	-0.01	-0.00	-0.01	-0.01	-0.02	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)
age	0.00	0.00	-0.00	-0.00	-0.00*	-0.00	-0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
years of education	0.00*	0.00	0.00	0.00	0.01*	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
family in CH	-0.01	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	-0.02
	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
temporarily accepted	0.01	0.05***	0.07***	0.08***	0.08***	0.09***	0.10***	0.09***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)
English proficiency	0.00	0.00	0.02	0.01	0.01	0.00	-0.00	0.01
	(0.01)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
days in ALMP	-0.00***	-0.00***	-0.00***	-0.00***	-0.00***	-0.00**	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
year of registration	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00**	-0.00**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
relative UE	-0.01	-0.01	0.00	-0.00	0.01	0.02	0.03	0.02
	(0.01)	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Δ UE	0.00	0.02***	0.03***	0.04***	0.04***	0.06***	0.06***	0.07***
	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
observations	2536	2536	2536	2536	2536	2536	2536	2536

\*p<0.1 \*\* p<0.05 \*\*\* p<0.01; SE in parentheses; coefficients are covariate adjusted with language region FE

All models are estimated with language region fixed effects. As indicated above, these results could be driven by region-specific factors instead of a language match, especially because the sample is dominated by French-speaking refugees. For instance, the results might be biased by a higher labour demand for low-skilled workers in the French-speaking part of Switzerland, or it might simply reflect regional differences in openness towards immigration. While such heterogeneity among Swiss language regions (and/or between groups of asylum seekers) is very plausible given the autonomy that Swiss cantons enjoy, it fails to explain the difference between language match and mismatch, thereby further supporting the existence of positive language effects that are large in magnitude and statistically highly significant.<sup>14</sup>

At this stage, it is important to emphasise again that asylum seekers' language skills are assessed by the caseworker when the asylum seeker registers at the jobcentre and that individuals in the sample are proficient in only one Swiss language. While some asylum seekers possess basic skills in one of the three relevant languages, they are equally distributed across match or mismatch status. Additionally, basic skills do not predict language course participation (results not shown). Hence, the estimates should not be biased by prior knowledge of a Swiss language. However, estimations might be biased because language courses are assigned by the caseworker at the jobcentre. Caseworkers have a specific understanding of the requirements of the local job market and are also strongly incentivised to fulfil reinsertion targets (see Auer and Fossati, 2016). Hence, the results likely capture some selection bias induced by the intentional decision of the caseworker to offer a language course to one asylum seeker and not to another. Put differently, it might be the case that

<sup>14</sup> As a robustness check, I performed the match/mismatch estimation on the three sub-samples separately (results not shown). While the effect sizes differ, the overall pattern remains.

language course recipients possess some unobserved skill and/or that non-recipients come with some trait that hampers labour market integration, resulting in an over-estimation of the language-course effect.

## 6. Discussion

This study of a natural experiment in Switzerland that follows a random placement mechanism of asylum seekers has shown that language proficiency is essential capital in the labour market. Being placed in a region with a familiar spoken language increases the probability of obtaining a job within 2 years by 15%.

Therefore, this paper contributes to the general literature on the effects of immigrants' language proficiency on labour market outcomes (c.f. Chiswick and Miller, 2014). While such studies often struggle with the endogeneity of language skills, the natural-experimental character of the Swiss authorities' placement policy allows for clear identification, which renders methodologically robust results. In addition, because language proficiency at the time of job-seeking is assessed by the caseworkers, any measurement error does not covary with individual characteristics of the asylum seekers, as is the usual case for self-assessed language skills.

From a purely labour market-oriented perspective, a strict random placement policy turns out to be detrimental for the integration of asylum seekers and temporarily accepted persons because it excludes the possibility to match individual proficiency with local language habits.

From a policy perspective, there might be reasons in favour of such a random placement mechanism. For instance, it prevents cantons (or states) with superior "bargaining power" in the political sphere from influencing placement and taking preferred (e.g., higher educated) asylum seekers. Random placement might also function as a prevention tool against spatial segregation and ghettoisation and increases diversity across all cantons (c.f. State Secretary for Migration, 2016a). Further, single cantons introduce new policies against immigration every now and then, such as the prohibition of the Burka in Ticino (Grass, 2016).<sup>15</sup> To avoid cantonal boycott and to appease the public, a non-random placement mechanism will eventually have to take such specificities into account, which would render a non-random placement policy a political minefield and would potentially have a negative effect on vulnerable asylum seekers. The same difficulties are likely to occur at the European level.

The second finding of this study, however, shows that language course participation significantly increases an asylum seeker's probability of entering the labour market. While this result might be partly explained by a signalling effect of participation rather than a clean language proficiency effect, this finding is encouraging for participating asylum seekers and policy makers alike. Random placement might be desirable for political reasons, as it is the most transparent and unambiguous mechanism. At the same time, even in a diverse country such as Switzerland with four official languages, most arriving refugees do not possess any host-country language skills. However, encompassing provision of language training seems to be capable of compensating for this lack of language proficiency.

In sum, these findings provide strong evidence supporting the hypothesis that language proficiency is beneficial for labour market integration. Further, given the substantial impact of language

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<sup>15</sup> In fact, the canton implemented a law against general coverage of the face for security reasons. Later, the Swiss Federal Council voted in favour of adopting this policy on a national level (Tribelhorn, 2016).

training, this study makes an argument in favour of extensive offering of language courses in order to offset the negative effect of random placement. The setting of Switzerland and its distinct language regions undoubtedly constitutes a special case regarding immigration policy. However, with a European refugee policy looming in the horizon, policy makers may do well to learn lessons from the Swiss laboratory.

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